

2018-09-21

The Impact of Parental Involvement on Student's Academic Achievement, Parental Well-Being, and Parent-Teacher Relationships

Epping, Kendra Audrey

Epping, K. A. (2018). The Impact of Parental Involvement on Student's Academic Achievement, Parental Well-Being, and Parent-Teacher Relationships (Master's thesis, University of Calgary, Calgary, Canada). Retrieved from <https://prism.ucalgary.ca>. doi:10.11575/PRISM/33079
<http://hdl.handle.net/1880/108726>

Downloaded from PRISM Repository, University of Calgary

UNIVERSITY OF CALGARY

The Impact of Parental Involvement on Student's Academic Achievement, Parental Well-Being,
and Parent-Teacher Relationships

by

Kendra Audrey Epping

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF SCIENCE

GRADUATE PROGRAM IN EDUCATIONAL PSYCHOLOGY

CALGARY, ALBERTA

SEPTEMBER, 2018

© Kendra Audrey Epping 2018

Abstract

From an ecological perspective, there is great pressure in today's society to bond the linkages between home and school environments to positively influence childhood outcomes, in which parental involvement and family-school partnerships have been highlighted in the education system. Research to date has heavily focused on the impact of parental involvement on children's academic achievement, but minimal research has been devoted to exploring the influence that such practices may have on other partners involved, such as parents and teachers. Thus, the present study is threefold in nature as it aims to better understand the impact that parental involvement can have on childhood outcomes, parental well-being, and parent-teacher relationships. Specific types of parental involvement practices were found to be associated with children's numeracy achievement, parent's reported levels of daily stress, and communication within parent-teacher relationships. Recommendations are provided to assist schools in their attempts to foster joint partnerships between home and schools that go beyond basic communications.

Keywords: family-school partnerships, parental involvement, student academic achievement, parental well-being, parent-teacher relationships

Acknowledgements

To my supervisor, Dr. David Nordstokke, thank you for providing me with endless support, guidance, honesty, and mentorship. I have learned and grown tremendously with your guidance.

To my Calgary family and friends, thank you for being there through the up's and the down's and making sure I am always smiling and laughing at the end of the day. Karin, Megan, Karly, and my Country Hills gal pals - I have developed life-long friendships with each of you that I am truly grateful for.

To my Ontario family and friends, thank you for always supporting me on this wild journey and cheering me on from across the country. Your visits, messages, cards, and skype dates have been absolute saviours. Victoria, Kevin, and Jade - they say distance makes the heart grow fonder, I don't know what I would do without you three.

To my lovely parents, Sandra and Ron, I cannot imagine where I would be today without your undying love and support. Thank you for always supporting my goals, pushing me to be my greatest self, and being the most caring and compassionate listeners. I wouldn't be the person I am today without you both, I owe my success to you Mom and Dad.

Table of Contents

Abstract.....	ii
Acknowledgements.....	iii
Table of Contents.....	iv
List of Tables.....	vii
List of Figures.....	viii
Chapter One: Introduction.....	1
Chapter Two: Literature Review.....	5
Family-School Partnerships: Brief History, Definitions, and Theoretical Framework.....	5
A brief history of family-school partnerships.....	5
A definition of family-school partnerships.....	7
Theoretical frameworks behind family-school partnerships.....	11
Parental Involvement within Family-School Partnerships: Types of Involvement, Involvement Process, and Benefits of Involvement.....	14
Types of parental involvement.....	14
Parental involvement process.....	17
Benefits of parental involvement on student outcomes.....	20
Parent-Teacher Relationships within Family-School Partnerships: Defining Features, Parent Typologies, and Styles of Parent-Teacher Relationships.....	26
Defining features of parent-teacher relationships.....	26
Parent typologies.....	28
Styles of parent-teacher relationships.....	29

Parent Stress: Parent Stress in Family-School Partnerships, Consequences of Increased Stress.....	31
Parent Stress in Family-School Partnerships.....	31
Consequences of Increased Stress.....	34
Present Study.....	36
Research questions and hypotheses.....	40
Chapter Three: Method.....	42
Participants and Recruitment.....	42
Measures.....	42
Family Involvement Questionnaire.....	42
Parent-Teacher Relationship Scale – Parent Version.....	43
Depression Anxiety Stress Scale.....	45
Academic Achievement.....	46
Procedure.....	47
Analyses.....	47
Chapter Four: Results.....	49
Data Preparation.....	49
Reliability.....	50
Normality.....	50
Research Question #1: Parental Involvement is Predictive of Student’s Academic Achievement.....	50
English Language Arts.....	50
Mathematics.....	51

Research Question #2: Parental Involvement Predicts Parent Stress.....	52
Research Question #3: Parental Involvement is Related to Parent-Teacher Relationships.....	52
Joining Factor.....	52
Communication-to-other Factor.....	53
Chapter Five: Discussion.....	55
Research Question #1: Parental Involvement is Predictive of Student’s Academic Achievement.....	55
Research Question #2: Parental Involvement Predicts Parent Stress.....	57
Research Question #3: Parental Involvement is Related to Parent-Teacher Relationships.....	60
Implications.....	61
How can schools and school psychologists foster joint partnerships between families and schools?.....	61
Limitations.....	66
Sample.....	66
Self-Report.....	66
Measurement.....	67
Research Design.....	67
Future Directions.....	68
Conclusions.....	69
References.....	72

List of Tables

Table 1. Provincial Achievement Test Scores for Rocky View Schools in 2017 (Alberta Education, 2017).....	38
Table 2. Grading Scheme to denote Student’s Academic Achievement (Rocky View Schools, 2018).....	46

List of Figures

Figure 1. Visual representation of Epstein’s Partnership Model (Epstein, 2001).....	13
Figure 2. Hoover-Dempsey and Sandler Model of the Parental Involvement Process (Hoover- Dempsey et al., 2005;2010;2012).....	18

CHAPTER ONE:

INTRODUCTION

“No matter how skilled professionals are, or how loving parents are, each cannot achieve alone what the two parties, working hand-in-hand, can accomplish together”

(Peterson & Cooper, 1989, p. 229).

Parents have been recognized as their child’s first educator in life, and continue to be recognized as a significant contributor to the educational process once their child attends formal schooling. Parents have their own unique knowledge, values, experiences, and strengths to bring to the table with regards to their child’s learning and overall development (Epstein, 2001). This value placed on parents as significant educators and contributors in their child’s life is undeniable, such that legislation and grant initiatives across North America have highlighted the need for parents to be incorporated in their child’s education. The pressure in today’s society to bond the linkages between home and school environments is based in an ecological perspective, in which partnerships are developed to positively influence broad childhood outcomes. As such, family-school partnerships are continuously being promoted and strengthened. In doing so, families and educators are agreeing to share responsibility and work together to create optimal learning environments for their children so they may flourish and grow.

Joyce Epstein, a lead theorist and researcher in family-school partnerships, highlights that it is our charge, as family school collaborators, to “create parent-friendly schools and school-friendly homes” to benefit our children (Epstein, 2001, p. 22). Schools are encouraged to be

inclusive and welcoming of all children, as well as their families, in which the opinions, values, and differences of families are accepted and embraced. At the same time, families are encouraged to welcome, appreciate, and reinforce the importance of education within their homes. As part of this, families and schools stay connected through on-going, two-way communication that is meaningful and respectful (Epstein, 2001). Together, parents and schools have the responsibility to welcome each other into one another's homes, positively interact with each other, build healthy and meaningful relationships, serve as role models, provide guidance and support for one another, exchange knowledge, and make decisions together for the benefit of their children (Christenson & Sheridan, 2001; Epstein, 2001; Sheridan, 2004).

In order to develop family-school partnerships, the participation of family in educational practices across school and home settings and the presence of high-quality parent-teacher relationships has been at the forefront of discussions and research. Throughout the literature, various types of parental involvement practices have demonstrated promising evidence in significantly influencing children's academic success, as well as benefitting their social functioning and behavioral adjustment (e.g., Castro et al., 2015; Hill & Tyson, 2009; Jeynes, 2003; 2005; 2007). High quality parent-teacher relationships have also been noted to create continuities between home and school that benefit children outcomes (e.g., Clarke, Sheridan, & Woods, 2009; Pomerantz, Moorman, & Litwack, 2007). It is evident that children are succeeding academically and flourishing as individuals through the influence of family-school partnerships. Therefore, Epstein's goal to close the gap between home and school environments by combining their influences together has allowed parents and teachers to collaboratively impact student success.

With the push for parents to increase their involvement in educational practices for their children, added roles and responsibilities are put on their plate. Parents are now expected to create a home environment that is conducive to student learning, become involved at the school by volunteering and sitting on parent committees, and make time to develop healthy relationships with their children's teacher in order to collaboratively follow their child's progress. Although schools primarily take responsibility for inviting partnerships to form, parent's actions are also influential in creating opportunities for strong family-school partnerships to develop (Porter, 2008; Vincent, 1996). Teacher reports have indicated that relationships with children's parents are of higher quality when they initiate their own participation in school-based activities, such as helping out in the classroom (Porter, 2008). In doing so, their desire to aid in their children's education is noticed, valued, and appreciated by classroom teachers, thus bolstering their collaborative relationship with each other (Porter, 2008). Thus, exploring the impact that parental involvement itself has on parent-teacher relationships will provide insight into different ways that family-school partnerships can be formed, strengthened and reinforced, beyond school invitations.

Furthermore, with the addition of added roles and responsibilities in the parent's hands, it is important to be aware of the impact this has on their psychological well-being. Already, parents have reported that daily stressors related to parenting act as a barrier to frequent and regular involvement and availability with their children and their learning (Hornby & Blackwell, 2018; Hornby & Lafaele, 2011) As a result, increased parental stress has been linked to reductions of family involvement in their child's education (Waanders et al., 2007). However, little is known regarding the impact that family involvement itself has on parenting stress. There has been a neglect in the field of family-school partnerships that considers the consequences of

these added roles and expectations placed on parents impacting their own well-being. Given the negative consequences associated with high levels of stress, such as decreased physical health (Miodrag & Hodapp, 2011), increased risk of mental health concerns (Brehaut et al., 2004) and chronic fatigue (Lach et al., 2009), it is important to explore the relationship between parent involvement activities and the daily stress experienced by parents.

Overall, the present study aims to better understand the various impacts that parental involvement can have on children outcomes, parent-teacher relationships, and parental well-being. In doing so, the researcher aims to further solidify the promising relationship between parental involvement practices and student's academic achievement. The researcher would also like to explore the influence that parental involvement has on aspects of parent-teacher relationships to investigate other avenues to develop family-school partnerships. Lastly, the present study attempts to address the possible negative consequences that may be experienced by parents, such as stress, in relation to greater expectations and heightened roles implicated through increased parental involvement practices.

CHAPTER TWO:

LITERATURE REVIEW

Family-School Partnerships: Brief History, Definitions, and Theoretical Framework

A brief history of family-school partnerships. The concept of family-school partnerships is a relatively new idea in the education system, however, the roles and responsibilities of parents and schools have shifted throughout the years. Prior to the development of formal education institutions, parents were deemed responsible for educating their children in activities related to discipline, basic living skills, work skills, ethics, and were expected to consistently instill a great amount of knowledge in their children (Berger, 1981). As schools began to form under the governance of townships, parents in the community comprised the boards running the schools (Pulliam, 1987). As such, elementary education was under local parental control, in which parents organized and supported the curriculum, the religious teachings, and chose the teachers.

At the same time, philosophers like Locke and Rousseau began to explore the idea of the social contract and public education in Europe during the late sixteenth and early seventeenth centuries (Spring, 1986). Consequently, it was theorized that the shift from parent education to public education was transmitted to North America from Europe (Spring, 1986). This shift from parent education to public education was recognized by families. The continued separation between parental control and the public schooling system was perceived negatively by parents. As a result, the National Congress of Mothers (NCM) was developed in the United States of America in 1897 by a group of mothers who sought intervention to regain influence of their child's education (Hiatt-Michael, 1994). Mothers involved studied school curricula, became

informed about child growth and development, met with teachers on Saturdays to express their concerns, and encouraged other parents to be active in the school environment (Hiatt-Michael, 1994). The group became highly influential and formed the basis of Parent Teacher Associations in the early twentieth century whose main goal was to reconnect home and school environments.

Although groups, such as the NCM, were forming and strongly advocating for increased collaboration between home and school environments, there were no legal provisions or requirements for schools to interact with parents. A separation paradigm was instilled within the education system (Amatea, 2009). During the mid-1960's, there was a shift in thinking through the incorporation of federally funded initiatives and legislations. The Head Start Program (1964) and the Elementary and Secondary Education Act (1965) together sought to provide equal access to quality education across different social classes for children and youth, particularly those who came from economically disadvantaged homes (Jeffrey, 1978). As part of these initiatives, teachers were still seen as leaders, while family participation in education, which involved responding to teacher requests and sending notes back to school, was seen as a way to attempt to mitigate the negative experiences of children from disadvantaged backgrounds (Amatea, 2009). As a result, researchers have deemed this shift in thinking to be a remediation paradigm (Amatea, 2009).

By the 1970's, there was a third shift in thinking that highlighted the importance of shared responsibility between families and schools, in which families were valued as true collaborators in the educational process who should be involved in decision making (Jones, 2012). This shift to a collaborative paradigm is present in today's society. An important addition in legislation that reflected this change in thinking was the Education for All Handicapped Act (1974), which invited parents to be active partners in determining their child's educational

programming. Additionally, in the 1990's many policymakers advocated for parental involvement to be emphasized across early childhood programs, elementary, and secondary schools (Tyler, 1992). Consequently, the Goals 2000: Educate America Act (Heise, 1994) was utilized to mandate a national framework for education reform to ensure "equitable educational opportunities and high levels of educational achievement for all students" (p. 359) through research, consensus building, and systematic changes. As part of this, parental involvement was included as one of the eight national goals and included research funding for Family, School, and Community Partnerships at John Hopkins University and at the Office for Educational Research (Heise, 1994).

Since that time, numerous legislations, policies, and programs have been set in place across North America to further emphasize the importance of recognizing and valuing parents as collaborative partners with schools who have a significant impact on their children's education. Across Canada, the Ministry of Education in each province have their own legislations, policies, programs, and frameworks to encourage and support family-school partnerships in the education community. Revisions have also been made to pre-existing federal legislations in the United States. For example, the Education for All Handicapped Act (1974) has been revised to the Individuals with Disabilities Education Improvement Act (2004, 2006), and the Elementary and Secondary Education Act (1965) has been revised to the No Child Left Behind Act (2001), in which family-school partnerships have been reiterated.

A definition of family-school partnerships. To date, there is no single definition for family-school partnerships. The language surrounding family-school partnerships has been used in broad terms and is seemingly used interchangeably with other related terms such as parent involvement and parent-teacher relationships (Ferlazzo, 2011). A common issue that arises in the

literature is that such terms are not clearly and consistently defined, as such they are used synonymously. Although the terms are used synonymously, they are best understood as components within the greater concept of family-school partnerships.

First, the term “parent” and “family” has been defined as any of the following: (i) a biological or adoptive parent of a child, (ii) a foster parent, (iii) a guardian generally authorized to act as the child’s parent, or authorized to make educational decisions for the child, (iv) an individual acting in the place of a biological or adoptive parent (e.g., grandparent, stepparent, or other relative) with whom the child lives, (v) or an individual who is legally responsible for the child’s welfare (U.S Department of Education, 2004).

Parental involvement, a major component of family-school partnerships, has been described as a term that represents many different parental behaviors and practices that are considered to be education-related and promote children’s academic achievement (Epstein, 1996; Harris & Goodall, 2007). More specifically, the ESEA (2004) states that parental involvement is the “participation of parent’s in regular, two-way, and meaningful communication involving student academic learning and other school activities” (p. 31). The ESEA emphasizes that parents play an integral role in assisting their child’s learning, in which they are encouraged to be full active partners in their child’s education at school and at home through a variety of roles. Epstein and her colleagues (1996) highlighted six different types of parental involvement that are noted in a child’s education experience across home and school environments. The model will be discussed in detail later in this literature review (refer to p. 14). The different types of involvement outlined are generally discussed in terms of school-based involvement, home-based involvement, and home-school conferencing (Fantuzzo et al., 2000). Briefly, parental involvement refers to the participation of parent’s in their child’s school experience that includes

activities occurring between a parent and child or between a parent and teacher or other school personnel that is aimed to contribute to the child's educational outcomes and development (Epstein, 1996).

Moreover, parent-teacher relationships are highly related to the construct of parent involvement in schooling (Waanders, Mendez, & Downer, 2007; Wong & Hughes, 2006). Parent-teacher relationships highlight the relational aspect between parents and school personnel, which includes the amount of and quality of communication and interactions occurring between parents and teachers. The quality of communication between parents and teachers has found to be more valuable than the amount of contact between parents and teachers in a child's education (Kohl et al., 2000). A key component of effective parent-teacher relationships is a foundation of mutual respect and appreciation (Kohl et al., 2000). Parent-teacher relationships are said to continuously flourish when lines of communication are two-way and meaningful, individuals are viewed as equal partners in the relationship with unique contributions, and together they have shared goals (Epstein, 2001; Kohl et al., 2000). Taken together, it is apparent parent involvement and parent-teacher relationship are strongly connected to each other and are best understood as concepts working together to support children's education (Kim et al., 2012).

