EDUCATORS’ UNDERSTANDING OF CHILD DEVELOPMENT
IN SUCCESSFUL SCHOOLS
THAT FACE CHALLENGING CIRCUMSTANCES

By

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Abstract
The purpose of this study is to examine how educators who teach in schools that face challenging circumstances understand child development and the school context, and how their understanding of child development is manifested through non-academic responses to these challenging circumstances. Using mixed methods to explore and compare the results of survey data (N = 209) with interview data (N = 48) this study examines 10 schools that face challenging circumstances that have also demonstrated trends of success on provincially administered standardized assessments. Analysis reveals the findings that educators understand the challenging circumstances their students face to be developmental in nature, that educators’ believe that these challenges involve students’ physical, social-emotional, and cognitive development, and that educators respond to these challenges by implementing non-academic and co-curricular programs that are developmentally based. This study finds that all 10 schools have implemented developmental programs that foster the success of students. These findings suggest that educators offset the developmental disadvantages their students face as a result of the community, school, and their home environments. This study finds that these educators believe students’ social-emotional development is intertwined with student cognitive development. Further, these educators have expanded the traditional performance-based construct of student “success” to include a range of success that includes child social-emotional developmental success, and in expanding their understanding of student success, have arrived at an innovative, developmentally-based approach to facing challenging circumstances in schools.
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The juice was worth the squeeze.
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CHAPTER ONE. INTRODUCTION

The purpose of this study is to expand our understanding and provide insight into how schools situated in challenging circumstances are achieving student and school success in spite of the challenges that they face. Specifically, this study will examine the beliefs and child development knowledge held by educators who teach in schools that face challenging circumstances.

The purpose of all educational institutions is to foster the academic success of students (Ed, 2001; Eisner, 2001; Gallup, 1980; Rose & Gallup, 2006), and to foster students’ abilities to become positive, contributing members of society (Carnegie Corporation, 2006; Public Education Network, 2004). Given that students who attend schools that face challenging circumstances are at increased risk for decreased educational attainment and less than optimal developmental and life outcome trajectories, students in schools that face challenging circumstances are some of the most vulnerable members of our society (Bradley, Corwyn, Pipes McAdoo, & Garcia Coll, 2001; Corak, 2001; Dickinson & Smith, 1994; Downer & Pianta, 2006; Ed, 2001; Gore & Smith, 2001; Huffman, Mehlinger, & Kerivan, 2000; Huston et al., 2006; Kessler, Foster, Saunders, & Stang, 1995; Kleinman et al., 1998; Morales & Guerra, 2006; Piontek, Dwyer, Seager, & Orsburn, 1998; Roeser, van der Wolf, & Strobel, 2001; Rothman et al., 2008; Walpole, Chow, & Justice, 2004). Thus, educators, administrators, researchers, and policy makers bear a particular responsibility for ensuring the success of these children. Given the evidence that academic strategies alone may not be sufficient to foster student success in schools that face challenges (MacBeath et al., 2007), it is reasonable to explore the “non-academic” processes and strategies that exist in schools that face challenging circumstances and are succeeding.
Rationale for the Study

Challenging Circumstances in Schools

Schools that face challenging circumstances are schools that face a multitude of complex variables that impact students’ and school’s overall success. These challenging circumstances occur at both the level of the community and the school, and include community variables such as high rates of unemployment, family poverty, and family transience. These community level variables often cascade into the school context and are manifest through high rates of student mobility, low levels of student achievement, increased rates of staff turnover, inadequate school facilities, and a general lack of resources. The intersection and confluence of these variables have proven to be barriers to academic achievement and school improvement in schools that face these challenging circumstances (Harris & Chapman, 2004; Harris, Chapman, Muijs, Russ, & Stoll, 2006; Muijs, Harris, Chapman, Stoll, & Russ, 2004). As a result, students who attend schools that face challenging circumstances are at risk for both decreased educational attainment and impact to their overall developmental trajectories (Bradley, Corwyn, Burchinal, Pipes McAdoo, & Garcia Coll, 2001b; Bradley et al., 2001; Connell, Spencer, & Aber, 1994; Morales & Guerra, 2006; Rothman et al., 2008; Supple, Ghazarian, Frabutt, Plunkett, & Sands, 2006).

Reconceptualising school context

Some researchers have noted that when school performance and school outcomes are examined in relation to the unique features - the challenging circumstances of a school - this approach may be advantageous in that it allows researchers to examine how school context impacts school processes and contributes to overall school phenomena (Harris et al., 2006; Henchey, 2001; Lupton, 2004b; Maden, 2001; Muijs et al., 2004; Rimm-Kaufman & Pianta, 2000). However, there are some critics who argue that the contextual factors of schools in challenging circumstances are understudied (Levin, 2006) and that the concept of school context needs to be reconceptualised (Lupton, 2004a; Slee & Weiner, 1998; Whitty, 1997). They note
that the study of school context has relied on the traditional, demographic depictions of context. Others assert that past inquiries into school context have not been adequately sensitive to the subtle contextual differences that exist and have great impact on the functioning of a school, and that the concept of school context may require reconceptualisation in order to fully grasp the dimensions and interactions inherent in the social context of schools, and the true impact social context has on school outcomes (Thrupp & Lupton, 2006).

Quantitative research studies have traditionally depicted context by quantitative demographic descriptors that serve to characterize the context and provide a standardized baseline of comparison between contexts (Sun, Creemers, & deJong, 2007). Typically, researchers utilise the demographic variables of age, gender, educational attainment, employment rates, income, marital status, family composition, and ethnic background to depict context. While these demographic variables represent the quantifiable characteristics of a context, they do not adequately represent the individuals who act as agents in the context, nor do they explain the phenomena that result when the individuals in a context interact and react to the unique circumstances of their context.

However, in qualitative, phenomenological research, context is often explored by examining how the agents who live and act in the context, perceive their own and others’ contextual horizons and circumstances. In qualitative research, context is not a variable that can be quantified; it is a concept that considers individuals and their beliefs, knowledge, and actions, in relation to the social context in which they live (Fontana & Frey, 2000; Peshkin, 2001; Ray, 1994; Tilley, 1998; Van Manen, 1991).

In an effort to further expand the lens through which we examine and understand the non-academic processes occurring in schools that face challenging circumstances, this study will strive to reconceptualise school context by way of examining how educators recognize and act as agents on the contextual horizons, the challenging circumstances, of their students. It is worth
noting that this study makes a distinction between educators’ perceptions and educators’ beliefs. Perception is often understood as a passive cognitive act that involves observation, and the forming of sensory feelings and impressions (Bermudez, 2005). In contrast, beliefs may evolve out of the sensory impressions that form perceptions, but involve higher order reasoning such as the use of foundational knowledge bases, the use of deductive and inferential reasoning, and, importantly, the testing of one’s beliefs and knowledge within the context through action and application of their belief systems.

Given the employment of the epistemological distinction between perception and belief, in this study I examine educators’ beliefs and knowledge, and how, based on their beliefs and knowledge, educators respond, influence, and change the contextual horizons and circumstances of their students. Specifically, as it is known that students within schools that face challenging circumstances are at increased risk for both decreased educational attainment and developmental outcomes (Huston & Ripke, 2006a, 2006b; Rothman et al., 2008), and as research has revealed that a focus on academics alone may not be sufficient to foster the success of students in these schools (MacBeath et al., 2007), the purpose of this study is to explore the non-academic processes and strategies that contribute to the positive outcomes of schools that face challenging circumstances. As such, I will examine the beliefs and knowledge educators hold about child development as a means of assessing educators’ broader conceptual understanding of the challenges their students face. Analysis of educators’ beliefs and actions through the lens of child development is a particularly useful means of understanding the non-academic strategies present in schools that face challenging circumstances, as it is a wide conceptual umbrella that allows for the emergence of a range of educators’ beliefs and knowledge about the contextual horizons of students while being inclusive, but not limited to, issues of teaching and learning.
Re-examination of child development

Another reason to broaden the lens of analysis to include the child development beliefs, knowledge, and actions of educators within the school-context lies in how “school success” has been traditionally conceptualised. Student success is often measured by student performance on standardized assessments (Fitz-Gibbon & Kochan, 2000), as these instruments are used as a global summary of the school’s ability to produce academically successful students. Critics claim that these standardized tests, while an assessment of student learning and student cognitive development (Fitz-Gibbon & Kochan, 2000), often neglects other crucial factors and indicate little about students’ general development and their level of preparation and potential to be active and full members of society (Clarke, Abrams, & Madaus, 2001; Eisner, 2001). In addition to neglecting these broader outcomes, performance measures do not consider the educators’ level and ability to respond and act on the school context, the types of non-academic processes and strategies they introduce to the school context, and the degree in which their efforts impact both the academic and the developmental trajectories of students.

Thus, “success” as utilized from an assessment perspective, is a limited conception of success as it does not provide an understanding of how well our children are prepared to meet the developmental tasks that they face and their prospects for being successful in life (Eisner, 2001; Elias, Wang, Weissberg, Zins, & Walberg, 2002; Purkey & Novak, 1996). In an effort to expand the current assessment-based conception of student and school success, an examination of educators’ understanding of child development will contribute to this effort as it offers a broader perspective of the different types of success that educators recognise and foster in their students.

In summary, the traditional focus on improving schools by means of policy and leadership initiatives or by way of a focus on teaching and learning often neglects the examination of the non-academic processes and strategies that are more developmental, psychological, or sociological in nature (Harris, Brown, & Abbott, 2006; Harris & Chapman,
2001; Harris & Muijs, 2003; Leithwood & Steinbach, 2002; Muijs et al., 2004; Opdenakker & Van Damme, 2001; Tatar, 1998; Wagner, 2001). Individual development is imbedded and occurs in social contexts (Lieshout, Gillessen, & Haselager, 1999), and school is one of the primary contexts of development for children (Eccles & Roeser, 1999; Rimm-Kaufman & Pianta, 2000; Roeser, Eccles, & Sameroff, 2000). Development in middle-childhood is a predictor for developmental success in adulthood (Huston & Ripke, 2006a, 2006b), and students who attend schools that face challenging circumstances are some of the most vulnerable members of our society (Ed, 2001; Harris et al., 2006; Lupton, 2004a; Piontek et al., 1998; Rothman et al., 2008). Thus, there is a strong rationale for expanding the lens through which we examine school context by means of the examination of educators’ beliefs and knowledge as they relate to child development, and how these beliefs inform educators’ actions and impact students and their context, as understanding these processes or phenomena may explain and contribute to our understanding of the non-academic processes that foster the success of students in schools that face challenging circumstances.

**Research Questions**

This study examines educators’ understanding of child development in schools that face challenging circumstances, and how this understanding fosters educators’ responses to the challenges faced by students. In this study, three primary research questions will be asked and answered.

1. How is child development understood by educators in schools that face challenging circumstances?

2. How do educators understand students’ home environments in relation to child development?
3. How do educators in schools that face challenging circumstances address the developmental challenges that their students face?

**Keywords**

Challenging Circumstances: The social and economic stressors (e.g. poverty, inadequate housing, child health, family stress, family instability and mobility) that impact student and school success (Harris & Chapman, 2004; Harris et al., 2006; Levin, 2006; Reynolds, Harris, Clarke, Harris, & James, 2006).

Child Development: The interrelated processes of the physical, social, emotional, and cognitive development of the child (Bee, Boyd, & Johnson, 2003; Berk & Shanker, 2006; Bronfenbrenner, 1979; Kail, Cavanaugh, & Ateah, 2006).

Mixed Methods: The utilisation of the methodologies and methods associated with both qualitative and quantitative data, including the formulation of the research purpose and design, data collection strategies, and data analysis, data integration and transformation, and interpretation of data (Creswell & Plano Clark, 2007; Greene & Caracelli, 2003; Tashakkori & Teddlie, 2003).

Student Success: The process of students having learning experiences that result in learning outcomes traditionally measured by standardized assessments; students’ developmental success in the school context (Fitz-Gibbon & Kochan, 2000; Perkins, 1992; Purkey & Novak, 1996).
Background of the Researcher

Methodological assumptions

In the larger scientific process, and within the specific tradition of human research, there exists a goal of achieving and maintaining researcher objectivity during the research design and the data collection and analysis process (Usher, 1996). The tradition of researcher objectivity dominates in developmental psychology, and due to this tradition, most developmental research is devoid of explicit claims of researcher bias. As a result, the audience is often left to infer researcher bias based on the types of methods employed in the research process. In fact, one may go so far as to argue that within the positivist/empiricist tradition, an explicit reflexive declaration of a researcher’s methodological assumptions may be viewed as a sign of weak or inferior research. However, it is naive to dismiss the fact that the researcher is a human exploring human processes and phenomena. In this more realistic light, I propose that a reflexive acknowledgment of the personal assumptions and experiences embedded within the research questions is a process that exemplifies a strong research ethic in that it communicates to the audience an overt commitment to awareness and seeking understanding.

Maxwell and Loomis (2003) propose that researchers should make their ontological assumptions about “how the world works” transparent to their audience. As this study involves the secondary analysis of data, I did not actively participate, nor assert my methodological beliefs into the study design. However, I hold ideological and methodological beliefs and values that inform and shape the data analysis. I acknowledge that the realities (beliefs and values) of the participants, my personal reality, and the realities of research consumers differ (Creswell, 1998; Guba & Lincoln, 1994; Mertens, 1998). While I have made great efforts to conduct the data analysis with an awareness of the participants’ political, cultural, and historical contexts (Mertens, 2003; Miles & Huberman, 1984; van Manen, 1990, 1997), I am not a elementary school teacher, and acknowledge that I can not presuppose to “know” the personal contexts and
experiences of these participants (van Manen, 1990, 1991). However, I can make explicit my personal experiences and beliefs that inform my understanding of their experiences and context.

It is my working theory that there is a relationship between how educators understand child development, how educators understand the school context, and how, through their understanding of the child developmental needs that arise from the context, educators are able to provide opportunities and experiences for their students that serve a compensatory role in their development and may foster the success of these schools. However, it must be acknowledged that our personal theories of “how the world works” are based on our own subjective life experiences. Given this statement, it may provide the reader insight if I share my personal experiences that have culminated in the pursuit of these particular research questions.

For my entire academic life, I have been a struggling student whose school experience is captured by the experience of poor grades, entire days spent in the hallway for disruptive behaviour, humiliating report cards, and the profound relief that came to my parents and myself with the news that I had passed another grade. I finished high-school because my soccer coach, who was also my math teacher, thought I was a “good kid” who should be allowed to graduate. To outsiders these circumstances were disheartening, but underneath the social embarrassment, I was a cauldron of chaos. I was smart, I had been tested and there was no doubt.

I had many cognitive and social deficits, and no matter how many times I promised myself that I would pay attention in school, that I would get organized, that I would study, that I would not let my social-emotions overwhelm me to the point that I would flee the school and skip my classes, the result was always the same; poor school performance, plummeting self-worth. As I got older, there was an increase in violence, drug, and alcohol use. The facts are that I managed to survive due to the foundation of love and laughter provided by my parents and family, a series of endless tutors, and by the encouragement of select teachers who ignored that
fact that I couldn’t sit still in class, and who focused on and gave me encouragement and support for the things that I did do well.

Fast forward to university – and a school context in which I still struggled (and confused many professors) where my love of ideas compensated somewhat for my lack of skills. My university psychology classes helped me attain the understanding that I personally needed to quit using alcohol as a distraction and to focus on developing my social skills – so I found Alcoholics Anonymous and modelled my social behaviour on the most socially successful person in university.

After the exhausting completion of three and a half more degrees, I entered my PhD, and in my 32nd year of being a struggling student, a confluence of life events introduced me to a professor who was interested in fostering students’ ideas and their sense of selves as researchers, and a physician who diagnosed my Attention Deficit Hyperactivity Disorder and dyslexia. While the professor’s teaching skills were extraordinary, it was her understanding and encouragement that was crucial to my success, because she made me feel that I did belong at the university. While the physician’s diagnosis was important, it was his understanding and empathy that was crucial to my success. He explained that school is such a profound developmental context it was inevitable that my school struggles would impact all domains of my self-concept and my self-worth, and that it was reasonable that these profound issues would cascade into the drug and alcohol use in my life.

Through this new lens of awareness I could view my life trajectory and achieve the most profound sense of self-understanding I have ever attained. Given the profound developmental impact of school – how could my school struggles not influence my life course? If I did not have the skills to make friends, it is reasonable that I would not feel like I belonged at school. If I felt that I didn’t belong – how could I feel confident enough to attend school and go to class? If I lacked the skills to talk with professors in the hallway, how could I not feel the urge to run? If I
had trouble focusing, listening, writing, organizing my notes – how could this not impact my school success? If I knew I should succeed – but wasn’t – how could I not want to escape the anguish? School plays such a foundational role in shaping the self – it was inevitable that my life course would be shaped by my own personal school based Mathew Effect (Stanovich, 1986).

It was through this understanding that I became aware of my personal belief that understanding is the surest path to empathy. Further, I believe that understanding can lead to a sense of personal efficacy, and that empathy may reinforce personal efficacy and social commitment as it may act as a protective factor against detaching or dismissing individuals and their human struggles. Thus, it is logical that my personal school experiences and my overall developmental trajectory has resulted in a study of how educators’ understanding of the challenges their students face might positively impact the lives and the positive developmental trajectories of students that face challenging circumstances.

Another personal axiological belief I hold is that social perspective-taking is an essential skill for meaningful human interaction (Eisenberg, Losoya, & Guthrie, 1997) and that achieving a deep, contextually based understanding of the perspective-taking process is inherently beneficial to understanding interpersonal relations. While I acknowledge that I cannot fully understand the realities of the study participants, I can consciously approach their realities as an informed outsider (Acker, 2000; Sherif, 2001), and trust the participants in that they are able to report on their understanding of their experiences in their world, and that from these reports I am able to attain a shared understanding of their experiences (van Manen, 1990, 1997).
Plan of the Thesis

Chapter Two is a review of research literature. This review includes the examination of educational research relating to student success and contextual factors in school research. The review then turns to research relating to child development and education. Specifically, the review will discuss the interrelated and reciprocal relationship between students’ social-emotional development, their cognitive development, and their academic achievement. Following this review, the conceptual framework is outlined, as the themes examined in the literature review form the foundations of this study.

Chapter Three discusses the methodology and methods utilized in this study. The secondary use of data, the research design, and the use of mixed methodology are discussed. The sample, data collection, data analytic strategies, and limitations of the study conclude this chapter.

Chapters Four and Five present the findings of this study. Chapter Four presents the findings of educators’ understanding of child development. This chapter includes findings regarding educators’ beliefs about child physical development, child social, emotional, and behavioural development, and child cognitive development. Findings are also presented regarding educators’ beliefs about students’ home environments as they relate to child development. Chapter Five presents the findings regarding educators’ responses to the developmental challenges their students face. Important findings relate to the implementation of non-academic and co-curricular programs, and the utilisation of external agents and resources in these schools. The dimensions and developmental overlap of these non-academic and co-curricular academic programs are discussed.

Chapter Six is a discussion of the findings. This chapter discusses the importance of fostering the developmental success of students. The implications of this study, as they affect students, educators, administrators, school boards, and governments, conclude this chapter.
CHAPTER 2. LITERATURE REVIEW

Introduction

In this chapter, a review of research literature examining the issues of schools in challenging circumstances, school context in school research, child cognitive development and academic achievement, and child social-emotional development and academic achievement will be conducted. This chapter will conclude with the presentation of the conceptual framework of this study.

It is important to note that educational research differs from developmental research in that it does not make developmental distinctions based on age, but instead often makes population distinctions based on grade and/or school level (i.e., elementary, middle, or secondary). Thus, for the purpose of this study, research that examines “students”, “child”, “children” “middle-childhood”, “early adolescent” and “early adolescence” will be reviewed, but in the body of the study will be captured by the synonymous use of the terms “students”, “child”, and “children”.

The Assessment of Student and School Success

While there has been much research documenting the differences between effective or successful schools (Adelman & Taylor, 2000; Barth et al., 1999; Borman, D'Agostino, Wong, & Hedges, 1998; Muijs et al., 2004; Teddlie & Reynolds, 2000), and non-effective/failing schools (Harris & Chapman, 2001; Lupton, 2004b, 2005; Stoll & Meyers, 1998), the measure of school “success” is often based on student achievement on “high-stakes” standardized assessments (Jang & Ryan, 2003). However, these standardized assessments are only an assessment of student learning outcomes and any related cognitive development (Fitz-Gibbon & Kochan, 2000). Just as some assessment specialists have noted that it is unsound to use a single assessment measure to address multiple accountability purposes (Jang & Ryan, 2003; Kifer,
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2001), it may be equally unsound to draw conclusions about overall student “success” from research that only considers one domain (cognitive) of a student’s development.

The students in the 10 schools in this study have achieved academic success while facing economic, community, school, familial, and personal challenges (social-emotional factors), (Huston et al., 2006; Welsh, Parke, Widaman, & O'Neil, 2001). As learning outcome assessments do not provide us with any additional developmental understanding of students, it is justifiable that we inquire into the developmental processes that may account or provide possible explanations for the success of these 10 schools that face challenging circumstances.

Research has shown that children who live in disadvantaged contexts, and who experience familial, social, and economic stressors are at risk for decreased educational and social-emotional outcomes (Corak, 2001; Dickinson & Smith, 1994; Downer & Pianta, 2006; Huffman et al., 2000; Morales & Guerra, 2006; Roeser et al., 2001; Walpole et al., 2004). These stressors typify the challenges faced by schools in challenging circumstances.

**Contextual Factors in School Research**

Traditionally, school context has been measured and described by demographic factors that exist outside of the school. These contextual factors include student socioeconomic status (SES), student ethnicity, student mobility, number of immigrant students, number of students requiring free school meals, number of students requiring accommodations such as Special Education, and number of students requiring accommodations as they are English Language Learners (ELL).

SES and student composition are context factors that have been empirically demonstrated to be related to the challenges schools face on multiple fronts. For example, SES and student composition have been demonstrated to relate to a school’s frequency of behavioural issues, and amount of absenteeism, need for resources, and a decrease in the availability of extra-curricular
programs and activities (Thrupp & Lupton, 2006). However, while these contextual factors are indicators of causal relationships within schools, they provide little information about the subtle, yet profound differences that exist between schools.

A further example may be found in how many researchers use the designation of school locale to depict context. Schools are often classified in research studies as being situated in urban, suburban, or rural locales. While the general classification of school locale is an efficient way to cluster schools that share similar geographical demographics, it tells us very little about how schools may differ in the challenges they face, the challenges they face as they relate to the differences in the surrounding community of the school, and the differences in school policies that result from the physical locale of the school (Lupton, 2004b, 2005).

Schools that are categorized as having a “similar” SES (e.g., low, medium, or high) may differ on many important levels. Many schools that have a “low SES” designation have vast differences in geographic locale, and student characteristics such as student ethnicity, percentage of students who are immigrants, and the percentage of students receiving special education (Lupton, 2004a, 2005; Thrupp & Lupton, 2006). As one group of critics have argued, it is as if these differences have been “bleached” from school context (Slee & Weiner, 1998; Slee, Weiner, & Tomlinson, 1998; Thrupp & Lupton, 2006), and the variables that are more easily categorized are preferred over a complex portrayal of school context (Slee & Weiner, 1998; Whitty, 1997).

Another context indicator that is frequently used is the number of students receiving free meals. This factor is often used as an indicator of a disadvantaged school context. However, this designation tells us little about the factors that contributed to these circumstances, and does not reveal much about the other challenges a school faces (Lauder, Jamieson, & Wikeley, 1998; Teddlie & Reynolds, 2000), and the efforts that educators have made in addressing the issue of child hunger and any related social contextual issues in the school.
Given the informative detail that can be obscured within the depiction of school context, and the variation in how context factors are operationalised in educational research, one is left with questions about the degree in which these factors vary between schools, and the degree they impact student outcomes. It may be that, by assessing educators’ understanding of child development within the school context we could gain an additional angle through which to view, learn about, and portray the construct of school context.

**Developmental Importance of Opportunities and Experiences in the School Context**

There is consensus among child development researchers that the transition from middle childhood/early adolescence to adolescence is a developmental period that is marked by rapid and complex biological, cognitive, social, emotional, and behavioural changes within the individual (Feldman, 2006; Moshman, 1999; Steinberg, 2005). The school is one of the primary developmental contexts for children and is second only to the family context (Eccles & Roeser, 1999; Harter, 1990a, 1990b; Roeser et al., 2000; Selman, 2003; Urdan & Pajares, 2001).

Research has shown that children who live in disadvantaged contexts, and who experience familial, social, and economic stressors, are children more at risk for decreased educational and social-emotional outcomes than children who do not experience these life stressors (Coleman, 1988; Corak, 2001; Dickinson & Smith, 1994; Morales & Guerra, 2006; Roeser et al., 2001; Walpole et al., 2004). A large percentage of at-risk children and youth live and are educated in disadvantaged environments. U.S. census results show that 29 per cent of racial minority children live below the poverty line (U.S. Census Bureau, 2002), and 60 to 80 per cent of disadvantaged Canadian children live in disadvantaged communities (Corak, 2001). It is important to understand the full developmental impact of the school context, and any potential the school context may have in offsetting the challenges these vulnerable children face.
Educational researchers have noted that involving the school community can support student learning (Belchetz, 2004; Carnegie Corporation, 2006; Epstein, 1995; Lerner, 2005; Wooley & Grogan-Kaylor, 2006). Further, many developmental psychologists believe that the quality of opportunities the child receives from his or her family, school, and community are important for the overall growth and developmental success of the child (Erikson, 1985). They also believe that, when positive educational and social opportunities are provided to children in a supportive context, the potential for child developmental success is increased (Erikson, 1963; Marcia, 1980a, 1980b). However, when there is a breakdown in meeting the developmental needs of the individual or there is a lack of social opportunity, it is then that we may see less optimal developmental trajectories for these children (Brownell & Gifford-Smith, 2003; Morales & Guerra, 2006). Developmental psychologists have established that the positive life outcomes of children are contingent on the cognitive and social-emotional development of the individual (Downer & Pianta, 2006; Erikson, 1954, 1985; Huffman et al., 2000; Roeser et al., 2000). Further, some argue that the personal development of the individual may be related to the opportunities or experiences that are present in the individual’s social context (Bronfenbrenner, 1979).

As research has established that school is an important context of child development, and that schools in disadvantaged contexts face a number of context-related challenges that may impede student success, it may also be the circumstance that the children who are the most vulnerable may not be afforded the opportunities and circumstances that promote optimal social-emotional and cognitive development. However, it may also be possible that schools that face challenging circumstances are succeeding in providing opportunities and experiences in the school context that compensate for the developmental deficits that exist in the community, school, and family contexts. It is for this reason that it is important to examine and understand the impact school context has on the cognitive and social-emotional development of children, as
the opportunities and experiences that are present in this context may have an impact on the academic achievement and the general development of children.

The purpose of these next sections is to review the research literature. During this review, the inter-related and reciprocal relationships between the social, emotional, and cognitive development of children will be established (Welsh et al., 2001).