As a result, the concept of family-school partnerships arose to emphasize the unique contributions that joint high quality parent-teacher relationships and parental involvement can have for broad student outcomes (Kim et al., 2012). Christenson and Sheridan's (2001) and Clarke, Sheridan, and Woods' (2009) definition of family-school partnerships attempts to exemplify the importance of both home and school influences, and their joint responsibility, shared goals and investment in students as a whole. Family-school partnerships are defined by Christenson & Sheridan (2001) as an "intentional and ongoing relationship between school and

family designed to directly or indirectly enhance children's learning and development, and/or address the obstacles that impede it" (p. 38). Similarly, Clarke, Sheridan, and Woods (2009) define family-school partnerships as "a child-centered connection between individuals in the home and school settings who share responsibility for supporting the growth and development of children" (p. 61). Together, it is evident that parent involvement and parent-teacher relationships are incorporated and deemed as necessary components for effective partnerships to form and meaningfully impact childhood outcomes.

Further, Christenson and Sheridan (2001) highlight four key features that characterize family-school partnerships. These key features include: (i) a student focus, (ii) a belief that families and students are jointly essential and must share responsibility for ensuring student success, (iii) an emphasis on active collaboration, and (iv) a preventative solution-focused approach, whereby families and schools work together to create optimal learning conditions (Christenson & Sheridan, 2001). Thus, family-school partnerships should be child-focused, collaborative, bidirectional relationships involving school staff and parents across home and school settings that are based on mutual trust and respect, and responsibility is shared for the education of their children (Albright & Weissberg, 2010; Downer & Myers, 2010; Lines, Miller, & Arthur-Stanley, 2011).

Not surprisingly, the defining features of parent involvement and parent-teacher relationships are two foundational components that work together to form the basis of family-school partnerships. Parent involvement, parent-teacher relationships, and family-school partnerships are commonly used synonymously in the literature due to their overlapping features and ultimate goals, and are therefore best understood alongside each other.

Theoretical frameworks behind family-school partnerships. The theoretical framework behind the interconnectedness of children's school and home worlds through family-school partnerships is largely based in Bronfenbrenner's (1979) ecological systems theory. Ecological systems theory highlights that human development is influenced by the different types of environmental systems that an individual is involved in directly and indirectly. Bronfenbrenner's theory was the first recognized theory in social science and education research that "began to challenge prevailing theories of social organization, which assumed that organizations were most effective when they operated independently and separately" (Hidalgo, Siu, & Epstein, 2004, p. 632).

The focus of the theoretical framework addressing family-school partnerships is directed to the mutual accommodations and transactions between the immediate settings that surround a child (e.g., home and school) and the larger environment of which the immediate setting is a part of (Bronfenbrenner, 1979). Bronfenbrenner (1979) indicated that there are five different levels that largely influence the development of individuals including the microsystem, mesosystem, exosystem, macrosystem, and chronosystem. These different layers are continuously interacting and influencing one another and do not operate in isolation (Bronfenbrenner, 1979). For instance, the microsystem is the direct environment of the child, which includes family, friends, teachers, classmates etc. While the mesosystem involves the relationships between the microsystems. As such, this level emphasizes how a child's home life may be related to their school experience and vice versa. Therefore, the theoretical structure of the layers emphasizes that there is interconnectedness both within and between the various layers of the system (Bronfenbrenner, 1979). When this theory was applied to the school experience there was no denying the influence that home, school, and community settings together have on children's success. Thus,

Bronfenbrenner's (1979) model describes the layers of the contextual environments that continually interact with each other to influence the development of a child, which is the underlying theory of family-school partnerships.

In the early 1980's, Epstein, a leader in the field of family-school partnerships, extended her theories from Bronfenbrenner's ecological model. Epstein's Partnership Model was developed to emphasize that the child is at the centre of three major contexts or environments that influence their development (Epstein, 1996). There are two major components within this model: (i) overlapping spheres of influence and (ii) patterns of influence.

As presented in Figure 1, the three overlapping spheres of the model consist of the home, school, and community contexts. These three spheres or contexts resemble a triad with the child represented in the centre, and each sphere of the triad represent a unique context in which the child learns and develops (Epstein, 1996). Two factors appear to influence the degree of overlap of the spheres including time and experiences. More specifically, the amount of time spent in school, the age of the child, and the experiences of the child in the family and in the school environments can largely influence the degree to which schools, families, and communities have an impact on the child. For example, Epstein highlights that parents are typically more involved in the school context when their children are younger in elementary school compared to when their child is in high school (Epstein, 2001). As such, spheres impacting childhood outcomes are more likely to overlap in the early years of children's schooling experience.

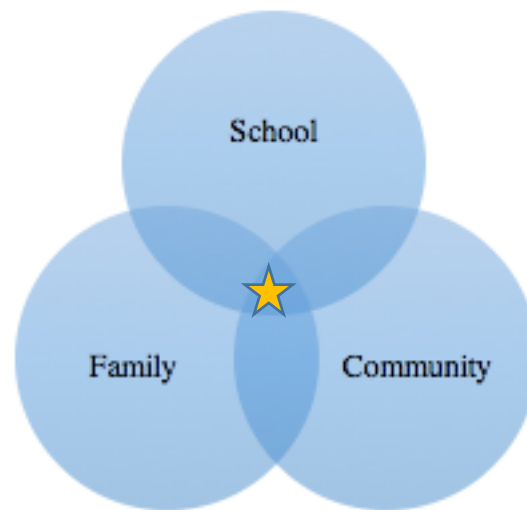


Figure 1. Visual representation of Epstein’s Partnership Model adapted from *School, Family, and Community Partnerships: Preparing Educators and Improving Schools* (Epstein, 2001). The child is at the centre of the triad where all three spheres overlap indicated by the star.

The second component of the model highlights the types of interactions that occur between spheres. Interactions can occur within each context and between each context at various levels. For example, interactions between families and schools may include standard forms of communications through report cards and newsletters, or more specific individual interactions between parents and teachers. As well, the child who is at the center of the triad may also interact with their family and/or school, in which the child may be changed by the interactions and also produce change in others (Epstein, 2001). These interactions are at the heart of Epstein’s theory. With respect to family-school partnerships, Epstein (2001) believed that interactions between home and school contexts significantly and positively impact the developing child at the centre of the triad.

Taken together, as the spheres overlap with each other and interactions multiply, their interests and influences mutually impact the child's education and development (Epstein & Sanders, 2002). It is believed that when all contexts overlap and cohesively interact with mutual interest and goals, educators and families are more likely to see each other as partners in education, which helps to create an environment in which students are more likely to achieve better results (Epstein & Sanders, 2002).

Parental Involvement within Family-School Partnerships: Types of Involvement, Involvement Process, and Benefits of Involvement

As stated previously, parental involvement is a main component of family-school partnerships. Parental involvement encompasses a multitude of different actions and behaviors that parents can participate in across school and home settings that aim to positively influence childhood outcomes (ESEA, 2004). Such actions and behaviors can occur between a parent and child, a parent and teacher, and/or a parent and the greater school community. Researchers in the field of family-school partnerships have proposed models to better conceptualize aspects of parent involvement. Models have been developed to explore the different types of specific parental involvement that parents can engage in, as well aspects that are influential in parent's decisions to become involved in their child's educational experience.

Types of Parental Involvement. Parental involvement is typically discussed in terms of school-based and home-based involvement, and home-school conferencing. However, these broad categories consist of a variety of specific types of involvement. Epstein developed a model to identify six major types of parental involvement that are commonly found in family-school partnerships across home, school, and community settings. Through Epstein's model, parental involvement is better understood by educators and parents, in which the formation and

maintenance of family-school partnerships may be encouraged through different modes. The six types of involvement include: (i) parenting, (ii) communicating, (iii) volunteering, (iv) learning at home, (v) decision making, and (vi) collaborating with the community.

Parenting focuses on the basic obligations that parents are responsible for in order to establish home environments to support children as students. Parents are expected to provide a safe and healthy home environment, develop parenting skills and appropriate child-rearing approaches to support adequate development, and build positive home conditions to promote and support learning and behavior (Epstein, 1995). Through this type of parental involvement, parents receive support to develop and maintain a home environment that may enable and support children as students at each grade level (Epstein, 1995). According to Epstein and her colleagues (1992; 2009; 2011), this type of involvement can be supported through a variety of workshops designed to inform, educate, and train parents.

Communicating is a basic school obligation that is necessary to inform parents about school programs and their child's progress within the school environment (Epstein, 1995). Effective forms of school-to-home and home-to-school communication is necessary in order to foster partnerships. Examples of communication include phone calls, report cards, parent conferences, and sharing examples of students work (Epstein, 2011). It is important to note information should be clear and understandable for the parent who is on the other end of the line of communication. Additionally, opportunities to enhance the communication system are encouraged through the use of multiple lines of communication between schools, families, and students (Epstein, 2011).

The act of volunteering can be completed by anyone who supports school goals and student's learning and general development (Epstein, 2011). Typically, parents are recruited and

organized to support school activities (Epstein, 1995). Volunteering can take on many different forms and is not restricted to school hours or within the school building. Beyond the direct contributions of volunteers in classroom and other settings, a family centre within the school can be useful for volunteer work, meetings and resources, coordination of volunteers, and/or development of volunteer plans for specific needs of individual students, groups of students, classrooms, or the school (Epstein, 2011).

Learning at home highlights the importance of sharing information and ideas from school personnel to families in order to assist students at home with homework and other curriculum related activities, decisions, and planning (Epstein, 2011). Through this type of involvement, schools may provide families information regarding homework policies and academic monitoring techniques, as well as student skills to be worked on that are developmentally appropriate for the child's grade level (Epstein, 2011). Learning at home involvement not only increases teacher-parent communications, but also parent-child communication by facilitating at-home discussions (Epstein, 2011).

Decision making involvement activities highlight the importance of families as active participants in school decisions, governance, and advocacy through parent-teacher organizations, school councils and committees, and parent led school improvement teams (Epstein, 2011). Such involvement activities permit families to have their voices heard on important school decisions that may affect their own children and other children (Epstein, 2011).

Through involvement by collaborating with the community, schools are able to identify, incorporate, and coordinate resources and services within the community to strengthen school programs, family practices, and student learning and development (Epstein, 2011). Schools may

provide information on recreational and social support programs in the community, as well as other community activities that support student's learning skills and talents (Epstein, 2011).

The six types of involvement identified are not mutually exclusive of each other, rather the different types of involvement likely overlap and contribute to each other. It is clear that there are a multitude of ways parents and schools can become involved with each other and make significant contributions to their children's education. As such, specific activities across the different involvement types spill across home-based involvement, school-based involvement, and home-school conferencing categories.

Epstein's model of parental involvement has been shown to be effective in increasing the amount and quality of parent involvement with their children's schooling (Griffin & Steen, 2010; Sheldon, 2005) and improve student outcomes (Epstein & Sheldon, 2002; Sheldon, Epstein, & Galindo, 2010). In fact, this model of parent involvement has been endorsed by the National Network of Partnership Schools (NNPS) run by John Hopkins University to assist in the development of parent-school-community partnerships (Hutchins & Sheldon, 2013).

Parental Involvement Process. Hoover-Dempsey and Sandler developed a model to help conceptualize general aspects of the parental involvement process. As part of this, the model aimed to address three essential questions that explore why families become involved, what activities they engage in when they become involved, and how their involvement makes a positive difference in student outcomes (Hoover-Dempsey & Sandler, 1995; 1997; 2005; 2010). The model addresses these questions pertaining to the parental involvement process in five levels, as seen in Figure 2.

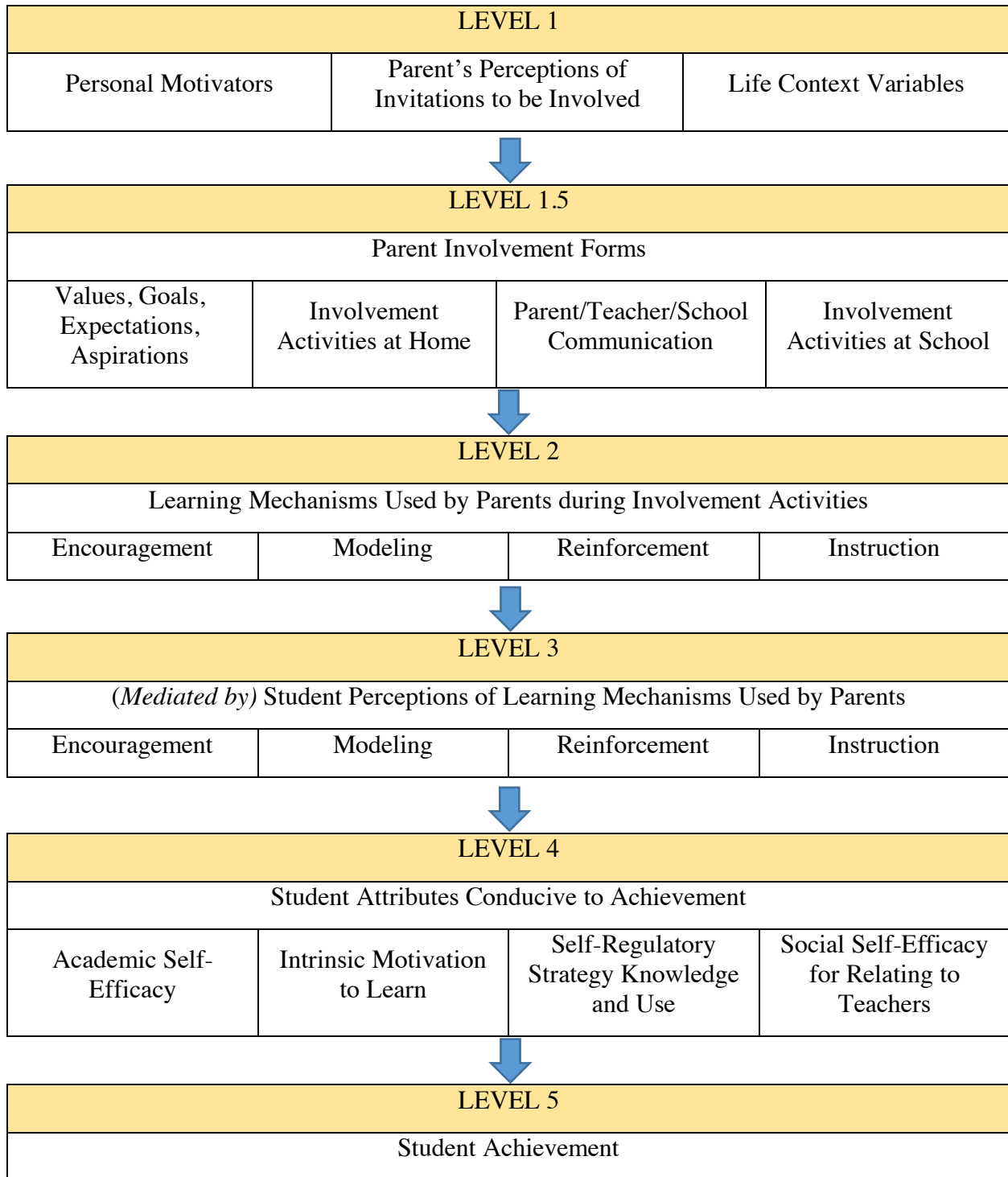


Figure 2. Hoover-Dempsey and Sandler Model of the Parental Involvement Process adapted from *Why do Parents Become Involved? Research Findings and Implications* (Hoover-Dempsey et al., 2005; 2010; 2012).

Beginning with level one, the model explores parent's motivations for initially becoming involved in their child's education through three major factors including personal motivators, perceptions of invitations to be involved, and life contexts (Hoover-Dempsey & Sandler, 1995, 1997, 2005; 2010). More specifically, parents personal motivating factors highlights parent's understanding of their role in promoting their children's education and their personal beliefs regarding their ability to effectively assist their children to succeed in school (Hoover-Dempsey & Sandler, 1995, 1997, 2005; 2010). Parents perceptions of invitations from their child's school and teachers to be active participants in their child's schooling is a major factor that influences their motivation to be involved (Hoover-Dempsey & Sandler, 1995, 1997, 2005; 2010). Contextual life variables, such as parent's knowledge and skills, time and energy, and general cultural beliefs, may also be influential in parents motivation to become involved in their child's schooling (Hoover-Dempsey & Sandler, 1995, 1997, 2005).

As part of level one, once a parent has made the intrinsic decision to become involved, their participation can be completed through various forms. Involvement may be demonstrated through parents clear communication about their values, goals, and expectations for learning to children, endorsing learning activities at home (e.g., talking about the school day, monitoring and reviewing student work), participating in school-based activities (e.g., volunteering in the classroom, sitting on school committee's), and communicating with teachers regarding children's progress (Hoover-Dempsey & Sandler, 1995, 1997, 2005; 2010).

The second level of the model identifies four specific learning mechanisms that are used by parents during involvement activities, which include encouragement, modeling, reinforcement, and instruction. Walker, Shenker, and Hoover-Dempsey (2010) discuss examples of how learning mechanisms can be applied in the home setting. For instance, parents can

encourage children to persist through difficulty when attempting challenging questions, model how to manage time wisely through day-to-day activities, and teach them how to break larger problems into smaller, more manageable pieces. As part of this, level three of the model asserts that student's perceptions of their parents use of these learning mechanisms is essential in translating involvement activities into student success (Hoover-Dempsey & Sandler, 1995, 1997, 2005; 2010). This concept suggests the importance of learning being an interactive process. For example, when parents volunteer in the classroom or other school events, and the child is engaged in these activities, parents are modeling the importance of education (Hoover-Dempsey & Sandler, 2010).

At level four, student attributes are emphasized as contributors to learning and subsequent achievement. Student's academic self-efficacy, intrinsic motivation to learn, self-regulatory skills, and social self-efficacy for relating to teachers are discussed (Hoover-Dempsey & Sandler, 1995, 1997, 2005; 2010). The importance of parental involvement in developing these attributes, behaviors, and "inner resources" for children are highlighted as factors associated with academic achievement (Walker, Shenker, & Hoover-Dempsey, 2010). Lastly, level five of the model represents student achievement as the culmination of parent's active participation and involvement in their child's education.

The Hoover-Dempsey and Sandler model of the parent involvement process is multidimensional through the incorporation of parents, children, and school influences. The model highlights that various factors play into parents active participation in their child's education, which come together to promote or prevent a gateway to academic success.

Benefits of parental involvement on student outcomes. The concept of family-school partnerships was established in order to bridge and strengthen the links between environments in

order to positively influence childhood outcomes. In particular, parental involvement has largely been investigated as the major contributor impacting a range of childhood outcomes. To date, numerous studies have provided evidence that parental involvement has positive effects on a child's academic achievement, as well as social-emotional and behavioral well-being. It is important to note that research conducted regarding parental involvement is challenging to generalize due to inconsistencies of what is defined as parental involvement in the research designs. Therefore, the results presented should be interpreted with caution.

To begin, children's academic achievement has long been considered a top priority in education systems, such that teachers, parents, and society as a whole have consistently looked for ways to improve children's academic success (Ogunmakin & Akomolafe, 2013). Academic achievement refers to a student's general ability and performance in school subjects, which is compared to a specified standard that is considered a "criterion of excellence" (Tella, Tella, & Adeniyi, 2011).

Research investigating the impact of parental involvement on student's academic achievement has been a major area of interest in the field of education dating back to latter half of the 1900's. Fan and Chen (2001) completed a meta-analysis to synthesize the quantitative literature about the relationship between parental involvement and academic achievement prior to the 21st century. Results of the meta-analysis indicated that there were moderate associations between parental involvement and academic achievement (Fan & Chen, 2001). Academic variables such as motivation, task persistence, and receptive vocabulary were found to be positively influenced by various forms of parental involvement (Fan & Chen, 2001). Similar results were reported by Fantuzzo and colleagues (2004) who found that parental involvement was significantly associated with children's motivation to learn, task persistence and receptive

vocabulary skills. Additionally, increased parental involvement was associated with stronger homework and study habits, improved work orientation, more positive attitudes towards school, and higher educational aspirations (Fan & Chen, 2001).

Similarly, studies have also indicated that parents who demonstrated more involvement in their child's school experience across settings significantly evidenced higher grade point averages', scores on standardized tests, achievement in reading and math, and have increased academic motivation compared to children of parents who are less involved (Henderson & Mapp, 2002; McWayne et al., 2004). Interestingly, although Graham and colleagues (2016) found that school-based parental involvement was linked to higher reading achievement, parental school-based involvement did not predict numeracy achievement. However, other studies have reported that parental involvement has a positive impact on student's math proficiency, and predicts their mathematic skills and achievement in early elementary school (Powell et al., 2010; Powell et al., 2012; Sheldon & Epstein, 2005).

Further, longitudinal research examining the impact of parental involvement on student's academic achievement has been valuable in understanding the long-term effects of increased involvement. Englund and colleagues (2004) conducted a longitudinal study with mothers and children from birth to grade 3. Results indicated that parental expectations about education had a significant direct effect on parental involvement, and parental involvement had a significant direct effect on student's achievement (Englund et al., 2004). Researchers concluded that parents who were more involved with their children's education had children with higher academic achievement, however, these effects were small and did not account for a large amount of variance (Englund et al., 2004). As well, Dearing, Kreider, Simpkins and Weiss (2006) found that school-based parent involvement in the early years of children's education predicted

increased literacy skills in later years of elementary school, while controlling for children's literacy skills during kindergarten. Thus, increasing parental involvement during elementary school significantly improved student's literacy growth (Dearing et al., 2006).

Additionally, Miedel and Reynolds (2000) found that the frequency of parental involvement in kindergarten was positively associated with kindergarten and grade eight reading achievement. Results also showed that increased parental involvement decreased rates of grade retention and years in special education (Miedel & Reynolds, 2000). Similarly, Froiland, Peterson, and Davison (2013) found that home literacy in kindergarten predicted students global academic achievement in grade 8. Taken together, it appears that early parental involvement in children's education is a key predictor of academic achievement in later school years (Dearing et al., 2006; Englund et al., 2004; Froiland, Peterson, & Davison, 2013; Miedel & Reynolds, 2000).

Moreover, numerous meta-analysis' have been conducted by Jeynes (2003; 2005; 2007) looking at the impact of parental involvement on students academic achievement with an emphasis on the importance of different demographic variables. Results suggest that global parental involvement in children's education significantly and positively affects the academic achievement of students belonging to different minority groups, across genders and ethnicities, and throughout various grade levels (Jeynes, 2003; 2005; 2007). Similar findings were also discovered in Wilder's (2014) meta-synthesis of 9 meta-analyses', in which the relationship between parental involvement and academic achievement was positive with consistent findings across ethnic groups, genders, and grade level. Thus, it appears that parental involvement functions similarly across various demographic variables, in which no significant differences have been reported.

Some studies have also highlighted that certain types of parental involvement appear to influence students academic achievement over other types. Hill and Tyson (2009) conducted a meta-analysis to investigate which types of parental involvement in middle school appear to be related to academic achievement. Across a total of 50 studies, parental involvement was found to be positively associated with academic achievement across a variety of types of involvement, with the exception of parental help with homework (Hill & Tyson, 2009). Similar results were suggested by Froiland and colleagues (2013) in which parent involvement in homework during the 8th grade had a slight negative effect on achievement.

On the other hand, Fantuzzo and colleagues (2004) found that home-based involvement emerged as the strongest predictor of children's academic outcomes in early years of schooling. Grave and Wright (2011) also highlighted that home-based involvement, such as reading to children at home, had the strongest significant effect on children's reading skills in early years of schooling. As well, Rogers, Theule, Ryan, and Keating (2009) research found that parent's participation with homework, active management of the learning environment, and encouragement and support for learning within the home positively influenced children's academic achievement in elementary school children. It appears that home-based involvement may be more pertinent to academic success in elementary school-aged children, as opposed older youth and adolescents in upper years of middle school and high school.

Noteworthy, academic socialization as a type of parental involvement appears to be strongly associated with student's academic achievement (Hill & Tyson, 2009; Jeynes, 2011; Kim & Hill, 2015). Generally, academic socialization involves parents communicating their expectations for achievement and value of education to their children, fostering educational aspirations across the lifespan, discussing learning strategies, and preparing and making plans for

the future (Hill & Tyson, 2009). Research across different meta-analysis' and research studies have reported that academic socialization was the strongest predictor of student's achievement, particularly for early adolescents (Hill & Tyson, 2009; Jeynes, 2011).

Few studies have examined the impact of parental involvement on children's academic achievement, while controlling for their general cognitive abilities. Results from a study conducted by Topor and colleagues (2010) found that children who had parents that were more involved demonstrated increased academic performance that was above and beyond the impact of the child's intelligence. Similar results were reported by Domina (2005), in which student's academic achievement significantly benefitted from parental involvement, despite student's general abilities, as well as the family's socio-economic status. Such results suggest that parental involvement uniquely contributes to children's academic success.

Lastly, research within the field of parental involvement tends to hold an implicit assumption that participation in children's education works similarly for mothers and fathers with limited quantitative studies investigating the assumption. Kim and Hill (2015) found that mothers and fathers approached parental involvement through different types, but both were equally positively associated with children's academic achievement. These results suggest that participation of either mothers or fathers in a child's education are beneficial to their academic success.

Overall, it is apparent that numerous studies have been conducted to investigate the impact that parental involvement has on children's academic success. The majority of studies have demonstrated promising evidence suggesting that parental involvement positively influences children's achievement, especially in early elementary school years. Similar results have been reported across child genders and ethnic groups, and does not appear to be influenced

by which parent is participating in educational practices. However, some inconsistencies have been reported among specific academic domains, such as language arts and mathematics. As well, the varying types of parental involvement have demonstrated mixed evidence. Therefore, it is apparent that further exploration of parental involvement in children's academic success is warranted in order to adequately parse out which types of parental involvement are most influential across specific academic domains.

Parent-Teacher Relationships within Family-School Partnerships: Defining Features, Parent Typologies, and Styles of Parent-Teacher Relationships

Defining features of parent-teacher relationships. As stated previously, parent-teacher relationships are a major component of family-school partnerships as they are pertinent to the goal of fostering children's growth and development (McGrath, 2007). Clarke, Sheridan, and Woods (2009) defined parent-teacher relationships as "a child-centered connection between individuals in the home and school settings who share responsibility for supporting the growth and development of children" (p. 61). Parent-teacher relationships focus on the relational aspects between families and schools, in which mutual respect and appreciation are at the base of the relationship. High quality relationships are to be two-way and meaningful between two equal partners who share common goals for the child.

In particular, two components have been identified and highlighted to be important within parent-teacher relationships. These components stress the amount of and quality of communication between parents and teachers to indicate the overall success of the relationship. First, parents and teachers sense of affiliation and support, dependability and availability, and shared expectations and beliefs about each other and the child are a major factor indicative of the quality of their relationship (Vickers & Minke, 1995). Through this, parents and teachers desire

to develop mutual trust and respect for each other, in which they are sensitive to each other's needs, values, and opinions, and are able to cooperatively work with each other for the benefit of the child (Vickers & Minke, 1995). Second, communicating with the other appears to be the other major component of parent-teacher relationships. This aspect emphasizes the ability and need of each individual to express themselves to the other in order to fulfill their own roles for the child (Vickers & Minke, 1995). This type of communication within the relationship can occur on behalf of both the parent and teacher, and can be positive or negative in nature, and thus, is not reflective of the quality of their relationship (Vickers & Minke, 1995). Regardless of the quality of the relationship, communicating with the other is important as it demonstrates parent's and teacher's comfortability and openness to interact for the sake of the child. However, it is important to note that the quality of interactions has been found to be more significant within the relationship, than simply the frequency or amount of contacts between parents and teachers (Patrikakou & Weissberg, 2000).

Taken together, the amount of interactions with each other and the quality of interactions between parents and teachers provide the foundation for establishing relationships between them (Minke, 2006). As such, parents and teachers each bring unique aspects to the development of their relationship. The roles of parents and teachers have been found to differ according to their perceptions of how they should interact with each other and the school (Porter, 2008; Vincent, 1996). Although schools are typically responsible for inviting the development of relationships, parents tendencies to be active or passive participants in the school also affect the relationship style between parents and teachers (Porter, 2008; Vincent, 1996). Models have been developed to explore different typologies of parents operating within the school environment and the typical styles of relationships that exist between parents and teachers in schools.

Parent typologies. In schools, there are various types of parents who demonstrate different interests and behaviors regarding their relationships with teachers and other school personnel. Vincent (1996) developed four typologies of parents to describe types of parents who operate within the school environment. The four typologies include: (i) independent parent, (ii) supporter/learner, (iii) consumer parent, and (iv) participant parent (Vincent, 1996). The category that the parent falls within also identifies them as an active or passive participant within the school setting.

First, parents who tend to have minimal contact with teachers and other school personnel are referred to as an *independent parent* (Vincent, 1996). These parents typically are not involved within the school. Vincent (1996) suggests that these parents either deliberately choose to stay away from the school or have personal reasons or circumstances that prevent them from interacting with teachers. Due to the limited parental participation at school, they appear to fall within a more passive role (Vincent, 1996).

Another passive parent role is the *supporter/learner*. Parents view teachers as the expert in educating children (Vincent, 1996). In this role, the communication is one-way and is directed by the teacher to the parent. Parents act as an assistant to the teacher by purely following directions in providing educational support to their children as recommended by the teacher (Vincent, 1996).

The third typology describes parents as *consumers of education*. These parents are viewed as consumers because they accept school reports on student's performance in order to make informed decisions regarding school practices for their children (Vincent, 1996). Parents become more active in this role as they provide the necessary resources for their children by becoming more involved at the classroom or school level (Vincent, 1996). Consumer parents

active participation in school-based activities appears to link to an increase in family-involvement practices.

The last type of parent is referred to as the *participant parent*. These parents are highly active and involved in the education of their child, as well as the governance of the school (Vincent, 1996). Communication demonstrated by these parents are two-way and purposeful, in which parents are well-informed and see themselves as equal partners within the schooling process (Vincent, 1996). Participant parents are likely to be involved in various family-involvement practices across home and school settings for the benefit of their child and the education process as a whole.

Overall, the four parent typologies are expressed in terms of most passive to most active, and thus, are linked to the presence of parent's participation in various family-involvement practices in their child's education. As such, parents tendencies and behaviors within their typologies are influential in the development of parent-teacher relationships (Vincent, 1996) With regards to the present study, these typologies shed light on how active parents desire and initiation of involvement activities can be directly associated with parent-teacher relationships.

Styles of parent-teacher relationships. The dynamic of parent-teacher relationships is important in understanding the roles and expectations that each individual has for the other and how that effects the involvement and quality of the relationship. Porter (2008) identified four relational styles that typically exist between parents and teachers in the school environment. The styles are outlined on a continuum to discuss the contact dynamic that occurs between parents and teachers. The four relationship styles include: (i) professional-driven interaction, (ii) family-allied relationships, (iii) family-centered philosophy, and (iv) parent-driven model (Porter, 2008).

Each style addresses how parents and teachers generally interact when addressing the learning needs of the child, who is at the centre of the triad.

In the first style, professional-driven interaction, communication is generally one-way and is dominated by the teacher, in which parents are expected to receive information from the expertise of the teacher (Porter, 2008). Parents take a more passive role as the teacher advises the parent of the needs of the child. Porter (2008) highlighted that this style of interaction is more common in secondary schools, as opposed to elementary schools.

In elementary schools, the family-allied relationship style is more apparent. In this relationship, parents take on a more active role and are seen as agents working with the teacher by providing assistance with the learning program (Porter, 2008). As part of this, communication is child-centered and appears to be balanced through two-way meaningful conversations (Porter, 2008). This relationship style begins to reflect the idea of family-school partnerships.

The third style, family-centered philosophy, is highly reflective of family-school partnerships. In this relationship, parents and teachers both are active in making decisions regarding the child's education and together share the responsibility of teaching the child across home and school settings (Porter, 2008). Parents and teachers are seen as being team members who equally contribute to the educational process for the child (Porter, 2008). As such, the idea of family-school partnerships is illuminated in this style with aspects of parental involvement and high quality parent-teacher relationships evident.

Lastly, the parent driven relationship style describes parents who take the reins of their child's education by setting their own goals and utilizing private practitioners to support their views on education (Porter, 2008). Communication is generally one-way from the parents to the

practitioner, such as a tutor or therapist, in which the practitioner finds a way to accommodate the parents request (Porter, 2008). Porter (2008) noted that this style is less likely to be seen in a public school system.

Overall, there appears to be various roles that parents and teachers can take on in a relationship that influences the dynamic of their interactions. For the purposes of the current study, family-allied relationship and family-centered philosophy relationship styles are highlighted due to the increase of family-involvement in educational practices and their overlap with main aspects of family-school partnerships.

Parent Stress: Parent Stress in Family-School Partnerships, Consequences of Increased Stress

Parent stress in family-school partnerships. The majority of parents normally experience stress to some degree (Eronen, Pincombe, & Calabretto, 2007). Stress can be conceptualized in various distinct ways, but it is generally seen as a behavioral, emotional, and physiological reaction to unpleasant events that affect an individual's well-being (Lupien, 2012). Research has found that parents experience an increase in stress-related symptoms with the presence of both daily parenting and daily life hassles (Creasy & Reese, 1996).

Within the literature, parent stress is commonly investigated in parents of children with an identified developmental disorder. Parents of children with an identified developmental disorder report a significant increase in their daily parenting hassles and caregiving responsibilities, and in turn their subsequent stress levels (Gerstein, Crnic, Blacher, & Baker, 2009). For instance, increased levels of stress in parents has been reported in Autism Spectrum

Disorder (Bonis, 2016), Attention-Deficit/Hyperactivity Disorder (Theule, Weiner, Tannock, & Jenkins, 2012), and Intellectual Disorder (Peer & Hillman, 2014) populations.