**Child Cognitive Development and Academic Achievement**

Cognitive development in children is marked by gradual and progressive changes in the organization of knowledge structures, the complexity of cognitions, and the child’s ability to adapt to his or her environment (Carmichael & Hayes, 2001; Hofman, Adriaan Hofman, & Guldemond, 1999; Piaget, 1970). Cognitive development includes the development of executive functions which are marked by increases in an ability to plan, generate responses, choose and implement goal-directed behaviour, modify behaviour, and engage in self-regulation (Malloy, Cohen, Jenkins, & Paul, 2006; Perkins, 1992). Cognitive development relates to learning, as learning requires progressive gains in an individual’s ability to comprehend, apply, analyze, synthesize and evaluate knowledge (Airasian & Miranda, 2002; Anderson & Krathwohl, 2001; Krathwohl, 2002).

While cognitive development relates to learning, there is ongoing debate within educational psychology about the types of learning, knowledge, and intelligences (i.e. visual-spatial, interpersonal, logical-mathematical, fluid intelligence, crystal intelligence) (Gardner, 1983; Perkins, 1992; Sternberg, 2000, 2008; Sternberg, Wagner, Williams, & Horvath, 1995). Accordingly, within the measurement and assessment communities there is debate as to the degree in which standardized assessments of academic achievement/school success are able to measure and acknowledge the full spectrum of cognitive processes and abilities (Baxter & Glaser, 1998; Ruiz-Primo, Schultz, Li, & Shavelson, 1999). While these debates persist,
cognitive development has been empirically demonstrated to be related to gains in students’ skills (e.g., language development, phonological processing, reading comprehension, mathematics, and social-emotional competence) (Landry, 2002; Meijnen, Lagerweij, & de Jong, 2003), and gains in cognitive function (e.g., short-term memory, long-term retrieval, auditory processing, processing automaticity, and visual-spatial processing) (Evans, Floyd, McGrew, & Leforgee, 2001), and concept building (Carmichael & Hayes, 2001). Performance on assessments of achievement is understood to be evidence of cognitive development, as the student’s cognitive functioning and cognitive performance must develop commensurately with the complexity of the curriculum/subject content (Baxter, Elder, & Glaser, 1995; Fitz-Gibbon & Kochan, 2000; Glaser & Baxter, 2000). However, while there is a positive and reciprocal relationship between students’ learning and their cognitive development, cognitive development would not be the only factor one would consider when making an assessment of a child’s overall success, as the conception of success as a performance-based construct excludes the vast range of successes that may contribute to students’ overall development.

For example, research has demonstrated that students in classrooms that devote more instruction time to the subjects of language and mathematics have higher scores in tests of reading achievement, phonemic awareness, and long-term memory retrieval (Downer & Pianta, 2006). However, it has also been demonstrated that schools that have a strong focus on both language and mathematics instruction, and a strong focus on discipline and student behaviour may jeopardize students’ school attachment and sense of well-being in the school (Osterman, 2000), which may result in an overall negative school climate (Hofman et al., 1999). Thus, these studies demonstrate that while it is evident that academic success is one type of success which can be fostered by a focus on instruction, success is also contingent on the relationship between teaching and learning, cognitive development, and social-emotional developmental factors, as stressors placed on students’ relationships with educators and their sense of belonging in school
may negatively impact students’ cognitive development and success. Thus, while it is imperative
to ensure the learning success of students in the school context, it is also important to understand
and consider other factors of child development as they influence students’ academic attainment.
This evidence of the relationship between students’ social-emotional development and students’
cognitive development provides researchers with the impetus to consider the range of the types
of success that need to be recognized when discussing student and school success.

**Child Social-Emotional Development and Academic Achievement**

The transition from middle childhood to adolescence is a particularly important and
predictive developmental stage as it is a time of social development marked by gains in
autonomy within and across the social contexts of home, school, and community (American
Academy of Pediatrics, 2007; Feldman, 2006; Loukas & Roalson, 2006; Morales & Guerra,
2006; Public Education Network, 2004; Sage Publications, 2007; Simpkins, Parke, Flyr, & Wild,
2006; U.S. Department of Education, 2005). The social and emotional development of children
occurs within and across multiple intrapersonal and interpersonal domains (Harter, 1999; Harter,
Bresnick, Bouchey, & Whitesell, 1997). These domains include personal identity (e.g., gender
orientation and cultural or ethnic identity) (Eccles, Wong, & Peck, 2006; Eisenberg, Zhou, &
Koller, 2001), self-concept, self-esteem, moral development, friendships, and family
relationships. As children develop socially and emotionally, their understanding of self grows in
complexity and shifts from an understanding of self based on physical characteristics and
attributes, to an understanding of self based on subjective psychological traits, social
relationships, and identification with cultural or ethnic groups (Damon & Hart, 1988; Gilligan,
1982; Lee & Quintana, 2005; Markus & Kitayama, 1991; Marsh & Ayotte, 2003; Montemayor &
For school-aged children, the understanding of self becomes further differentiated into beliefs and cognitions about the self within personal domains (e.g., social self-concept, emotional self-concept, and physical self-concept), and academic domains (e.g., perceived ability in curriculum subjects such as language, history, mathematics, and the sciences) (Shavelson, Hubner, & Stanton, 1976). School provides the context of development for children as the child’s social interactions expand from child-parent and child-sibling relationships to include child-teacher and child-peer friendships.

Thus, as many of our developmental tasks occur in social contexts (Lieshout et al., 1999), and the school is the context in which the intrapersonal domains of social and emotional self-concept and academic self-concept develop (Dowling, 2001; Eccles & Roeser, 1999; Roeser et al., 2000; Roeser et al., 2001; Rosenberg, 1986), the school provides a general increase in the number, variations, and complexity for self-understanding and opportunities for interpersonal relationships (Levitt, 2005; Rubin, 1998). Therefore, it is evident that the school context is a critical context in which to study the processes of child development, as it is understood that child developmental success may be contingent on the type and number of opportunities and experiences present in the social context (Corak, 2001; Erikson, 1963; Graber & Brooks-Gunn, 1996; Marcia, 1980a; Morales & Guerra, 2006; Simmons, Blyth, Van Cleave, & Mitsch Bush, 1979), as the school context is potentially able to provide some of the most developmentally rich and intense social-emotional opportunities and experiences for children.

Optimal emotional development in children is contingent on the child developing emotion understanding/knowledge and emotion self-regulation. Emotion knowledge involves the child developing the ability to identify and understand their own emotions, recognise and accurately identify the expression of emotions in others, and the ability to recognise the consequences of emotions (Eisenberg, Sadowsky, & Spinrad, 2005). Emotional self-regulation requires the child to manage their emotions, and if necessary, change how they experience their
emotions and the behaviours that result from their emotions (Eisenberg, Smith, Sadovsky, & Spinrad, 2004).

The process of understanding emotions involves the child’s conscious identification of their internal feelings. Conscious emotional awareness of feelings enables children to attach their feelings to events that occur in the environment, and facilitates the intentional management of behaviour responses that arise from their feelings (Denham et al., 2003; Eisenberg, Cumberland et al., 2001). Further, children who are able to understand their emotions, and who are able to use their emotion knowledge to communicate their feelings to others are better able to choose self-regulating strategies to manage their emotions (Denham et al., 2003; Liew, Eisenberg, & Reiser, 2004). Thus, as emotion understanding mediates emotion regulation, a child’s ability to self-regulate their emotions is related to socially appropriate and adaptive behaviours (Eisenberg, Cumberland et al., 2001; Eisenberg, Fabes, Guthrie, & Reiser, 2000; Eisenberg et al., 2005; Eisenberg et al., 2004).

The development of children’s emotion self-regulation is considered to be a “core skill” as it impacts both the social-emotional and cognitive development of children (Eisenberg et al., 2005; Eisenberg et al., 2004). Emotion regulation is critical for children’s social-emotional competence (Huffman et al., 2000) as it is related to children’s social skills, positive peer friendships, popularity in school, and overall social adjustment (Eisenberg et al., 2000; Eisenberg et al., 2004). Developing social-emotional competence is an especially important developmental task for school-aged children. Research indicates that positive, prosocial, and high-quality friendships are developmentally positive for children, as these relationships promote positive self-esteem, interpersonal relatedness, and children’s sense of belonging (Berndt, 2002; Eisenberg et al., 2000; Eisenberg et al., 2004; Huston & Ripke, 2006a; Ladd, Kochenderfer, & Coleman, 1996). Children’s friendships include those with peers, as well as warm and stable relationships with trusted teachers (Birch & Ladd, 1997; Domagala-Zysk, 2006; Ladd, Birch, &
Buhs, 1999; Pianta, 1999; Pianta & Steinberg, 1992). Children’s high-quality friendships also promote positive attitudes towards school (Hartup & Stevens, 1999), and increase the student’s sense of belonging and relatedness to the school community (Furrer & Skinner, 2003; Hamm & Faircloth, 2005). Further, a child’s positive self-concept (Burnett & McCrindle, 1999), their sense of being liked and valued at school, and their sense of relatedness to the school community (Furrer & Skinner, 2003; Osterman, 2000) positively impacts their motivation (Ryan, 2001) and engagement in school (Buhs & Ladd, 2001; Deci, Vallerand, Pelletier, & Ryan, 1991; Ladd et al., 1996) and academic achievement (Buhs & Ladd, 2001; Ladd, Kochenderfer, & Coleman, 1996).

In contrast, those children who struggle with establishing positive peer friendships experience higher incidences of loneliness and depression, and have higher incidences of maladaptive behaviours (Hartup, 1996; Hartup & Stevens, 1999; Izard, Schultz, Fine, Youngstrom, & Ackerman, 1999-2000). Children who lack the social-emotional competence to establish positive and stable relationships at school also experience decreases in engagement, motivation, and school attendance (Buhs & Ladd, 2001; Cassady & Johnson, 2002) and are at risk for decreased educational attainment and school drop-out (Coie & Dodge, 1998; Gifford-Smith & Brownell, 2003; Hatzichristou & Hopf, 1996; Ollendick, Weist, Borden, & Greene, 1992).

When a child experiences difficulties with their interpersonal relationships at school, this can have a cascading effect on the child’s social-emotional and behavioural development (Coie & Dodge, 1998; Gifford-Smith & Brownell, 2003; Hatzichristou & Hopf, 1996; Ollendick, Weist, Borden, & Greene, 1992; Woodward & Fergusson, 2000). The child’s negative peer status may influence the educator’s perceptions and feelings they have towards the child, and may have the tragic result of the educator’s social rejection of the child, which compounds the child’s risk for school failure (Wentzel & Asher, 1995).
Children’s emotion regulation also has been both conceptually and empirically related to their academic success (Raver, 2002; Sanson, Hemphill, & Smart, 2004). Emotion regulation has been found to be positively related to reading ability and math scores (Hill & Craft, 2003). Emotional and behavioural self-regulation supports the cognitive processing of executive functions, but when emotions and behaviours are not managed they can interfere with or even impair the attentional focus that is required for learning in the school environment (Bush, Luu, & Posner, 2000; Damasio, 1999; LeDoux, 1996; National Scientific Council On The Developing Child, 2006; Shonkoff & Phillips, 2000). As learning involves emotional self-regulation (the management of feelings and related behaviours), and attentional regulation (the cognitive skills related to planning and attention), students who are not able to manage their feelings, behaviours, and attention are less able to focus, engage, and learn in the classroom environment (Blair, 2002). Thus, the social, emotional, behavioural, and cognitive domains influence each other as they emerge and develop (Eisenberg et al., 2005), as there is a reciprocal relationship between students’ emotion and behavioural self-regulation, social competence, academic motivation, and student and school achievement and success (Blair, 2002; Eisenberg et al., 2005; Furrer & Skinner, 2003; Ladd, 2003; O’Neil, Welsh, Parke, Wang, & Strand, 1997; Shonkoff & Phillips, 2000; Welsh et al., 2001).

In sum, it is widely agreed upon by researchers that there is a reciprocal relationship between a child’s social-emotional and cognitive development. This relationship is illustrated through research that has established that a child’s emotion understanding, positive emotions and attitudes, high-quality friendships, social competence, and sense of belonging in school, impacts their learning motivation, school engagement, academic attainment, and overall school performance (Bugental & Goodnow, 1998; Denham et al., 2003; Furrer & Skinner, 2003; Halberstadt, Denham, & Dunsmore, 2001; Ladd, 2003; Ladd, Herald, & Kochel, 2006; Ladd et al., 1996; Ladd, Kochenderfer, & Coleman, 1997; National Scientific Council On The
Developing Child, 2006; O’Neil et al., 1997; Parke & O’Neil, 1999; Pianta, 1999; Welsh et al., 2001).

**The Phenomena of Matthew Effects in Child Development**

Some researchers, especially those who work with students who have developmental disabilities, speculate that, for some children, their lack of social competence may be due in part, to having fewer social skills to attract friends. These researchers find that children’s inability to attract friends results in fewer opportunities and experiences in which to practice their interpersonal skills with other children (Doll, 1996; Weiner & Schneider, 2002). This research on child development in the school context illustrates the cumulative advantage phenomenon, or what reading researchers call “Matthew Effects” (Stanovich, 1986). A Matthew Effect is the phenomenon wherein the existence of a set of skills or abilities fosters the acquisition of new and more sophisticated skills and abilities, and wherein a deficit of the same skills and abilities delays or even prevents new skills and abilities from being acquired (Stanovich, 1986; Walberg, Strykowski, Rovai, & Hung, 1984; Walberg & Tsai, 1983). The phenomena of Matthew Effects can be seen throughout the research on child social-emotional development in the school context as the cumulative advantage of having the opportunity to develop interpersonal skills positively impacts the developmental trajectory of students - the “rich get richer”, while the cumulative deficit of interpersonal skills negatively impacts a child’s developmental pathways – and results in the “poor getting poorer”. Further, research on the social-emotional development of children demonstrates the reciprocal and trans-domain nature of child development as it illustrates that development in one domain impacts both the immediate and long-term development of the child in the same and related developmental domains (Eisenberg et al., 2005; Welsh et al., 2001).

Thus, as demonstrated in the review of child social-emotional development research, those children who acquire emotions knowledge/understanding, emotion self-regulation, and
social-emotional competence, have the knowledge and skills to form more friendships, gain advanced social skills, and achieve academically, while children who do not gain emotions knowledge/understanding and emotion self-regulation, lack social-emotional competence, stay friend-less or form negative peer attachments, and continue to suffer from related peripheral academic and developmental delays. As such, it can be concluded that there may be a developmental “Mathew Effect” (Stanovich, 1986) within children’s social-emotional and cognitive development and academic attainment in the school context.

**Expanding the Lens of Educational Analysis: A Developmental Inquiry**

To this point, the literature review has underscored the inter-relatedness of the social, emotional, and cognitive development of children, and that the school context is an optimal context in which to study the social, emotional, and cognitive development of children (Eccles & Roeser, 1999; Eisenberg et al., 2005; Harter, 1999; Hartup, 1996; Rankin, Lane, Gibbons, & Gerrard, 2004; Roeser et al., 2000; Selman, 2003; Thurlow, 2002; Urdan & Pajares, 2001). However, school effectiveness/improvement research has been largely concerned with the analysis of school level factors such as school leadership, teacher professional development, instruction and learning, teacher expectations, the use of data to track student improvement, school climate, and parental involvement (Harris et al., 2006; Harris & Muijs, 2003; Jacobs & Harvey, 2005; Johnson, 2003; Leithwood & Steinbach, 2002; Muijs et al., 2004; Opdenakker & Van Damme, 2001, 2006), and not with factors that consider the processes involved in child development.

Given the past focus of school improvement/school effectiveness research, and based on the evidence demonstrating the reciprocal relationships between child development and students’ academic success, we may conclude that an examination of schools that are attaining success while facing challenging circumstances, will indeed be an expansion of the lens of school
analysis. As the processes and importance of child development within the school environment have been established on multiple levels, this study will turn the angle of the lens towards the educators, and will examine if there is any relationship between the educators’ understanding of child development, the developmental opportunities and experiences provided to the students by these educators, and the success of these schools that face challenging circumstances.
CHAPTER 3. METHODOLOGY

The purpose of this study is to examine how educators who teach in schools facing challenging circumstances understand child development and the school context, and how their responses may provide developmentally compensatory opportunities and experiences for these students. This chapter will review the research questions, discuss the secondary use of data, provide an overview of the research design, discuss the methodology, and present the sample, data sources, analysis strategies, and the limitations of this study. This study was guided by the following three primary research questions:

1. How is child development understood by educators in schools that face challenging circumstances?
2. How do educators understand students’ home environments in relation to child development?
3. How do educators in schools that face challenging circumstances address the developmental challenges that their students face?

Secondary Use of Data

Originally, the Schools with Challenging Circumstances project was conducted by principal investigator Dr. Douglas McDougall, and had a research purpose of examining leadership practices, literacy, and numeracy in successful schools that faced challenging circumstances (McDougall et al., 2006). Data were collected from 20 schools across two school boards. Each of the participating schools was selected in consultation with the school board. The school board’s selection criteria for participation in the Schools with Challenging Circumstances project was that schools were identified as facing challenging circumstances while exhibiting improvement in academic achievement as measured by the standardized Ontario large-scale assessments conducted by the Educational Quality and Accountability Office (EQAO).
Overview of the Research Design

Methodological limitations of past research

A review of the school improvement/school effectiveness literature reveals a simple fact of all research: the outcome of any study is constrained by the methodology it employs. Some studies that have a large number of participants are able to detect broad differences between schools and school processes, while other, ethnographic studies examine individuals within individual schools. Studies that examine differences at the school level often employ quantitative methods, while studies that examine individuals often rely on qualitative methods (Teddlie & Reynolds, 2000). While these outcomes are consistent outcomes of distinct quantitative or qualitative methodologies (Morse, 2003), many researchers are beginning to acknowledge that the use of mixed methods in educational research may be a means to understanding both large-scale questions while simultaneously exploring the contributions individuals make within these institutions (Jang, McDougall, Pollon, Herbert, & Russell, 2008; Tashakkori & Teddlie, 2003; Teddlie & Reynolds, 2000).

Within the tradition of research methodology, there has been a long-standing debate about the primacy of quantitative and qualitative methodological stances, and whether these stances may be compatibly mixed (Campbell & Fiske, 1959; Howe & Eisenhart, 1990; Smith & Heshusius, 1986). As a result of this dialogue, researchers have begun to document the numerous advantages of mixing methods (Brannen, 2005; Greene, Caracelli, & Graham, 1989; Howe, 1988; Howe & Eisenhart, 1990; Maxwell & Loomis, 2003; Miles & Huberman, 1984; Morse, 2003; Newman, Ridenour, Newman, & DeMarco, 2003; Reichardt & Cook, 1979; Tashakkori & Teddlie, 2003). These researchers and methodologists suggest that mixed methods may better address research questions than any one single method, as the researcher can examine different levels and types of data. This may be an advantage as different levels of data may serve as different lenses through which the researcher can view and understand the phenomena in
question (Newman et al., 2003). The advantage of mixed methods is particularly effective when the research purpose is exploratory, and the researcher acknowledges through the study design that not all factors of the phenomena are assumed to be known or understood.

**Definition of mixed methods research**

The term “mixed methods” denotes the philosophical assumptions that inform the design of a study, the methods that guide the techniques of data integration and analysis, and the interaction that occurs between the philosophical assumptions and analysis techniques (Maxwell & Loomis, 2003; Tashakkori & Teddlie, 1998). The philosophical assumptions of mixed methods informs the research questions, the study design, and the collection of data, while the method provides techniques for collecting data, designing instruments, and the analysis, integration, and interpretation of quantitative and qualitative data sources (Creswell, Plano Clark, Gutmann, & Hanson, 2003; Greene et al., 1989; Onwuegbuzie & Teddlie, 2003). Mixed methods research is based on the belief that, while all methodological paradigms and their associated data are viewed as equally valuable, the collection and analytical integration of both quantitative and qualitative data creates the opportunity for research outcomes that are greater than the sum of their independent parts (Greene & Caracelli, 2003).

**Reasons for using mixed methods**

Methodologists in the areas of evaluation, measurement, and educational research have long held that the reasons for using a mixed method design involve all levels of the research process, and address issues ranging from the philosophical assumptions held by the researcher to the research purpose, design, organization, integration, transformation, and interpretation of data types. Since the potential impact of a mixed methods design is great, it is the intent of this section to critically evaluate the arguments made by measurement and evaluation specialists and educational researchers for adopting such a method, with an eye on the claims that may be extended for use in exploring developmental questions.
Reichardt and Cook (1979) advocate the mixing of methods so that multiple research purposes can be achieved. This point is notable for its applicability across all research disciplines. Research designs that employ one method may be limited in the scope of the outcomes to answering the proposed or hypothesized research questions. The outcomes are constrained to the assumptions inherent in the research questions. Additionally, the results and future directions of studies that employ a single method are also constrained to the stated research program. While the use of a single method is appropriate when the research goal is to explore a defined and known entity or process, and this methodological approach allows for the appearance of unexpected interactions from known factors, this approach does not allow for the introduction of unexpected or emergent constructs or phenomena.

While not applicable to all research questions, the use of mixed methods allows for an ongoing interaction between the data and the research questions (Greene et al., 1989; Greene & Caracelli, 2003; Kidder & Fine, 1987; Smith & Heshusius, 1986). The multiple iterations between the research question and the data within a single study may have the effect of exposing unknown constructs or phenomena, which may serve to advance programs of research within a single study, as opposed to the traditional process of advancing research programs through distinct phases over multiple studies.

A second reason for employing mixed methods is to strengthen the validity claims of the research. Triangulation of different types and sources of data may increase the validity of the findings (Greene et al., 1989; Mathison, 1988; Morse, 1991). While the traditional purpose of data triangulation is to produce different data sources whose outcomes converge (Greene et al., 1989), it is important to note that convergence of findings is not always likely. While Greene et al. argue that this outcome may be possible when two or more of the methods measure the same conceptual phenomenon, some researchers note that divergent outcomes may be just as
beneficial to the research process, as contradictory or conflicting data may yield unanticipated insights (Greene et al., 1989; Reichardt & Cook, 1979; Sutton & Rafaeli, 1992).

A third reason to utilize a mixed-methods approach is that the mixing of methods and the resulting data may also afford the researcher the ability to assess different levels of the same phenomenon. The different levels of data and the dialectical interaction between the levels of data can be used to illustrate examples, or explain and clarify the interactions of constructs. This research purpose is known as a Complementarity Purpose (Brannen, 2005; Greene & Caracelli, 1997; Greene et al., 1989), and may be an especially useful design within developmental and educational research, as this type of research tends to examine complex phenomena involving multiple variables and factors that vary across diverse contexts. Some methodologists even go so far as to argue that the use of different levels and depth of data provide the researcher with contradictory or inconsistent outcomes that are important to the research process, as they provide more evidence to construct appropriately complex representations of social phenomena (Mathison, 1988).

A fourth argument in favour of using a mixed methods design is for the research purpose of expansion. This research purpose acknowledges that when researchers mix methods, the scope and breadth of the research project may correspondingly expand (Caracelli & Greene, 1993; Greene et al., 1989). The benefits of expansion may occur at the conceptual level, as it affords researchers the possibility of posing and examining research questions that are exploratory in nature. Traditionally, researchers gather data as a means of testing a specific hypothesis via a deductive analytic process. However, inductive data analysis affords researchers the ability to both generate hypotheses and formulate new questions as they collect and analyze the data (Kidder & Fine, 1987; Maxwell, 2005).

A fifth claim in favour of the use of mixed methods is that research findings must be beneficial to multiple audiences (Bernard, 2004; Brannen, 2005). While research findings were
once targeted and disseminated among peers within the same discipline, there is an increasing and reasonable demand that requires research findings be disseminated among multiple levels of audiences such as the target audience, as well as stakeholders, policy analysts, educators, and interested individuals in the lay public (Bernard, 2004). This fifth argument has specific relevance for research within the social sciences, and within developmental psychology and education in particular, given the nature of the questions posed by developmental research and the socio-political relevance of research findings.

**Complementarity purpose, integrated dialectical design**

The research questions of this study inquire into educators’ understanding of child development within and across schools situated in the context of schools facing challenging circumstances. As mixed methods research has been demonstrated to be an effective method through which to understand complex social phenomenon across different contexts (Greene et al., 1989), it is the appropriate choice for setting the methodological tone of the study and informing the data analysis and synthesis strategies.

An added element of mixed methodology that aligns with this study’s purpose is that this study makes use of secondary data. In using the methodological approach of an adapted complementarity purpose embedded in an exploratory design (Creswell & Plano Clark, 2007), this mixed methods approach allows for the exploration of secondary research questions, as the dialectical integration of different levels and types of data and an iterative interaction between different types of data strands allows for findings to emerge from the data and be explored through emergent theme analysis (Caracelli & Greene, 1993; Greene & Caracelli, 1997; Greene et al., 1989; Maxwell & Loomis, 2003).

It should be noted that this study employs an adapted design that contains components of other mixed methods design types. To illustrate, while this study does not utilize a strict Transformative research design (Greene & Caracelli, 1997), this study has a Transformative
undercurrent in that it is an active evaluation of the beliefs and values held by different educational stakeholders (school administrators and teachers). Consequently, while this study is not Transformative in nature, the discovery of ideological tensions or divergent or contradictory outcomes is an expected possibility, and the understanding is in place that these inconsistencies are to be preserved and assessed for their larger significance (Kidder & Fine, 1987; Maxwell & Loomis, 2003).

**Participants**

The original Schools with Challenging Circumstances project collected data from 20 schools across two school boards. The participating schools were selected through collaboration between the Ontario Ministry of Education, the researchers, participating school boards, and school administrators. The selection criteria was that participating schools had to be schools that had exhibited trends of improvement over time on their EQAO results, and were identified as facing challenging circumstances.

This study examined 10 schools from one school board. Given the large amount of interview data, and the in-depth analysis required in a mixed methods study, it was decided that 10 schools was a comprehensive data set. This decision was confirmed when an achievement comparison of the two school boards was conducted. When student achievement was plotted across time and compared to the percentage of students achieving at or above the provincial level on the Grade 3 EQAO reading, writing, and math assessments, it was revealed that, while all schools faced challenging circumstances and demonstrated academic improvement over time, the schools chosen by Board A, had been outperforming the district and provincial populations. Given that the schools in Board B were not out-performing the district or provincial populations (Figure 1), but were demonstrating academic improvement over time, the decision to analyse schools from School Board B was substantiated (Jang, McDougall, Pollon, Herbert, & Russell,
The sample of schools in this study consists of 10 schools from one School Board. The majority of the schools are situated in urban locales, with a few of the schools located in communities that are considered more suburban/rural. All schools in the study were facing varying challenging circumstances. A sample of 209 administrator and teacher participants completed a survey and their results comprise the quantitative data set, while a sample of 10 administrators, 4 vice-principals, and 34 Grade 4, 5, and 6 teachers participated in interviews that comprised the qualitative data set. While all administrators of participating schools were interviewed for the Schools with Challenging Circumstances study, the data collection team asked administrators to select the educators who would participate in the interview portion of the study.

**School names, cities, and identifiable programs**

All school names, cities, agents, or programs that may identify the schools or any related agencies have been changed or omitted to protect the confidentiality of the participants. Names of non-academic and co-curricular programs that may identify the school have been changed to names that communicate the intent/purpose of the program. Program names that are found across various school Boards and school regions have been maintained as these are not unique and
therefore do not identify a particular school. Participant quotes that contain identifying information have been changed, and the content changes were identified by the use of square brackets within the participant’s quote. This study was conducted under the University of Toronto REB approval, reference number 15812.

Data Collection

Quantitative data collection: School Life Survey

The School Life Survey (Ross, Hannay, & Brydges, 1998) was designed to be used in both elementary and secondary school samples. Previous research on the survey has found the scale to be internally consistent and sensitive to board-level interventions (Ross et al., 1998). The School Life Survey tracks school improvement by examining 7 variables (school goals, positive attitudes towards school change, school culture, school and community, school leadership, shared decision making, and access to resources for professional learning) that are indicators of school success. Given that the first 5 of the 7 variables listed appeared to be related to the study of educators’ understanding of student development and school context, and given the elementary school population of this study, the School Life Survey data was considered appropriate for providing a broad understanding of educators’ perspectives on the processes occurring within their schools. However, upon further analysis, only the data from the Child Cognitive Development composite variable extracted from the School Life Survey were used to explore the differences and commonalities in educators’ beliefs about students’ cognitive development (see Appendix B).

Qualitative data collection: Participant interviews

Semi-structured interviews were conducted to collect qualitative data from administrators and teachers. Interview protocols were piloted with a sample of participants, refined, and the final interview protocol was established (see Appendix C).
The administrators in the 10 participating schools were approached and asked to provide a list of staff members who would be suitable candidates to participate in the interview process. While the administrators were encouraged to randomly select the teachers who would participate in the interviews, and considering the rich and in-depth quality of the interviews, it was possible that the administrators may have nominated for interview those educators who would best represent the school and the school improvement initiatives that were of interest to the larger study.

Before the interview, The University of Toronto’s policy on the Research Ethics involving human subjects was explained to participants. Participants were advised of their right to not participate at any point of the data collection process, and that they could withdraw at any time. All participants were asked if they were consenting to participate and upon consent, were asked to sign a participant consent form (Appendix D).

All administrators and selected teachers from each of the 10 schools participated in a one-on-one semi-structured interview. During the interviews, all participants were invited to discuss the “challenging circumstances” that their school and student population faced. As the definition of “challenging circumstances” was not defined for the participants, this allowed the participants to spontaneously identify and discuss the challenging circumstances as they subjectively perceived them. Interview protocols (Appendix C) included questions such as, “For you, what counts as success?,” “What counts as success for students in this school?,” “What are the most challenging things for you as you go about your work?,” “How would you describe the community of parents?,” “How would you describe the community that surrounds the school?,” and “How has the context changed over the past few years, and what changes are going on now?” Administrator and teacher interviews were on average 45 minutes in length, and were audio-taped and transcribed for the purpose of qualitative analysis.
Analysis of Qualitative Data Strand

The qualitative interview data was coded using the analysis software N6 (QSR International, 2006). This process identified codes, categories, themes, and outlier data (Creswell & Maietta, 2002; Freeman, 1998; Miles & Huberman, 1984; Padgett, 1998; Seidel, 1998; Strauss & Corbin, 1990, 1998). N6 was used to conduct multiple “free passes” of the data. During the initial coding pass, over 300 codes emerged from the data. Analysis of these codes revealed categories and a full coding pass of the categories was conducted to confirm their emergence. Following this confirmation, refined codes were pulled out from the categories, and used to code the data (see Appendices E, F, and G). These refined codes were used during numerous coding passes in an effort to explore the data, increase researcher understanding of data, test coding rigour, and develop and understand thematic relationships within the codes and categories.

After this extensive coding process, two final and purposeful distillation processes occurred for the purpose of analysing the qualitative data. The original 300 codes were eventually distilled, resulting in 12 codes. The qualitative data set was then reanalysed using the new coding scheme. Using the 12 codes as column headings, the data were sorted into an Excel spread sheet so that codes could be cross analysed by school, participant category (principal or teacher), or by individual codes, categories, or themes (Table 1). During this phase, relevant quotes that illustrated the category were identified. Graphical representations were created to map the conceptual relationships among the codes and the 10 schools.

As the themes of child development and programs and strategies had emerged and were confirmed as robust across the data set, the next phase involved a purposive coding pass conducted for the purpose of identifying and analysing all data that were related to the themes of child development and developmentally based programs and strategies. During this phase, the 12 original codes were distilled into 8 primary codes (Table 1).
Table 1
Distillation of Codes

<table>
<thead>
<tr>
<th>Coding Pass 1</th>
<th>Coding Pass 2</th>
<th>Coding Pass 3</th>
<th>Coding Pass 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Purpose: General Distillation)</td>
<td>(Purpose: Child Development Questions)</td>
<td>(Purpose: Qualitative data transformation)</td>
<td>(Purpose: Quantitative/ Qualitative alignment)</td>
</tr>
</tbody>
</table>

Emergent Codes
1) Physical development
2) Social-emotional/behavioural development
3) Cognitive development
4) Developmental understanding
5) Developmental implications
6) Family/Community
7) Socio-cultural
8) Educators
9) Administrators
10) Students
11) Programs/opportunities and experiences
12) Other/Outlier factors

The codes and their corresponding data were once again organized into spreadsheets and graphically represented to examine the interplay of the codes and to develop code models. Each participant interview was coded to build an aggregate file of all references made to the issues of child development, students’ home environments, and programs and strategies in schools. The aggregate profile of educators’ understanding of child development was then used to answer the research questions.

Generating frequencies of themes in qualitative data strand

In order to assess the prevalence of related codes and categories (topics) in the interview data, a third coding pass was conducted for the purpose of a data transformation (Greene et al., 1989). Researchers often use counts of the frequency that a theme or code occurs in the data set as a way to identify the prevalence of a code or theme within individual participants or groups of participants. This process of transforming qualitative data into quantitative data by counting data
units is a data analysis strategy known as data transformation (Caracelli & Greene, 1993; Caracelli & Greene, 1997; Greene & Caracelli, 2003).

As the code “Developmental Understanding” was captured in the Physical, Social, Emotional, and Behavioural, and Cognitive Codes, and the “Outlier” code did not emerge frequently enough to warrant a data transformation, the previous 8 codes were collapsed into 6 codes (Table 1). These 6 codes were then used to recode all interview data line-by-line with the purpose of tabulating how many times issues or comments related the 6 codes occurred in the participant data. Frequencies were tabulated for each of the educators in all 10 schools. The total number of times the topic appeared in each school was calculated and the total was divided by the number of educators. For example, throughout the Marion Public School interview data, topics or comments relating to the category of students’ Home Environments emerged 158 unique times. As there were 6 educators from Marion Public School participating in this study, the total of 158 was divided by 6 to arrive at a frequency score of 26. Thus the “Average Frequency of a Topic” score depicts the average number of times topics or comments relating to the codes occurred per participant interview per school.

While this analysis strategy has been found helpful in directing researchers to emerging themes in large amounts of qualitative data, frequency counts do not reveal all of the variations of phenomena that occur under the umbrella of a theme. Therefore, while a frequency count of a particular theme was helpful to understand the prevalence of the theme, it was also necessary to document and explore the various dimensions that exist under the umbrella of a single theme.

**Generating frequencies of programs across schools**

During the analysis of the data, a relationship emerged between educators’ perception of the types of developmental obstacles their students faced and the quantity and quality of non-academic and co-curricular programs offered within their schools. To test the relationship between the type of non-academic and co-curricular programs offered in the schools, all program
related data were coded by school: all non-academic and co-curricular programs were identified, and coded for their developmental relevance and impact.

The non-academic and co-curricular programs offered within a school were examined to ascertain if these programs addressed a developmental domain (i.e. the domain of child physical development, the domain of child social-emotional development, or the domain of child cognitive development) or gaps in child development. It was confirmed that there was a relationship between the domains of child development and the non-academic and co-curricular programs offered in these schools, as these programs addressed the developmental obstacles faced by students (i.e. breakfast programs address physical developmental obstacles faced by students who have not eaten breakfast). As a result of the confirmation of this relationship, the qualitative data was transformed into quantitative data (Greene et al., 1989) and counts of the number of programs organized by developmental domain were utilized to examine the prevalence of developmental codes across schools, participants, and code categories, and to create representational graphs.

**Analysis of Quantitative Data Strand**

**Creating composite variables from the School Life Survey**

As the research design called for a mixed methods comparison and integration of both the quantitative and qualitative data strands, it had to be established that commensurate themes existed in both data strands, as this was required for their alignment, comparison, and integration. To test the alignment of the data strands, numerous qualitative coding passes of the survey were conducted to explore the properties/constructs within the items in the School Life Survey. Initially, five categories that aligned with the qualitative categories were extracted from the survey. These categories were: (1) child cognitive development, (2) home environment, (3) parent involvement, (4) community involvement, and (5) educators’ attitudes towards students.
Using these five qualitative categories, 23 of the 75 items from the School Life Survey were identified as potentially aligning with the qualitative themes extracted from the coding of the interview data. To investigate whether and how these items aligned with the qualitative themes, an exploratory factor analysis with maximum likelihood extraction and varimax rotation was conducted. Although the initial solution had six Eigenvalues greater than 1, the scree plot showed that five and six factor solutions were equally possible. Therefore, in the main analysis, 5 factors were extracted. Altogether, these factors explained 55.4 per cent of variance in the data. Based on the results of factor analysis and theoretical considerations concerning the constructs of the items, five composite variables were created (Table 2).

**Investigation of reliability of the composite variables**

Each of the 23 items contributing to the five composite variables were measured on a six-point Likert scale. To create the composite variables, average scores across the items contributing to the composites were computed. A complete list of the survey items that comprise the composite variables can be found in Appendix A.

Reliability of the five composite variables was examined using the measure of internal consistency (Cronbach’s alpha). Generally, Cronbach’s alpha greater than .70 indicates acceptably reliable composite scores (Traub, 1994). However, composites consisting of smaller numbers of items (4 and less) might show lower levels of internal consistency. As the composite variables in this study were comprised of 4 to 6 survey items, Cronbach’s alpha of .65 was considered as an acceptable level of internal consistency. The results of reliability analyses for the five composite variables are presented in Table 2.

All composites had internal consistency values above .65 and three out of five composites had internal consistency of .70 and above. They were deemed to be reliable composite variables and this result established that the quantitative data strand aligned with the qualitative data strand.
### Table 2

**Reliability of Composite Variables**

<table>
<thead>
<tr>
<th>Composite Variable</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Cognitive Development (CD)</td>
<td>4 (items 69, 73, 74, 75)</td>
<td>.68</td>
</tr>
<tr>
<td>Home Environment (HE)</td>
<td>4 (items 61, 62, 67, 68)</td>
<td>.74</td>
</tr>
<tr>
<td>Parental Involvement (PI)</td>
<td>4 (items 39, 40, 41, and 42)</td>
<td>.70</td>
</tr>
<tr>
<td>Community Involvement (CI)</td>
<td>5 (items 15, 36, 37, 38, 64)</td>
<td>.66</td>
</tr>
<tr>
<td>Educator’s Attitudes (EdAtt)</td>
<td>6 (items 43, 55, 56, 57, 58, 60)</td>
<td>.72</td>
</tr>
</tbody>
</table>

Statistical analyses were then run on the individual composite variables using Statistical Package for the Social Sciences (SPSS Inc., 2006). The range of responses among schools and items, and the overall trends of the composite variables were examined. The range of responses proved to be especially important, as many of the composite variables proved to have very restricted ranges. When examined in concert with the qualitative data, the voices of the participants appeared to directly explain why the range of responses may have been restricted in the survey data. It is this ability to look into and beyond one data source (examining possible reasons for outcomes on the survey data by examination of the interview data) that may be the most compelling reason to use a mixed methods data analysis strategy.

Although the initial analysis of the quantitative data strand involved the one-way analysis of variance (ANOVA) to be conducted on all five of the composite variables, as this study focuses on child development, only the results of the CD composite variable, which aligned most closely to the purpose of the study, are reported and used for analysis in this study.

**Limitations**

One limitation of this study is in the use of secondary data. The intent of the original study was to examine the leadership practices, literacy, and numeracy, in successful schools that face challenging circumstances. The survey data, while peripherally related to child development, did not completely align with the purpose of extracting a large scale assessment of
educators’ understanding of child development in schools that face challenging circumstances. Thus, future research would employ a more suitable survey instrument that focuses specifically on educators’ understanding of child development.

However, while the same issue applies to the interview data (the focus was not specific to child development), the structure of the interview protocol may have been an asset to this particular study, as the interview protocol was semi-structured and the interview questions were not limited to the topics of leadership, instruction, and learning. During the interviews participants were asked about their beliefs regarding “student success”. While the intent of the question was to uncover educators’ understanding of “student success” in relation students’ academic success and their achievement on standardized assessments, the open-ended nature of the question allowed the participants to interpret the question generally.

Thus, one limitation of this study is that it does not directly inquire into educators’ understanding of child development. However, while the research questions did not specifically focus on the construct of child development in the school context, the semi-structured interview protocol did pose specific questions asking educators to describe how they understood student success, and to describe the challenging circumstances that students face, as they subjectively understood them. Further, during the interview, educators were asked to describe the programs that they believed were most effective in supporting students’ success. Thus, the open-ended structure of the interview questions, while a limitation in that it did not directly inquire into educators’ understanding of child development, did allow for the spontaneous and unbiased emergence of educators’ knowledge of child development, their spontaneous appraisals of the school and community context, and the spontaneous nomination of how educators respond to these challenging circumstances by means of the programs they deliver within their schools. This “limitation” allowed for an examination into the level and complexity in which these educators understand and respond to these challenging circumstances (Johnson & Turner, 2003).
Thus, while the original purpose was not an examination of child development, the spontaneous emergence of educators’ conceptual and applied developmental knowledge may be a particularly fair representation of the educators’ understanding of child development as the outcomes are evidence of educators’ knowledge of human development in an educational context.

A second limitation relates to the data collection. This study’s data set is derived from a single wave of data collection. As this is a mixed-methods study, and given the emergent findings in the data, it would have been enlightening to have conducted a second and more focused supplemental round of data collection as a means of exploring the emergent findings (Morse, 2003). While this would have been an ideal strategy, this is a process that can be pursued in the next steps of an ongoing research program.
CHAPTER 4. FINDINGS: CHILD DEVELOPMENT

Chapter Overview

The first research question in this study asked “How is child development understood by educators in schools that face challenging circumstances?” To answer this question, this chapter presents the findings of research question 1 which includes a deconstruction and analysis of educators’ understanding of the characteristics of child development.

Analysis of the educator interview data revealed that educators’ conceptions of child development extended across three primary themes. These three primary themes were: (1) students’ physical development, (2) students’ social, emotional, and behavioral development, and (3) students’ cognitive development. The presentation of findings includes a presentation of the dimensions within the themes, and includes examples that illustrate educators’ understanding of these themes.

Educators’ Understanding of Child Physical Development

During the initial coding passes, the category of Child Physical Development emerged spontaneously as a theme within the interview data. This theme proved to be robust as it did not collapse into related categories during the distillation of codes, and remained a theme throughout the analysis process.

Analysis of the frequency of Child Physical Development themes across all 10 schools that face challenging circumstances revealed that the theme emerged in all participant interview data. The Child Physical Development theme emerged with a frequency that ranged from 1 to 5 times per educator interview (Figure 2).
Analysis of the Child Physical Development theme revealed that educators conceived of child physical development as possessing multiple dimensions. The educators in this study believed that child physical development included providing and/or fostering students’: (1) safe school environment, (2) proper nutrition, (3) physical fitness, and (4) healthy habits.

Safe school environment

The educators reported that they believed that a safe and secure school environment is a foundational prerequisite that enabled students to achieve school success. As illustrated in the following quotes, these educators believed that, in order to foster their students’ learning, students’ physical safety must be ensured, so that students feel positive about attending school and may be able to focus and engage in the learning tasks set before them:

I think that parents are very pleased with what is going on here. I think they are aware that the safety and security of the students is a huge priority with us. We do want students to learn in a safe environment, we want them to feel that. And
ultimately that would, will result, in the ability to learn, just to feel safe and you will take chances. (Teacher 2, Marion)

Throughout the participant interview data, the educators expressed that they understood that there is a relationship between students’ perception of their physical and emotional safety in school, and their emotional health, cognitive engagement, and general school success:

My goal as a teacher is student success, for them to be successful academically. The other goal is the whole safe environment, for students to be emotionally well and physically well, and I think there is a big part of that in this school. There is the academic part and then there is the other part - like how do we take care of our students? You know success comes in different ways, there is the academic but there is feeling good about yourself; you need to be confident to feel good, have a healthy life and be emotionally stable. (Teacher 2, Elliott)

While providing a safe school environment may be one foundational prerequisite that fosters students’ development, the educators in this study also understood that providing proper and healthful nutrition to students is another dimension of students’ physical development.

Providing nutrition to students

These educators believed that providing healthful nutrition to their students is one of the most direct means of fostering their students’ physical well-being and development. Analysis of the interview data reveals that, in 8 of 10 schools in this study, some type of nutritional support is provided to students. As demonstrated in the following quotes, these educators recognized that the school may provide students’ with their most nourishing meal of the day:

Things like our breakfast program, where we are feeding 100 kids a day; now granted does not mean that some of those kids have not had a breakfast. But, for a large chunk of those kids, that is their first meal for the day and probably will be the best meal for the day. So, we recognize that that is still a factor and the numbers are not getting less, they are getting more. That tells you something. (Principal, Rose Wood)

The educators demonstrate a clear understanding of the direct impact that wholesome nutrition has on students’ physical well-being, attendance at school, students’ ability to regulate behaviour, and the impact it has on students’ attentional processes and cognitive functioning:
Whether you are talking about our, our breakfast program, our lunch program, our snack program, I mean, just getting basic nutrition into kids so they can come to school and, and, focus on the task at hand. That is important. (Principal, Elliott)

These educators understood that proper nutrition has a direct and positive impact on students’ cognitive functioning and their ability to engage at school. Further, these educators reported believing that in addition to providing nutritious meals and snacks for students, schools also need to provide opportunities for students to engage in physical activity so that students may be physically fit.

**Physical activity and physical fitness**

Educators in this study reported holding the belief that physical activity in the forms of sports teams, organized house leagues, evening extra-curricular activities, and recreation-based field trips, benefited students’ physical development. It was found that many educators strive to infuse their school environments with developmentally positive, healthful, and prosocial activities. Educators’ understanding of child physical development was demonstrated in the reports that many of the schools have increased the number and frequency of intramural house-league activities offered in their school. When the interviewer asked about the role of extra-curricular programs in the school, one educator noted:

> Oh it is a big one. You can not book that gym. We have got something going on constantly in the school. There is something going on constantly here.
> (Teacher 2, Legge)

The educators explained that the increase in non-team physical activities was the result of the recognition that there were a large number of students who were not considered skilled enough to make the traditional school sports teams, but who wanted and needed to play sports and be active:

> I think our extracurricular program, it is no different from a lot of schools, but I think we do a pretty good job of trying to include all kids, whether its sports or games, it is the million things going on here. It would be great to videotape some teachers. I have got some really top notch teachers in terms of how they
recognize the clientele and work with these kids, no matter where they are from, what their background is. They are all equal and they are all accepted. And I have got some really good teachers from that regard. (Principal, Rose Wood)

Healthy life habits

Educators demonstrated the understanding that a defining characteristic of many students’ lives is that one challenging circumstance intersects and cascades with other challenging circumstances. This process can result in even more complex and pervasive challenging circumstances. An example of this was found in the general issue of students’ healthy life habits.

Educators were aware of situations wherein financial distress for a working single-mother requires her to take a second or even third job. As illustrated in the following quotes, the educators noted that this family circumstance may then lead to a lack of parental supervision in the home, which may impact the nutritional quality of the meals and snacks that the children consume:

There are parents working very inconsistent hours - so we have a number of children who are not supervised at times of the day when homework would be done. When adequate nutrition was not being provided or at bedtime they will put themselves to bed without their mom, when their mom is working nights. Our families are struggling. (Principal 2, Elliott)

These educators suggested that there is a relationship between students not having nutritional balance in their diets and not receiving adequate attention from care-givers. The educators understood that these circumstances often compound and result in students having a difficult time focusing in the classroom, following teachers’ instructions, and getting along with their classmates:

We have done a program on how to help your child at home to succeed. The next one we are going to do is healthy living, healthy lifestyles - because kids are not bringing their lunches to school. Their lunches are filled with sugars and chocolates and twinkles and all of that. So we are now becoming a healthy school - and we will be putting some programs in at recess where the kids - instead of hitting each other - they will be playing some organized games. This
was all a need because we realize that this was happening outside. (Principal, Legge)

Analysis found that many of these educators held the belief that the only way to interrupt these cascading threats to students’ healthy life habits was by implementing and delivering interventions themselves. The educators expressed, with great empathy, that they understood that many parents face overwhelming challenges in their lives, and because of these circumstances, the educators are, at times, the most stable and consistent influence in the lives of these children. Many believed that it was their professional and moral duty to offset both the causes and effects of the challenging circumstances that impact their students’ lives, health, and overall development:

I just talked to a parent whose husband has just been released from jail and she does not want him to find out where she is living. She has changed her job. She is working nights. And getting here in time for O Canada is not her problem right now. And I absolutely love the parents here. There is no question they love their kids and they want their kids to do well. It is just sometimes when, when we see what could make the biggest difference for them and really help them get centred and get organized and they just seem to be, the kids seem to be socially or emotionally unbalanced because there is no supervision at home, they are not getting the food they need, no one is making them do their homework, they are coming to school without their homework done and getting in trouble. It is just this vicious cycle and we see these simple solutions like, put the kid to bed at 8:00 pm. Fill out the agenda. And their lives are in chaos that we can not fathom, even though we try. (Principal 2, Elliott)

It is important to note that, while many of the educators held a comprehensive understanding of the developmental threats faced by their students, and while the educators often traced the origins of these challenges back to circumstances within students’ home environments, these educators do not place blame nor disparage the parents of students. To the contrary, and as illustrated in the participants’ quotes, many educators have noted that, if they were personally placed in similar circumstances, in spite of all their resources and education, many educators believed that they would not be able to cope as well as many of the parents do:

If I, as a student, were facing these circumstances, my parents would have dropped everything to help me. But then I had both parents living in my house
and they had jobs, secure jobs, and savings accounts. They would have sold their house for me if I needed something - but they had a house to sell. There is a parent here, she is very smart – but life circumstances have trampled all over her. She has picked herself up in a way that I do not think I would have the chance to do on my own. I have a network of friends and family, and a scaffolding that holds me up - if I ever needed something it would be there from all kinds of sources. That parent – she has gone through hell and back, completely on her own. I think there has to be, you have to feel respect for what they are going through, and go to them with your hat in hand. You do not know all their issues and all their struggles, but, my God, I know I do not sleep at night because I want to help their kids. (Principal 2, Elliott)

In summary, analysis of the educator interview data found that Child Physical Development is a foundational theme among their conceptions of child development. The findings demonstrated that educators believed that Child Physical Development includes the dimensions of physical safety, proper nutrition, adequate clothing, opportunities to engage in physical activities, and the awareness of and opportunity to cultivate healthy life habits. By providing students with proper nutrition, educators reported that they are providing students with the developmental foundations required for focused engagement and learning at school. By addressing students’ physical developmental needs, the educators believed they were providing their students with the foundations of optimal child physical development.

The finding that Child Physical Development is a foundational theme in educators’ understanding of child development is the result of educators expressing the belief that students’ physical developmental needs (such as safety and nutrition) must be addressed before “higher order” needs and processes (such as prosocial emotional regulation, interpersonal relations, and cognitive engagement and focus) may become activated within the students. In conclusion, the educators in this study stated that students’ physical development is a foundational characteristic of child development as they believed it provides the foundation which makes possible any subsequent growth in children’s social-emotional and cognitive developmental trajectories.
Educators’ Understanding of Child Social, Emotional, and Behavioural Development

Analysis of the interview data revealed that the educators feel that students’ Social, Emotional, and Behavioural Development is a component of general child development. Child Social, Emotional, and Behavioural Development was a robust theme, as it emerged across all 10 schools and did not collapse into related codes or categories. The frequency of Child Social, Emotional, and Behavioural Development issues were discussed in the educators’ interviews an average of 12 to 28 times per educator interview. The educators believed that child social, emotional, and behavioural development comprised multiple dimensions. These dimensions included addressing, fostering, and educating students about: (1) behaviour and physical aggression, (2) social skills and interpersonal growth, (3) emotional stability and growth, (4) student and family mental health, and (5) celebration of diversity.

Behaviour and physical aggression

The issue of students’ disruptive behaviour and physical aggression proved to be a very compelling and revealing finding of this study. As problem behaviour in students is a common cause of disruption in the classroom, it is a reasonable expectation that these educators would be sensitive to this issue. However, the findings of this study revealed that these educators held an exceptionally sophisticated and multidimensional perspective of the etiology and implications surrounding the issue of students’ problem behaviour and physical aggression.

The educators in this study were sensitive to disruptive student behaviour, not only because it is disruptive to the course of everyday classroom life, but also because, problem behaviour in students indicates that the student is facing a critical mass of challenges. These educators believed that, when problem behaviour in students is observed as occurring with other simultaneous challenging circumstances, it is an indicator that students are besieged with stressors. These educators reported that the rise of problem behaviours often indicated that the children are so troubled that they are reduced to drawing on their most basic responses which, for
school aged children, are the externalizing and the physical acting out of the frustrations that are troubling them. As demonstrated in the following quote, educators understood that students’ problem behaviours, low frustration tolerance, and displays of overt physical aggression are a symptom, a cause, and an indicator that the student is facing challenges that threaten both the overall functioning of the school and the academic achievement of students:

In the three months, from March to June, when I first came here, I was confronted with more issues in those three months than I had in my previous, maybe, eight years as a principal in other schools. I would say, they are not academic issues, and they are not program issues, and they are not staffing issues; they are more social, emotional issues around mental health issues. Kids who exhibit extreme behaviours. We have a tremendous number of kids who come from single parent families. Not to say that that in itself is what is causing this, but we do have a significant number of kids who have no access to a second parent. The kids are being raised by grandparents or guardians. We have got lots of kids who witness violence in the home, or they are the victims of violence, or they have witnessed one of their parents being abused. So, horrendous stories. We continue to get shocked by some of the situations that our kids are living in. So, they come to school and exhibit bizarre behaviour. I would say that in this school - behaviour - if you do not manage the behaviour correctly and supportively, it would overtake everything you do, and you could never get to the academics. (Principal, Elliott)

Educators’ understanding of child social, emotional, and behavioural development included the perception that problem behaviours exhibited by children are often the result of emotional turmoil and stress in the family environment. The educators understood that in order for students to meaningfully engage in the curriculum, educators must address the social, emotional, and behavioural difficulties faced by students, as these challenges impact students’ ability to learn and may jeopardize their overall cognitive development trajectory. This understanding illustrated that educators understood that the domains of social, emotional, and behavioural development and cognitive development are deeply interrelated.