Parents of children with disabilities have reported that they often feel uncomfortable with the entire special education process, in which they feel overwhelmed with jargon (Hammond, Ingalls, & Trussel, 2008), marginalized by school professionals (Turnball et al., 2011), and generally feel disrespected (Wang et al., 2004). These concerns have been found to be related to the quality of partnerships between home and school for those parents who have a child with a disability. As such, poorer family-school partnerships have been found to elicit increased stress in parents of children with disabilities (Burke & Hodapp, 2014).

Many parents of children with disabilities spend a great amount of time and resources learning about their child's education rights and advocating for their children (Fish, 2008). Research conducted by Burke and Hodapp (2014) found that mothers who participated in advocacy activities for their children reported significantly more stress and poorer family-school partnerships. Meanwhile, enhanced family-school partnerships and less participation in advocacy related to lower levels of maternal stress (Burke & Hodapp, 2014). As a result, parents who were satisfied with school services and experience quality family-school partnerships appear to enjoy a better quality of life with decreased stress (Burke & Hodapp, 2014; Summers et al., 2007).

Furthermore, parental stress has been identified as a psychological barrier to family involvement in a child's education, however few studies have examined stress as it relates to participation of parents in involvement practices for their children's education. Researchers have theorized that elevated stress levels may consume a parent's time and emotional energy, thereby reducing involvement in their child's education (Halme et al., 2006). The limited amount of research exploring this relationship has indicated that stress levels appear to negatively influence

the frequency of parent's participation in educational practices (Deniz-Can & Ginsburg-Block, 2016; Farver, Xu, Eppe, & Lonigan, 2006; Karass et al., 2003; Semke et al., 2010).

Karass and colleagues (2003) found that mothers who reported more stress and a greater amount of general hassles in their day-to-day routine were less likely to read to their young children. Similarly, Farver and colleagues (2006) found that perceived stress reported by parents had a direct negative influence on parent's literacy involvement with their children within the home environment. As well, Deniz-Can and Ginsburg-Block (2016) reported that parenting stress significantly predicted parental home-based involvement, in which stress explained 11% of the variance in the frequency of parent-child interactive reading activities at home. Taken together, there appears to be a link between parents stress levels and their participation in home-based literacy involvement practices.

In addition, Semke and colleagues (2010) found that higher amounts of stress in parents negatively affected parent beliefs about their role and efficacy to support their child's education. This in turn appeared to negatively influence their involvement across home-based, school-based, and home-school communication activities. The researchers suggest that parents with less stress may be more likely to feel confident and competent in their role and ability to interact with their child and school professionals, and therefore, are more likely to demonstrate educational practices at home and school to promote their child's learning (Semke et al., 2010).

Overall, the limited amount of literature investigating the impact of parental stress on family-involvement in children's education has produced consistent findings. The psychological state of parents, specifically the presence of heightened stress, appears to undermine the amount of family-involvement practices endorsed by parents across home and school settings for the benefit of their child's education. However, there appears to be a major gap in the literature

investigating the effect that these added roles and responsibilities expected of parents through family-involvement practices in children's education have on parents reported stress levels. This is an important area of concern as elevated parental stress has been linked to numerous negative consequences.

Consequences of increased stress. With the presence and accumulation of stress in one's life, there is an increased risk of a multitude of negative consequences that can stem from stress. These consequences are extensive and are not limited to decreases in body function (e.g., chronic disease; Eriksen & Ursin, 2006; Taylor & Sirois, 2012), reduced emotional stability (Chrousos, 2009; Lupien, 2012), and poorer family adjustment (Chrousos, 2009). As stress continues to accumulate in a parent's life, their allostatic load becomes greater. Allostatic load can be described as the "cumulative physiological wear and tear that results from repeated efforts to adapt to stressors over time" (Glover, Stuber, & Poland, 2006, p.191). As one's allostatic load becomes greater, their ability to be resilient in the face of increased stress becomes more challenging, and thus, interferes with their quality of daily life.

To begin, elevated stress levels can lead to decreased physical health (Miodrag & Hodapp, 2011) and chronic fatigue (Lach et al., 2009). When stress is repeatedly experienced, the stress response system does not have the opportunity to adequately recover and return to homeostasis, which greatly increases the allostatic load (Lupien, 2012). Research has indicated that ongoing activation of the stress response system and subsequent increases of the allostatic load contributes to the presence of chronic disease (Eriksen & Ursin, 2006). Those who suffer from chronic disease are also susceptible to the risk of premature mortality, reduced quality of life, and increased risk of depression (Taylor & Sirois, 2012). Additionally, the ongoing presence of stress hormones can increase the symptoms of health disorders already present, or can

increase the risk of developing disorders such as lupus, fibromyalgia, chronic fatigue syndrome, and Grave's disease (Chrousos, 2009).

Further, exposure to unrelenting stress and a multitude of stressors has been found to negatively impact individual's mental health and psychological well-being (Chrousos, 2009; Cramm & Nieboer, 2011). For instance, depression has been linked to the exposure of chronic stress (Brehaut et al., 2004; Ekman & Arnetz, 2006). Depression has commonly been referred to in the literature as a stress-related disorder that effects 4.7% of individuals in the general population yearly (Statistics Canada, 2012). Similarly, anxiety has also been linked to the presence of heightened levels of stress hormones, in which the body is unable to effectively regulate a host of anxiety-related symptoms when responding to stress (McEwan et al., 2012). Anxiety presents in 4.8-12% of the general population yearly (Statistics Canada, 2012). Taken together, research has indicated that elevated levels of stress relate to the presence of depression and/or anxiety in individuals, and can be detrimental to their quality of life (Cramm & Nieboer, 2011; Taylor & Sirois, 2012) and can interfere with parent's ability to connect with and adequately care for their children (Bureau, Martin, & Lyons-Ruth, 2010).

High levels of stress can also significantly impact family adjustment through less than ideal parenting and childhood behaviors. Studies have shown that parent's stress is associated with ineffective parenting practices, such as inconsistencies and reduced responsiveness to children's needs, and the use of harsher discipline during interactions with children (McClowry et al., 2000). As part of this, parents who demonstrated increased stress levels appeared to not consistently be available emotionally or physically for their child compared to parents who were less stressed (McClowry et al., 2000). As well, there is some evidence that when parents feel stressed, their children become increasingly emotionally reactive (Coplan et al., 2003). The

relationship between parents stress and children's emotionality may be bidirectional in nature as children's temperament appears to be influenced and potentially exacerbated by their parent's stress, while children's emotionality can also contribute to the level of stress a parent is experiencing (Coplan et al., 2003). Lastly, greater stress in parents has been associated with higher levels of child behavior problems, lower social competence, higher internalizing and externalizing behaviors, and lower oral language scores (Anthony et al., 2005; Farver et al., 2006).

Overall, it is evident that the presence of elevated stress in individuals can negatively impact their physical health and psychological well-being, as well as their ability to enjoy and be effective in their caregiving roles. Thus, parents well-being should not only be a priority for the sake of parental health, but also for childhood outcomes. It is important to explore if the added roles and responsibilities of being involved in their child's education, which may be viewed as a daily parenting hassle, is another source of stress in a parent's life.

Present Study

The concept of family-school partnerships has been continuously promoted in recent decades within the education system. The push for linkages between home and school to be bonded has been at the forefront of many discussions as a way to enhance student outcomes (Epstein, 2001). Due to the heavy emphasis placed on family-school partnerships in school practices, legislation, and grant initiatives worldwide, it is important to continue to further our understanding of the implications that partnership practices have on all the individuals involved, including children, parents, and parent-teacher relationships.

For the present study, participants were recruited from Rocky View County, which is a municipal district in Southern Alberta nearby the Rock Mountains. Rocky View County surrounds the northern, western, and eastern boundaries of the city of Calgary, and is a growing district home to approximately 40,000 people across 16 communities (Statistics Canada, 2016). The county is well-educated with 91% of citizens having at least a high school diploma and 68.7% of citizens holding a post-secondary education (Statistics Canada, 2016). The majority of families in the county live in single-detached homes (93%) and own their homes (92.2%), making a median family income of approximately \$112, 000 (Statistics Canada, 2016). As well, the majority (93.5%) of families are two-parent families. The number of children in the home varies with 31% of homes being single-child homes, 45% consisting of two children, and 24% having 3 or more children in the home (Statistics Canada, 2016). Lastly, many of the citizen of the county are Canadian-born, in which only 15% of the individuals immigrated from another country (Statistics Canada, 2016). Overall, Rocky View County describes an average Rocky Viewer to be “married with two children, is English speaking and Canadian born, is a full-time worker outside of the home, commuting 30 minutes either way” (2018).

Furthermore, children of Rocky View County have generally performed well on provincial achievement tests examining their literacy and numeracy skills. As presented in Table 1 the majority of students are performing at an acceptable or exceptional rate compared to their same-aged peers province-wide, while a smaller portion of students are performing below acceptable standards (Alberta Education, 2017). As such, many of the young learners in Rocky View Schools are performing at a level acceptable to provincial standards, however, there is a portion of students who appear to be demonstrating increased difficulties, particularly in mathematics.

Table 1. *Provincial Achievement Test Scores for Rocky View Schools in 2017*

Academic Domain	Level of Standard	Percentage of Students
English Language Arts	Standard of Acceptable	80%
	Standard of Excellence	13%
	Below Exeptable Standard	7%
Mathematics	Standard of Acceptable	65%
	Standard of Excellence	8%
	Below Exeptable Standard	27%

Note. Data collected from Alberta Education Provincial Achievement Test Results (2017).

With regards to the present study, parental involvement in children's education across home and school settings has been highlighted as a primary area of focus in the literature surrounding family-school partnerships. The review of the literature has indicated that parents may be involved in their child's education in numerous ways (Epstein, 1996; Hoover-Dempsey & Sandler, 2005), but their involvement can generally be discussed in terms of school-based involvement, home-based involvement, and home-school conferencing (Fantuzzo et al., 2000).

One of the purposes of the present study is to examine the relationship between parental involvement and students success in elementary school. As noted in the literature review, it is evident that parent involvement in children's education is strongly perceived as a necessity in children's academic success, especially in early childhood (Epstein, 2001). Research exploring the relationship between parental involvement in children's academic achievement has

consistently suggested a positive relationship (for example, Fan & Chen, 2001). However, results have demonstrated small to moderate effect sizes (for example, Castro et al., 2015). While limited published studies have reported there to be no significant effect of parental involvement on children's academic achievement and even negative effects in a few cases (Boonk et al., 2018). The researcher would like to further solidify the relationship between different types of parental involvement and student's academic achievement.

Another purpose of the present study is to begin to explore the relationship between parental involvement and parent's psychological well-being, in particular their reported stress levels. Research in the field of family-school partnerships has very briefly explored parental stress as it relates to parents participation in educational practices. To date, research has been unidirectional demonstrating that parents who are more stressed are less involved in their child's education across school and home settings (for example, Deniz-Can & Ginsburg-Block, 2016). However, research in the field of family-school partnerships has neglected to explore the potential impact that the added roles and responsibilities implied through parental involvement expectations may have on parents reported stress. This is an important area of concern as unrelenting stress can negatively impact parent's physical health, mental health, and parenting practices, in which parents' and children's quality of life may be effected (for example, Chrousos, 2009).

The final purpose of the present study is to investigate the effects that parental involvement has on parent-teacher relationships, another major component of family-school partnerships. The literature suggests that parents and teachers each bring unique aspects to the foundation and dynamic of parent-teacher relationships (Minke, 2006). Although schools are typically responsible for inviting the development of relationships, parent's tendencies to be

more active or passive participants in the school also affects the communicative relationship between parents and teachers (Porter, 2008; Vincent, 1996). The researcher would like to explore how parents participation across different educational activities for their child's education influences the communicative relationship between parents and teachers, which together are two pertinent aspects of family-school partnerships.

Overall, the present study is threefold in nature as it aims to investigate the impact of parental involvement on child and parent outcomes, as well as parent-teacher relationships. Specific research questions are as followed with accompanying hypotheses.

Research questions and hypotheses

- (1) *Does parental involvement in children's academic experience predict children's academic achievement in elementary school?* Parental involvement will be broken down into three major components as outlined in the literature including school-based involvement, home-based involvement, and home-school conferencing (Epstein, 1996; Fantuzzo et al., 2000). Due to the consistent positive findings within the literature among elementary school-aged children, it is hypothesized that parental involvement will positively predict student's academic achievement in literacy and mathematic domains (for example, Fan & Chen, 2001). Research investigating different types of parental involvement in elementary school aged children suggests that home-based involvement is the strongest predictor of academic success (Fantuzzo et al., 2004; Graves & Wright, 2011). As a result, it is expected that home-based involvement will be the greatest predictor in predicting literacy and mathematic success within an elementary sample. However, it is expected that the predictive value of the different types of involvement

will demonstrate small to moderate effect sizes, similar to past research (for example, Castro et al., 2015).

(2) *Does parental involvement in children's academic experience predict parental stress?*

Previous research investigating the opposite directional relationship, in which parental stress predicts parental involvement, suggests that parents who are more stressed are less likely to be involved in their child's education across settings (e.g., Deniz-Can & Ginsburg-Block, 2016). Although such findings suggest that parents who are more involved experience less stress, there is potential for a bidirectional relationship. As part of this, increased parental involvement in various forms across settings can be viewed as an additional daily parenting hassle that can evoke stress in parents (Creasy & Reese, 1996). As a result, it is hypothesized that parents who are more involved have greater roles and responsibilities on their plate, and subsequently, will report elevated stress levels across home-based involvement, school-based involvement, and home-school conferencing.

(3) *Is parental involvement in children's academic experience related to parent-teacher relationships?*

Previous research has indicated that parent's role as an active or passive participant in their child's education can influence the interactions among parents and teachers within the school environment (Porter, 2008). As part of this, Porter (2008) highlighted that parents who are more involved across settings appear to have better working relationships with teachers (Porter, 2008). Consequently, it is hypothesized that parent's involvement in their child's education across home and school settings will be related to the parent-teacher relationship for both joining and communication-to-other aspects.

CHAPTER THREE:

METHOD

Participants and Recruitment

Participants were recruited from Rocky View Schools in the Rocky View County of Alberta, Canada. The school division's administrative department sent out a mass email to parents of children in Kindergarten to grade 4 inviting them to participate in the study. Interested parents were prompted to click on a link within the email to participate.

A total of 290 parent-child dyads were recruited. Of the 290 parent-child dyads ($N = 290$), 53.4% ($n = 155$) were male children, and 46.6% ($n = 135$) were female children. As well, 1% ($n = 3$) were in grade two, 10.3% ($n = 30$) were in grade three, and 88.6% ($n = 257$) were in grade four. Demographic information of parent participants was not collected due to school division ethics and privacy restrictions.

Measures

Family Involvement Questionnaire (FIQ). The Family Involvement Questionnaire (FIQ) is a multi-dimensional scale assessing the amount of parent participation in their child's education (Fantuzzo, Tighe, & Childs, 2000). The questionnaire has been designed to indicate the nature, extent, and frequency of one's specific involvement behaviors. It is a parent report measure consisting of 34 items scored on a 4-point Likert scale. Item responses range from "Rarely," "Sometimes," "Often," or "Always." Development of the FIQ was guided by Epstein's (1996) conceptual framework of parental involvement and is supported by empirical parental involvement literature to reflect various levels of parent activity across the home, classroom, and school context (Fantuzzo, Tighe, & Childs, 2000; Fantuzzo et al., 2004; McWayne et al., 2015).

The FIQ breaks parental involvement into three main categories: home-based involvement, school-based involvement, and home-school conferencing (Fantuzzo, Tighe, & Childs, 2000). Home-based involvement highlights parents active promotion of learning in the home for children (Fantuzzo, Tighe, & Childs, 2000). Such activities can include providing a place in the home for learning materials, creating a work space for homework, and creating learning opportunities for children in the greater community (Fantuzzo, Tighe, & Childs, 2000). School-based involvement focuses on activities that parents engage in within the school-environment with their children. For example, parents may volunteer in the classroom, go on a class trip, or attend school council meetings. Home-school conferencing explores the amount of communication that occurs between parents and school personnel (e.g., teachers, principals, administrators) regarding the child's school experience and academic progress (Fantuzzo, Tighe, & Childs, 2000). Such activities may include parents talking with teachers regularly about their child's progress, including their difficulties and/or accomplishments, and discussing various educational activities to implement and practice within the home (Fantuzzo, Tighe, & Childs, 2000). Each construct was found to demonstrate adequate internal consistency of $\alpha = .85$, $\alpha = .85$, and $\alpha = .81$, respectively (Fantuzzo, Tighe, & Childs, 2000).

Parent-Teacher Relationship Scale – Parent Version (PTRS-P). The Parent-Teacher Relationship Scale (PTR) examines home-school relationships, with a specific focus on parent-teacher relationships (Vickers & Minke, 1995). Specifically, perceptions of the affective quality of the home-school connection is examined by highlighting communication, mutual respect, dependability, and shared expectations between teacher and parent (Mautone, Marcelle, Tresco, & Power, 2015; Vickers & Minke, 1995).