**Social skills and interpersonal growth**

Within the theme of Child Social, Emotional, and Behavioural Development, the dimension of educators’ perspectives on the importance of students’ developing social skills and
fostering students’ interpersonal growth emerged. More specifically, and as illustrated in the following excerpts from the interview data, educators’ perspectives of child development included beliefs about how physical aggression, problem behaviours, and emotional self-regulation impacted students’ ability to have productive functional relationships with both their peers and teachers, and engage with the curriculum in the classroom:

With the students, I recognize it through their academics and also how they have progressed through the year. When I look at the student who is very angry at the beginning of the year and took immediate solutions to any conflict, and I look at him at the end of the year when he is very patient and very calm, and we have built that relationship over the year, and I think that if that is the only thing he has learned - then he has done a great job. I think that academics - first we need to worry about fixing any sort of emotional imbalance that is going on. I mean if they come to school angry we need to take a moment and no matter how hard it is - ask them - ‘what is wrong?’ I do not know if that answers your question, but I think of these things as ‘success.’ These are the goals that I have. (Teacher 2, Elliott)

Further, these educators believed that students’ social skills and their interpersonal relations with peers, teachers, and family members, are a factor that affects both students’ academic achievement, and their overall developmental outcomes. The educators think that the development of students’ social-emotional understanding promotes peaceable classrooms and school-yard environments. They believed that students’ social-emotional understanding are the foundations of trusting and caring relationships with peers and teachers, and contributed to the positive development of the entire school and its’ surrounding community:

I share the expectations that I have for the classroom and the students with the students. Again, that is in my kindergarten world. We talk abut what is acceptable and what is not and the children are part of that. We have discussions and they have the chance to say, ‘I do not like it when someone is taking my toys or when somebody calls me names,’ and we develop it from there. Because I have done it different ways, but the biggest thing is that the kids buy into it because they are a part of establishing it. We have a classroom identity, rather than talking about Ms S’s class, which puts the onus on me - we talk about room 108 and us as the people in room 108. That community feeling goes a long way for the success. With that we get into the academics because we have kids at all different levels. When you have got that sense of community, the fact that you can read and that other student is not reading, you do not get the taunting and the
teasing as much; it is more ‘here – I will help you with that.’ It is the overall community feeling in the room that promotes success. (Teacher 3, Rose Wood)

These educators reported believing that, when the interpersonal growth of students is fostered, it contributes to students’ developing positive self-concepts, a sense of competence, general well-being, and a greater sense of purpose and belonging – all of which are the very foundations of interpersonal growth and developmental success:

I am looking for self-confidence. Self-confidence is number one on my list because I want them to feel like they can do it, because a lot of them do not feel that way. A lot of them are coming to school with a lot of troubles, and they feel low as it is, so self-confidence. If they are comfortable and happy to be here, and feeling safe with their peers, and interacting well with their peers, and developing character too, that is success for me. (Teacher 4, Maple Ridge)

**Emotional stability and growth**

These educators believed that students’ relationships with others are often contingent on the healthy functioning and development of the self. As demonstrated by the following quotes, these educators understood that, if a child’s self-concept is healthy, the likelihood of prosocial functioning among their peers is increased, and conversely, if a child is feeling uncertain and experiencing daily emotional turmoil, then their ability to focus on educational tasks and regulate their emotions is compromised:

For us there is two parts of this school and you can put it in any way, one is the emotional well being of the students and the other is the academic, and we work really hard on both because we see them as interrelated. (Teacher 2, Elliott)

Another important finding of this study is that these educators neither viewed student problem behaviours in isolation, nor were they frustrated or overwhelmed by the issue of student problem behaviours. Rather, these educators understood the origins of student problems:

Well, our number one priority in this school is the school climate, the school learning climate. So, that is what we have really focused on – that is our biggest challenge. You can say it in one word and call it behaviour, but it is more than that. It is ‘What are the root causes of those behaviours?’ And a lot of it has to do with the societal factors that make up kids in the school. The socio-economic backgrounds, the family life of students, all those things that really hamper their learning. A lot of these kids are coming from really disadvantaged home life.
We have really focused on that in the last 3 years with some programs and we are seeing some real results in that area. My whole theory is, you have to take care of the school climate and the academics will take care of itself. If you can change the learning environment and make it better for kids, make it better for teachers, we will start to see the academic improvement. (Principal, Rose Wood)

Many educators reported having the ability to see past the immediate and observable issues and were able to understand student problem behaviours as symptoms of the larger context of challenging circumstances. Thus, these educators are able to attend to both the problem behaviours externalized by students and the causes of these behaviours.

These educators not only recognized the etiology of problem behaviours, but also understood the wide-ranging developmental impact problem behaviour has on their students. The educators identified the need to address the problem behaviours and the social-emotional issues because these particular challenging circumstances have a cumulative negative impact on students’ ability to learn in school:

It is in addition to some of the academic programs that are available and the high quality teaching that is in place - I think some of the other things that we do to support the social, emotional growth of kids is really worth it, and I think that if you look at meeting basic needs of students, that is a huge focus of what we do in the school - just to get kids to the point where they can participate meaningfully in the curriculum. (Principal 1, Elliott)

It is evident that many of the educators in this study see past students’ problem behaviours, as they understood that the external manifestation of frustration and anger in children is often a result of the conditions and circumstances that arise within students’ home environments. However, it is important to once again acknowledge that these educators did not blame the parents or families for these circumstances, nor did these educators dismiss these conditions as “outside” the realm of responsibility of the educator and the school.

To the contrary, even though these educators understood that some of the most confounding challenging circumstances arose from families’ socio-economic conditions and disorder in the family environment, the educators in this study held a clear understanding that
there are many dimensions of students’ social, emotional, and behavioural development. Further, they believed that even if the etiology of threats to students’ development arose from the home or societal environ, these educators were committed to addressing child development issues as they impacted students’ ability to be successful in school.

**Student and family mental health**

Many of the educators participating in this study understood that their school and student population faced challenging circumstances, and that many of these challenges revolved around mental health issues in both students’ and parents’ lives. Analysis of the educators’ interview data revealed that many of these educators identified that students and their parents face multiple mental health issues and that these issues have a direct impact on their learning/cognitive development. As the following quotes reveal, these educators reported understanding that many of the issues that students face arise from challenging circumstances faced by the families:

> It is mostly mental illness of our parents and our children. And it does not look like that when you look outside the window and people are often shocked when we talk about it, but it is the case management piece of looking after families and knowing that we are the educators and we are the ones that are supposed to be helping with the literacy piece. Meanwhile, I can not get a student to school because of a dysfunctional family. So, I think those are the challenging circumstances - dealing with the complicated family lives that are created for some of our students. I just took a phone call now of a mom demanding that, ‘This child should never be in your school and what is he doing there?’ And I am trying to explain to her that he has a right to an education as well. And he is dealing with unbelievable circumstances that I can not go into, but you have to recognize that is what we are facing. (Principal, Cordova Ridge)

In understanding that a student’s ability to learn and function effectively in school is often contingent on the social and emotional stress and distractions a student faces, these educators demonstrated the developmentally based understanding that child social, emotional, and behavioural development is interrelated with child cognitive development. They believed that if they are to foster the learning and academic success of students, it may be that educators
also had to provide students and families that are facing mental health issues the supports that assisted them in addressing these issues:

So what we did was we voiced that opinion to our area Superintendent and we sensed that there was real urgency in getting and taking a serious look at this. What we did with the help of the Superintendent was put together a group called [The Mental Health Collective]. That group started to get together about a year and half ago and we started out as a philosophy of administration saying “you know we need to get the support to help students to help parents - to help families that are struggling in this area”- because we realized that it had a direct affect on student achievement. (Principal 2, Maple Ridge)

These educators believed they should establish a positive school climate where educators care for and encourage students. These educators were able to personally foster students’ intrapersonal development by creating a safe and nurturing school environment where students understood that they had the support they required to flourish both academically and in their personal lives. Further, this study finds that, when educators identified issues (such as mental health) that are outside their range of expertise, they did not resort to dismissing the problem as “outside” the realm of their professional responsibilities:

We recognized as administrators that there were no social services in this part of the board. So our families would have to go over to [the closest urban community], and it is just too far. As a result we have this group come together that is social services and Parks and Recreation, police, all the schools. We have now extended it into the Catholic board as well, and as a result of [The Mental Health Collective], which has been going for two and half years, we now have a new way of doing business with the mental health group. We have a mental health worker, I guess two, working with this particular area of the board, so we can access service faster through them and the wait time will be greatly reduced and they can operate from our school, so that parents do not have to travel and they can come to the school. (Principal 1, Maple Ridge)

These educators believed it was their responsibility to address the issue of student and family mental illness, and responded by bringing in mental health professionals to their school to support students and families.
Celebration of diversity

It has been demonstrated that these educators believed that Child Social, Emotional, and Behavioural Development included the dimensions of problem behaviours, interpersonal relations, intrapersonal growth and emotional stability, and student and family mental health. Analysis of the data revealed the finding that these educators also included the celebration of diversity as a dimension of the theme Child Social, Emotional, and Behavioural Development.

Many of these educators expressed the understanding that, in honouring the cultural heritage and individual diversity of their students, they believed that they succeed in providing a place where all individuals belong, and that these efforts contributed to students’ sense of worth, purpose, and identity:

And so it has taken some time for the diversity committee to look at who are our kids. What are their diverse backgrounds? What do they think? How are we making sure that their stories are told? Are we making sure that they see themselves reflected? I coined something years ago because I gave a talk at the university on the creating of this environment through picture books. That is my thing. The bottom line for me is, children who see themselves reflected in the curriculum by the choices in what texts you use, feel respected in the curriculum and they are going to be connected to us. (Teacher 3, Elliott)

In conclusion, the analysis revealed that many of the educators in this study understood that fostering students’ social, emotional, and behavioural development included the dimensions of understanding the causes of problem behaviours and the externalization of physical aggression. They recognized that fostering students’ prosocial interpersonal relationships with peers and teachers, and inspiring students’ intrapersonal growth and personal identity, created an environment that facilitated students’ emotional stability and engagement at school. When appropriate, these educators reported supporting or finding appropriate resources for students’ and families’ mental health issues. These educators believed that the social, emotional, and behavioural issues students face impacts their ability to regulate their behaviours, threatens their
ability to form positive relationships with peers and educators, and crucially, may interfere with students’ ability to focus and engage meaningfully in the class environment.

Parallel to the findings from the analysis of educators’ beliefs about Child Physical Development, the findings from analysis of educators’ beliefs about Child Social, Emotional, and Behavioural Development revealed that these educators’ understood that child social, emotional, and behavioural development is nested in an interrelated hierarchy of child development. These educators understood that the domains of child development are interrelated and as they are concerned and charged with fostering the learning and cognitive development of students, they understood that, as these domains are interrelated, they must also be aware of and foster the other domains of child development as a deficiency or gap in one developmental domain has a direct impact on the cognitive development students.

As a result of these findings, it is a reasonable conclusion to state that these educators hold exceptionally sophisticated understandings of child social, emotional, and behavioural development. The educators believed that the better they understand their students and the challenging circumstances they face, the more effective they become as educators. They believed that, in order to positively impact students’ success and overall development, they must take into account and address the dimensions of the factors that impact students’ physical, social, emotional, behavioural, and cognitive development.

**Educators’ Understanding of Child Cognitive Development**

Throughout the initial coding phases, the category of Child Cognitive Development emerged spontaneously from the educators’ interview data. School averages per interview of Child Cognitive Development related topics ranged from 9 to 18 times per participant interview (Figure 2).
While the Child Cognitive Development theme in itself may be expected given that the primary purpose of education is to foster the learning outcomes of students, educators perceived child cognitive development as possessing multiple, and even unexpected, dimensions. Thus, while fostering the learning of students may be the primary goal of these educators, the dimensions they believed to encompass child cognitive development revealed that student learning is not simply about teaching reading, writing, and arithmetic. For these educators, teaching and learning are about understanding the whole child, and this included the ability to identify all of the factors that contribute to and impede their students’ development. Analysis of the Child Cognitive Development theme revealed that the educators in this study believed that the dimensions of child cognitive development included fostering/providing for students’: (1) literacy development, (2) the role of experiences in the development of knowledge schemas, (3) academic support outside school context, and (4) acquiring language and mental health. A discussion and presentation of examples that demonstrate educators’ understanding of the dimensions of child cognitive development revealed that while these dimensions appeared distinct, they were deeply interrelated to each other and to the other themes of child development.

**Developing literacy**

Analysis of the educator interviews revealed that fostering literacy development among students is a focus that is common across all ten schools in the study. A vast majority of the educators in this study acknowledged that many of their schools’ goals and initiatives revolve around the results of students’ literacy test scores in the provincially administered standardized assessment. However, while test scores play a role in the political and financial climate of educational accountability, these educators believed that developing literacy within their students is much more than improving test scores. For these educators, developing students’ literacy is about creating individuals who have a passion for literacy:
My goals in literacy, my first focus is to develop reading and that has been a big focus of the school. Just to develop a love of reading. I do a lot of focus on writing skills, and combining reading and writing together. I focus on really just communication and the enjoyment of literacy, of different forms of literacy. (Teacher 1, Legge)

And while developing students’ passion for literacy was a goal, these educators also strived to help students understand the intrinsic value of being a literate individual:

Our goals in literacy are to improve the scores of all the students in the school. And more important, to make sure our children see the value of literacy because they will put more effort into it for a longer period of time when they see the value of it. To increase their understanding of how it is valuable to them and increase their abilities to comprehend literacy in all its forms. (Teacher 2, Legge)

Educators believed that developing students’ literacy was directly related to students’ cognitive development as they understood that the development of students’ literacy levels involved the development of metacognitive skills such as reflective comprehension and organizational skills:

Learning definitely means a lot to me. Learning and understanding. The skills they get, they learn at school. Not only the curriculum, but every skill like learning, understanding, getting organized, all that counts for me. (Teacher 2, Cordova Ridge)

As well, educators believed that developing students’ literacy skills fosters the higher order cognitive processes of metacognition and critical thinking:

One of my overarching goals is for students to fit into the literate world in a way which they can appraise it critically and look at it. And of course, within that, there are always some smaller goals you have to do in order to get them there because they have to understand what they are reading before they can use critical thinking and think about what they are doing. (Teacher 1, Cordova Ridge)

As illustrated in the quote, developing students’ literacy was not merely about instilling a passion for literacy, instilling a sense of the value of being a literate individual, or developing students’ metacognitive skills. Educators reported that literacy is a gateway skill in that it predicts success in students’ life trajectories. These educators believed that, if a student is
literate, it is then and only then that they have received the foundational skills needed to make their way in the world:

There are a number of students that are not doing well and we want everyone to have their good shot at it and make sure that they are walking out as literate individuals to prepare themselves for high school. So, it is actually part of almost everything we do. (Principal, Cordova Ridge)

Thus, analysis of the interview data revealed that these educators believed that there was a relationship between literacy and students’ developmental trajectories. These educators were acutely aware that the students who graduate and leave school as literate individuals were more likely to have the best opportunities for positive life outcomes, be it in high school, postsecondary education, or in the workforce. Similarly, these educators also understood that students who are not fully literate face life long challenges and diminished opportunities to experience developmental success.

**The role of experiences in developing knowledge schemas**

Many educators reported that a student’s ability to learn is related to their existing knowledge structures and the prior knowledge that informs these knowledge structures. These educators reported that a child’s life experiences form the foundations of the knowledge that they bring to school. These educators believed that as many of their students or students’ parents have emigrated from another country, they may not have had the “traditional” Canadian experiences and exposure to Canadian social-cultural references that much of the current curriculum is based upon. As demonstrated in the following quote, many of these educators understood how the learning process and cognitive development occurs in children, and they strived to provide opportunities for their students to be exposed to society and the embedded social-cultural artifacts that comprise society, as a means to compensate for the gaps and build upon students’ existing prior knowledge structures:

We do a lot of community programs just to get kids out and doing things, so that is another thing. We talked about schema and building schema in our kids. And I
have a reading group, I do a reading group everyday in the school as well, and I had a reading group last year, and we are talking grade one’s or two’s, and we were talking about tug boats, and none of these kids knew what a tug boat was. There was a picture of three boats on the front of this little book and they could not pick out the tug boat. You always have to kind of step back. That is probably our biggest challenge. (Principal, Marion)

Educators’ beliefs about the dimensions of Child Cognitive Development revealed that educators know that building knowledge schemas in their students is related to the types and amount of prior knowledge and life experiences the child brings with them to school. Many of the educators stated how social and cultural references, experiences, and social artifacts influence a child’s ability to learn. These educators noted that, for some students, schema development is a particular challenge as, for various cultural and economic reasons, many of the students have not had “traditional” Canadian experiences that contribute to a shared or common schema/knowledge base that many educators would assume to exist in a population of school-aged children:

Well, as an example, I guess the children’s experiences, and I think that is what our school is trying to do - to give them those experiences, real life experiences. For instance, I know that they take field trips in other schools. I know that. But, I think there is a real focus and I think that perhaps our teachers, when they are on field trips, go out of their way to even explain more about what the children are seeing. So for instance, if I am going down to Queen’s Park to look at the parliament buildings, I will be talking to students near me about ‘what do you see when you are driving, what do you think those buildings are about?’ ‘How does this look different from where we live?’ So, I think we are doing things like that. I know these students may not have had some of the experiences. Their parents come from other cultures, other countries, this is a new place for them, or, again, the parents at this school, some of them are working several jobs. They do not have time to take their child to the Science Centre. Or, they do not know the Science Centre is available, that could be it too, just because they are new to the country. (Teacher 3, Pickard)

Thus, it is a finding of this study that these educators understood that life experiences play in a role in child cognitive development, and many of these educators strived to provide their students with the social-cultural exposures that are needed to build students’ knowledge schemas so that students’ knowledge aligns with the foundational knowledge found in the
Canadian curriculum. In understanding the role that experiences play in developing knowledge structures, these educators fostered students’ potential for academic attainment and overall cognitive development.

**Academic support outside the school context**

One dimension of educators’ beliefs about child cognitive development involved educators’ understanding of knowledge schemas and the role that students’ life experiences play in building knowledge structures. Further, many educators identified that some of their students may face a kind of developmental double jeopardy. These educators reported believing that some students may lack exposure to the social and cultural artifacts that form the foundation of knowledge schemas, the very “building blocks” which foster children’s cognitive development:

Some children come in with a pretty empty backpack and what I mean by that is that their background is limited. When you can not talk about topics - you have to build up experiences. We try to do different things. (Teacher 2, Ferguson)

Many of the educators in this study reported that their students have emigrated from another country, and that often, the parents of these students are English Language Learners as well. As a result of these circumstances, a secondary challenge to students’ cognitive development is that some of these students do not have academic support in the home environment that may traditionally be relied upon to compensate for gaps that occur in students’ literacy development, learning, and overall cognitive development:

For students, I think again it is English as a Second Language. Communicating what we are doing here in the school, and back home. Or getting help at home. Because a lot of them, and I see it in grade one, but I could imagine it is just the same in grade 8, ‘My parents don’t speak English. I can’t get any help at home.’ Or as simple as, I have a reading log that they are supposed to read overnight to somebody, or to themselves. There is nobody at home to read to. ‘My grandmother does not speak English; my parents do not come home until late.’ So the family situation is the toughest. Because if you do not have – when you have the support at home, the kids excel much quicker. And when you do not, you can see the kids, and it is not their fault. It is how their family life is. The parents do not speak English or they are never home at the times when the students can sit down and show them their work or just read them a book. (Teacher 1, Marion)
Thus, in having a comprehensive understanding of the dimensions of child cognitive development, these educators have identified the need to effectively bridge the cognitive development challenges that their students face. These educators have provided their students with academic support outside of the school context in order to provide the students with compensatory opportunities to adapt to their culture and learning environment.

Once again, it is important to acknowledge that these educators did not place blame on the parents for the lack of academic support in the home. Primarily, these educators understood the reasons that these challenging circumstances exist. Through their thoughtful analysis they understood the origins of these circumstances; they recognized the pressures facing these parents and they see parents’ obvious desire for their children to succeed. As illustrated in educators’ quotes, these educators have identified and addressed students’ and parents’ need for academic support outside the regular school context and the home environment:

I think that a lot of the kids in the school come from homes where English is not the first language and so that becomes a problem as far as getting the proper support at home. Not that the parents do not want to support, but it is very difficult for the parents, I think in a lot of situations to understand what we are trying to get the kids to do. So they can not get that same support at home. Those are the biggest challenges. (Teacher 1, Legge)

**Acquiring language and the impact on mental health**

Some of the educators believed that the acquisition of language played a role in students’ abilities to express their feelings, communicate effectively with others, and achieve emotional stability. These educators know that language acquisition is both a cognitive process and an outcome of cognitive development; however, they extended this knowledge to include how language acquisition relates to students’ past experiences.

Some of these educators have identified that much of their student population is comprised of families who have emigrated from non-English speaking countries, and often these countries include war-torn regions or underdeveloped nations. For some children, the process of
emigration involved spending large amounts of unstructured time in refugee camps. As illustrated in the following quotes, educators recognized that these experiences were often compounded by the social and emotional issues that arose from leaving their home-lands and the process of adapting to a new country and culture:

> We have kids from all walks of life and whatever goes on in the world is affecting the lives of these kids because these kids are from war torn countries. When they come to our school, they are bringing a lot of baggage with them. The challenge is when the kids come to school they do not have any language - so the language is a challenge. And it is not just one or two languages. We have about 25 languages - so language is a problem. Students come in with a lot of emotional baggage - and this is a problem. When the board gives us money and teachers, they just look at the numbers and divide it and they give us staffing. They do not look at the kinds of kids in the community or in your school. (Principal, Legge)

The educators reported that for some students, the cumulative impact of their past experiences, the process of adjusting to a new and unfamiliar home and culture, and the frustration of acquiring a new language often builds in students and is externalised as expressions of frustration and behavioural aggression. Many of these educators have identified that, for some students, there is a need to foster language skills in students, as these educators understood that emotional and behavioural issues may arise due to the challenges many English Language Learners face:

> I think for the students too because they are caught between the Western life and their own home life. So when they come to school they see different things, they want different things, they use different lingo. Even the friends they make in school, sometimes it is difficult for them to mingle with those friends because they do not look the same, they do not talk the same and that is a challenge for the kids. Even though we have a majority of different cultures, there are still differences in their cultures and there are challenges when they are playing. If they do not like something - they will hit, their arms are flying at each other. You know that we do not do that here, and it is difficult for me to manage that because there are 699 students. Everyday there are 5 kids coming in saying ‘he hit me’, ‘she hit me’. (Principal, Legge)

Again, it is important to note that educators did not express negative attitudes nor frustration with the “problem behaviours” that their students exhibit; rather, in the interview data they expressed a psychologically complex and empathic understanding of why the students are
exhibiting these behaviours. These educators’ did not simply dismiss their students as “problem people exhibiting problem behaviours”, rather, these educators reported understanding the social-emotional etiology of their students’ behaviours. They consciously focused on developing students’ oral language and communication skills as a means to addressing students’ cognitive development, the issue of student physical aggression, and the social-emotional interpersonal difficulties in their school.

Thus, some of the educators in this study stated that when a child is under emotional duress, their intense feelings of confusion, uncertainty, and frustration may be compounded by an inability to express themselves. These educators recognized that this confluence of factors resulted in students expressing themselves through physical aggression. Some of the educators in this study have identified that there is a relationship between students’ language acquisition (their cognitive development) and their social, emotional, and behavioural development.

**Survey Data: Child Cognitive Development**

To explore the possibility that these 10 schools may have been succeeding because of differences in the educational strategies and goals utilized in these schools, analyses were conducted to examine the differences and similarities among the schools relating to their focus on cognitive development, student achievement, the use of data in monitoring student improvement, and level of educator awareness of the school and the school board’s goals regarding student achievement. Examination of results on the Ontario provincially administered EQAO (Education Quality and Accountability Office) standardized assessment, confirmed that these 10 schools had demonstrated a general trend of student improvement in the areas of reading, writing, and mathematics during the 2001 to 2005 school years. Given this evidence of a general trend of student improvement, it was necessary to probe how these schools focus on student cognitive development in an attempt to understand the processes that may account for
and explain how these 10 schools that face challenging circumstances have been achieving student and school success. The inquiry into the schools’ focus on student cognitive development was accomplished through the creation of a composite variable derived from items on the School Life Survey.

The composite variable Child Cognitive Development (CD) was derived from the School Life Survey (Ross et al., 1998). It was used to examine if schools differed in their focus on child cognitive development by exploring the mean differences of scores across schools. The survey items asked participants to rate their responses on a 6 point scale, with a response of 6 indicating that they strongly agree, while a response of 1 indicated strong disagreement. Average responses for the Child Cognitive Development composite for each school are provided in Table 3.

Table 3
Range of Responses on Child Cognitive Development Composite Variable

<table>
<thead>
<tr>
<th>School</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rose Wood</td>
<td>20</td>
<td>4.6</td>
<td>.8</td>
<td>3.0</td>
<td>5.8</td>
</tr>
<tr>
<td>Fraser</td>
<td>10</td>
<td>4.7</td>
<td>.9</td>
<td>3.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Elliott</td>
<td>31</td>
<td>4.7</td>
<td>.8</td>
<td>2.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Cordova</td>
<td>18</td>
<td>5.0</td>
<td>.6</td>
<td>4.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Legge</td>
<td>27</td>
<td>4.8</td>
<td>.6</td>
<td>3.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Pickard</td>
<td>38</td>
<td>4.5</td>
<td>.8</td>
<td>2.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Marion</td>
<td>21</td>
<td>5.0</td>
<td>.8</td>
<td>3.2</td>
<td>6.0</td>
</tr>
<tr>
<td>Maple Ridge</td>
<td>10</td>
<td>4.7</td>
<td>.6</td>
<td>4.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Glen Muir</td>
<td>18</td>
<td>4.8</td>
<td>.7</td>
<td>3.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Ferguson</td>
<td>13</td>
<td>4.8</td>
<td>.6</td>
<td>3.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Total</td>
<td>206</td>
<td>4.7</td>
<td>.7</td>
<td>2.8</td>
<td>6.0</td>
</tr>
</tbody>
</table>

As can be seen from Table 3, examination of the mean scores indicates that there was a trend of agreement among all educators in that their schools have a particular focus on child cognitive development, and that these educators believed that student achievement is a defining
characteristic of their schools’ goals. Further, these educators held a shared perception in that their schools achieve child cognitive development by using data to monitor student improvement. Lastly, it was found that, in all 10 of the schools, educators were aware of their school’s goals and their school board goals.

Using school as the independent variable and average score of the Child Cognitive Development composite as the dependent variable, an ANOVA was conducted to examine if schools differed on the Child Cognitive Development composite variable. The one-way ANOVA was not significant, $F(9,205) = 1.14, p = .34$, indicating that there are no significant differences between the schools on the Child Cognitive Development composite scores. Further, exploration of the range of responses on both the Mean and the Standard Deviation of the Child Cognitive Development composite indicated that there were no extreme scores and that, in fact, the range of responses is very limited, indicating a high level of agreement from educators that monitoring child cognitive development and achieving school goals are shared initiatives across all 10 schools in this study. Results from the quantitative survey data revealed that there were no statistical differences among the 10 schools in terms of how they value child cognitive development, utilize processes to monitor and track students’ progress, identify student success as a defining characteristic of their school’s goals, and focus on student learning and success as it related to student cognitive development.

In summary, this study found that educators believed the dimensions of child cognitive development to include literacy development, and the role experiences play in the process of building knowledge schemas. The educators believed that they should provide academic support outside of the regular school day, and that language acquisition is a cognitive process that must be fostered in English Language Learners. Further, these educators recognized that these dimensions of child cognitive development have a direct impact on students’ emotional stability and social functioning.
These educators demonstrated a sophisticated and empirically grounded understanding of child cognitive development. While some of the educators focused on schema and knowledge building, others focused on providing students with social-cultural exposures, developing their metacognitive skills, and instilling a love of learning through literacy development. These educators reported taking into account the backgrounds and personal experiences their students bring to school, and how students’ backgrounds and ability to express their emotions impacted their cognitive development. Thus, these educators demonstrated the understanding that students’ cognitive development is interrelated with students’ physical, social, emotional, and behavioural development. These educators factored students’ physical, social, emotional, and behavioural development into their understanding of child cognitive development.

**Summary of Educators’ Beliefs of the Dimensions of Child Development**

When the educators were asked to explain what accounts for their schools experiencing success while facing challenging circumstances, these educators demonstrated a remarkable breadth of understanding and perspectives in identifying and addressing the challenging circumstances that their students face in school, at home, and in their communities, and how these challenging circumstances inevitably impact the function and outcomes of the school. It is a major finding of this study that the knowledge and perspectives through which educators understand these challenging circumstances’ is solidly grounded in the foundations of child development.

Upon identifying that educators’ knowledge about their students, the school context and community, and the challenges they face is grounded in child development, a focused analysis of child development codes was conducted. This analysis revealed that the categories of Child Physical Development, Child Social, Emotional, and Behavioural Development, and Child Cognitive Development were robust throughout the educators’ interview data as they occurred
across all 10 schools (Figure 2). Analysis of the three primary child development categories revealed that the Child Physical Development theme occurs with lower but consistent frequency across all 10 schools, while the Child Social, Emotional, and Behavioural Development and Child Cognitive Development themes occur consistently.

**Educators’ Understanding of the Role of Students’ Home Environments on Child Development**

The theme of students’ Home Environments (HE) emerged from educators’ understanding of child development. Educators had consistently reported that student’s home environments played a role in the school and developmental success of students.

![Figure 3. Average frequency of Home Environment related topics in interview data.](image)

Students’ home environments is a theme that was raised by every educator in all of the 10 schools studied. The average frequency that the Home Environment theme emerged during the
participant interviews ranged from an average of 14 to 36 times per educator interview (Figure 3).

These educators expressed their belief that there was a relationship between student and school success and the educators’ approach in facing the challenging circumstances that their students’ face:

We need to get better insight into what their home lives are like - what their beliefs and struggles are. I do not think we can ever know enough about them and really improving our student achievement means getting to know the kids better. (Principal 2, Maple Ridge)

For many of the educators that teach in these schools that face challenging circumstances, the physical, psychological, and social factors that contribute to child development included the home environment that the child is raised in. These educators believed that in understanding the children and the home environments they are raised in, they were able to see the whole child, and more clearly understand the challenges they faced. When asked about how schools can be more effective in supporting success, an educator expressed that:

The connection; there has to be a connection of more than just ‘Sit down and I am going to teach you’. When you have that connection with the child and you are looking at the whole child, and that includes the family and the baggage they may be bringing - when you are looking at it that way - then you get far more success than if you have the attitude, ‘Here is the curriculum, I am going to give it to you. Learn it.’ I think it is the connectedness that makes all the difference. (Teacher 3, Rose Wood)

Analysis of educators’ understanding of what comprised students’ home environments revealed that the theme of students’ Home Environments were characterized by the dimensions: (1) family structure, (2) family poverty, (3) mental illness within the family, and (4) inability to support academics in the home environment.

**Family structure**

The issue of family structure was a pervasive theme throughout the interview data. For educators in this study, family instability was characterized by an unstable family structure, such
as a lack of parental supervision in the home, lack of organization in the home, and a general lack of order in the home environment.

These educators believed that family structure was an important characteristic of students’ home environments as it impacted students on every developmental domain. These educators were aware that many of the students’ families are headed by single, working mothers, both parents may be working multiple jobs, or that many children do not have access to a male role model. Some children do not have access to either of their biological parents as they are being raised by grandparents or guardians. The educators noted that single parent households are not a risk factor in and of themselves as there are many stable family structures headed by a single parent. Rather, these educators recognized that the lack of access to a second or even primary parent that, when accompanied by other destabilising factors, negatively impacted students’ academic and developmental success. Educators believed that for some students, this might be a type of threshold indicator that is the marker of an unstable family structure in a student’s home environment and they believed that an unstable family structure is one way that they identify that a student may be facing grave educational and developmental risk:

Students do not necessarily have the home support to sustain achievement. Some of these kids, you have to understand, Mom and Dad are working two different jobs, they are like ships passing in the night. I am sure that we have got situations where kids are going home to their grandparents. I know of one case where the parents are on the road, and a teenage brother or sister is the care-giver. These children are left to their own devices and defences in many situations. (Teacher 3, Marion)

While the previous quote demonstrated that these educators have a highly developed understanding that lack of access to parents and an unstable family structure can place some students in serious academic and developmental risk, these educators also recognized the impact that factors, such a disorganized home environment, may have on their students. Organization within the home and the consistent presence of basic routines such as getting out of bed and
arriving to school on time, can make all the difference for students who struggling in their personal and academic lives:

We are asking of them ‘Can you get organized? Your child is late for school every single day. Then he comes in and he is getting yelled at by the secretary, he is getting yelled at by his teacher, and he has missed the most important 15 minutes of the day because it is the math instructions’. We get frustrated with the parents and sort of say ‘The child is struggling. Can you get out of bed 15 minutes earlier?’ This is where some of the issues are. (Principal 2, Elliott)

**Family poverty**

Many educators in this study believed family poverty to be a defining dimension of students’ home environments. Many of their students live and are raised in impoverished circumstances. The poverty their students face ranges from economic to social-emotional, and that they believed each type of poverty has severe implications for students’ developmental trajectories and academic attainment.

Many educators reported that they were aware that the economic poverty that defines students’ home environments is broad in range and deep in impact. Many of their working parents are employed in jobs that do not provide them with gainful employment. Educators acknowledged that these underemployed parents face the chronic and relentless monthly stressor of having to choose between feeding their children and paying household bills:

We have a lot of children that are low income; not everyone, but a lot of children in single parent families and the challenges of parents working two jobs just to make decisions, ‘do I pay the bills after I feed the children?’ So, despite the community of the school - there are some real needs and issues that we address. (Teacher 3, Elliott)

Further, these educators understood that the policies and routine processes of the school may have a substantial and even devastating impact on a family’s budget, housing circumstances, and overall stability. Many educators reported empathizing with those parents who are “scraping by” and struggling to bring in enough income to cover their family’s monthly expenses. They
were aware of how the incidence of one “sick day” can throw the budget and family stability into chaos.

The educators reported a commonly seen incident: often times students who have attendance issues or exhibited problem behaviours at school are reprimanded by an out-of-school suspension. The out-of-school suspension results in the parent staying home from work to supervise the child who is at home during the day. As demonstrated by the following quote, these educators understood the policy of out-of-school suspensions can have devastating consequences for struggling families:

It is really hard when we suspend. A mother of child who was coming back from suspension just said, ‘Every time you suspend my kid’ and she was not angry with us, but she was angry at the system, knowing that suspensions really do not solve the problem - and we acknowledge that. She said to me, ‘Every hour that I have to take off work to be with the kids is a dollar less that I have to pay my bills. So when you talk about understanding what I am going through, you do not understand what I am going through’. We have got a lot of parents who are under a lot of financial strain and a lot of financial pressure to provide for their kids. (Principal 1, Elliott)

The educators recognized that parents may be struggling to feed their children and pay their bills, and that missing work impacts their already limited income and may ultimately jeopardize their employment status. This stress increases within the family and has the result of exasperating and magnifying the other stressors the parent is experiencing. Therefore, the parent may feel resentful towards their child and the school, and may result in a less calm and nurturing relationship between parent and child, and may further undermine the relationship between the parent and the school.

These educators also believed that family poverty is not simply “financial strain”. The level of poverty that these families live under is crushing; many underemployed parents and their children are often one crisis away from homelessness. Even for those families who have emerged from a homeless shelter and have seemingly broken the cycle of homelessness, one unforeseen expense or incident, and the family’s security and stability can be jeopardized:
I do not know what it is like to be a single mom working for a minimum wage, paid by the hour job, where if my child gets suspended from school, and I can not go to work, and therefore do not get paid, and I could actually lose my job. And sometimes I think, ‘You know, you have got to help your son. Your son is at a great age’. And the parent is thinking: ‘You are crazy. Who do you think you are? You think he has got problems now? Wait until I get fired and I can not pay our rent and we are living in the car’. (Principal 2, Elliott)

The educators reported that having a family home fosters the potential for a family to establish stability - and the threat of homelessness derails their trajectory towards stability and security - and places them back into the challenging circumstance of homelessness, a circumstance that impacts every facet of their lives:

Housing co-op projects that feed our school - parents are on big lists to get into them. We have people who are coming out of shelters, out of living in cars, out of living and staying in [names a tough neighbourhood], we have a lot of people coming up from that area, and moving into houses, and then - like that! They can lose a job, something goes wrong, and they are gone again. They are in Government subsidized housing. Rental units that are, $99.00 a month – they are incredibly heavily subsidized. Then, they lose their homes and they go back to their cars. (Principal 2, Elliott)

**Mental illness within the family**

While educators in this study have identified family poverty as a crucial dimension of students’ home environments, they have also identified that, for many of their students, a challenging circumstance that their students face is associated with parental mental health, parental emotional instability, and the significant implications this issue has on students’ home environments:

It is a different type of support. We see it more as a socio-emotional support. The program is more socio-emotional. It is to deal with students in general who are, just have more needs, or there are just more of them in numbers. The mass of them seem to have issues to do with the family, personal, and mental health issues, behavioural issues connected to whatever. They could be connected to drug abuse, depression, or suicidal thoughts. (Principal, Fraser)

Throughout the educator interview data, and as demonstrated by the educators’ quotes, there is evidence that many of these educators have developed the ability to recognize, identify, and address, to the best of their ability, a vast number of issues relating to parental mental health
and students’ home environments, as they are the individuals most willing to acknowledge the severity of these issues:

It is the mental health piece. I mean, I am just a person. I do not have qualification in psychology, I did major in psychology major, but that does not qualify me to talk to people about the significant issues that they are dealing with. The girls are cutting themselves frequently; frequent occurrences in the schools of girls cutting themselves or trying to commit suicide. Unbelievable. I do not feel qualified to be talking to these young ones about it. And when I talk to the parents about it, parents do not think that it is an issue, ‘My daughter is not doing that. That is not true. It is not really happening, she just tried once.’ Those are the parts. I mean, we are not talking about literacy here; we are just talking about “is she safe and happy in school?” No, she is not safe or happy in school. Those are the small snippets that we deal with on a daily basis. Even the phone calls ‘My daughter tried to commit suicide last night. Today she is in your classroom.’ And she is in my classroom today and I have no guidance or support. That is the reality of what is happening in our classrooms. (Principal Cordova Bay Ridge)

While some of these educators have wondered if they are able to address these issues, many of these educators reported that they understood that their primary professional mandate is to deliver the curriculum and educate their students. They understood that they were only able to fulfill this mandate once they had addressed the mental health issues that impair the family home environment and impede students’ academic and social-emotional functioning at school.

Educators believed that addressing students’ and parents’ mental health issues and fostering students’ developmental success begins by establishing a warm and trusting relationship with parents:

The secretary would say, ‘Why do you stand for that? You are too busy. That is not what the Board pays you for’. I would say, ‘You know, the Board Does not pay me to talk to her about her ex-boyfriend, but if I can build a relationship with her and she trusts me, and she knows that I care about her as a human being, a week from now, when I am trying to get Mike into a treatment centre because he has got such uncontrollable rage, she will trust me and know that I care about her, and know that I care about her son, and therefore her son will get the help he needs. If I tell her to ‘go away’ and I do not have time for her, a week from now when I call her to say Mike needs a treatment centre, she will tell me to ‘go to hell’ and hang up on me. And I care about her. I want her to do well because if she is not doing well, Mike will not do well. And to think – ‘that is not what my job is - what does this have to do with my job?” people and parents, our parents in particular, are struggling with their own social-emotional
problems. With their own job loss, or lack of success; they do not have one part of their brain that deals with their kids, and one part of their brain that deals their own issues. I do not think they can compartmentalize. It takes a long time to build a trusting relationship. (Principal 2, Elliott)

These educators believed that parental social-emotional instability, parental mental illness, and issues around domestic violence and substance abuse have a negative and destabilising effect on students’ home environments. As a result of their experience managing issues relating to mental illness and emotional instability within students home environments, many of the educators in this study reported that they believed that there is an inverse relationship between the level and degree in which students and parents experience social-emotional instability, mental health issues, domestic violence and substance abuse, and the positive and productive functioning of students’ home environments, and the positive academic and developmental trajectories of students.

Inability to support academics in the home

The inability to support academics within the home environment was a crucial dimension of the theme Students’ Home Environments. This is evidenced by educators’ perceptions of the absence of academic related activities and educational resources within the home, the absence of parental involvement in school activities and initiatives, difficulty educators experience in building trusting relationships with parents, a low level of parental trust in the school, and parents’ unsupportive attitudes towards school:

The staff will say to me ‘We can not do it alone, we need the parents. How do we get them into the school?’ Teachers will say “the child is not doing his homework ‘or ‘I send stuff home and the kids are coming back and their agendas are signed and their homework is not done.’ For some kids it is really important that they get the extra help at home, and I know personally there are some parents who talk the talk, but do not walk the walk. (Principal, Ferguson)

While many perspectives regarding parents’ inability to support academics within the home were raised by the educators, there were also many educators in this study who acknowledged that, while there may be a general inability to support academics within the home
environment, not all parents hold unsupportive attitudes towards school. As illustrated in the following quotes, cultural and language barriers, the fact that some parents have a low level of educational attainment themselves and are not comfortable in the school environment, or that parents may be employed in multiple jobs, limiting the amount of time they have to devote to educational activities in the home, are all legitimate reasons that some parents may experience difficulty supporting academics in the home environment:

Our families probably by and large, did not have a happy school experience. They either do not think we are of any value, or do not trust us, particularly when we are calling home every third day to talk about their child’s behaviour - they are sick to death of hearing from us. Or, they are very recent immigrants who come from a place where they are not welcome in the school system. Culturally, you do not ask the school questions, you do not go into the school. The school is the school’s business. Or, they do not speak the language and they are embarrassed, or shy, or they feel reluctant to come in. So we have language barriers and cultural barriers. We have cultural barriers with white, English-speaking people who were born and raised in the province, because of the socio-economic gap, or the fact that they did not finish school themselves. (Principal 2, Elliott)

These educators recognized that many parents are simply doing the best the can with the limited resources that they have:

For some of them, it is a lack of support at home. It is not that the parents do not care about education, but that they can not. In my class, I have three students out of seven that the parents can not read English. So work goes home, and they do not have the support of the parents. Despite the parents wanting to be involved and being very caring parents. (Teacher 2, Legge)

Furthermore, parental inability to support academics in the home environment may be the result of families having emigrated from another country; as a result many parents are engaged in learning the English language themselves. These educators acknowledged that if parents have low levels of academic attainment themselves, or hold multiple jobs and are not present in the home, or have recently emigrated from another country and are English language learners themselves, that these are challenging circumstances that legitimately impact parents’ ability to support academics in the home environment:
We have so many different cultural groups in our school. You have the new family that is just struggling to survive and they just want their child to come to school, learn something, and they if pay the bills at the end of the day then they are happy. (Teacher 3, Legge)

While the reasons for parents’ inability to support academics in the home may be numerous and often times legitimate, many of the educators in this study recognized that they are not able to interact with and educate their students without acknowledging the impact home environment has on students:

I guess overall the challenges are - a lot of the kids suffer; suffer is a bad word. They are challenged by their own learning environment at home. As much as we try to put things in place for them, study skills and doing their homework, we know that a lot of them go home to an environment that does not support school. The students, the parents, they are all together, it is the community. But to me, it is hard to separate the students from the parents. They are a product of their environment to a degree and we have to understand that. (Principal, Rose Wood)

Educators recognized that students’ home environments have an impact on educational attainment. They believed that, if their students are facing the challenging circumstance of not receiving academic support within the home environment, then, as educators, they must acknowledge this fact and consciously strive to understand the ways in which students’ home environment and the absence of academic support in the home environment impacts students’ learning outcomes.

**Summary of Educators’ Understanding of Students’ Home Environments in Relation to Child Development**

Analysis of the dimensions of educators’ understanding of students’ home environments as it relates to child development revealed that family structure, family poverty, mental illness within the family, and families’ inability to support academics within the home environment were the dimensions that defined students’ home environments. These educators believed that these dimensions impact students’ academic attainment. Further, these independent dimensions can impact students, but more crucially, the dimensions of students’ Home Environments often
converge and have a compounded effect on students’ school success and their overall development.

These educators hold comprehensive understandings of child development, educational, socio-economic, and psycho-social factors that impact their students and their students’ abilities to learn at school. An unstable family structure, a lack of parental supervision in the home, and a lack of organization in the home, impact students. The profound stressors of parental under-employment, family poverty, and homelessness undermine children’s ability to feel safe, cared-for, and nurtured, and that these dimensions of students’ home environments impact students’ abilities to concentrate and attend to the educational demands placed on them in schools.

The study further revealed that parents are under severe financial stress and face impossible choices. Parents face homelessness, and are often placed in a situation where they must choose between staying home with a child who has been suspended and jeopardizing their employment, or face an inability to supervise their children at home as they work multiple jobs in order to feed their children. These educators believed that parental emotional instability and mental illness were dimensions that exist in students’ home environments. They believed that there is an inverse relationship between parents experiencing mental heath issues and the productive functioning of students’ home environments and positive academic and developmental gains of students.

The parental inability to support academics within the home environment is an important dimension of students’ home environments. These educators reported that some parents have low educational attainment themselves, are not present in the home due to employment obligations, or may be learning the English language themselves. As such, these parents may not possess the reading and writing skills needed to assist their children with school work.

Overall, these educators drew on comprehensive and broad-based knowledge to identify, understand, and address the challenges that are present in their school environments as a result of
circumstances existing within students’ home environments. This suggests that, if the etiology of an issue arises due to circumstances within students’ home environments, and it is an issue that negatively impacts students’ academic and developmental success, it is a challenging circumstance that these educators consciously strive to address, as these educators are committed to increasing the potential of their students’ achieving school and developmental success.

Summary

In this chapter, the first research question “How is child development understood by educators in schools that face challenging circumstances?” was explored. Educators’ conceptions of child development extend across three primary domains. The three primary domains that comprise the educators’ understanding of child development are: (1) children’s physical development, (2) children’s social, emotional, and behavioral development, and (3) children’s cognitive development.

Analysis of the three domains revealed that each domain contained dimensions that comprised the educators’ knowledge of the developmental domain. Analysis of the Child Physical Development theme revealed that educators’ knowledge about child physical development included the dimensions of a safe school environment, providing proper nutrition for students, and fostering students’ physical fitness and healthy life habits. Analysis of educators’ knowledge of child social, emotional, and behavioural development revealed that educators considered the issues of student behaviour and physical aggression and students’ development of social skills and emotional stability to be related to their personal growth. Further, analysis revealed that educators believed that the celebration of students’ cultural diversity and their ethnic heritage comprised the dimensions included in the theme of Child
Social, Emotional, and Behavioural Development. Analysis of educators’ understanding of the theme of Child Cognitive Development revealed that educators believed the development of literacy is a dimension of the cognitive developmental domain. Also, they believed that students’ life experiences and knowledge schemas are a dimension of Child Cognitive Development, as is their understanding of how the cognitive process of acquiring the English language impacts students’ social-emotional development. Further, educators believed that students’ requiring academic support outside the school context is included in their understanding of the dimensions of the Child Cognitive Development theme. These dimensions form a summative depiction of educators’ understanding of child development in schools that face challenging circumstances.

Analysis of the School Life Survey data revealed that all 10 schools reported having a specific focus on child cognitive development, and that student cognitive development is the defining focus of their school’s stated goals. Further, educators in all 10 schools use data to monitor student cognitive development, and they reported being aware of the school and school board’s goals regarding students’ cognitive development. The educators believed that healthy and happy students who are attending school, exhibit good behaviour, and educators’ ability to work with parents and the home environment of students comprised the dimensions of student success in these schools that face challenging circumstances.

Educators’ understanding of the theme Students’ Home Environments in relation to child development included knowledge about the dimensions of family structure. Educators understood that disorder in the home environment, the crushing weight of family poverty, and family mental illness impact students and their families on numerous developmental levels, and were profound dimensions of students’ home environments. Further, these educators understood that families’ inability to support educational activities in the home environment were also a dimension of the Home Environment theme. In conclusion, these educators understood that students’ home environments relate to child development, as educators believed that students’
home environments impact students’ physical, social, emotional, behavioural, and cognitive development.
CHAPTER 5. FINDINGS: ADDRESSING THE DEVELOPMENTAL CHALLENGES

Chapter Overview

This chapter addresses research question 3: How do educators in schools that face challenging circumstances address the developmental challenges that their students face? The educators in this study have identified that their students face multiple developmental challenges across all domains of child development, and that these challenges affect both the learning and developmental trajectories of students. The educators in this study reported that they believe that they are creating and contributing to the conditions that are necessary for students to learn and thrive in their school environments, in spite of the challenging circumstances that they face. These educators have developed strategies that foster child development across individual and multiple domains of development and that these strategies compensate for the developmental deficits that exist in students’ lives. Thus, in understanding that child development and student learning and are inexorably interwoven, these educators have developed strategies that address the developmental challenges that students face and have succeeded in fostering school success.

How Educators Address Students’ Developmental Challenges

The educators reported that there were two types of programs that addressed the developmental and learning challenges that students face: (1) non-academic programs which address the physical, social, emotional, and behavioural needs of students, and (2) co-curricular academic programs which address the cognitive development of students by providing supplemental educational supports for students. These two types of programs are discussed in this chapter.
Non-Academic Programs that Address Students’ Developmental Challenges

A count of the total number of non-academic programs identified by the educators revealed that there were a total of 200 unique non-academic programs delivered in these 10 schools (Figure 4).

![Figure 4: Number of non-academic programs in each school](image)

**Figure 4.** Number of all non-academic programs in each school.

Examination of these 200 non-academic programs revealed that there were four types of non-academic programs delivered in these schools. These programs addressed: (1) students’ physical development (PHYS), (2) the social, emotional, and behavioural development of students (SEB), (3) parents’ development (PAR), and (5) programs that foster the development of diversity within the school community (COU DIVERSITY) (Figure 4).
Programs that address physical needs

A total of 41 unique non-academic programs were found to promote students’ physical development (PHYS) in these 10 schools. These programs addressed two areas of students’ physical development. The educators have identified these areas as essential to students’ optimal physical development. The physical non-academic programs run in these schools address or foster students’: (1) nutrition and basic needs, and (2) physical fitness, body-image, and healthy life-style choices.

Nutrition and basic needs

According to the educators interviewed in the study, meeting the nutritional needs of their students is one of the highest non-academic priorities in their schools, and the claim was confirmed by the presence of 17 distinct Breakfast, Lunch, Snack, and food hamper programs run in eight of the 10 schools in this study. For these educators, fostering students’ physical development is not simply about providing nutrition to students. As demonstrated in the following participant quotes, students require nutrition and nurturing, and that when delivered in concert in the school context the educators succeed in laying the developmental foundations for students’ success:

Any child that I know is hungry here would be fed, and that is often a good starting point for a child that is having difficulties. We will say ‘Oh, come on – I will fix you a hot chocolate’ or, ‘Come on – we will make some toast”, and they feel a little more relaxed. (Teacher 2, Fraser)

These educators were aware that the “basic nutritional” needs of the students were not being met within the home environment, and that students required proper nutrition to be free from the distraction of hunger, so that they may be able to engage with the curriculum and be successful at school. As such, they had to “level the playing field” for their students by meeting this basic developmental requirement:

In terms of the non-academic programs that we have in the school, some of the things we do are just to get kids to the point where they can take advantage of
the programs we have in the school. I think that is a huge part in what we do. So, whether you are talking about our breakfast program, our lunch program, our snack program - just getting basic nutrition into kids so they can come to school and focus on the task at hand. That is important. (Principal 1, Elliott)

**Physical fitness, body-image, and healthy life-style choices**

Another dimension of the physical non-academic programs delivered in these schools were programs that addressed students’ physical fitness levels and that fostered the positive body-image and lifestyle choices of students. There were 24 unique programs run in these 10 schools that face challenging circumstances. Examples of these programs included intramural sports programs, organized games at recess, sports teams designed to encourage all levels of players, and extra-curricular lessons in swimming, down-hill skiing, power skating, and baseball. Of the physical non-academic programs identified that foster students’ positive body image and the practices of making healthful lifestyle choices, educators reported that they deliver the Healthy Living Program, Healthy Schools Healthy Kids program, Girls on the Run, an Outdoor Education Centre, and a Boys’ Breakfast and Basketball program which is run by ex-NBA player who lives in the community.

A specific example of one such physical non-academic program that had a multi-faceted developmental impact is the Breakfast and Basketball program delivered at Glen Muir. At this school the educators were delivering breakfast, hot lunch, and snack programs to their students to offset the effects of child hunger, and to foster students’ learning:

Three years ago, a number of my grade 8 boys were not coming to school in the morning - so we figured how we would get them to school is to play basketball. So they came to school, played basketball and then had breakfast and they got to school on time three mornings a week. I have a parent in the community, who I pay an honorarium to, who is an ex-NBA player, and he comes in and helps coach that program in the morning. It has shifted a little bit because now it is just part of the culture. No one is late anymore. (Principal, Glen Muir)

These educators discovered that providing these programs was only the first step in addressing the challenges that existed in their school. They discovered that a second hurdle
Programs that address social, emotional, and behavioural needs

There were a total of 93 unique programs in these 10 schools that address the Social, Emotional, and Behavioural (SEB) challenges faced by students. These programs addressed five distinct dimensions of students’ development: (1) therapeutic responses to problem behaviour, (2) social-emotional support and counselling, (3) character development, (4) community interest and social-cultural development, and (5) opportunities and experiences.

Therapeutic responses to problem behaviour

The non-academic programs that provided therapeutic responses to students’ problem behaviours comprised a large number of the Social, Emotional, and Behavioural non-academic programs run in these schools. A frequency count of these programs showed that there were 25 programs that addressed the issue of students’ problem behaviours in these 10 schools. Examples of these programs include: Tender Support, SNAP, Restorative Practices, the STEPS behaviour program, and the ACCESS behaviour program.

One particular type of program within the dimension of therapeutic responses to problem behaviours is “in-house” initiatives that were developed for the specific issues that existed in a school’s unique context. These initiatives included programs such as a school’s use of a school-wide “Hands-Off” policy, the use of conflict resolution practices, and a “Resolution Room” in which to conduct these practices.