The parent version, utilized in the present study, consists of 24 items scored on a 7-point Likert scale. Items responses ranging from “Never,” “Almost never,” “Once in a while,” “Sometimes,” “Frequently,” “Almost always,” and “Always.” Parents are asked to consider the relationship between themselves and their child’s teacher, rather than attitudes or independent behaviors of each other (Vickers & Minke, 1995). Two main features that are investigated through the PTRS include the joining factor and communication-to-other factor.

First, the joining factor explores the “sense of affiliation and support (including mutual trust and respect, sensitivity, and cooperation), dependability and availability when there are problems to be solved, and shared expectations and beliefs about each other and the child” (Vickers & Minke, 1995, p. 144). Elements of the joining factor link to the key components of quality family-school partnerships. Higher scores on the joining factor indicate a positive relational partnership between family and schools. Second, the communication-to-other factor examines parents’ and teachers’ “need to express themselves to each other as part of fulfilling their own roles in the life of a given child, regardless of the quality of the relationship” (Vickers & Minke, 1995, p. 144). Higher scores on the communication-to-other factor indicate increased communication with each other, regardless of the sense of partnership felt among the parent and teacher.

The PTRS was developed and supported with empirical and theoretical backing primarily for elementary grades, including Kindergarten through to grade 6 (Vickers & Minke, 1995). The PTRS has been found to be psychometrically sound with good reliability and validity (Vickers & Minke, 1995). Internal consistency for the factors is appropriate with $\alpha = .98$ for joining and $\alpha = .86$ for communication-to-other.

Depression Anxiety Stress Scale (DASS-21). The Depression Anxiety Stress Scale (DASS) was developed by Lovibond and Lovibond (1995) to measure three related negative emotional states of depression, anxiety, and stress in community settings. It is a self-report scale consisting of 21 items based on a four-point Likert rating scale. Item responses can range from “Did not apply to me at all,” “Applied to me to some degree, or some of the time,” “Applied to me to a considerable degree, or a good part of the time,” to, “Applied to me very much, or most of the time.”

Depression items assess an individual’s amount of positive affect by querying one’s experience of dysphoria, hopelessness, devaluation of life, self-deprecation and lack of interest/involvement (Lovibond & Lovibond, 1995). Anxiety items assess an individual’s level of general distress by querying one’s level of autonomic arousal, skeletal musculature effects, situational anxiety, and subjective experience of anxious affect (Lovibond & Lovibond, 1995). Stress items assess an individual’s nervous arousal, difficulty relaxing, agitation, irritability, and impatience (Lovibond & Lovibond, 1995). The higher the scores on the overall scale and separate subscales indicates a more severe level of negative emotional states. For the purposes of the present study, only results from the stress scale were utilized in order to understand the presence of stress in a parent’s life.

The DASS has been found to be psychometrically sound with good reliability and validity (Lovibond & Lovibond, 1995). Psychometric analysis’ have revealed the DASS-21 to have good internal consistency with $\alpha = .88$ for depression, $\alpha = .82$ for anxiety, and $\alpha = .90$ for stress (Henry & Crawford, 2005). Exploratory and confirmatory factor analysis of the DASS-21 items have consistently reproduced the three-factor structure (Lovibond & Lovibond, 1995). As a result, it is known to be a well-established instrument for measuring depression, anxiety, and

stress in Western societies across non-clinical populations (Sinclair et al., 2012). Additionally, it has been validated across a number of different populations of varying cultures, including Hispanic, American, British, Australian, and Asian samples (Crawford et al., 2009; Norton, 2007; Oei et al., 2013).

Academic Achievement. School records were extracted from the school division for each student whose parents consented and completed the questionnaires online. Student’s grades in English Language Arts and Mathematics was extracted for analysis. These two academic domains were chosen due to their frequency in the literature and the importance of foundational literacy and numeracy skills for future academic success (Aunio & Niemivirta, 2010; LeFevre, Fast et al., 2010).

Students are graded on a 6-point scale at the school division to reflect the mastery of the abilities being evaluated. Grades descriptors range from “Limited,” “Beginning,” “Emerging,” “Progressing,” “Advancing”, to “Mastering.” Descriptions of each grading scheme level are outlined in Table 2.

Table 2. *Grading Scheme to denote Student’s Academic Achievement*

Level of Understanding	Academic Achievement
Limited (LI)	Cannot yet apply the learning to simple tasks. Extensive support required.
Beginning (BG)	Can apply the learning to simple tasks with direction.
Emerging (EM)	Can apply the learning to basic tasks with guidance.
Progressing (PG)	Can apply the learning to moderate tasks with support.
Advancing (AV)	Can apply the learning to increasingly difficult tasks with prompts.
Mastering (MS)	Can apply the learning to complex tasks independently.

Note. Adapted from Rocky View Schools Academic Achievement Reporting Key (2018).

Procedure

Prior to recruiting participants, Conjoint Faculty Research Ethics Board approval for this study was obtained. Ethics approval was also obtained from the school division. Upon ethics approval, an email was sent to all parents of students enrolled in Kindergarten to grade 4 by the administrative department of the school division to invite them to participate in the study. Parent participants who decided to participate were directed to a link within the email thread that led them to Simple Survey. Parent participants were prompted to read through informed consent. After the parent participant had given consent, they completed the online questionnaire, which included all three questionnaire measures (FIQ; PTRS-P; DASS-21). The online questionnaire was available for a total of ten days. After completion, student's academic achievement and basic demographic information was extracted from the school division database.

Analyses

Given the continuous nature of the variables used in the study, multiple regression analyses were conducted to investigate the relationship among the variables. Regression models within the study have sufficient power to detect large, medium, and small effect sizes due to the larger sample size of 290. Statistical analysis literature indicates that approximately 30 participants are required per predictor variable to have adequate power to detect small effect sizes (VanVoorhis & Morgan, 2007).

To address the first research question, investigating if parental involvement predicts student's academic achievement, two multiple regression models were used to test the question. Student's English Language Arts and Mathematic grades were used as outcome variables for the two separate models. Both models used parent-reported school-based involvement, home-based involvement, and home-school conferencing as predictor variables from the FIQ scale.

The second research question, examining if parental involvement predicts parental stress, was tested using a single multiple regression model. In this model, parents reported stress from the DASS-21 stress subscale was entered as the outcome variable, and school-based involvement, home-based involvement, and home-school conferencing were entered as predictor variables from the FIQ scale.

To address the third research question, that parental involvement and parent-teacher relationships are related, two multiple regression models were utilized. The joining factor and communication-to-other factor from the PTRS were used as outcome variables for the separate models. Each model used school-based involvement, home-based involvement, and home-school conferencing from the FIQ scale.

CHAPTER FOUR: RESULTS

Data preparation

Data was analyzed using the IBM Statistical Package for the Social Sciences (SPSS) computer software, version 24. The data was prepared prior to conducting the analyses. Across all analyses, data was checked for outliers by evaluating boxplots and inspecting standardized values. Extreme outliers, defined as a score greater than ± 3.29 standard deviations away from the mean, were winsorized (Tabachnick & Fidell, 2013). Winsorizing involves changing an outlier from its original value to a value equal to ± 3.29 standard deviations away from the mean. A total of four cases were winsorized within the joining factor. Across all statistical analysis, an alpha level of .05 was used.

Normality

Overall, most variables in the study met the assumption of normality. Normality was evaluated through skewness and kurtosis values, as well as visual inspection of histograms. Visual inspection of the histograms suggested that the data were reasonably distributed, with the exception of the communication-to-other and joining factors. The communication-to-other factor demonstrated a ceiling effect, however, skewness (-.60) and kurtosis (-.38) values were within acceptable ranges. The joining factor had a somewhat negatively skewed and leptokurtic distribution, with a skewness of -1.39 and a kurtosis value of 1.72. Otherwise, the skewness values for all other variables was between -.03 and .98, and kurtosis values were between -.61 and .87. According to Tabachnik and Fidell (2013), skewness values less than 2 and kurtosis values less than 4 are acceptable for the analyses within the present study. Thus, no transformations of data were used.

Reliability

Due to the large sample size, reliability results are reported for the measure scales utilized. For the FIQ scale, the school-based involvement subscale ($\alpha = .80$), home-based involvement ($\alpha = .85$), and home-school conferencing subscale ($\alpha = .82$) demonstrated robust reliability (Taber, 2017). For the PTRS, the joining factor ($\alpha = .94$) and communication-to-other factor ($\alpha = .91$) demonstrated strong to excellent reliability (Taber, 2017). For the DASS-21, the stress subscale ($\alpha = .87$) demonstrated high reliability (Taber, 2017).

Research Question #1: Parental Involvement is Predictive of Student's Academic

Achievement

English Language Arts. Multiple regression analysis was used to test the hypothesis that parental involvement predicts student's literacy achievement. A reduced analysis was completed due to the large amount of missing data for students English Language Arts grades. Cases that were missing this data point were dealt with by utilizing listwise deletion, which resulted in 130 participants. Parent's school-based involvement, home-based involvement, and home-school conferencing were entered simultaneously as predictors in the model, and English Language Arts grades were entered as the outcome variable. Prior description of the variables indicates that both the predictor and outcome variables were normally distributed. An analysis of the scatterplot of the standardized predictors by the standardized residuals indicated that the relationship was likely homoscedastic. The Durbin-Watson statistics equalled 2.10, indicating that the scores were likely independent. The tolerance for the predictors ranged from .75 to .82 and the variance inflation factor for the predictors ranged from 1.22 to 1.33, together indicating that multicollinearity was unlikely.

The overall model was not significant, ($F(3,126) = 0.33, p = .804, R = .088, R^2_{Adjusted} = .016$). Parent-reported school-based involvement (standardized $\beta = -.097, p = .346$), home-based involvement (standardized $\beta = .050, p = .610$), and home-school conferencing (standardized $\beta = .012, p = .902$) did not significantly predict students academic achievement in English Language Arts.

Mathematics. A multiple regression was used to test the hypothesis that parental involvement predicts student's numeracy achievement. A reduced analysis was completed due to the large amount of missing data for students Mathematic grades. Cases that were missing this data point were dealt with by utilizing listwise deletion, which resulted in 112 participants. Parent's school-based involvement, home-based involvement, and home-school conferencing were entered simultaneously as predictors, and Mathematic grades were entered as the outcome variable. Prior descriptions of the variables indicate that both the predictor and outcome variables were normally distributed. An analysis of the scatterplot of the standardized predictors by the standardized residuals indicated that the relationship was likely homoscedastic. The Durbin-Watson statistic value was 1.92, indicating that the scores were likely independent. The tolerance for the predictors ranged from .77 to .84 and the variance inflation factors for the predictors ranged from 1.20 to 1.30, together indicating that multicollinearity was unlikely.

The overall model was not significant, ($F(3, 108) = 2.13, p = .100, R = .236, R^2_{Adjusted} = .030$). Parent-reported school-based involvement (standardized $\beta = .155, p = .149$) and home-school conferencing (standardized $\beta = .050, p = .638$) did not significantly predict student's numeracy achievement. However, home-based involvement on its own significantly predicted student's numeracy achievement (standardized $\beta = -.237, p = .022$).

Research Question #2: Parental Involvement Predicts Parent Stress

To predict parent stress, multiple regression was used. School-based involvement, home-based involvement, and home-school conferencing were entered simultaneously as predictors, and parent stress was entered as the outcome variable. Prior descriptions of the variables indicate that both the predictor and outcome variables were normally distributed. An analysis of the scatterplot of the standardized predictors by the standardized residuals indicated that the relationship was likely homoscedastic. The Durbin-Watson statistic equaled 1.82, indicating that the scores were likely independent. The tolerance for the predictors ranges from .83 to .85, and the variance inflation factors for the predictors ranged from 1.17 to 1.21, together indicating that multicollinearity is unlikely.

The overall model was significant, ($F(3, 286) = 7.29, p = .000, R = .071, R^2_{Adjusted} = .061$) predicting approximately 6.1% of the variance in parents reported stress. More specifically, school-based involvement (standardized $\beta = -.162, p = .010$), home-based involvement (standardized $\beta = -.189, p = .002$), and home-school conferencing (standardized $\beta = .179, p = .005$) all significantly predicted parents reported stress.

Research Question #3: Parental Involvement is Related to Parent-Teacher Relationships

Joining Factor. To investigate the relationship between parental involvement and parent-teacher relationships, in particular the joining factor, a multiple regression was utilized. School-based involvement, home-based involvement, and home-school conferencing were entered simultaneously as predictors, and the joining factor was entered as the outcome variable. Prior review of the predictor variables indicates a normal distribution, however, the joining factor is slightly negatively skewed, but within reasonable limits (Tabachnik & Fidell, 2013). In addition, analysis of the P-P plot indicates a normal distribution. An analysis of the scatterplot of the

standardized predictors by the standardized results indicated that the relationship was likely homoscedastic. The Durbin-Watson statistic equaled 2.01, indicating that the scores were likely independent. The tolerance for the predictors ranged from .83 to .85, and the variance inflation factors for the predictors ranged from 1.17 to 1.21, together indicating that multicollinearity is unlikely.

The overall model was not significant, ($F(3, 286) = 2.26, p = .082, R = .152, R^2_{Adjusted} = .013$). School-based involvement (standardized $\beta = .116, p = .073$), home-based involvement (standardized $\beta = -.033, p = .597$) and home-school conferencing (standardized $\beta = .079, p = .220$) did not significantly predict joining between parents and teachers.

Communication-to-other Factor. To explore the relationship between parental involvement and communication between parents and teachers, a multiple regression was utilized. School-based involvement, home-based involvement, and home-school conferencing were entered as predictors, and communication-to-other factor was the outcome variable. Prior review of the predictor variables indicates a normal distribution, however, the communication factor demonstrated a ceiling effect, but skewness and kurtosis were within acceptable limits. In addition, analysis of the P-P plot indicates a normal distribution of the residuals. An analysis of the scatterplot of the standardized predictors by the standardized results indicated that the relationship was likely homoscedastic. The Durbin-Watson statistic was 1.98, indicating that the scores were likely independent. The tolerance for the predictor ranges from .83 to .85, and the variance inflation factors for the predictors ranged from 1.17 to 1.21, indicating that multicollinearity is unlikely.

The overall model was significant, ($F(3, 286) = 37.01, p = .000, R = .529, R^2_{Adjusted} = .272$) predicting approximately 27% of the variance in the communication between parents and

teachers. Specifically, home-based involvement (standardized $\beta = .107, p = .050$) and home-school conferencing (standardized $\beta = .458, p = .000$) both significantly predicted communication between parents and teachers, while school-based involvement (standardized $\beta = .060, p = .273$) did not.

CHAPTER FIVE:

DISCUSSION

This study was intended to further our understanding of the implications that partnership practices, in particular parental involvement, has on all the individuals involved in the partnership process. This includes children and parents, as well as parent-teacher relationships. The present study was threefold in nature by addressing the following questions: (1) Does parental involvement in children's academic experience predict children's academic achievement in elementary school? (2) Does parental involvement in children's academic experience predict parental stress? (3) Is parental involvement in children's academic experience related to parent-teacher relationships? This chapter will discuss the findings pertaining to each of the posed questions including the implications of results, followed by a discussion of the limitations of the current study, recommendations for future research, and conclusions.

Research Question #1: Parental Involvement is Predictive of Student's Academic Achievement

The first hypothesis, that parental involvement is predictive of student's literacy achievement, is not supported. Unexpectedly, there was no significant predictive relationship between various types of parental involvement and children's literacy achievement. Similarly, the second hypothesis, that parental involvement is predictive of student's numeracy achievement, is also not supported. The overall model did not produce significant results, however, home-based involvement appeared to demonstrate significant results independently.

The nonsignificant results, suggesting that academic achievement is not influenced by parental involvement, is surprising due to the large amount of literature supporting the relationship between various types of parental involvement and student's achievement (Castro et

al., 2015; Hill & Tyson, 2009). However, there are limited published studies that do report a lack of relations between parental involvement and student achievement (Boonk et al., 2018).

Research has suggested that possible mixed findings may be related to measurement in the research designs (Boonk et al., 2018; Fan & Chen, 2001). Studies have defined parental involvement in various ways and have included a variety of scales and measurement tools in order to explore the construct. As part of this, many research studies have distinctly targeted specific aspects of parental involvement. For instance, some studies have solely focused on homework assistance, homework monitoring, or classroom volunteering, etc. While in the present study, components of parental involvement were quite broad and explored the three general themes of parental involvement. As well, measurement of students academic achievement varies across studies. Studies have employed a range of curriculum based measures, standardized measures, progress reports, report cards, and grade point average scores to indicate student's level of achievement across subjects. For the present study, students report card grades were used to identify student's level of literacy and numeracy. Although the school division attempts to objectively identify students proficiency in a subject area, it is difficult to completely remove the subjectivity of each teacher submitting the grades. Therefore, it may be more ideal to use a standardized measure that is commonly used to identify student's proficiency in English Language Arts and Mathematics. For example, the Wechsler Individual Achievement Test – Third Edition (WIAT-III) or the Woodcock Johnson Tests of Achievement – Fourth Edition (WJ-IV Ach) are two standardized test measures that are used nation-wide to report children's academic proficiency and progress.