One non-academic program provided a work-study group, outside of the classroom, so that students had a safe place to de-escalate their behaviour. This non-academic program involved moving the student to the work-study room for a number of days, so that they may break patterns of behaviour that had been occurring in the classroom, without being sent into the home environment. This program was structured so that the educator has a “cool-down” period
in their classroom, while the student receives one-on-one behaviour education and supervision completing their school work:

We have put in place a program, we have one teacher who does an afternoon program for kids at risk and she takes them and they do activities together. She does a counselling format, and works on social skills. That has been helpful. We have been doing a work study group where if a student is repeatedly being disruptive or repeatedly sent out of the classroom, we do not necessarily want them going home because then they are not learning. So, in the work study room we have our CYW go in and take the student in as an individual. That student has to be there for three days. They get caught up on their school work, they have one on one support and they may hate it and may never come back or they may like the attention, and it shows that they need a small group atmosphere. So that has been helpful as well. You know, keeping kids here instead of sending them home; I keep track of our suspension rate, it is has noticeably decreased compared to last year. (Principal, Fraser)

Other examples of non-academic programs that provided therapeutic responses to students’ problem behaviours included in-school suspensions, School Suspension Reintegration Meetings which set out stated policies of expected behaviour for students, and programs such as an Anger Management Program, Social Adjustment classes, and the Alternative Learning and Social Club which provided students with social and behavioural skills education.

One non-academic program, the Future Directions Team, held meetings with at-risk students at the beginning of the school day. These meetings provided students with a time and place in which to focus on and set goals regarding their social, emotional, and behavioural development. The students were encouraged to share their goals with their teachers in this supportive, nurturing environment:

We have the program upstairs. In the morning students go to discuss issues. Students that have a lot of issues with peers and get into a lot of fights, they have meetings for 15 minutes. I have been to a lot of them; I have two students who have been there, and I think it is important for students to see that, if you have problems, you set personal goals to address them. They set goals like, ‘My goal today is stay in class the entire time’, or ‘To say something nice to someone’, they set goals at those meetings. (Teacher 1, Elliott)

Another specific example of a non-academic program that offered students a therapeutic response to problem behaviour was a program called Tender Support. As identified in the
Tender Support was run by a behavioural Special Education Resource Teacher (SERT) and a Child and Youth Worker (CYW) who worked together to provide proactive support for students at risk for suspension for behavioural reasons, and to reintegrate students who are coming back from suspensions:

*Tender Support* is a program that is in our school. A previous principal came up with the idea because all they did in the school was behaviour. In a typical school, kids misbehave, and the teacher phones down to the office and says ‘I am sending Johnny down to the office’. There is no intervention, there are no guidance teachers any more, or any kind of social services, or guidance support in schools. *Tender Support* was a way of putting in an intermediary kind of process, where, instead of it just being action, and punitive responses by the school, there was a supportive, and many times, therapeutic response, which is, *Tender Support*.* Tender Support* is a teacher, a behavioural SERT teamed up with a CYW - and they work as a team in our school. They have got two offices - and that is, that is their job. All day long, they respond to behavioural concerns, get kids back on track, and reintegrate kids who have come back from suspensions. They process issues with kids so that they can learn another way aside from just whacking the other kid in the head. So there is a reactive component where they are responding to issues - but there is also proactive support. (Principal, Elliott)

*Tender Support* also served as an ideal illustration of a social, emotional, and behavioural non-academic program, in that it proactively responds to students’ social, emotional and behavioural issues in the school context.

Many educators in these schools had jointly decided that traditional approaches, such as suspensions, which are more punitive in nature, had the effect of taking the student away from the supportive school environment, and thrusting students back into a potentially aggravating home environment. In other words, when a student is pushed back into the environment that creates the issues, the educators failed to address the underlying causes for such issues, possibly incited further episodes, and negatively impacted students’ academic progress. Thus, by examining educators’ understanding of child social, emotional, and behavioural development, and their understanding of why students “act out”, and through an examination of the lengths that these educators have gone to understand, identify, and respond to the developmental challenges...
faced by students, we can conclude that these educators hold a sophisticated understanding of child social, and behavioural development.

**Social-emotional support and counselling**

A frequency count of the number of programs that provided social-emotional support and counselling to students revealed that there are 27 Social, Emotional, and Behavioural non-academic programs in these 10 schools. Within these Social, Emotional, and Behavioural programs there were four types of programs run in the schools. One type of Social, Emotional, and Behavioural program provided students with counselling for trauma and mental health issues. Examples of these programs included the *Mental Health Collective*, one-on-one counselling for trauma, grief counselling, guidance counselling, Stress Management workshops, and the *Rainbow Club*:

We also have a Rainbow Program for students who have lost someone, or whose parents who have gone through separation, or something very tragic has happened in their family. We went to the workshop and got the certificate. We meet with children and we have different activities. You do not necessarily ask them about their loss but through the activities they have a chance to talk about their feelings, and it gives them a chance to see that there are other children in the school that have experienced things in the same way. It is a great program and it brings children together. You should know that the teachers in this school take their time and their lunch to deliver it. (Teacher 3, Elliott)

A second type of Social, Emotional, and Behavioural non-academic programs were initiatives that provided students with peer support. Examples of these programs included the Peer Issues Group, Peer Mediators, and a social-emotional peer counselling group. A third type of Social, Emotional, and Behavioural non-academic program were those that fostered prosocial behaviour and interpersonal skills among students. The educators in this study named the *After School Program* and the *Boys Sports Club* as examples of structured programs that fostered students’ social skills. The fourth type of Social, Emotional, and Behavioural non-academic programs identified was the initiatives that provided mentoring and nurturing to students, and were aimed at building a climate of respect towards and among students. Examples of these
programs included the *Social Support and Nurturing* program, the *Support Our Students* (SOS) program, *Girls, Inc.*, administrators’ “Good news” phone calls home, and the TRIBES program.

One example of a non-academic program that provided nurturing support to students was the *Social Support and Nurturing* program. As the educator acknowledges in the following quote, this non-academic program was unique in that the only resource required to deliver this program, was an educator who is interested in nurturing students, and modelling healthy, warm, interpersonal attachments:

> My administrator asked what I would like to do last year. She had in mind, an idea of an in-school access program, and I agreed that is what I would really like to do. I always said that I thought this school really needed a nurturing kind of “milk and cookies mom” - if you want to use that sort of term. There are a lot of kids here that, for whatever reason, because of a lack of parenting skills, working families now, it is just so hard for the kids to get attention. I imagine they get home from school, turn on the TV or computer, and go to bed. I decided I would like to have a program that would nurture the kids, and help them with difficulties they may be having. I get to know who the kids at risk are. At the very least, it gives them something they can look forward to - a fun time in their day that is also productive emotionally. It is also helping realistically; the difficult children are coming out of the classroom, and the ones who remain have a better opportunity for learning without the distraction. (Teacher 2, Fraser).

While the *Social Support and Nurturing* program was exemplary in that it fostered the social-emotional development of students by providing students with attention from a warm and caring adult, it had the peripheral effect of fostering the other students’ learning and cognitive development, as these students were the beneficiaries of a distraction-free classroom.

**Character development**

Character Development was another theme identified within the Social, Emotional, and Behavioural non-academic programs. There were 19 distinct programs that focused on developing prosocial character attributes within students. Examples of these programs included the “Gotcha Awards”, the *Let’s Celebrate* and the *Good News* assemblies, the *Student of the Month Character Awards*, and “*Good For You!*” programs that celebrated and rewarded students
for acting in a prosocial or kind manner towards their peers. Other programs that taught students about prosocial attitudes and behaviours and positive character attributes included *Character Matters, Character Education, Random Acts of Kindness, and Leaders by Example*. When asked about programs that had made a difference in their school, one administrator stated that:

> Definitely *Character Matters*. It is not a program - it is the way you do things in the school. It is the way you treat other people, and you talk about integrity, you talk about trust, you talk about respect. That is what is happening in all of our classes - and it is making a difference. (Principal, Legge)

Many educators agreed that these programs set the standards for respect, prosocial behaviour, and caring interpersonal relationships in their schools – the very foundations of optimal child social, emotional, and behavioural development.

**Community climate**

A fourth dimension found within the category of Social, Emotional, and Behavioural non-academic programs were the programs whose purpose was to foster a positive school-community climate. There were 15 distinct non-academic programs that fostered a positive school climate for students.

These programs were diverse in nature – and yet all shared the underlying foundation and principles of making school a nurturing, interesting, and even fun environment for students. One example of a non-academic program whose purpose was to create and warm and inviting community climate for students were the programs that celebrated students’ developmental milestones such as a birthday or when a child looses a tooth:

> Whoever has a birthday in the school; they come down, they get a little treat. We give them a pencil or a little gift. And if they lose their tooth, they come down and we have a little chest that we give them a little treat from. The little kids will come down, with their tooth in their hands. We do things like that. (Principal, Elliott)

Other examples of Social, Emotional, and Behavioural non-academic programs that promoted community climate within the school included, the Mentoring Program, Spirit Day, SPA Days
Opportunities and experiences

There were non-academic programs whose purpose was to provide students with general opportunities and experiences. These programs centered on engaging students in activities in a social environment, and were meant to provide students with novel opportunities that exposed them to new areas of interest. Educators reported that these programs truly provide students with opportunities, as many parents were not able to provide these types opportunities for their children. Additionally, these programs provided students with a social context such that their leisure time was spent in a structured and supervised social environment. There were seven distinct programs identified and discussed by educators as providing opportunities and experiences to students. Examples of these programs included the Drumming Group, Knitting Club, the Mural Painting program, Origami Club, attending theatrical presentations, movie nights, and an extracurricular class that provided students with the opportunities to try ceramics, trampoline bouncing, cooking lessons, dance lessons, and the opportunity to play Laser Quest.

Therapeutic, social, emotional, and behavioural responses and developmental overlap

In an attempt to address the issues relating to student problem behaviour, these educators implemented numerous non-academic programs that focused on educating students about behaviour management, emotions knowledge, and emotional self-regulation. One school delivered Stop Now And Plan (SNAP) which is an empirically evaluated developmental program that teaches students to identify potential areas of interpersonal conflict by becoming aware of their own heightened emotions, developing the ability to identify past behavioural outbursts and the consequences, and by providing students with the skills to identify behavioural alternatives to aggression. SNAP involves students’ learning strategies for increasing emotional and behavioural self-regulation, developing social empathy and the ability to perspective-take and
see situations from different points of view, and fosters students’ cognitive development as they develop the metacognitive skills involved in identifying and becoming aware of their own thoughts and emotions, understanding past experiences, and planning future behaviour. Thus, while SNAP is a non-academic program that was classified as a therapeutic response to problem behaviour, it is a program that has profound developmental overlap as it fosters child development across all domains of development.

Another non-academic program that offered students a therapeutic response to problem behaviour was the Restorative Practices program. Restorative Practices is a program that strives to enact the principles of Restorative Justice. The principles of Restorative Justice include holding the offender accountable for their actions by instilling in the offender the true consequences of their actions, and in giving a voice to the victim and the victim’s family regarding the impact of the offender’s actions. The aim of the Restorative Practices process is to achieve the healing and reintegration of both the victim and the offender through the process of community mediation conferences. The goal of mediation conferences is to prevent similar behaviours in the future:

The program called Restorative Practices, is an offshoot of Restorative Justice within the Criminal Justice System. It is a model for behavioral management, counselling, and discipline. We started it on our own a couple of years ago and have seen huge results, which we attribute to the quality of the people, the Child and Youth Workers. How we go about working with kids to resolve differences and their problems so that they are not reoccurring. It all started as a way to reduce suspensions, but we have seen a whole lot of side benefits from it. We are not dealing with as many kids in the office anymore - which gives us more time to work on the curriculum. (Principal Rose Wood)

Thus, Restorative Practices exemplifies how these educators integrated the positive social, emotional, and behavioural development of students with resources that addressed the needs and fostered positive functioning of both individuals and the community. Further, this program was an indicator of the depths to which these educators were personally committed to internalizing and modeling the principles and behaviours that fostered the social-emotional development of
their students. When asked about the knowledge, skills, and attitudes educators required to work in their schools, one educator responded:

Flexibility. I think to be aware of, if not Restorative Practices per say, a form of discipline that is not just dwelling on punishments. That you are going further than looking at behavior. Solid classroom management that ties in with knowing about behavior and what works and what does not as far as shaping a student’s behavior. Also, you need the ability to talk with adults, with parents. You need mediation skills. Sometimes, the things parents are saying to us, you can take it personally and get very defensive and block up. But in the long run that is not going to resolve anything. So, to try to take all of that and just get that one little piece that the parent said and take that piece and say ‘okay, what are we going to do to help your child?’ as opposed to getting into a confrontation about things. (Teacher 3, Rose Wood)

These educators held a deep understanding of the interrelated nature of child development, and this understanding was evidenced by the “in-house” programs designed by the educators for the purpose of fostering students’ development across multiple domains. One such example was a non-academic program called SOS – Support Our Students. As demonstrated in the following quote, SOS was designed to provide mentoring and social-emotional support to students deemed to be “at-risk” academically, personally, or both. The SOS team assigned teachers from different grade levels to “take the student under their wing” and provided them with a supportive adult outside of their classroom environment:

We have Support Our Students program. Each staff member has taken under their wing an at-risk kid, either emotionally or academically. We keep tabs on them and give them a pat on the back when they have had a good week or a good day, and quite often I have had kids come down and see me if they have been having a rough time or if they have had some success. I say, ‘Come down and tell me about it, I want to know.’ And then I will call their parents. And that, to them - I have had kids beam, just because I have called their parents. We try to give them as much recognition as we can. Teachers mentor students from other grades. We have some teachers who are intermediate, and who have picked up junior students - just to make that connection to kids at different levels. (Principal 2, Fraser)

The foundation of this program was based solidly in the empirical foundations of child development research. For example, one notable feature of the SOS program and a feature that was found commonly in other non-academic and co-curricular academic programs in the study
was the intentional continuity of cross-grade teacher/student mentoring relationships that were promoted within the school. These educators held the empirically confirmed understanding that bridging the social-emotional and behavioural developmental gaps in students’ lives requires prolonged, warm, and sustained relationships with trusted adults. As one educator articulated, cross-grade relationships between students and educators build community:

I think a student is successful when they are emotionally secure at school. They are happy, they want to come to school, they are not feeling threatened academically or physically, of course. Any of those. Emotionally - that they are achieving the best that they can achieve, with support as needed. That is when I see kids being successful. Honestly, their scores are important but they are only one small indication of how successful a child is. (Teacher 1, Fraser)

Once again, the depth of the educators’ developmental understanding existed in every facet of their responses regarding their understanding of the challenges faced by students. These non-academic programs were often designed to address the immediate challenges faced by students (i.e. problem behaviour in the classroom). However, in delivery, many of these non-academic programs fostered broader developmental mechanisms such as promoting students’ sense of belonging and attachment to school and nurturing warm and long-term relationships with trusted adults – all of which are crucial components of optimal child development.

One particular Social, Emotional, and Behavioural non-academic program that was worth noting for its intentional developmental focus is the Girls Inc. peer mentoring program. Girls Inc. is a research based, gender specific program whose purpose was to foster the healthy psycho-social development of female adolescents. Girls Inc. strived to foster the potential of female adolescents by educating them about health and sexuality, and fostering life-skills, cultural identity, and career education and life planning. Given that these educators have identified that female adolescents can experience a vast number of challenges relating to their physical, sexual, intrapersonal and interpersonal development, it is a testament to their developmental awareness
and understanding that they perceived and addressed this crucial developmental need within their female student population.

Another progressive and developmentally focused non-academic program was *Girls on the Run*. *Girls on the Run* was a program that focused on developing the physical and social development of preadolescent and adolescent females. *Girls on the Run* is a community partnership program that aims to promote life-skills, positive self-esteem and personal identity, healthy body-image, and pro-social values by providing girls with health education and incorporating this education with physical training and running workouts. The education and physical training culminate in the *Girls on the Run* participants participating in a 5 kilometre, community focused running event that is a conscious celebration of the girls’ physical health, psychological resiliency, and community mindedness. Once again, this non-academic program illustrated educators’ understanding of the developmental overlap between the physical, social, emotional, and behavioural developmental domains.

*Girls on the Run, Girls Inc., SOS, Tender Support,* and SNAP are all exemplars of non-academic programs that fostered the intersecting domains of child physical, social, emotional, behavioural, and development. Further, the developmental foundations and the delivery of these non-academic programs demonstrated the educators’ extensive knowledge of child development and the extent in which these domains overlap.

**Parental Non-academic Programs**

Another category of the non-academic programs offered in these 10 schools are programs that were delivered for the specific benefit of parents. There were a total of 34 unique Parent (PAR) Non-academic Programs delivered in these schools that face challenging circumstances (Figure 5). There were three primary dimensions that existed within these parent non-academic
programs. These dimensions fostered: (1) parent education and learning strategies, (2) parenting skills and social support, and (3) parent involvement in the school community.

![Figure 5. Number of parent non-academic programs in each school.](image)

**Parent education and learning strategies**

There were 21 distinct parent education and parent learning strategies programs in these 10 schools. These programs provided educational opportunities for parents and fostered parents’ knowledge of learning strategies that will assist their children academically. These programs included English as a Second Language programs for parents, Parent/Family literacy night, Help Your Child Succeed at Home program, Reading Workshops for parents, Teacher Literacy Home Visits, Help Your Child to Read workshop, Parent Volunteer Reading programs, Parent/Kindergarten literacy class, Family Literacy Day, where students are invited to bring a
grandparent or uncle or aunt to school and the extended family member can participate in literacy
related workshops and activities, and Cozy Reading Time, and Cozy Writing Time:

I would like to talk about the parent piece; we talked about bringing parents into the school, and the other thing we have done with the primary teachers is a program called Cozy Reading Time where we invited the parents to come to school with their children in their pyjamas, hence the ‘cozy’ name, and the teachers help the parents read stories so that parents can help their kids at home. We focused on reading, one time it was shared reading and the other time it was modeled reading. It was a really neat set up, the kids came in and we had hot chocolate and then the kids went in to watch a movie and we did a little thing with the parents, teaching them, ‘This is what you need to know, what we are doing when we are reading, and this is how you can help your child at home.’ The first year it was mildly successful, so we decided we had to hype it a bit; we had door prizes and we had more parental involvement and our participation went up, so we did Cozy Reading Time for two years and this year we did Cozy Writing Time - so that is one of our initiatives. (Principal, Ferguson)

These parent education non-academic programs illustrated the innovative efforts that educators were willing to make in order to foster the developmental success of their students. By creating a parent non-academic program that fosters parents’ literacy knowledge and skills, and by bringing families into the school context, these educators succeeded in fostering parents’ education and learning strategies, modelling literacy practices for both parents and students, and demonstrating that the school is an open and warm climate where learning is both inviting and fun.

**Parenting skills and social support**

There were five programs that fostered the parenting skills of parents, and provided social support for parents who were struggling. These programs included a Community Family Services program, a Parenting Program, Families and Schools Together (FAST), The Family Center, and a babysitting service for parents who have young children so that they may attend parent focused programs and be exposed to the initiatives that foster their students’ school success.
Parent involvement

There were eight programs in the 10 schools that had the specific focus of fostering parental involvement. These programs included the Parent Council, School Council, and a community board for parents. Other initiatives that fostered parental involvement in the school were “Meet the Teacher BBQ”, “Meet the Teacher Pizza Night” and an enhanced “Curriculum Night”. These programs focused on bringing parents into the school and exposing them to the school environment, so that they may feel comfortable in the school context, and feel more inclined to increase their involvement in the school.

Non-Academic Programs that Address Community Diversity

A fourth and final category of non-academic programs that were offered in schools were programs that fostered the awareness and appreciation of the different types of diversity that exist within the school-community population.

Figure 6. Number of community diversity non-academic programs in each school.
There were 32 unique programs delivered in these 10 schools that face challenging circumstances. There were two dimensions of non-academic programs that fostered community diversity. They included programs that fostered students’ awareness and appreciation of: (1) social-cultural diversity, and (2) learning diversity (Figure 6).

**Social-cultural diversity**

There were 24 unique programs that fostered students’ awareness and appreciation of social-cultural diversity in these 10 schools. Examples of these programs included an International Night, Diversity Assemblies, and cultural celebrations of Eid, Diwali, Hanukkah, Kwanza, Lunar New Year, and Christmas:

> We have our diversity focus as well; we will focus on having one culture or religion, like the first month we did Ramadan and the end of October we did Diwali and in December we are doing Kwanza, Hanukkah, and Christmas, so we do different things like for the kids. We do it on stage, during our assembly, and they get to watch a really nice presentation. So, it is all about them for that one day, and they come to school with their spirit. (Teacher 2, Elliott)

Other initiatives included celebrating First Nations people and traditions with a mural painting program, having an Indian Dance Group and an African Dance Ensemble, honouring Black History Month, and delivering a Black Awareness Program. Other schools reported having a Diversity Committee, an Interfaith School Calendar that acknowledged the holidays of all student cultures, and a Multi-cultural talent show that showcased the traditional dances and cultural traditions of students’ cultures.

Other initiatives included a school that held an organized play night in the gym for Muslim girls, and having Pizza Days that were culturally sensitive to the food observances of students:

> You need to be sensitive. For example when we have pizza day we have to make sure that there is a non-meat option. We have our Muslim community, and when the kids go on a field trip, and they are going to eat hot dogs, we have to make sure that we have something that everyone can eat. You have to understand where the families are coming from, and what they are sensitive to. In some
schools where there is a large Muslim population they do not do over night trips because the parents will not allow the boys and the girls to stay together at night. We had swimming lessons here for grade three and some parents wanted the boys and the girls separate - so you have to know that piece, and set those things up from the start. (Principal, Ferguson)

These educators were conscious that their schools needed to be a place that honours the cultural traditions and values of their students. As illustrated, the educators took this responsibility seriously, as they promoted awareness and appreciation of the diverse socio-cultural population of their students.

**Learning diversity**

There were eight programs that involved integrating students who have a diversity of learning styles into the school community, and that fostered students’ awareness of the breadth of learning diversity that existed within their student population. These programs included classes for students who have Autism, Special Education classes, Gifted student class, Developmental Disability class (D.D.), Mild Intellectual Disability (MID) classes, an Integrated MID/Gifted student class, and the deaf sign of the day program:

At the beginning of the announcements we have something called ‘Sign of the day.’ We have our deaf sign program. We have two; the only two regional deaf sign classes are here. We have got kids from Kindergarten to Grade 8 being instructed. They are a well-integrated part of the school. So, we start off with the sign of the day, and the kids learn sign-language. (Principal, Elliott)

All of these non-academic programs fostered students’ awareness and respect for the diversity of learning that exists within their schools, and the larger society.

**Summary of Non-Academic Programs that Address Students’ Developmental Challenges**

In sum, analysis revealed that, in order to respond to the challenges faced by students, educators have identified students as having deficits in their developmental foundations. The educators responded to these deficits by delivering non-academic programs in their schools. Analysis of the breakdown of the non-academic programs revealed that educators delivered
programs that fostered students’ physical development, including nutrition, fitness, positive body-image, and healthy life habits, programs that addressed students’ social, emotional, and behavioural development which were therapeutic, addressed behaviour issues, and counselled students in managing and understanding their emotions. Further, these schools offered parents non-academic programs that fostered their own learning and cognitive development, provided them with the skills to support academics in the home, and fostered their parenting skills. The final type of non-academic programs found in these schools were programs that honoured the socio-cultural diversity of students and parents, and raised awareness of and the integration of students who have different learning styles and abilities.

*Co-curricular Academic Programs that Address Students’ Developmental Challenges*

Within these 10 schools there were co-curricular academic programs that addressed students’ developmental challenges as they related to cognitive development. Educators identified a total of 99 co-curricular academic programs that addressed students’ cognitive development (Figure 7).

These co-curricular academic programs addressed four types of students’ cognitive development. These dimensions of these programs provided and fostered students’: (1) literacy and numeracy skills, (2) learning strategies and learning support, (3) homework support, and (4) opportunities and experiences.

It is important to note that some of the co-curricular academic programs identified by educators included curriculum programs delivered during school hours. However, the educators reported that while these curriculum strategies were focused on students’ learning and cognitive development, they contained components that addressed other domains of students’ development, and for this reason are included in the analysis.
Educators identified a total of 54 unique co-curricular academic programs that fostered the literacy and numeracy skills of students. Examples of these programs included the First Steps Literacy Program, Kindergarten Take-home Literacy Bag program, Core Literacy Program, Pen Pal writing program, Boys Reading Club, Girls Reading Club, Parent Volunteer Reading program, Guided reading, Red Maple and Silver Birch Reading program, English as a Second Language (ESL) Support Program, Summer Reading Camp, AOKAY Literacy Program, Battle of the Book Contest, Reading Academy, After-school Literacy Program, Reading Recovery, Literacy Collaborative and Math Problem of the Week.

Learning strategies and learning support

Co-curricular academic programs that taught students learning strategies and provided learning support to students were another dimension of the co-curricular academic programs that
fostered students’ development. There were nine programs delivered in these schools. Examples of these programs included the Learning Skills Development Centre, Instructional Intelligence programs, and a Special Education Intensive Support program.

**Homework support**

Educators reported that the co-curricular academic programs that provided students with homework support were a crucial dimension of fostering the cognitive and developmental success of students. There were 11 unique co-curricular academic programs that provided homework support to students delivered in these 10 schools. Examples of these programs included the Homework Club, the Walk-In Club, the High-School Student Lead Homework Club, the Lunch-time Homework Club, the After-school Club, the Student Support Centre, an Evening Homework Club, Peer Tutors, and the Apartment Complex Homework Club:

> There are two apartment/condominium blocks and we have liaised with that community. They are running the homework clubs on Monday and Wednesday, because the bulk of our students come from there. I have steered them, and helped them, and their homework club is Monday and Wednesday, and ours is Tuesday and Thursday. So all in all, these kids are getting help four days a week after school. (Principal, Legge)

These educators recognized that students required additional opportunities to receive homework support. While many of these co-curricular academic programs were delivered outside of regular school hours, the educators recognized that there was a need for homework support that was in their home communities, and could easily be accessed by students. Thus, by providing homework support within the students’ apartment buildings, these educators have ensured that there were extended co-curricular programs in place to foster students’ cognitive development.

One peripheral outcome of these co-curricular programs that fostered students’ cognitive development by providing homework support to students is that they also provided students with focused attention from the individuals delivering the homework programs:

> The peer tutors, I know that both sides, I have spoken to the older students doing it and they are feeling really good about their involvement, because they are
teaching the younger kids. And the younger kids feel great getting that one-on-one time with somebody who is working with them. Just our way of looking at behavior I think is helping overall, because the kids see themselves as important and somebody is listening and paying attention to them. I think that is critical because without that connection – you are not going to have learning happening. (Teacher 3, Marion)

The impact of these co-curricular homework programs is that they fostered students’ cognitive development/learning outcomes by providing additional opportunities for students to complete their homework assignments. However, there was an inherent developmental overlap in the effect of these co-curricular programs in that they impacted students’ social, emotional, and behavioural development as well.

**Opportunities and experiences**

Another dimension of co-curricular academic programs that fostered students’ development was programs that provided students with opportunities and experiences that they would not have typically had access to. There were 25 unique co-curricular academic programs that provided students with opportunities and experiences that expanded their knowledge and experiential foundations. Examples of co-curricular academic programs that provided students with opportunities and experiences that fostered their development included: the Dramatic Arts Program, Chess Club, Visiting Speaker Program, Travel Programs to historic sites, Environmental Club, Eco Camping Club, Music Club, Art Club, Band, Drama Club, Literacy and Recreation Program, Choir, Games Club, Wireless Writing Project, the After-school Pottery Club, and organized trips to movies.

**Summary of Co-curricular Academic Programs that Address Students’ Development**

A total of 99 co-curricular academic programs were identified as fostering students’ cognitive development. The dimensions of these co-curricular academic programs included programs that fostered the literacy and numeracy skills of students and programs that taught students learning skills. These programs also provided students with a structured and supportive
context to complete homework outside of the classroom. Further, these co-curricular academic programs provided students with experiences that expanded their knowledge schemas and provided increased opportunities for students to have life experiences.

**Additional Strategies that Address Students’ Challenges**

In addition to the non-academic programs and co-curricular academic programs that educators identified as the vehicles through which they addressed the gaps in students’ development, the educators reported that they perceived that there were some developmental needs within students that were beyond their level of expertise. The educators reported that, when such needs were identified, the educators and school administrators responded to these needs by bringing external agents and resources into the school.

**Agents and External Resources in Schools that Face Developmental Challenges**

In these 10 schools there were 93 Agents and External Resources identified as addressing the developmental needs of students that exceeded educators’ expertise (Figure 8).

Analysis of the Agents and External Resources category revealed that the dimensions of the resources provided by the agents and external resources reflected the domains of child development as identified and understood by educators. The developmental dimensions addressed by the agents and external resources included delivering programs that supplemented the programs delivered by educators, or that provided resources that fostered students’: (1) physical development, (2) social, emotional, and behavioural development, (3) cognitive development, and (4) community and cultural diversity.
Educators identified six related Agents and External Resources that fostered the physical development of students. Examples of these Agents and External Resources included: Dance Instructors, Municipal Parks and Recreation, and programs delivered by community church members.

Educators identified 24 agents and external resources that delivered social, emotional, and behavioural related services. Examples of agents and external resources that addressed students’ social, emotional, and behavioural development included: Children’s Aid Society, Child and Youth Workers (CYW), Municipal Police, a High School Administrator Consultant Team, Attendance Counsellors, Mental Health Workers, Community Social Services, Community Family Services, Community Counselling Groups, a Behaviour Management teacher, Behaviour Management Teams, a First Nations CYW, a work-study room, High-school volunteers, and an Early Education Centre.
Educators identified 49 agents and external resources that fostered students’ cognitive development within the 10 schools. Examples of agents and external resources that fostered students’ cognitive development included: a new library, Performance Plus funding, a Performance Plus teacher, a Literacy Coach, Special Education Resource Teachers (SERT), Educational Assistants, a Library SERT, Developmental Reading Assessment, literacy consultant, Math Programs, a Student Service Centre, Program Assistants, a Community Library, ESL teachers, School Board Intensive Literacy Support funding, and School Board Intensive Literacy programs.

Educators identified 14 agents and external resources that were active in their schools and that addressed issues relating to the community and cultural diversity. These agents and external resources included: Settlement Workers, Translators, Cultural Liaisons, Cultural Education for educators, Community Coordinators, Community Liaison Officers, a Social Committee, a Community fund-raising committee, Public Health Nurses, and a Community Association.

There were numerous agents and external resources delivering programs and services within these 10 schools that face challenging circumstances. The agents and resources brought into the school addressed students’ physical development, social, emotional, and behavioural development, cognitive development, and fostered community and cultural diversity within the school community.

Summary

In sum, the educators in these 10 schools addressed the developmental challenges their students faced by implementing programs that addressed the developmental needs of their students. The programs that the educators delivered were non-academic programs that fostered students’ physical, social, emotional, and behavioural development, and co-curricular academic programs that supplemented students’ learning and fostered their overall cognitive development.
It was revealed that there were multiple developmental dimensions to these non-academic programs, and the dimensions included a focus on students’ nutrition, fitness, healthy habits, behavioural self-regulation, emotion understanding, and social skills. These co-curricular academic programs also had developmental foundations, and the dimensions of programs included developing students’ literacy and learning skills, providing students with supplemental homework support, and provide students with general opportunities and life experiences. When educators identified that the support students required lay outside their range expertise, the educators obtained the appropriate agents and external resources required to address the needs of their students, and had them come into their school and deliver the programs to the students so that they had the developmental foundations and opportunities necessary to succeed.
CHAPTER 6. DISCUSSION, CONCLUSIONS, AND IMPLICATIONS

The purpose of this study was to examine alternative or “non-academic” explanations that may account for the success of these 10 schools that faced challenging circumstances. Past research has revealed that it is difficult to achieve improvement in schools that face challenging circumstances as they face a multitude of complex variables that are barriers to school improvement. These challenging circumstances include high rates of unemployment, poverty, transient populations, low rates of student achievement, high rates of student mobility, high rates of staff turnover, and inadequate school facilities and a general lack of resources (Harris et al., 2006; Levin, 2006; Muijs et al., 2004; Reynolds et al., 2006). Further, students who attend schools that face challenging circumstances are at increased risk for decreased educational attainment and overall developmental trajectories (Huston et al., 2006; Rothman et al., 2008). As academic strategies may not be sufficient to foster the success of students in schools that face challenging circumstances (MacBeath et al., 2007), there is a crucial need to explore all possible non-academic processes and strategies that may contribute to the success of these vulnerable students.

In an effort to explore the non-academic processes present in the 10 schools that faced challenging circumstances, this study explored how educators in schools that face challenging circumstances understand child development within the school context, and how these educators addressed the challenging circumstances their students faced. By exploring educators’ understanding of the challenging circumstances it was revealed that educators understand the challenges to be multifaceted developmental challenges, which often threaten students’ overall development. The main findings of this study are that educators believe that students’ physical development, students’ social, emotional, and behavioral development, and students’ cognitive development are both interrelated and foundational to students’ success. These educators believe that in providing for students’ safety, nutritional, and fitness needs they are fostering the physical
developmental success of students. These educators believe that in fostering the behavioral strategies of students, in fostering both the interpersonal and intrapersonal development of students, and in honouring the cultural identities of students, they are fostering the social-emotional success of their students. Lastly, this study found that in fostering students’ literacy development, providing opportunities and experiences that fostered students’ schema building and English language proficiency, and in providing for academic support outside of school, these educators believed they were fostering their students’ cognitive success. As such, these findings revealed educators’ underlying beliefs that student “success” surpasses the contemporary conceptualization of student success as it relates to performance on standardized assessments (Fitz-Gibbon & Kochan, 2000), as these educators’ beliefs about student success include but are not limited to child cognitive development. This study found that these educators’ conceptions of success include child physical, social, emotional, and behavioural development, as student success, for these educators, relates to students’ abilities to meet the developmental tasks and to experience personal success in their lives (Eisner, 2001; Elias, Wang, Weissberg, Zins, & Walberg, 2002; Purkey & Novak, 1996).

The findings of this study align with previous research which has demonstrated that developmental psychologists and child development specialists traditionally agree that within the study of child development, there are three domains of development (Berk & Shanker, 2006; Kail et al., 2006; Sigelman & Rider, 2006). Researchers consider physical development (which includes changes in the child’s body, bodily functions, perception, motor-skills, and physical health), social-emotional development (which includes emotional communication, self-understanding, knowledge about other people, friendships, intimate relationships, moral reasoning and behaviour), and cognitive development (which includes changes in memory, attention, planning, problem-solving, academics, imagination, creativity, and language) to comprise the domains of child development (Berk & Shanker, 2006). This complex framework is
often referred to as a biopsychosocial approach to child development as it considers the physical, psychological, and social factors that contribute to and influence the development of the child (Kail et al., 2006).

It is important to note that these three developmental domains are not distinct, as each domain influences and is influenced by the other developmental domains. Development in one domain often triggers and lays the foundation for development in other domains, while deficits in the developmental foundations of one domain can impede subsequent development in the same and related domains. For example, as an infant matures physically, the child gains the musculoskeletal strength to sit independent of assistance from her caregivers. As the child is able to sit, she experiences increased opportunities for more sophisticated play and social interaction between herself and her caregivers. The child’s physical maturation creates the foundations and opportunities for her subsequent social, emotional, and cognitive development (Berk & Shanker, 2006). Likewise, if a child’s basic nutritional requirements are not met, these nutritional deficiencies can negatively impact the child’s physical, neurological/cognitive, and social-emotional development (Department of Health and Human Services (DHHS) (US) Administration on Children Youth and Families (ACF), 2001).

Accordingly, this study utilizes a biopsychosocial framework of developmental inquiry to examine educators’ understanding of child development in the school context. The conceptual framework of this mixed-methods study consisted of three distinct elements: (1) an inquiry into educators’ understanding of the physical, social, emotional, behavioural, and cognitive development of children in schools facing challenging circumstances, (2) an inquiry into educators’ understanding of the students’ home environments as it related to child development, and (3) an exploration of how educators’ addressed the challenges faced by their students, given their understanding of child development and their home environments.
While the interrelated nature of the developmental domains is evident, some researchers have criticised that the domain approach to child development is acontextual (Burton, Obeidallah, & Allison, 1996). This trend of context-free developmental research is likely due to the concern that research that includes community and/or contextual factors is not generalizable to larger populations (Sullivan, 1996), and thus may not be as valued as research that utilizes controlled variables. However, there is a movement towards developmental research that is more holistic in its portrayal of the layered relationships and diverse contexts that comprise and influence child development, so that the complexity of the process of child development is more accurately reflected in the findings of contemporary research (Sullivan, 1996).

Thus, the two primary conceptual constructs which frame the research questions are a biopsychosocial lens of inquiry into child physical, social, emotional, behavioural, and cognitive development (Feldman, 2006; Kail et al., 2006; Moshman, 1999; Steinberg, 2005), and the developmental context of the school, which is captured by an examination of educators’ perceptions of students’ families and the social-cultural community surrounding the school (Morales & Guerra, 2006). As presented, the research questions utilise a biopsychosocial framework (Kail et al., 2006) of developmental inquiry to examine educators’ understanding of child development in the school context in an effort to provide a developmental explanation that will expand the understanding of the processes that occur and may account for the success of schools that face challenging circumstances.

The results of this study highlight the importance of educators’ understanding of child development. The results revealed that educators understood that the domains of child development were inter-related. They understood that when there were deficits in students’ development, these deficits must be addressed. These educators have provided their students with non-academic programs, co-curricular programs, and external agents and resources that provided opportunities and experiences that compensated for the gaps in students’ development.
The educators’ understanding of child development and the steps they have taken to foster the developmental success of their students, demonstrated that these educators are using a child development approach in these 10 schools that face challenging circumstances.

**The Challenge is Developmental**

It is understood that the general phenomenon of child development is by nature, complex. It is also been established that the school context is a critical context of child development (Eccles & Roeser, 1999; Roeser et al., 2000). In real life, and at any phase of the developmental continuum, it is often the case that individual factors of child development are compromised, but that other factors and processes in the environment emerge to play a compensatory role in the child’s development. For example, it is a common occurrence in the school context that when a student arrives at school having had limited or no literacy exposures in the home environment, the educator is able to foster the student’s literacy skills, as the pedagogical skill of the educator compensates for the limited prior literacy experiences of the child (Campbell, Fullan, & Glaze, 2006; Dickinson & Smith, 1994; Saskatchewan Education, 2000). However, there are some contexts in which the sheer number of developmental deficits converges, and these factors cascade and compound to form ever more complex threats to the child’s development. This compounding of effects - Matthew Effects (Stanovich, 1986) - can cut across immediate developmental domains, and place the child’s overall developmental trajectory at risk.

This study has found that, in these 10 schools that face challenging circumstances, the processes that constitute and influence the developmental trajectories of the students in these schools, are often compromised, inconsistent, and in some circumstances, non-existent, and that the cumulative negative impact of developmental deficits affects a large portion of the students in these schools. Further, this study found that deficits in students’ developmental foundations are what typify the “challenging circumstances” that these 10 schools face.
In schools that face challenging circumstances, it has often been found that a focus on pedagogical and curriculum strategies may not be sufficient to ensure and sustain student success (MacBeath et al., 2007). Researchers agree that threats to children’s development impact their educational attainment and long-term developmental trajectories (Bradley et al., 2001; Corak, 2001; Dickinson & Smith, 1994; Downer & Pianta, 2006; Ed, 2001; Gore & Smith, 2001; Huffman et al., 2000; Huston et al., 2006; Kessler et al., 1995; Kleinman et al., 1998; Morales & Guerra, 2006; Piontek et al., 1998; Roeser et al., 2001; Rothman et al., 2008; Walpole et al., 2004). This suggests that additional measures that compensate for the developmental deficits that place students at risk may have a role in these specific school contexts, as they may compensate and foster students’ overall development and may promote school success.

Analysis of the quantitative data regarding the focus on child cognitive development reveals that while all 10 schools in this study have a shared and exceptionally strong focus on fostering the learning and success of students, analysis of the qualitative data reveals that the educators in these 10 schools do diverge from the traditional conception of school success in how they understand and foster the success of their students. Many of the educators in these 10 schools have expanded their understanding of the traditional definition of “school success” to include child developmental success, as they understand that the physical, social, emotional, behavioural, and cognitive domains of child development are interdependent and reciprocal, and can advance or impede the development of students and their overall school success. Thus, the findings of this study may serve to further an explanation of why pedagogical and curriculum strategies alone are not sufficient to ensure school success (MacBeath et al., 2007). School success strategies may have to combine both teaching and learning (cognitive) initiatives with interventions that address the physical, social, emotional, and behavioural developmental needs of students in order to achieve student success.
This study finds that these educators believe that students’ learning outcomes and their cognitive development are contingent on the degree and depth in which students’ physical, emotional, social, and behavioural needs are addressed. Further, this study finds that educators believe that there is a developmental hierarchy of needs that exists (Maslow, 1968), and that, if they are to foster students’ learning and cognitive development, they must address any gaps or deficits that exist in students’ developmental foundations. The educators demonstrate the depth of their developmental understanding as their responses to students’ needs parallel child development research, and involve providing students with proper nutrition (Pollitt & Matthews, 1998), physical activity (Nemours Foundation, 2008), stable interpersonal attachments to teachers (Tatar, 1998), and feelings of belonging and stability within the school (Furrer & Skinner, 2003). The educators in this study understand that, by creating a warm and nurturing school climate, and by focusing on students’ physical, intrapersonal, and interpersonal development, these educators are laying the developmental foundations that foster students’ learning and cognitive development, and ultimately student and school success (Urdan & Schoenfelder, 2006).

**Educators’ understanding of child physical development**

The educators report that a safe school environment is a necessary foundation of student and school success (Perkins, 1992; Purkey & Novak, 1996). Further, educators consistently reported that they believed that students’ nutritional and physical fitness needs were crucial components of child physical development - and that they were compelled to address these issues for their students.

Nutrition was a factor of child development that consistently emerged in the interview data. Educators continually refer to the belief that students are not able to learn effectively until their basic nutritional requirements are met (Murphy, 2007; Rampersaud, Pereira, & Girard, 2005). Many of the educators stated that they observed that the “basic nutritional” needs of the
students were not being met at home, and that the educators believed that they had to “level the playing field” for their students by making nutritious food available in the school (Rothman et al., 2008). Interestingly, in the minds of these educators, meeting the nutritional needs of students did not fall under what others may have described as “external factors beyond the school’s control” (cf. Coleman, 1988). Rather, the educators in this study had the perspective that proper nutrition is a foundation of child development, and if this developmental necessity was not being met in the home environment, then the educators believed it was their responsibility to develop initiatives to nourish their students so that they may learn (Foster et al., 2008; Huston et al., 2006).

The educators’ developmental understanding about the importance of meeting students’ basic nutritional requirements is empirically confirmed. There are numerous research studies that demonstrate the relationship between students who eat breakfast and those students that show positive gains in cognitive functioning, academic success, and school attendance (Ingwersena, Defeytera, Kennedy, Wesnesc, & Scholey, 2007; Pollitt & Matthews, 1998; Rampersaud et al., 2005). It has also been demonstrated that those students who do not eat breakfast experience difficulties with the cognitive functions needed for attention and learning in school (Foster et al., 2008; Murphy, 2007; Pollitt, Cueto, & Jacoby, 1998; Pollitt & Matthews, 1998; Rampersaud et al., 2005).

The educators in this study understood that, by offering non-academic programs that focus on providing nutrition, these programs can impact students’ physical development and academic attainment. But these educators also understood that non-academic programs that focus on providing nutrition also positively impacts students’ physical fitness (American Heart Association, 2008; Nemours Foundation, 2008), their positive attachment to school, and can increase school attendance – all factors that support and reinforce students’ positive educational and developmental trajectories (Feeding America, 2009).
The educators’ response to the problem of program utilization was inspired. Through careful analysis of which students were not using the nutrition programs, it was discovered that a gender issue existed in that male students were not arriving early enough at school to make use of the breakfast program. The educators developed a non-academic program that sees adolescent males getting out of bed, arriving at school early, participating in physical activity, developing their physical motor skills and cardiovascular fitness, engaging in the healthy habit of peer socialization in a structured environment, learning a skill under the guidance of a skilled coach, and eating a nutritious breakfast. As a result, these educators derived a gender-specific solution to a gender-specific problem, and they created an initiative that addressed a specific challenge by providing a solution that fosters optimal child development across all developmental domains.

The knowledge and response enacted by these educators is supported by the research evidence on nutrition, physical activity, structured leisure time, and family stress. Research indicates that students who do not eat breakfast demonstrate a higher prevalence of social, emotional, and behavioural problems (Kleinman et al., 1998), and that generally, having eaten breakfast is an effective indicator of family hunger, impoverishment, and a family’s use of available community resources (Kleinman et al., 2007). Further, there is research which indicates that students who participate in structured extra-curricular activities (Eccles & Barber, 1999; Mahoney, Stattin, & Lord, 2004; Zaff, Moore, Romano Papillo, & Williams, 2003) may be less prone to issues of delinquency and school drop-out, and maintain positive attitudes towards school during the span of their education (Darling, 2005; Larson, 2000; Lerner, 2005; Mahoney et al., 2004; Morris & Kalil, 2006; Zaff et al., 2003). Lastly, it has been found that participation in extracurricular activities predicts students’ academic achievement (Active Healthy Kids Canada, 2009; Centers for Disease Control and Prevention, 2008; Ratey, 2008) and the development of pro-social values (Alexander, Entwisle, & Kabbani, 2001; Zaff, Moore, Romano Papillo, & Williams, 2003).
It has been demonstrated that these educators believe that programs that focus on fostering an issue that exists in a specific developmental domain will cascade over and positively influence other domains of development. For example, these educators understand that non-academic programs that focus on physical fitness can have developmental impacts on children that surpass the target domain of physical development (Active Healthy Kids Canada, 2009; Centers for Disease Control and Prevention, 2008; Ratey, 2008). An example of this is found in educators’ awareness of the opportunities and experiences provided by physical activities and students’ social, emotional, behavioural development (Girls on the Run, 2008) and their schema building/cognitive development (Vygotsky, 1978).

Many educators report observing that there are a large percentage of students who have emigrated from other countries, and have been “transplanted” into a new country and culture. These educators’ note that, the non-academic programs that foster students’ physical fitness and development are often based on “traditional” Canadian childhood experiences such as ice-skating, playing ice hockey, down-hill skiing, or even more generic North-American experiences like playing baseball, basketball, or taking swimming lessons, and are beneficial for those students who, for numerous reasons, have not had exposure to these experiences. These structured, physical non-academic programs have the potential to impact students’ cognitive development as these opportunities and experiences expand students’ understanding of their community and culture, while increasing and adding references within their cognitive schemas which impacts their abilities to make connections while learning (Bransford, Brown, & Cocking, 1999; Byrnes, 2001; Dewey, 1938; Dunn, 1996; Hofman et al., 1999; Landry, 2002; Morris & Kalil, 2006; Nicolopoulou, 1993; Piaget, 1969; Vygotsky, 1962).

To their great credit, these educators use highly sophisticated and empirically based language when discussing the students’ lack of social-cognitive foundations, and the cognitive development problems that arise when students lack the social references and cognitive schemas
that are required for educators to “hook” new information into prior knowledge – a process that must occur in order for learning gains to consolidated (Bransford et al., 1999; Carmichael & Hayes, 2001; Gauvain, 2001; Glaser & Baxter, 2000). As a result of their knowledge of child cognitive development, the educators feel that students’ participation in the physical non-academic programs can be a means for students to gain social, cultural, cognitive, and physical experiences and references, as the physical non-academic programs builds students’ cognitive and social “backpacks” (Blair, 2002; Carmichael & Hayes, 2001; Downer & Pianta, 2006; NICHD Early Child Care Research Network, 2003; Shonkoff & Phillips, 2000).

These educators believe that physical non-academic programs impact the nutritional and physical health of students, while also having the added benefit of increasing their attachment to school, increasing attendance, providing students with opportunities for positive peer relationships and experiences (Ryan, 2001) that broaden students’ understanding of Canadian culture, and promoting the process of cognitive development. Thus, there is multi-faceted evidence in the quality and breadth of the child development components contained in the non-academic programs in these schools, that these educators understand child physical development to be related to student learning and general child development.

**Educators’ understanding of child social-emotional and behavioural development**

Educators in this study revealed themselves to possess both a broad and complex understanding of the multifaceted nature of child social-emotional development. The educators’ understanding of child social-emotional development includes understanding the issues and etiology of students’ problem behaviour and physical aggression (Barth, Dunlap, Dane, Lochman, & Wells, 2004; Calvete & Cardenoso, 2005; Ladd, 2006; Miller, Gouley, & Seifer, 2004; NICHD Early Child Care Research Network, 2006; Parker et al., 1998; Waschbusch, 2002; Winsler & Wallace, 2002), and how proactive non-academic programs supported students’
Educators demonstrated understanding the relationship between emotion knowledge and emotional self-regulation (Havighurst, Harley, & Prior, 2004; Izard, Trentacosta, & King, 2004; Selman, 2003), pro-social behaviours between peers (Berndt, 2002; Berndt, Hawkins, & Jiao, 1999; Criss, Pettit, Bates, Dodge, & Lapp, 2002; Eisenberg et al., 2002; Eisenberg et al., 1997; Eisenberg & Miller, 1987; Feshbach, 1978; Hartup, 1996; Hartup & Stevens, 1999; Ladd, 2003), and the relationship between the development of positive self-concept, internal motivation (Girls Incorporated, 2008; Girls on the Run, 2008), and academic achievement (Akey, 2006; Barkley, 1997; Deci, Vallerand, Pelletier, & Ryan, 1991; Welsh et al., 2001).

Educators also understand that attachment to warm and trusted adults plays a role in children’s social-emotional development (Baumeister & Leary, 1995; Burnett & McCrindle, 1999; Domagala-Zysk, 2006; Eccles & Roeser, 1999; Galbo, 1989; Guisinger & Blatt, 1994; Harter, 1990a, 1999; Noddings, 1984; Urdan & Pajares, 2001; Wentzel & Asher, 1995). Further, they recognize issues surrounding child and family mental health (Morales & Guerra, 2006; Selman & Demorest, 1984), and they demonstrated an understanding of the importance of celebrating developmental milestones and honouring student diversity within the school context to compensate for students’ home environments, and to create a warm and inviting school context (Purkey & Novak, 1996).

**Educators’ understanding of child cognitive development**

Educators within this study demonstrated a highly sophisticated and empirically based understanding of child cognitive development. Educators referred to the roles that literacy development, schema building, academic support outside the school context, teaching strategies, and language skills play within child cognitive development.
Many of the educators reported understanding empirical theories about how knowledge is organized and stored in the brain. Further, they demonstrated understanding how teaching processes are used to cognitively “hook” new knowledge onto pre-existing knowledge and schemas (Blair, 2002; Bransford et al., 1999; Byrnes, 2001; Carmichael & Hayes, 2001; Shonkoff & Phillips, 2000). These educators also recognize the role that social and cultural references play in a child’s ability to learn (Kanu, 2005).

These educators noted that students have the best outcomes for developing solid literacy skills when they are exposed to literacy at an early age – but that often, in their school contexts, students and families require support to give their children early literacy exposures. The educators noted that the Ontario Early Years Literacy program, the Kindergarten Literacy Bag program, and Cozy Reading Time, and Cozy Writing Time were examples of programs within their schools that foster these early literacy exposures for children (Campbell et al., 2006; Dickinson & Smith, 1994; Meyer & Wardrop, 1994; Senechal, 2006; Walpole et al., 2004; Whitehurst et al., 1994).

Further, the educators demonstrated their sophisticated understanding of child cognitive development when they reported that they were gravely concerned that due to many social, cultural, and familial reasons, their students did not have adequate opportunities to be exposed to and gain the social and cultural references and experiences needed to engage with the school curriculum (Dewey, 1938). As a result, the educators expressed concerned that this lack of exposure and opportunities was negatively impacting their students’ cognitive development (Downer & Pianta, 2006; Huston & Ripke, 2006b).

The educators’ concern for and knowledge about their students’ cognitive development is empirically grounded in cognitive science research. Researchers have demonstrated that an individual’s ability to build their knowledge base and learn is based on the content of the individual’s knowledge schemas. Thus, individuals who have more social-cultural knowledge
have more content to “hook” new information onto, and more knowledge connections that facilitate the storing and retrieval of new knowledge, while individuals who have less content in their knowledge schemas struggle with making connections between what they are learning and what they already know (Bransford, Brown, & Cocking, 1999; Carmichael & Hayes, 2001; NICHD Early Child Care Research Network, 2003; Shonkoff & Phillips, 2000). Many of the non-academic and co-curricular academic programs offered within their schools are offered to offset the cognitive developmental gaps that many of their students face.

**Cognitive development and overlap with other developmental domains**

Thus, throughout the data, it becomes evident that many of the cognitively based co-curricular academic programs have been instituted within these schools as a means of offsetting the developmental gaps that occur within the student population. Cognitive programs such as the *Student Support Centre*, the *Lunchtime Homework Club*, the *Evening Homework Club*, the Home Work Clubs run by students from neighbouring high-schools, and the off-site Homework Clubs run in neighbouring apartment complexes and staffed by parent volunteers who have been trained by the educators, all provide students with academic support outside the regular classroom context, as educators understand that a vast majority of students have no such support in the home environment (Campbell et al., 2006; Downer & Pianta, 2006; Hortacsu, 1995; Mosenthal, Lipson, Torncello, Russ, & Mekkelsen, 2004; Whitehurst et al., 1994).