Further, the significant predictive relationship between parents home-based involvement and children's numeracy achievement is important to note. The results suggest that an increase in

home-based involvement activities predicts a decrease in children's math skills. At first, this result appears damaging and somewhat discouraging. However, a few previous studies have found similar results in which increased parental involvement at home was related to lower math performance (Dumont et al., 2012; Silinskas & Kikas, 2017). Researchers attributed this relationship to be a reflection of student's low self-concept in math due to their general difficulties in understanding mathematics at school (Dumont et al., 2012; Silinskas & Kikas, 2017). The negative predictive relationship between home-based parental involvement and student's numeracy achievement may be better understood as a remediation task put forth by parents to assist their children who are struggling with math. As part of this, it will be beneficial for parents to be provided with resources and strategies, and have access to educational training, in order to confidently assist their children at home with core academic skills.

Research Questions #2: Parental Involvement Predicts Parent Stress

The results indicate that parental involvement in children's educational experience does significantly predict that amount of stress experienced by parents, while only accounting for a small amount of variance. Specifically, the type of parental involvement uniquely contributes to the amount of stress reported by parents.

Results of the present study indicate that parents who are more involved at the school and home level with their child's education appear to experience less stress in their daily lives. These results are similar to previous studies regarding school-based and home-based involvement activities, in which parents who reported increased stress levels were less likely to be involved with their child's schooling experience across settings (Deniz-Can & Ginsburg-Block, 2016). Taken together, current and previous research suggests that parents who are more involved in their child's education by assisting their children with homework, monitoring their task

completion, volunteering in the classroom, and sitting on school committees for instance, experience less stress in their daily lives. As a result, the researcher's hypothesis of a bidirectional relationship, in which parents who are more involved will report elevated stress levels due to increased roles, thus adding to their daily parenting responsibilities, is not supported. These results are promising for further promoting the active involvement of parents in their child's educational experience, without worrying about the potential burden and negative impact such roles and responsibilities may have on parent's general well-being.

As part of this, it would be worthwhile to explore parent's personal motivators that lead them to become involved, how these specific motivators may be related to daily stress, and how these motivators can intervene to promote involvement. For instance, parents knowledge and skills related to education, as well as their time and energy, may be contextual life variables that influence their level of involvement and subsequent stress (Hoover-Dempsey, 2010). It may be theorized that parents who have careers that are less time-demanding are more likely to be involved and potentially less stressed (Hoover-Dempsey, 2010). As well, parents personal beliefs regarding their ability to effectively assist their children to succeed in school is an especially important variable to explore to better understand parents level of involvement and related stress (Hoover-Dempsey, 2010). It may be theorized that parents who are more involved and less stressed are demonstrating greater self-efficacy in their ability to be active participants in their child's education, in which they can positively impact their child's development (Hoover-Dempsey, 2010).

Results also indicated that parents who were more frequently involved in home-school conferencing activities reported to be more stressed. Conferencing activities include, but are not limited to, parents and teachers discussing the child's difficulties at school academically,

socially, and/or behaviorally, exchanging notes and phone calls pertaining to school activities, scheduling meetings to talk about problems or gain information, talking about daily routines and classroom rules, and highlighting children's accomplishments (Fantuzzo, Tighe, & Childs, 2000). In general, it appears that parents who are actively engaging in discussions regarding their child's progress and classroom behavior more frequently report increased daily stress.

This is an important area of concern highlighting the potential negative impact that parental involvement activities can have on the well-being of parents. From here, it is worthwhile to explore what these conferencing activities look like and how they negatively impact the daily stress experienced by parents. Due to the heavy work load placed on teachers, which includes a vast variety of classroom needs for each student, teachers typically conference with parents more regularly when there are concerns regarding their child's development and progress in the classroom setting (Bilton, Jackson, & Hymer, 2017). It is more likely that conferencing activities will take place in order to intervene and redmediate, if necessary, for those children who display inappropriate classroom behaviors or demonstrate difficulty in achieving academic and social milestones. Thus, parents who are more involved in conferencing activities may be on the receiving end of difficult news and that can be a stressful experience as a parent.

Interestingly, the majority of respondents to the present study were parents of children in grade four. This time period is known to be a critical period in a child's school experience, in which their strengths and areas of needs are highlighted (Anderson, 2011). At this time, parents and teachers may be conferencing about the need for a psychoeducational assessment in order to explore underlying causes of any noted concerns. Overall, it is apparent that parents experience an increase in stress as a result of the home-school conferencing activities they are engaged in.

However, further research is required in order to better understand the nature of these activities and how they can be modified to better support the well-being of the parent partners involved.

Research Question #3: Parental Involvement is Related to Parent-Teacher Relationships

The final set of hypotheses explored the relationship between parental involvement activities and parent-teacher relationships, in which increased involvement is expected to be predictive of a joint and communicative relationship. The first hypothesis, that parental involvement is related to a mutually dependent, supportive, and trustworthy relationship between partners with shared expectations, was found to be nonsignificant and thus, is rejected. As a result, the involvement of parents with their child's education across school and home settings did not predict the presence of a joint partnership between parents and teachers. The second hypothesis, that parental involvement is related to a communicative relationship between partners was found to be significant and thus, is accepted. In particular, parent's involvement in home-based and home-school conferencing activities predicted a highly communicative relationship between parents and teachers, in which they felt as though they were able to express themselves to each other, despite the quality of their relationship.

Taken together, these results are worrisome for the development of successful family-school partnerships. It appears that parents and teachers are talking at each other, rather than working together as a team to reach common goals. Although open communication is an important ingredient to successful partnerships, there are more components that are necessary to develop successful partnerships. As highlighted previously, partnerships are highly dependent on a sense of affiliation and support, including mutual trust and respect, sensitivity, and cooperation, as well as dependability, availability, and shared expectations (Epstein, 2001). These important aspects that are crucial for the promotion of family-school partnerships go beyond general

communications between parents and teachers (Epstein, 2001). The results of the present study suggest that parents who are involved in home-based and home-school conferencing activities have a greater sense of communication, but do not endorse a high quality and mutually joint relationship necessarily. Consequently, parents and teachers are willing and able to express their thoughts with each other, but are not joining together to support and cooperate with each other to reach shared goals and expectations for the child they share. A more thorough discussion will be included within the implications section in order to address how schools and school psychologists are able to foster mutually dependent, supportive, and trustworthy relationships to develop joint partnerships between schools and families.

Implications

With respect to the implications of the present study, there appears to be a great need to focus on the development of joint partnerships between families and schools in order to enhance home-school connections for the interest of the children, parents, and teachers involved. Noteworthy, joint partnerships go beyond the frequency of communication and nature of conferencing between parents and teachers. Rather, joint partnerships place a great amount of emphasis on the collaborative work between families and educators, in which mutual respect and trust is at the base of the partnership, in order to reach shared goals (Mapp, 2003). The results of the present study suggest that families and schools are talking with each other, but are not necessarily joining together in their efforts to enhance their relationships to partnerships. Therefore, it is worthwhile to discuss how schools and school psychologists can help to foster joint partnerships between families and schools.

How can schools and school psychologists foster joint partnerships between families and schools? The family-school partnership literature highlights four main processes that are

pertinent to the success of building positive partnerships between families and schools. The need to build relationships, create welcoming settings, provide two-way communication, and to educate partners are noted as the four key ingredients to foster the development of joint family-school partnerships (Lines, Miller, & Arthur-Stanley, 2011). These processes have been embedded in national standards for parental involvement through the National Parent Teacher Association (PTA, 2009), in recommendations set forth by the National Family, School, and Community Engagement Working Group (2009), and in guidelines developed across family-school partnership researchers (Patrikakaou, Weissberg, Redding, & Walberg, 2005).

First, it is imperative that positive and healthy relationships are developed and continuously promoted between families and school personnel. As part of this, “courageous conversations” have been identified as critical components within home-school relationships that allow partners to feel acknowledged for their unique contributions to support student success (Henderson, 2001). Through courageous conversations, families and educators empathetically listen and respectfully share their hopes and dreams for the child at the centre of the relationship. By doing so, each partner gains a greater appreciation of each other’s educational beliefs, role expectations, and child management preferences (Henderson & Mapp, 2002).

The expertise of school psychologist may be utilized in this domain through a consultative role by assisting school personnel in understanding how to promote positive courageous conversations in their teaching practice when interacting with families. School personnel can also be trained in basic counselling skills that focus on extending personal invitations to partner through language. For instance, school personnel should be encouraged to use words that promote partnerships such as, “us,” “we,” and “let’s” (Lines et al., 2011). As well, school psychologists may provide guidance on how to work with different cultural beliefs

surrounding education practices in order to foster a more culturally responsive partnership environment (Ortiz et al., 2008).

In addition, McDowall and colleagues (2017) found that when teachers reported more positive beliefs about the importance and utility of parental involvement practices, more positive parent-teacher relationships were also reported. Thus, their findings suggest that it may be important to consider the inherent beliefs and attitudes of teachers regarding parental involvement in a child's schooling experience when trying to build home-school connections. It would be beneficial to address specific engagement efforts on behalf of teachers through professional development training programs or psychological consultation practices (McDowall et al., 2017).

Second, it is imperative that the school setting is welcoming to all families. When possible, families should be greeted in their own language to ensure communication is meaningful and understood. As well, Miller and Choy (2009) suggest designating a specific place in the school where families can come together to network and gain helpful educational and/or community resources. Research has indicated that establishing a place in the school to do so leads to more frequent participation at school meetings and events (Miller & Choy, 2009). As part of this, it would be beneficial to develop ways to share information with families who cannot participate within the school due to contextual constraints (e.g., number of available adults, perceived time and energy). For example, meeting minutes or audiotapes of meetings and events could be posted through an online portal for parents to review. Taken together, welcoming settings are developed through the acknowledgement of an array of family contributions, while overcoming the physical and structural barriers to partnering (Lines et al., 2011).

Third, the use of meaningful two-way communication is imperative to the development of joint partnerships. Meaningful two-way communication emphasis' quality of communication over quantity of communication (Christenson & Sheridan, 2001). It is beneficial for teachers to discuss with families their preferred source of communication and periodically receive feedback regarding the nature of their communications (Lines et al., 2011). This may be completed through the use of communication logs. Teachers and parents can also interact through two-way homework assignments (Lines et al., 2011). Two-way homework assignments provide parents and teachers with the opportunity to increase their dialogue in a purposeful manner (Lines et al., 2012). Homework pages can be created with a place for family members to add comments or questions about the assignment at hand (Lines et al., 2011).

Further, it is crucial to enhance the nature of home-school conferencing activities by balancing the information shared regarding children's areas of needs and strengths (Salinas & Jansorn, 2004). This can be done by sending home bi-weekly or monthly "Good News" notes that highlights the success of children in the classroom. The notes should be easy to understand and jargon free. Space should also be provided on the note for parents to respond and provide their own remarks to praise their child's success. By doing so, both school personnel and family members feel their opinions, stories, and general contributions are valued and appreciated, thus bolstering the potential for a positive partnership to flourish (Salinas & Jansorn, 2004).

Lastly, it is important that all partners have the opportunity to access education programs that emphasize their importance within the family-school partnership and the subsequent impact they have on a child's education experience (Lines et al., 2011). As part of this, parent's beliefs in their ability to be useful and active participants in their child's education should be highlighted. This can be done through in-class or online parent information sessions hosted by a

school psychologist. Teachers can also be part of the project by offering curriculum demonstration lessons for families (Lines et al., 2011).

Additionally, joint workshops with school personnel and families can be offered to enhance their understanding of joint partnerships. This can include discussions surrounding general responsibilities, expectations, and experiences of each partner so that their subjective experiences can be shared. An example workshop may be titled, “What Every Parent/Teacher Wants to Know” (Lines et al., 2011). The goal of joint workshops is to enhance the decision making process, advocacy roles, and collaboration activities between family and school partners (Lines et al., 2011). To help ensure all families are able to attend, transportation, child care, and interpreters are encouraged to be provided, when necessary.

To conclude, it is important to note that these recommendations are not an exhaustive list, but rather are general guidelines to assist schools foster joint partnerships between families and schools. The implementation of practices should be strategically selected and adapted to meet the unique characteristics of each school community (Lines et al., 2011). Many of the strategies will not only foster joining between partners, but also increase the desire for partners to participate in a variety of involvement activities across home, school, and community settings. School psychologists are encouraged to continuously be involved in the planning, implementation, and follow-up stages of the strategies discussed, as they possess a unique knowledge set that would be valuable within a consultative role, alongside other school personnel and families. Such efforts will promote the development and maintenance of family-school partnerships, which are based in mutual respect, trust, and shared responsibility, and possess the characteristics that go beyond basic sharing of information.

Limitations.

There are several limitations of the present study that are important to note that pertain to the sample of participants, methods used to collect data, data measurement, and the general research design of the study. An overview of the limitations follows.

Sample. As previously mentioned, the present study was completely voluntary. As a result, there is a potential selection effect in the sample of participants. This means that the sample may not be representative of all of the parents of children in elementary school. It is likely that parents who are typically more involved with their child's schooling would have responded to the recruitment email to participate, while parents who are generally less involved in their child's schooling experience are less likely to be inclined to freely volunteer their time to complete the study. As part of this, the recruitment letter was sent out to several thousand parents, but 290 parents decided to respond. Thus, the results may not be a valid representation for a large portion of parents within the school, especially for those parents who are less involved in their child's academic experience.

Secondly, demographic information for the parent participant was not collected due to privacy and school board ethics. Therefore, parent's socio-economic status, highest level of education, gender, and information regarding other children in the home were not included in the analysis. Although these demographic variables have not shown to be significant factors in previous research (Jeynes, 2003; 2005; 2007), it would have been beneficial to explore response rates amongst different groups.

Self-Report. Another limitation is that most of the variables relied on self-report. Thus, these variables are said to be entirely subjective. There is also potential for biased response styles to occur, in which participants may want to be viewed more desirably and thus respond

accordingly. In order to mitigate this limitation, it would have been valuable to also incorporate a teacher's perspective to help validate some of the variables being measured, such as the extent of parental involvement through school-based involvement and home-school conferencing, and the nature of parent-teacher relationships. By studying the agreement or disagreement between multiple informants, meaningful information about the subjective experience of the parent and/or teacher, and the relationship between informants may be revealed (De Los Reyes, 2011).

However, the PTRS has been shown to demonstrate congruence across parent and teacher reports, which is promising for the present study.

Measurement. As discussed previously, the use of report cards as a measure of academic achievement is not the most objective measure of children's literacy and numerical knowledge. Although there are guidelines and standards set for the selected grade on a report card by the school division, there is a greater chance of increased subjectivity to be used per teacher. As a result, the use of standardized assessment measures, such as the WIAT-III, WJ-IV Ach, or other curriculum based measures, may be more objective and generalizable across participants. In addition, the analysis that included children's academic achievement was limited due to more than half of the participant's academic data was missing.

Research Design. Lastly, the cross-sectional nature of the research design is the final limitation. In the present study, the data collected only presents a snap shot of a participant's experience at one point in time. As indicated in previous research, parental involvement is ever-changing and is best understood when researched over a longer period of time (McDowall et al., 2017). Thus, the cross-sectional design of the present study limits the researcher's ability to explore causal effects between variables.

Future Directions

Future research in the field of family-school partnerships and parental involvement is further warranted based on the results from the present study. In particular, the field would benefit greatly from the use of a mixed-methods and/or qualitative approach in order to better understand the relationships between constructs within parental involvement practices and family-school partnerships.

The inclusion of semi-structured interviews within future research designs will assist researchers in understanding the nature of involvement practices and joint partnerships. This may include exploring the nature of home-school conferencing activities, such as what types of conversations occur during conferencing activities, is there a balance between sharing positive and negative information regarding a child's progress, and are parents and teachers receptive to each other's feedback, etc. Research within this area will help us to better understand how conferencing activities are contributing to increased stress reported among parents, and how we can address this within the school community.

Moreover, it is crucial that future research is conducted to explore how parent-teacher communications can be enhanced to foster the development of joint family-school partnerships. The strategies and recommendations set forth in the implications section above should be implemented and studied within a school community in order to examine the effect they have on the growth and maintenance of joint partnerships. It is also imperative to explore parent, teacher, and other school personnel perspectives on the implementation of such practices in order to better understand their feasibility and success in achieving joint partnerships. This research is necessary in order to understand how the dynamics of a school community can be adjusted to welcome and maintain the presence of successful partnerships between families and schools.

Conclusions

Family-school partnerships have been a hot topic of discussion in educational research, legislation, and policy in recent decades. There has been a strong focus on the positive influence that parental involvement has on childhood outcomes, but there have been minimal explorations on the impact that such practices may have on other parties involved in the partnership, including parents and teachers. As such, the present study aimed to explore the impact that parental involvement, a main component within family-school partnerships, has on student achievement, parental well-being, and parent-teacher relationships.