Another example of educators’ understanding that cognitive development is integrated with the students’ social, emotional, and behavioural development is found within the parent volunteer reading program run in many of these schools. Many educators identified that the parent volunteer reading program is a program that is strongly associated with their school’s success in standardized tests. While the parent volunteer reading programs are co-curricular academic programs that focus on developing literacy skills of students, many educators reveal in the interview data that the inherent structure of the program is designed to foster both the reading
abilities of struggling students (Evans, Shaw, & Bell, 2000; Greenwald, Hedges, & Laine, 1996; Meyer & Wardrop, 1994; Senechal, 2006) (parents are trained and keep running records) (Clay, 2000), while simultaneously providing students with positive relationships and consistent interpersonal attention from their assigned parent volunteer. The educators note that the sum effect of this program is that students have increased opportunities to develop literacy related skills, but they also have the opportunity to have positive relationships with trusted adults, receive verbal praise for their efforts, and experience individualized attention that may contribute to the student’s development of a positive self-concept (Burnett, 1994a, 1996; Burnett & McCrindle, 1999; Deci et al., 1991; Domagala-Zysk, 2006; Furrer & Skinner, 2003; Harter, 1987; Montemayor & Eisen, 1977; Noddings, 1984; Pianta, 1999; Quay & Blaney, 1992).

Some co-curricular academic programs such as Guided Reading and Guided Writing are run by Child and Youth Workers with the general understanding that some children may be experiencing developmental lags in their cognitive processes due to gaps or delays in the children’s interpersonal or intrapersonal development. These developmental gaps may be the result of a lack of individual attention from adults, stable relationships, and unsupportive or chaotic home environments. Some schools have addressed this developmental issue by creating a work study room or a work study group – to provide students with a calm and supportive environment in which to learn self-awareness and interpersonal skills while receiving academic tutoring (Akey, 2006; Urdan & Schoenfelder, 2006). Thus, analysis of the cognitive programs reveals that of the co-curricular programs aimed at promoting students’ cognitive development have, at their foundations, social, emotional, and behavioural developmental implications (Bush et al., 2000; Elias, Wang, Weissberg, Zins, & Walberg, 2002).
Summary of educators’ understanding of child cognitive development

Analysis of educators’ understanding of child cognitive development reveals two distinct findings: (1) that many of the educators in this study hold an empirically grounded understanding of cognitive development in children, and (2) that these educators believe that the domains of child physical, social, emotional, and behavioural development are interrelated with child cognitive development. The educators within this study believe that, if a child’s physical needs are addressed and if non-academic programs and interpersonal relationships can address students’ social and emotional needs, it is only then that the foundation for child cognitive development has been laid.

Many of the educators believe that student learning is contingent on schema building, and that a child’s schema knowledge structures are related to the prior knowledge that they bring to school, and that an individual’s prior knowledge is gained from life opportunities and experiences. As a result, many of the educators reported that they must take into account a child’s background, culture, and exposure to the English language when developing tailored instructional strategies that foster the learning and cognitive development of their students. Further, many of these educators report that, in order to compensate for students’ gaps in their knowledge structures, schools and educators must provide academic support outside of the “regular” school hours, as many of the students’ parents are not able to provide needed extra-curricular supports. Additionally, some educators have identified that mental health issues faced by students and their families negatively impact students’ ability to focus and learn in school, and in order to be able to foster students’ learning/cognitive development, these educators believe that they must put supports in place to assist students and families in coping with mental health issues. Lastly, some educators have reported that they believe they will have provided their students with the best possible opportunity for both academic attainment and overall optimal development if they can instil in their students a love of literacy, the personal identity of
being a learner, and advanced metacognitive skills such as organizational skills and critical thinking.

These educators report believing that, when these foundational developmental needs are met within a warm environment, it is then that students will develop a sense of being cared for, and this will lead students to develop a sense of belonging and relatedness to their school. These educators believe that when students have a sense of being cared for and belonging within their school, it is then that students will have the foundations in place to become internally motivated to succeed academically and flourish developmentally.

**Summary**

This study finds that there is a comparable focus on teaching, learning, and student success across all 10 schools in the study – and thus a focus on academics is not sufficient to explain the success of these 10 schools. An examination of educators’ understanding of child development, and their responses to address the challenges that threaten students’ development did reveal that the educators in these 10 schools make extraordinary efforts to compensate and foster the development of their students across all relevant domains of child development – and that these efforts may be responsible for explaining some of the success achieved in these schools.

Understanding the belief systems, the knowledge held, and the responses made by the educators in these 10 schools can potentially impact every level of stakeholder that is concerned with ensuring the welfare, educational attainment, and developmental success of vulnerable students. The understanding gained of the processes that are occurring in these 10 schools have implications for: students, parents and families, educators, administrators, schools, school communities, School Districts, School Boards, Teacher Education programs and institutions, Teacher professional development, curricula design, educational policies, funding, and society.
Research Implications

Students, parents, and families

The need for belonging and attachment are foundational needs that drive every major theory of human development (Ainsworth & Bell, 1970; Baumeister & Leary, 1995; Bowlby, 1978). Thus, any context that considers and provides the foundations of human development fosters the potential of the self-actualisation of the individual (Maslow, 1968). It is a reasonable inference that, if a school context provides students with a safe learning environment, instils a sense of belonging, and fosters warm relationships with trusted adults, these efforts will positively impact students’ desire to attend school, attachment to their peers, teachers, and school, positively impact their personal motivation to engage at school, and ultimately, positively impact their academic success (Baumeister & Leary, 1995; Deci et al., 1991; Guisinger & Blatt, 1994; Kessler et al., 1995). Therefore, a positive school environment that is aware of, considers, and provides for the foundations of human development, may positively impact students’ life outcomes.

Educators

One of the concerns of educators, administrators, and researchers is the concern of preventing the risk of “burn-out” in educators who teach in schools that challenging circumstances. Professional fatigue or a sense of hopelessness is a common result when educators face chronic challenges that they feel are beyond the scope of what they can address. What has emerged in this study is the profound realization that the level and degree of educators’ understanding of child development may serve as a psychological immunization against teacher “burn-out” and general feelings of ineffectiveness. In fact, there may be a complex phenomena at work in these schools; it may be that the positive effect that self-efficacy has on personal motivation is accompanied by an undercurrent of a Rosenthal Effect (Rosenthal & Rubin, 1978) within these educators.
It appears that educators’ understanding of child development may increase their sense of efficacy as teachers, as their knowledge of child development assists them in identifying, understanding, and developing a response or strategy that effectively addresses the challenging issues students face. A sense of efficacy would logically decrease the sense of helplessness and possible negative attitudes towards students and their families, which is known to negatively impact students’ academic attainment (Coie & Dodge, 1998; Gifford-Smith & Brownell, 2003; Hatzichristou & Hopf, 1996; Ladd, Herald, & Kochel, 2006; Ladd et al., 1996; Ladd, Kochenderfer, & Coleman, 1997; Ollendick et al., 1992; Parke & O'Neil, 1999; Welsh et al., 2001; Wentzel & Asher, 1995; Woodward & Fergusson, 2000). It may be that this sense of efficacy may also be accompanied by a positively commensurate increase in attachment to students and the school context; thus educators’ understanding of child development, provides them with a sense of efficacy, and may be a protective factor against professional fatigue.

Further, as it is known that appropriate teacher-student attachment increases students’ sense of belonging and students’ levels of internal motivation, this may cascade into a positive and reciprocal climate wherein educators feel that their efforts make a difference. The sense that they are having an impact on students and the school context may occur to educators consciously, unconsciously, or both, and may have the cumulative effect of reinforcing their efforts in creating a school climate that surpasses the challenges it faces, as they succeed in transforming a challenging school context into one is conducive to academic attainment and student developmental success.

**School administrators**

If educators’ understanding of child development can impact the outcomes of students and the school, administrators may want to consider the level of potential staffs members’ child development knowledge and the extent of their past experiences relating to the physical, social, emotional, and behavioral development of students, their experiences with community
organizations and program delivery. While many administrators may already look for these attributes in a teacher candidate, administrators’ understanding that the non-academic knowledge and perspectives that educators hold can be a strategy towards fostering school success may result in an administrative hiring strategy that reveals value but does not add direct fiscal pressure on personnel budgets. Thus, if administrators were aware that an applicant’s level of child development knowledge and experiential profile could be a source of achieving school success, this understanding could enable school administrators to make informed and progressive hiring decisions as they seek out “embedded-value” candidates to bring into their school.

**Schools**

Schools that hire educators and staff members who are development-focused and that provide developmental opportunities and experiences to the students, and who include child development in their school goals, may be more successful in attaining the goals they set for students’ literacy and numeracy development. Thus, the very understanding that developmental deficits may have to be assessed and addressed by the school may be the mechanism that promotes the overall success of the school.

**School districts and school boards**

If future research can support the finding that strategies that focus on the non-academic development of students can foster the academic success of students, these outcomes may provide Boards of Education with considerable motivation and financial justification to create and support non-academic programs that foster the educational attainment and overall developmental success of their students.

**Teacher education programs and teacher professional development**

Given that knowledge of child development may have a cascading positive impact on students, teacher efficacy, and the overall success of students and schools, programs that provide initial teacher-education may want to assess the general level of child development education
that exists in all programs. In particular, these programs may want to examine the possibility of
developing teacher-educator programs that have a particular emphasis on child development in
the context of challenging circumstances as a strategy that better prepares teacher-candidates to
enter into challenging contexts. As teacher candidates’ level of preparation to entry the field is an
issue of constant debate, this addition to teacher education programs may have the outcome of
improving teacher-candidates’ overall sense that their choice of program suited their needs in
adequately preparing them for entry into challenging school contexts. The same principles may
be applied to ongoing teacher professional development in that PD courses with an emphasis on
child development and challenging circumstances may be an effective way to increase teachers’
sense of efficacy, while expanding the strategies that schools employ to achieve the success of
students and their schools.

**Educational policy**

Non-academic or co-curricular programs (such as the parent-run reading programs) that
promote both the learning/cognitive and social-emotional development of students must be the
priority for educators in schools that face challenging circumstances. When developing curricula,
curriculum designers and educators should understand the factors of child development so that
they may incorporate developmental tasks into all levels of the curriculum to engage and foster
all domains of child development.

**Education funding**

If future research supports these findings, Boards of Education, Ministries of Education,
and private funding partners will find more motivation to create and financially support “value-
added” non-academic and co-curricular programs that fosters the academic and overall
developmental success of children.
Communities and the larger society

Further, these outcomes may assist community level not-for-profit organizations that face the continual struggle of sustaining funding. Evidence that community based supplementary developmental programs provides opportunities and experiences for children as they enhance all levels of students’ development will create a designated role in the education of students for organizations that can deliver developmentally based programs for students. In creating a designated role for community organizations within the institution of education, the change may draw more competent, educated individuals to community organizations as these organizations have the potential to make a positive impact at both the level of the individual and the level of society.

If the purpose of education is to foster the growth of individuals so that they may meaningfully engage in our society, then it is evident that our understanding and quest for school improvement must be expanded to include child developmental success. It has been revealed that fostering students’ physical, social, emotional, and behavioural development may be a critical mechanism in fostering students’ cognitive development and school success.

Future Research Directions

To fully understand the relationship between educators’ level of child development knowledge, the delivery of non-academic and co-curricular programs that foster child development, and schools in challenging circumstances that are succeeding, a longitudinal examination must be conducted. Further research is needed to examine multiple schools experiencing a range of challenging circumstances. Educators’ level of child development knowledge would be assessed both quantitatively and qualitatively. The level and typology of the delivery of non-academic and co-curricular programs would also be assessed for their developmental foundations. An assessment of school performance on standardized assessments
would also provide one type of indicator of student success, while additional instruments focused specifically on child development processes would be employed to detect any non-academic process and strategies that may impact the students in these schools.

**Conclusion**

The belief that, in order for human beings to flourish, there are certain foundational needs that must be addressed, is held by these educators, and mirrors the beliefs held by some of the most influential developmental psychologists in the world. It is evident that the educators within this study possess deep, domain and context specific knowledge about child development. Many of these educators believe that the foundations of optimal child development must be laid for their students, before they can deliver the curriculum and foster the learning of their students.

Educators understand child development to include child physical development, child social, emotional, and behavioural development, and child cognitive development, and that the educators understand these three domains of child development to be highly interrelated. Further, these educators’ understanding of child development is not simply limited to factors relating solely to their students. These educators also demonstrate understanding that child development occurs within the context of the students’ homes, school, and community. Many of the educators within this study report that they believe that, by addressing the physical, social, emotional, and behavioural challenging circumstances that their students face, they have forged a meaningful approach to ensuring students’ cognitive development and school success.

The positive life outcomes of children are contingent on both their cognitive and social-emotional development (Erikson, 1954, 1985; Roeser et al., 2000), and the opportunities or experiences that are present in the individual’s social context (Bronfenbrenner, 1979). It is feasible that schools and educators that provide for students’ overall development by providing
opportunities and experiences for their students, are schools that in spite of the challenging circumstances they face, are schools that succeed.
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APPENDICES

Appendix A: List of Composite Variable Survey Items

Focus on Student Success (FSS):
69. Our school uses a variety of types of data to make decisions about individual students.
73: Improvement in student achievement is the main criterion for determining progress in achievement of school goals.
74: Our school does not have a way of monitoring achievement of our school goal(s)
75: Our school has a way of monitoring achievement of district goals.

Home Environment (HE):
61. These students come to school ready to learn.
62. Home life provides so many advantages they are bound to learn.
67. Learning is more difficult at this school because students are worried about their safety.
68. Drug and alcohol abuse in the community make learning difficult for students here*.

Parental Involvement (PI):
39. Parents/guardians are influential decision makers in our school.
40. Our school rarely works with parents to improve the educational climate in students’ homes.
41. Our school has difficulty maintaining clear, two-way communication between school and parents/community.
42. We do not provide parents/guardians with techniques to assist children in learning at home*1.

Community Involvement (CI):
15. School plan is changed to meet the changing needs of students and the community.
36. Our school makes little use of community resources (human and material) in providing programs for students*.
37. The community served by this school is very supportive of our school*.
38. Our school is sensitive to the changes in our local community that require changes in the programs we offer*.
64. The opportunities in this community help ensure these students will learn.

Educator’s Attitudes towards Students (EdAtt):
43: Leaders in this school do not set a respectful tone for interaction with students
55: If a child doesn’t learn something the first time, teachers will try another way.
56: Teachers in this school really believe every child can learn.
57: If a child doesn’t want to learn, teachers here give up.
58: Teachers here need more training to know how to deal with these students.
60: Teachers here fail to reach some students because of poor teaching methods.
* Denotes reverse coded survey items.
Appendix B: School Life Survey

### A - Decision-Making

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<td><strong>1.</strong> Our school goals and priorities encourage improvement of programmes.</td>
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<td><strong>2.</strong> Leadership in the school is shared among staff.</td>
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<td><strong>3.</strong> Our school’s vision fosters commitment to continuous learning by our teachers.</td>
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<td><strong>4.</strong> In our school we carefully review our school goals and priorities.</td>
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<td><strong>5.</strong> School goals have little influence on decision-making.</td>
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<td><strong>6.</strong> I am uncertain what our school’s priorities are.</td>
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<td><strong>7.</strong> I have reservations about some aspects of our school’s goals.</td>
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<td><strong>8.</strong> We were recent consensus in determining which initiatives can be implemented.</td>
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<td><strong>9.</strong> I am not involved in school decision-making as much as I would like.</td>
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<td><strong>10.</strong> The expectations of our school facilitate trust among staff.</td>
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<td><strong>11.</strong> Most teachers in this school work with colleagues from only one division.</td>
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<td><strong>12.</strong> The way our timetables are arranged reinforces our division from colleagues.</td>
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<td><strong>21.</strong> We all help new teachers learn what is expected of teachers at this school.</td>
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<td><strong>22.</strong> There is an atmosphere of caring and trust among staff at this school.</td>
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<td><strong>23.</strong> In this school the improvement of instruction is a priority for principals.</td>
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<td><strong>24.</strong> My classroom is my private domain.</td>
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<td><strong>25.</strong> I am open to honest feedback from people outside the school.</td>
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<td><strong>26.</strong> Teachers are allowed to share ideas and materials with their colleagues.</td>
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<td><strong>27.</strong> If I am learning a new teaching technique I can get help from people outside the school.</td>
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<td>31. At this school I have few opportunities to learn new ways of teaching.</td>
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<td>32. New ideas presented in in-service sessions are rarely discussed afterwards by teachers in this school.</td>
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<td>33. Other teachers in this school encourage me to try out new ideas.</td>
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<td>34. Our school makes little use of community resources (homs and materials) in providing programs for students.</td>
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<td>35. The community served by this school is very supportive of our school.</td>
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<td>36. Our school is sensitive to the changes in our local community that require changes in the programs we offer.</td>
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<td>37. Parents/guardians are influential decision-makers in our school.</td>
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<td>38. Our school rarely works directly with parents to improve the educational climate in students' homes.</td>
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<td>39. Our school has difficulty maintaining clear, two-way communication between school and parents/community.</td>
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<td>40. We do not provide parent/guardian with techniques to assist children in learning at home.</td>
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### C - School Leadership

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<td>41. Our principal is receptive to our ideas and suggestions.</td>
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<td>42. My principal can encourage me to take on new responsibilities.</td>
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<tr>
<td>43. Moral behavior among teachers is exemplary.</td>
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<tr>
<td>44. The principal can be trusted to act in the best interest of all students.</td>
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<tr>
<td>45. Our principal is not dedicated to the improvement of the school.</td>
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<tr>
<td>46. My principal is not supportive of my professional development.</td>
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<tr>
<td>47. My principal has a vision for the school.</td>
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<tr>
<td>48. My principal's actions are consistent with his/her vision.</td>
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<tr>
<td>49. My principal's actions are consistent with the values of the school.</td>
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<tr>
<td>50. My principal's actions are consistent with the values of the community.</td>
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</table>

### D - Teachers in This School

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
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<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td>51. If a child doesn't learn something the first time, teachers will try another way.</td>
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<tr>
<td>52. Teachers in this school really believe every child can learn.</td>
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<tr>
<td>53. Teachers need more training to work with these students.</td>
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<tr>
<td>54. Teachers have fun teaching and enjoy teaching.</td>
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<tr>
<td>55. Teachers here don't have the skills needed to perform effective student learning.</td>
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<tr>
<td>56. Students here don't have the ability to learn.</td>
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<tr>
<td>57. Students have the ability to learn.</td>
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<td>58. Students here are not motivated to learn.</td>
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<tr>
<td>59. Students here aren't motivated to learn.</td>
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<tr>
<td>60. Students here are well-prepared to learn the subjects they are assigned to teach.</td>
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<tr>
<td>61. Teachers here are well-prepared to teach the subjects they are assigned to teach.</td>
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<tr>
<td>62. Teachers in this school are skilled in various methods of teaching.</td>
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<tr>
<td>63. Learning is more difficult at this school because students are worried about their safety.</td>
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<tr>
<td>64. Drug and alcohol abuse in the community make learning difficult for students here.</td>
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<tr>
<td>65. Our school uses a variety of types of data to make decisions about individual students.</td>
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<tr>
<td>66. We do not use systematic evaluation of data when making our school plan.</td>
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</tr>
<tr>
<td>67. Teachers make decisions on the basis of the district's goals.</td>
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<tr>
<td>68. Our school goals do not match the needs of the students very well.</td>
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<tr>
<td>69. Reponse in student achievement is the main criterion for determining progress in achieving school goals.</td>
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<tr>
<td>70. Our school does not have a way of monitoring achievement of our school goals.</td>
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</tbody>
</table>

### Thank You!
## Appendix C: Principal and Teacher Interview Protocol

Improving the Achievement of Students in 
Schools Facing Challenging Circumstances Project

### Principal Questions

<table>
<thead>
<tr>
<th>1. Versions of success</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>For you, what counts as success for students in this school?</td>
<td></td>
</tr>
<tr>
<td>What are your goals?</td>
<td></td>
</tr>
<tr>
<td>How widely shared is this view? In the school? Among parents?</td>
<td></td>
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<tr>
<td>How do you recognize success and reward it?</td>
<td></td>
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<tr>
<td>How does your school improvement plan incorporate your goals for students?</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Literacy and numeracy</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>How would you describe your goals in literacy and numeracy?</td>
<td></td>
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<tr>
<td>How widely shared are these views? In the school? Among the parents?</td>
<td></td>
</tr>
<tr>
<td>How would you describe the ministry’s vision of literacy/numeracy?</td>
<td></td>
</tr>
<tr>
<td>How have you gone about meeting the literacy/numeracy goals of the province?</td>
<td></td>
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<tr>
<td>What programs? Actions? Communication?</td>
<td></td>
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<tr>
<td>How do you know what their effects are?</td>
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<tr>
<td>How have you gone about raising EQAO scores?</td>
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<tr>
<td>Why do you think they have improved?</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Challenging circumstances</th>
<th>Comments</th>
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<tbody>
<tr>
<td>What are the most challenging things for you as you go about your work?</td>
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<tr>
<td>Do you think this school is different from other schools in its challenges?</td>
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<tr>
<td>How would you describe the community of parents with whom you work?</td>
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<tr>
<td>Question</td>
<td>Answer</td>
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<td>------------------------------------------------------------------------</td>
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<tr>
<td>How do you know about the community that surrounds the school?</td>
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<tr>
<td>What interactions do you have with parents?</td>
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<tr>
<td>How has the context changed over the past few years, and what changes are going on now?</td>
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<tr>
<td>What do you think the parents say about the school?</td>
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</tbody>
</table>

4. **School culture**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>How do you create an environment, which supports success?</td>
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<tr>
<td>How do you work with staff to develop the goals/vision of the school? To develop teacher leadership?</td>
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</tr>
<tr>
<td>How do you work with parents to develop the goals/vision of the school?</td>
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</tr>
<tr>
<td>What challenges have you faced in trying to create a culture that supports student achievement in literacy and numeracy?</td>
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<tr>
<td>How were the issues resolved?</td>
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</tbody>
</table>

5. **Overall**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>What are the programs that are most effective in supporting success in this school?</td>
<td></td>
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**Teacher Questions**

1. **Versions of success**

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| How has your school gone about meeting the literacy/numeracy goals of the province?  
  What programs? Actions? Communication?  
  How do you know what their effects are? |
| How has your school gone about raising EQAO scores? |
| Why do you think they have improved? |

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<td>How has the context changed over the past few years, and what changes are going on now?</td>
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<tr>
<td>What do you think the parents say about the school?</td>
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<tr>
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<tbody>
<tr>
<td>How do you create an environment, which supports success?</td>
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<tr>
<td>How do you work with the Principal to develop the goals/vision of the school? To develop teacher leadership?</td>
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<tr>
<td>Question</td>
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</tr>
<tr>
<td>How do you work with parents to develop the goals/vision of the school?</td>
</tr>
<tr>
<td>What challenges have you faced in trying to create a culture that supports student achievement in literacy and numeracy?</td>
</tr>
<tr>
<td>How were the issues resolved?</td>
</tr>
<tr>
<td><strong>5. Overall</strong></td>
</tr>
<tr>
<td>What are the programs that are most effective in supporting success in this school?</td>
</tr>
<tr>
<td>What do you think we should say in our report about how schools can be more effective in supporting success?</td>
</tr>
</tbody>
</table>
Appendix D: Participant Consent Forms

(on OISE/UT letterhead)
Interview Consent Form
(Principals and Teachers)

Dear ________,

We are investigating the programs, policies and activities that contribute to student success in literacy and numeracy. The purpose of the project is to contribute to the knowledge base regarding innovative leadership practices but with a particular emphasis on leadership in schools facing challenging circumstances.

The project will address such issues as what makes a school successful in terms of improving student achievement. We want to know how school administration works collaboratively with staff to put into place both processes and programs that are effective. We want to see how instructional and transformational leadership is developed, demonstrated and sustained by all members of the school community.

We would like you to participate in this project by allowing us to conduct an interview with you. It will take about 45 minutes and it will be tape-recorded. We will conduct the interview during the school day and in your school.

We will not use your name or anything else that might identify you in the written work, oral presentations or publications. The information remains confidential. You are free to change your mind at any time, and to withdraw even after you have consented to participate. You may decline to answer any specific questions. We will destroy the tape recording after the research has been presented and/or published which may take up to five years after the data has been collected. Only the research team will have access to the raw data. However, there is a risk of loss of anonymity for the participating schools due to the small sample size and that colleagues within the Board may identify participants based on the practices participants describe during their interviews. Principals will be given an opportunity see a draft of the case study so they can add to or elaborate on their data and how it has been interpreted.

Please sign the attached form, if you agree to be interviewed. The second copy is for your records. Thank you very much for your help.

Yours sincerely,
Douglas McDougall
OISE/University of Toronto
I acknowledge that the topic of this interview has been explained to me and that any question that I have asked has been answered to my satisfaction. I understand that I can withdraw at any time without penalty.

I have read the letter provided to me by a member of the research team and agree to participate in an interview for the purpose described.

Signature:

Name (printed): ___________________________

Date: ____________

Douglas McDougall
OISE/University of Toronto
Appendix E: Child Physical Development Codes

Child Physical Development Codes Used to Calculate Frequency of Physical Themes

Breakfast
Healthy habits
Lack of proper clothing
Lack of proper nutrition
Lunch
No bedtimes
Physical assistance for disabled students
Physical health
Safe school environment
Snacks
Sports (organized teams/house leagues)
Structured/supervised play time (leisure)
Appendix F: Child Social, Emotional, and Behavioural Development Codes

Social Emotional Behavioural child development codes identified by educators

- Ability to identify feelings
- Anger/frustration management
- Attachment to school
- Attachment to teachers
- Behaviour problems
- Celebration of developmental milestone (e.g. birthday, losing a tooth)
- Celebration of diversity
- Child mental health
- Confidence
- Conflict resolution
- Culturally split (east/west)
- Internal motivation
- Involvement in clubs/experiences
- Kids from war torn countries
- Kids have fun at school
- Lack of male role-models
- No language to express feelings
- Peer rel’n (e.g. social skills)
- Physical aggression
- Positive character traits (e.g. empathy, acts of kindness)
- Positive self-concept
- Rel’n caring adult in life
- Safe learning environment
- S/e growth
- S/e problems
- S/e stability (feeling happy)
- Self-regulation (beh/emotional)
- Sense of togetherness
- Verbal praise
- Respecting students
- Divorce
- Domestic violence
- Family poverty
- Family problems
- Lack of organization in home
- Learn new culture (parents new Canadians)
- Parent - s/e support
- Parent attitudes towards schools (not cultural)
- Parent death
- Parent employment issues
- Parent is ELL (not able to communicate)
- Parent – lack of supervision in home
- Parent mental health
- Parent s/e instability
- Parent trust in school
Parental (build) relationship
Parental involvement
Raised by someone other than parent
Single-parent families
Appendix G: Child Cognitive Development Codes

Cognitive child development codes identified by educators

Absenteeism
Cognitive schemas available for connections
Connect learning to real world
ELL
Attention/Focus
Gender differences in learning (e.g. reading)
Inclusion/Containing ELL students (helpful/not helpful)
Individual diffs in learning
Integration of MID/gifted/autistic/deaf/physically disabled students
Learner as self-concept
Learning difficulties/problems
Literacy development
Metacognition
Engagement in learning
Numeracy development
Oral language skills (develop)
Phonemic awareness
Practice reading
Prediction/synthesis (higher order cognitive processes)
Problem solving (e.g. numeracy)
Read at home
Readiness to learn
Reading automaticity/fluency
Reading comprehension
School suspension
Speak different language at home (students)
Students reflected in curriculum
Understand value of learning
Writing skills
Ed’s attitude that students can learn (Rosenthal effect)
Parent academic attainment
Parental support of academics
Parents illiterate