In regards to student's academic achievement, parental involvement practices surprisingly did not significantly predict student's literacy and numeracy skills. However, results did suggest that an increase in parent's home-based involvement may be reflective of a child's difficulty in mathematics, in which increased support is required at home to promote the development of numeracy skills. It will be beneficial for parents to be provided with resources and strategies, and have access to educational training, in order to confidently assist their children at home with core academic skills. Parents and teachers are encouraged to work together to successfully implement practices within the home environment that are best suited for the child and their noted difficulties.

The results of the present study also suggest that various types of parental involvement are related to and predictive of parent's reported stress. It appears that parents who are more involved at the school and home level with their child's education report less stress in their daily lives. However, parents who are more frequently involved in discussions with their child's teachers regarding the child's progress report increased daily stress. This is an important area of concern that should be addressed within partnerships for the well-being of parents involved. It is

imperative to further explore what these conferencing activities look like and how they are specifically impacting parents well-being in order to balance and modify discussions for the better.

As a final conclusion, this study draws attention to the worrisome reality that parents and teachers may just be talking at each other, rather than working together as a team to reach common goals. The results suggest that parents and teachers are willing and able to express their thoughts with each other, but are not joining together to support and cooperate with each other to reach shared goals and expectations for the child they share. It is crucial that efforts are put forth by school personnel, such as school psychologists, to enhance and move forward the present relationships to joint and meaningful partnerships. A multitude of strategies have been discussed that aim to enhance home-school connections and foster the development of joint partnerships between families and schools. The need to build relationships, create welcoming settings, provide two-way communication, and to educate partners are noted as four key ingredients to nurture joint partnerships.

Overall, this study has begun to shed light on previously neglected areas pertinent to family-school partnerships that go beyond childhood outcomes by adding a focus on parental well-being and parent-teacher relationships. As a result of this study, new concerns have been highlighted regarding the impact that some involvement activities within the regular education system can have on parent's daily lives. As well, this study has shed light on the current state of relationships within the school environment that do not necessarily encompass ideal characteristics of joint partnerships. Consequently, new roles and responsibilities may be carved out for school psychologists in order to enhance and foster the development of home-school connections and joint partnerships between families and schools. To conclude, there is a great

need for future research within these domains that utilize the value of qualitative methods in order to comprehensively examine the impact of parental involvement practices on children, parents, parent-teacher relationships, and joint partnerships as a whole.

References

- Alberta Education. (2017). *Provincial achievement tests: PAT results*. Retrieved from:
<https://education.alberta.ca/provincial-achievement-tests/pat-results/everyone/pat-results/>
- Albright, M.I., & Weissberg, R.P. (2010). School-family partnerships to promote social and emotional learning. In S.L Christenson, & A.L Reschly (Eds.), *Handbook of school-family partnerships for promoting student competence* (pp. 246-265). New York: Routledge.
- Amatea, E. S. (2009). From separation to collaboration: The changing paradigms of family-school relations. In E. Amatea (Ed.), *Building Culturally Responsive Family-School Relationships* (pp.19-50). Upper Saddle River, NJ: Pearson/Allyn & Bacon.
- Anderson, M. (2011). The early and elementary years: The leap into 4th grade. *The Transition Years*, 68(7) 32-36. Retrieved from <http://www.ascd.org/Default.aspx>
- Anthony, L.G., Anthony, B.J., Glanville, D.N., Naiman, D.Q., Waanders, C., Shaffer, S. (2005). The relationship between parenting stress, parenting behavior and preschoolers' social competence and behavior problems in the classroom. *Infant and Child Development*, 14, 133-154. doi: 10.1002/icd.385
- Aunio, P., & Niemivirta, M. (2010). Predicting children's mathematical performance in grade one by early numeracy. *Learning and Individual Differences*, 20, 427-435.
 doi:10.1016/j.lindif.2010.06.003
- Berger, E. H. (1981). *Parents as partners in education*. St. Louis: The C.V. Mosby Co.
- Bilton, R., Jackson, A., & Hymer, B. (2017). Not just communication: Parent-teacher conversations in an English high school. *School Community Journal*, 27(1), 231-256.
 Retrieved from <http://www.schoolcommunitynetwork.org>

- Bonis, S. (2016). Stress and parents of children with autism: A review of the literature. *Issues in Mental Health Nursing, 37*(3), 153-163. doi: 10.3109/01612840.2015.1116030
- Boonk, L., Gijselaers, H.J.M., Ritzen, H., Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review, 24*, 10-30. doi: 10.1016/j.edurev.2018.02.001
- Brehaut, J.C., Kohen, D.E., Raina, P., Walter, S.D., Russel, D.J., Swinton, M., & Rosenbaum, P. (2004). The health of primary caregivers of children with cerebral palsy: How does it compare with that of other Canadian caregivers? *Pediatrics, 114*(2), 182-191. Retrieved from <http://www.aappublications.org>
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bureau, J., Martin, J., & Lyons-Ruth, K. (2010). The effects of life trauma: Mental and physical health: Attachment dysregulation as hidden trauma in infancy: Early stress, maternal buffering and psychiatric morbidity in young adulthood. In R.A Lanius, E. Vermetten, & C. Pain (Eds.), *The impact of early life trauma on health and disease: The hidden epidemic* (pp.48-56). Cambridge, United Kingdom: Cambridge University Press.
- Burke, M.M., & Hodapp, R.M. (2014). Relating stress of mothers of children with developmental disabilities to family-school partnerships. *Intellectual and Developmental Disabilities, 52*(1), 13-23. doi: 10.1352/1934-9556-52.1.13
- Castro, M., Exposito-Casas, E., Lopez-Martin, E., Lizasoain, L., Navarro-Asencio, E., Gaviria, J.L. (2015). Parental involvement on student academic achievement: A meta-analysis. *Educational Research Review, 14*, 33-46. doi: 10.1016/j.edurev.2015.01.002
- Christenson, S.L., & Sheridan, S.M. (2001). *Schools and families: Creating essential*

- connections for learning*. New York: Guilford.
- Chrousos, G.P. (2009). Stress and disorders of the stress system. *Nature Reviews Endocrinology*, 5(7), 374-381. doi: 10.1038/nrendo.2009.106
- Clarke, B.L., Sheridan, S.M., & Woods, K.E. (2009). Elements of healthy family-school relationships. In S.L Christenson & A.L Reschly (Eds.), *Handbook of school-family partnerships* (pp.61-79). New York: Routledge.
- Coplan, R.J., Bowker, A., & Cooper, S.M. (2003). Parenting daily hassles, child temperament, and social adjustment in preschool. *Early Childhood Research Quarterly*, 18(3), 376-395. doi: 10.1016/S0885-2006(03)00045-0
- Crawford, J.R., Garthwaite, P.H., Lawrie, C.J., Henry, J.D., MacDonald, M.A., Sutherland, J., & Sinha, P. (2009). A convenient method of obtaining percentile norms and accompanying interval estimates for self-report mood scales (DASS, DASS-21, HADS, PANAS, and sAD). *British Journal of Clinical Psychology*, 48(2), 163-180. doi: <https://doi.org/10.1348/014466508X377757>
- Cramm, J.M., & Nieober, A.P. (2011). Psychological well-being of caregivers of children with intellectual disabilities: Using parental stress as a mediating factor. *Journal of Intellectual Disabilities*, 15(2), 101-113. doi: 10.1177/1744629511410922
- Creasy, G., & Reese, M. (1996). Mothers' and fathers' perceptions of parenting hassles: Associations with psychological symptoms, nonparenting hassles, and child behavior problems. *Journal of Applied Developmental Psychology*, 17(3), 393-406. doi: 10.1016/S0193-3973(96)90033-7
- Davis, N.O., & Carter, A.S. (2008). Parenting stress in mothers and fathers of toddlers with autism spectrum disorders: Associations with child characteristics. *Journal of Autism and*

Developmental Disorders, 38(7), 1278-1291. doi: 10.1007/s10803-007-0512-z

De Los Reyes, A. (2011). Introduction to the special section: More than measurement error:

Discovering meaning behind informant discrepancies in clinical assessments of children and adolescents. *Journal of Clinical Child & Adolescent Psychology*, 40(1), 1-9.

doi: 10.1080/15374416.2011.533405

Dearing, E., Kreider, H., Simpkins, S., & Weiss, H.B. (2006). Family involvement in school and low-income children's literacy: Longitudinal associations between and within families.

Journal of Educational Psychology, 98(4), 653-664. doi: 10.1037/0022-0663.98.4.653

Deniz-Can, D., & Ginsburg-Block, M. (2016). Parenting stress and home-based literacy

interactions in low-income preschool families. *Journal of Applied Developmental Psychology*, 46, 51-62. doi: 10.1016/j.appdev.2016.07.002

Domina, T. (2005). Leveling the home advantage: Assessing the effectiveness of parental involvement in elementary school. *Sociology of Education*, 78(3), 233-249. doi:

10.1177/003804070507800303

Downer, J.T., & Myers, S.S. (2010). Application of a developmental/ecological model to school-family partnerships. *Handbook of school-family partnerships*, 3-29. New York, NY: Routledge.

Dumont, H., Trautwein, U., Ludtke, O., Neumann, M., Niggli, A., & Schnyder, L. (2012). Does parental homework involvement mediate the relationship between family background and educational outcomes? *Contemporary Educational Psychology*, 37(1), 820-832. doi:

10.1016/j.cedpsych.2011.09.004

Ekman, R., & Arnetz, B.B. (2006). The brain in stress: Influence of environment and lifestyle on stress-related disorders. In B.B. Arnetz & R. Ekman (Eds.), *Stress in health and disease*

- (pp.196-213). Weinheim, Germany: Wiley-VCH.
- El Nokali, N.E., Bachman, H.J., & Votruba-Drzal, E. (2010). Parent involvement and children's academic and social development in elementary school. *Child Development, 81*(3), 988-1005. doi: 10.1111/j.1467-8624.2010.01447.x
- Englund, M.M., Luckner, A.E., Whaley, G.J.L., & Egeland, B. (2004). Children's achievement in early elementary school: Longitudinal effects of parental involvement, expectations, and quality of assistance. *Journal of Educational Psychology, 96*(4), 723-730. doi: 10.1037/0022-0663.96.4.723
- Epstein, J.L. (1995). School, family, community partnerships: Caring for children we share. *Phi Delta Kappan, 76*, 701-712. doi: 10.1177/003172171009200326
- Epstein, J.L. (1996). Perspectives and previews on research and policy for school, family, and community partnerships. In A. Booth & J.F. Dunn (Eds.), *Family school links: How do they affect educational outcomes?* (pp. 209-246). Mahwah, NJ: Erlbaum.
- Epstein, J.L. (2001). *School, family, and community partnerships: Preparing educators and improving schools*. Boulder, CO: Westview Press.
- Epstein, J.L., Sanders, M.G., Simon, B.S., Salinas, K.C., Jansorn, N.R., & Van Voorhis, F.L. (2009). *School, family, and community partnerships: Your handbook for action*. Thousand Oaks, CA: Corwin Press.
- Epstein, J.L. (2011). *School, family, and community partnerships: Preparing educators and improving schools* (2nd ed.). Philadelphia, PA: Westview Press.
- Epstein, J.L., & Sanders, M.G. (2002). Family, school, and community partnerships. *Handbook of Parenting, 5*, 407-437.
- Epstein, J.L., & Sheldon, S.B. (2002). Present and accounted for: Improving student attendance

- through family and community involvement. *The Journal of Educational Research*, 95(5), 308-318. doi: 10.1080/00220670209596604
- Eriksen, H.R., & Ursin, H. (2006). Stress – It is all in the brain. In B.B. Arnetz & R. Ekman (Eds.), *Stress in health and disease* (pp.46-68). Weinheim, Germany: Wiley-VCH.
- Eronen, R., Pincombe, J., & Calabretto, H. (2007). Support for stress parents of young infants. *Neonatal, Paediatric and Child Health Nursing*, 10, 20-27.
- Fan, X., & Chen, M. (2001). Parental involvement and student's academic achievement: A meta-analysis. *Educational Psychology Review*, 13(1), 1-22. doi: 10.1023/A:1009048817385
- Fantuzzo, J., McWayne, C., & Perry, M.A. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, 33(4), 467-480. Retrieved from https://repository.upenn.edu/gse_pubs/438
- Fantuzzo, J., Tight, E., Childs, S. (2000). Family involvement questionnaire: A multivariate assessment of family participation in early childhood education. *Journal of Educational Psychology*, 92(2), 367-376. doi: 10.1037/0022-0663.92.2.367
- Farver, J.M., Xu, Y., Eppe, S., & Lonigan, C.J. (2006). Home environments and young Latino children's school readiness. *Early Childhood Research Quarterly*, 21(2), 196-212. doi: 10.1016/j.ecresq.2006.04.008
- Ferlazzo, L. (2011). Involvement or engagement? *Educational Leadership*, 68, 10-14. Retrieved from: <http://www.ascd.org/publications/educationalleadership/may11/vol68/num08/Involvement-or-Engagement.aspx>
- Fish, W.W. (2008). The IEP meeting: Perceptions of parents of students who receive special education services. *Preventing School Failure*, 53(1), 8-14. doi: 10.3200/PSFL.53.1.8-14

- Froiland, J.M., Peterson, A., & Davison, M.L. (2013). The long-term effects of early parent involvement and parent expectation in the USA. *School Psychology International*, 34(1), 33-50. doi: 10.1177/0143034312454361
- Galindo, C., & Sheldon, S.B. (2012). School and home connections and children's kindergarten achievement gains: The mediating role of family involvement. *Early Childhood Research Quarterly*, 27(1), 20-103. doi: 10.1016/j.ecresq.2011.05.004
- Gerstein, E.D., Crnic, K.A., Blacher, J., & Baker, B.L. (2009). Resilience and the course of daily parenting stress in families of young children with intellectual disabilities. *Journal of Intellectual Disability Research*, 53(12), 981-997. doi: 10.1111/j.1365-2788.2009.01220.x
- Glover, D.A., Stuber, M.P., & Poland, R.E. (2006). Allostatic load in women with and without PTSD symptoms. *Psychiatry: Interpersonal and Biological Processes*, 69, 191-203. doi: 10.1196/annals.1364.039
- Graham, R.D., Wang, C., & Berthlesen, D. (2016). Early school-based parent involvement, children's self-regulated learning and academic achievement: An Australian longitudinal study. *Early Childhood Research Quarterly*, 36, 168-177. doi:10.1016/j.ecresq.2015.12.016
- Graves, S.L., & Wright, L.B. (2011). Parent involvement at school entry: A national examination of group differences and achievement. *School Psychology International*, 31(1), 35-48. doi: 10.1177/0143034310396611
- Griffin, D., & Steen, S. (2010). School-family-community partnerships: Applying Epstein's theory of the six types of involvement to school counsel practice. *Professional School Counseling*, 13(4), 218-226. doi: 10.5330/PSC.n.2010-13.218

- Green, C.L., Walker, J.M.T., Hoover-Dempsey, K.V., & Sandler, H.M. (2007). Parent's motivations for involvement in children's education: An empirical test of a theoretical model of parental involvement. *Journal of Educational Psychology, 99*(3), 532-544. doi: 10.1037/0022-0663.99.3.532
- Hammond, H., Ingalls, L., & Trussel, R.P. (2008). Family members' involvement in the initial individual education program (IEP) meeting and the IEP process: Perceptions and reactions. *International Journal about Parents in Education, 2*(1), 35-48. Retrieved from <http://www.ernape.net/ejournal/index.php/IJPE>
- Harris, A., & Goodall, J. (2008). Do parents know they matter? Engaging all parents in learning. *Educational Research, 50*(3), 277-289. doi: 10.1080/00131880802309424
- Heise, M. (1994). Goals 2000: Educate America act: The federalization and legalization of educational policy. *Fordham Law Review, 63*(2), 345-381. Retrieved from: <https://scholarship.law.cornell.edu/facpub/693/>
- Henderson, A.T. (2001). *The evidence continues to grow*. Washington, DC: Center for Law and Education.
- Henderson, A.T., & Mapp, K.L. (2002). *A new wave of evidence: The impact of school, family, and community connections on achievement*. Austin, TX: National Center for Family and Community Connections With Schools.
- Henry, J.D., & Crawford, J.R. (2005). The short-form version of the depression anxiety stress scales (DASS-21): Construct validity and normative data in a non-clinical sample. *British Journal of Clinical Psychology, 44*(2), 227-239. doi: 10.1348/014466505X29657

- Hiatt-Michael, D. (1994). Parent involvement in American public schools: An historical perspective 1642-1994. *The School Community Journal*, 4, 27-38. Retrieved from <http://www.schoolcommunitynetwork.org/SCJ.aspx>
- Hidalgo, N.M., Siu, S.F., & Epstein, J.L. (2004). Research on families, schools, and communities: A multicultural perspective. In J. Banks & C. A. M. Banks (Eds.), *Handbook of research on multicultural education* (2nd ed.), pp 631-655. San Francisco, CA: Jossey-Bass.
- Hill, N.E., & Tyson, D.F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental Psychology*, 45(3), 740-763. doi: 10.1037/a0015362
- Hoover-Dempsey, K., & Sander, H. (1995). Parental involvement in children's education: Why does it make a difference? *The Teachers College Record*, 97, 310-331. Retrieved from <http://www.tcrecord.org>
- Hoover-Dempsey, K.V., Walker, J.M., Sandler, H.M., Whetsel, D., Green, C.L., Wilkins, A.S., & Closson, K. (2005). Why do parents become involved? Research findings and implications. *The Elementary School Journal*, 106(2), 105-130. doi: 10.1086/499194
- Hoover-Dempsey, K.V., Walker, J.M., & Sandler, H.M. (2005). Parent's motivation for involvement in their children's education. In E.N. Patrikakou, R.P. Weisberg, S. Redding, & H.J. Walberg (Eds.), *School-family partnerships for children's success* (pp.40-56). New York: Teachers College Press.
- Hornby, G., & Blackwell, I. (2018). Barriers to parental involvement in education: An update. *Educational Review*, 70(1), 109-119. doi: 10.1080/00131911.2018.1388612

- Hornby, G., & Lafaele, R. (2011). Barriers to parental involvement in education: An explanatory model. *Educational Review*, 63(1), 37-52. doi: 10.1080/00131911.2010.488049
- Hutchins, D.J., & Sheldon, S.B. (2013). *Summary 2012 school data*. Baltimore, MD: National Network of Partnership Schools at Johns Hopkins University.
- Jeffrey, J. (1978). *Education for children of the poor: A study of the origins and implementation of the Elementary and Secondary Education Act of 1965*. Columbus: Ohio State University Press.
- Jeynes, W.H. (2003). A meta-analysis: The effects of parental involvement on minority children's academic achievement. *Education and Urban Society*, 35(2), 202-218. doi: 10.1177/0013124502239392
- Jeynes, W.H. (2005). The effects of parental involvement on the academic achievement of African American youth. *Journal of Negro Education*, 74(3), 260-274. Retrieved from <http://www.journalnegroed.org>
- Jeynes, W.H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education*, 40(3), 237-269. doi: 10.1177/0042085905274540
- Jeynes, W.H. (2007). The relationships between parental involvement and urban secondary school student academic achievement: A meta-analysis. *Urban Education*, 42(1), 82-110. doi: 10.1177/0042085906293818
- Jeynes, W.H. (2012). A meta-analysis of the efficacy of different types of parental involvement programs for urban students. *Urban Education*, 47(4), 706-742. doi: 10.1177/0042085912445643

- Kim, E.M., Coutts, M.J., Holmes, S.R., Sheridan, S.M., Ransom, K.A., Sjuts, T.M., & Rispoli, K.M. (2012). Parent involvement and family-school partnerships: Examining the content, processes, and outcomes of structural versus relationship-based approaches (CYFS Working Paper No. 2012-6). Retrieved from: the Nebraska Center for Research on Children, Youth, Families, and Schools website: cyfs.unl.edu.
- Kim, S.W., & Hill, N.E. (2015). Including fathers in the picture: A meta-analysis of parental involvement and student's academic achievement. *Journal of Educational Psychology, 107*(4), 919-934. doi: 10.1037/edu0000023
- Kohl, G.O., Lengua, L.J., & McMahon, R.J. (2000). Parent involvement in school: Conceptualizing multiple dimensions and their relations with family and demographic risk factors. *Journal of School Psychology, 38*(6), 501-523. doi: 10.1016/S0022-4405(00)00050-9
- Lach, L.M., Kohen, D.E., Garrer, R.E., Brehaut, J.C., Miller, A.R., Klassen, A.F., & Rosenbaum, P.L. (2009). The health and psychosocial functioning of caregivers of children with neurodevelopmental disorders. *Disability and Rehabilitation, 31*(8), 607-618. doi: 10.1080/09638280802242163.
- LaForett, D.R., & Mendez, J.L. (2010). Parent involvement, parental depression, and program satisfaction among low-income parents participating in a two-generation early childhood education program. *Early Education and Development, 21*(4), 517-535. doi: 10.1080/10409280902927767
- Lee, J., & Bowen, N.K. (2006). Parent involvement, cultural capital, and the achievement gap among elementary school children. *American Educational Research Journal, 43*(2), 193-218. doi: 10.3102/00028312043002193

- LaFevre, J.A., Fast, L., Skwarchuk, S.L., Smith-Chant, B.L., Bisanz, J., Kamawar, D., et al (2010). Pathways to mathematics: Longitudinal predictors of performance. *Child Development, 81*(6), 1753-1767. doi: 10.1111/j.1467-8624.2010.01508.x
- Lines, C., Miller, G.B., Arthur-Stanley, A. (2011). *The power of school-family partnering (FSP): A practical guide for school mental health professionals and educators*. New York, NY: Routledge.
- Lovibond, S.H., & Lovibond, P.F. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the beck depression and anxiety inventories. *Behavioral Research and Therapy, 33*(3), 335-343. doi: 10.1016/0005-7967(94)00075-U
- Lupien, S.J. (2012). *Well stressed: Manage stress before it turns toxic*. Mississauga, ON, Canada: Wiley.
- Mapp, K.L. (2003). Having their say: Parents describe why and how they are engaged in their children's education. *School Community Journal, 13*(1), 35-64. Retrieved from <http://www.schoolcommunitynetwork.org/SCJ.aspx>
- Mautone, J.A., Marcelle, E., Tresco, K.E., & Power, T.J. (2015). Assessing the quality of parent-teacher relationships for students with ADHD. *Psychology in the Schools, 52*(2), 196-207. doi: 10.1002/pits.21817
- McClowry, S., Tommasini, N., Giangrande, S., Cottone, M.A., Durand, M., Ochs, E., & Seery, V. (2000). Dailey hassles of married women with children: An empirical foundation for a prevention program. *Journal of American Psychiatric Nurses Association, 6*(4), 107-111. doi: 10.1067/mpn.2000.109630

- McDowall, P.S., Taumoepeau, M., & Schaughency, E. (2017). Parent involvement in beginning primary school: Correlates and changes in involvement across the first two years of school in a New Zealand sample. *Journal of School Psychology, 62*, 11-31. doi: 10.1016/j.jsp.2017.03.001
- McEwan, B.S., Eiland, L., Hunter, R.G., & Miller, M.M. (2012). Stress and anxiety: Structural plasticity and epigenetic regulation as a consequence of stress. *Journal of Neuropharmacology, 62*(1), 3-12. doi: 10.1016/j.neuropharm.2011.07.014
- McWayne, C., Fantuzzo, J., Cohen, H.L., & Sekino, Y. (2004). A multivariate examination of parental involvement and the social and academic competencies of urban kindergarten children. *Psychology in Schools, 41*(3), 363-377. doi: 10.1002/pits.10163
- McWayne, C.M., Manz, P.H., & Ginsburg-Block, M.D. (2015). Examination of the family involvement questionnaire-early childhood with low-income, Latino families of young children. *International Journal of School and Educational Psychology, 3*, 117-134. doi: 10.1080/21683603.2014.950439
- Miedel, W.T., & Reynolds, A.J. (2000). Parent involvement in early intervention for disadvantaged children: Does it matter? *Journal of School Psychology, 37*(4), 379-402. doi: 10.1016/S0022-4405(99)00023-0
- Miller, G.E., & Choy, A. (2009). *Enhancing family engagement through coffee connects*. Poster presented at the annual meeting of the Colorado Society of School Psychology, Vail, CO.
- Miodrag, N., & Hodapp, R.M. (2011). Chronic stress and its implications on health among families of children with intellectual and developmental disabilities (IDD). *International Review of Research in Developmental Disabilities, 41*, 127-161. doi: 10.1097/YCO.0b013e32833a8796

- Niehaus, K., & Adelson, J.L. (2014). School support, parental involvement, and academic and social-emotional outcomes for English language learners. *American Educational Research Journal*, 51(4), 810-844. doi: 10.3102/0002831214531323
- Norton, P.J. (2007). Depression anxiety stress scales (DASS-21): Psychometric analysis across four racial groups. *Anxiety, Stress, & Coping*, 20(3), 253-265. doi: 10.1080/10615800701309279
- Oei, T.P.S., Sawang, S., Goh, Y.W., & Mukhtar, F. (2013). Using the depression anxiety stress scale 21 (DASS-21) across cultures. *International Journal of Psychology*, 48(6), 1018-1029. doi: 10.1080/00207594.2012.755535
- Ogunmakin, A.O., & Akomolafe, M.J. (2013). Academic self-efficacy, locus of control and academic performance of secondary school students. *Mediterranean Journal of Social Sciences*, 4(11), 570-576. doi: 10.5901/mjss.2013.v4n11p570
- Ortiz, S.O., Flanagan, D.P., & Dynda, A.M. (2008). Best practices in working with culturally diverse children and families. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology* (pp. 1721-1738). Bethesda, MD: National Association of School Psychologists.
- Patrikakaou, E. N., Weissberg, R.P., Redding, S., & Walberg, H.J. (2005). *School-family partnerships for children's learning*. New York: Teachers College Press.
- Peer, J.W., & Hillman, S.B. (2014). Stress and resilience for parents of children with intellectual and developmental disabilities: A review of key factors and recommendations for practitioners. *Journal of Policy and Practice in Intellectual Disabilities*, 11(2), 92-98. doi: 10.1111/jppi.12072

- Peterson, N.L., & Cooper, C.S. (1989). Parent education and involvement in early intervention programs for handicapped children: A different perspective on parent needs and the parent-professional relationship. In M. J. Fine (Ed.), *The second handbook on parent education: Contemporary perspectives* (pp. 197-236). New York: Academic Press.
- Pomerantz, E.M., Moorman, E.A., & Litwack, S.D. (2007). The how, whom, and why of parent's involvement in children's academic lives: More is not always better. *Review of Educational Research, 77*(3), 373-410. doi: 10.3102/003465430305567
- Powell, D.R., Son, S., File, N., & San Juan, R.R. (2010). Parent-school relationships and children's academic and social outcomes in public school pre-kindergarten. *Journal of School Psychology, 48*(4), 269-292. doi: 10.1016/j.jsp.2010.03.002
- Powell, D.R., Son, S.H., File, N., & Froiland, J.M. (2012). Changes in parent involvement across the transition from public school prekindergarten to first grade and children's academic outcomes. *The Elementary School Journal, 113*(2), 276-300. doi: 10.1086/667726
- Powell-Smith, K.A., Shinn, M.R., Stoner, G., & Good III, R.H. (2000). Parent tutoring in reading using literature and curriculum materials: Impact on student reading achievement. *School Psychology Review, 29*, 5-27. Retrieved from <http://naspjournals.org/loi/spsr>
- Pulliam, J. D. (1987). *History of education in America* (4th ed.). Columbus: Merrill Publishing Company.
- Rimm-Kaufman, S.E., Pianta, R.C., Cox, M.J., Bradley, R.H. (2003). Teacher-rated family involvement and children's social and academic outcomes in kindergarten. *Early Education and Development, 14*(2), 179-198. doi: 10.1207/s15566935eed1402_3

- Rogers, M.A., Theule, J., Ryan, B.A., & Keating, L. (2009). Parental involvement and children's school achievement. *Canadian Journal of School Psychology, 24*, 34-57. doi: 10.1177/0829573508328445
- Salinas, K., & Jansorn, N. (2004). *Promising partnership practices*. Baltimore, MD: Johns Hopkins University Center on School, Family and Community Partnerships.
- Semke, C.A., Garbacz, S.A., Kwon, K., Sheridan, S.M., & Woods, K. (2010). Family involvement for children with disruptive behaviors: The role of parenting stress and motivational beliefs. *Journal of School Psychology, 48*(4), 293-312. doi: 10.1016/j.jsp.2010.04.001
- Sheldon, S.B. (2005). Testing a structural equations model of partnership program implementation and family involvement. *The Elementary School Journal, 106*(2), 171-187. doi: 10.1086/499197
- Sheldon, S.B., & Epstein, J.L. (2005). School programs of family and community involvement to support children's reading and literacy development across the grades. *Literacy Development of Students in Urban Schools: Research and Policy, 107-138*.
- Sheldon, S.B., Epstein, J.L., & Galindo, C.L. (2010). Not just numbers: Creating a partnership climate to improve math proficiency in schools. *Leadership Policy School, 9*(1), 27-48. doi: 10.1080/15700760802702548
- Sheridan, S.M. (2004). Family-school partnerships: Creating essential connections for student success. Posters, Addresses, & Presentations from CYFS. Retrieved from <http://digitalcommons.unl.edu/cyfsposters/>

- Silinskas, G., & Kikas, E. (2017). Parental involvement in math homework: Links to children's performance and motivation. *Scandinavian Journal of Educational Research, 1*, 1-21. doi: 10.1080/00313831.2017.1324901
- Simon, B.S. (2001). Family involvement in high school: Predictors and effects. *NASSP Bulletin, 85*(627), 8-19. doi: 10.1177/019263650108562702
- Sinclair, S.J., Siefert, C.J., Slavin-Mulford, J.M., Stein, M.B., Renna, M., & Blais, M.A. (2012). Psychometric evaluation and normative data for the depression, anxiety, and stress scales-21 (DASS-21) in a nonclinical sample of U.S adults. *Evaluation and the Health Professions, 35*(3), 259-279. doi: 10.1177/0163278711424282
- Spring, J. (1986). *The American School 1642-1985*. New York: Longman.
- Statistics Canada. (2016). *Census profile, 2016 census: Rocky view county, municipal district*. Retrieved from: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/Page.cfm?Lang=E&Geo1=CSD&Code1=4806014&Geo2=PR&Code2=35&Data=Count&SearchText=Cochrane&SearchType=Begins&SearchPR=01&B1=All>
- Summers, J.A., Marquis, J., Mannan, H., Turnbull, A.P., Fleming, K., Poston, D.J., & Kupzyk, K. (2007). Relationship of perceived adequacy of services, family-professional partnerships, and family quality of life in early childhood service programmes. *International Journal of Disability, Development, and Education, 54*(3), 319-338. doi: 10.1080/10349120701488848
- Tabachnick, B.G., & Fidell, L.S. (2013). *Using Multivariate Statistics: International Edition – Sixth Edition*. Upper Saddle River, NJ: Pearson.

- Taber, K.S. (2017). The use of cronbach's alpha when developing and reporting research instruments in science education. *Research in Science Education, 1*, 1-24. doi: 10.1007/s11165-016-9602-2
- Taylor, S.E., & Sirois, F.M. (2012). *Health psychology* (2nd ed.). Toronto, Canada: McGraw-Hill Ryerson.
- Tella, A., Tella, A., & Adeniyi, S.O. (2011). Locus of control, interest in schooling, and self-efficacy as predictors of academic achievement among junior secondary school students. *New Horizons in Education, 59*(1), 25-37. Retrieved from <http://www.tojned.net>
- Theule, J., Wiener, J., Tannock, R., & Jenkins, J.M. (2012). Parenting stress in families of children with ADHD: A meta-analysis. *Journal of Emotional and Behavioral Disorders, 21*(1), 3-17. doi: 10.1177/1063426610387433
- Topor, D.R., Keane, S.P., Shelton, T.L., & Calkins, S.D. (2010). Parent involvement and student academic performance: A multiple mediational analysis. *Journal Prevention Intervention Community, 38*(3), 183-197. doi: 10.1080/10852352.2010.486297
- Turnball, A., Turnball, R., Erwin, E.J., Soodak, L.J., & Shogren, K.A. (2011). *Families, professionals, and exceptionality*. Upper Saddle River, NJ: Pearson Education Inc.
- Van Voorhis, C.R., & Morgan, B.L. (2007). Understanding power and rules of thumb for determining sample sizes. *Tutorials in Quantitative Methods for Psychology, 3*(2), 43-50. Retrieved from <http://www.tqmp.org>
- Vickers, H.S., & Minke, K.M. (1995). Exploring parent-teacher relationships: Joining and communication to others. *School Psychology Quarterly, 10*(2), 133-150. doi: 10.1037/h0088300

- Waanders, C., Mendez, J.L., & Downer, J.T. (2007). Parent characteristics, economic stress, and neighborhood context as predictors of parent involvement in preschool children's education. *Journal of School Psychology, 45*(6), 619-636. doi: 10.1016/j.jsp.2007.07.003
- Wang, M., Mannan, H., Poston, D., Turnbull, A.P., & Summers, J.A. (2004). Parent's perceptions of advocacy activities and their impact on family quality of life. *Research and Practice for Persons with Severe Disabilities, 29*(2), 144-155. doi: 10.2511/rpsd.29.2.144
- Wang, M., & Sheikh-Khalil, S. (2014). Does parental involvement matter for student achievement and mental health in high school? *Child Development, 85*(2), 610-625. doi: 10.1111/cdev.12153
- Wilder, S. (2014). Effects of parental involvement on academic achievement: A meta-synthesis. *Educational Review, 66*(3), 377-397. doi: 10.1080/00131911.2013.780009
- Wong, S.W., & Hughes, J.N. (2006). Ethnicity and language contributions to dimensions of parent involvement. *School Psychology Review, 35*(4), 645-662. Retrieved from <http://naspjournals.org/loi/spsr>