POSITIVE DEVELOPMENT IN EARLY ADOLESCENCE: THE IMPORTANCE OF SUPPORTIVE ADULTS AND SOCIAL COMPETENCIES FOR WELL-BEING AND ACADEMIC SUCCESS

by

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Abstract

Social and emotional well-being and academic achievement are key indicators for positive development and resilience in early adolescence. Central assets fostering positive development include contextual assets (e.g., supportive relationships) and personal assets (e.g., social and emotional competencies). Three studies were conducted to explore the relative importance of positive relationships for social and emotional well-being and academic achievement during early adolescence, and whether social and emotional competencies predict academic achievement longitudinally. Study 1 was a population-based cross-sectional study investigating family, school, and neighbourhood support in relation to social and emotional well-being and academic achievement in a socioeconomically (SES) diverse sample of 3,026 4th graders. All contextual assets positively predicted students’ well-being in a regression analysis. A significant interaction between SES and school support indicated that school support had a protective function for low SES students; a significant interaction between SES and family support indicated that family support was more important than SES in predicting students’ well-being. Furthermore, SES and family support were positive predictors of both reading and math achievement. Study 2 investigated the relative importance of personal (optimism) and contextual (positive peer relationships and home, school, and neighbourhood support) assets for life satisfaction in a cross-sectional sample of 1,402 4th to 7th graders. Multilevel modeling analyses suggested that optimism and the four contextual variables significantly and positively predicted life satisfaction. School and neighbourhood support aggregated at the school level significantly predicted life satisfaction beyond their significant role at the individual, non-aggregated level. Study 3
was a short-term longitudinal study examining social and emotional competencies in 461 6th grade students as predictors of academic achievement in grade 7. Regression analyses revealed that social responsibility goals positively predicted reading achievement for boys only. Moreover, teacher-rated social-emotional skills positively predicted reading achievement for both boys and girls. With regard to math, only teacher-rated social-emotional skills predicted academic achievement. The importance of investigating social and emotional well-being and competence in conjunction with personal and contextual assets in early adolescence is discussed. Theoretical and practical implications of the findings along with the strengths and limitations of the three studies are put forth.
Preface

The studies presented in Chapters 2 and 4 of the dissertation will be submitted shortly for publication as two manuscript. For both manuscripts, I will be the first author. For Study 1 presented in Chapter 2, the co-authors will be Drs. Schonert-Reichl, Guhn, Zumbo, and Hertzman. For Study 3 presented in Chapter 4, the co-authors will be Drs. Schonert-Reichl, Zumbo, and Hertzman. Study 1 was based on population-based data collected by the MDI-research team at the University of British Columbia, and data provided to me by the Ministry of Education British Columbia, and Statistics Canada. I formulated the research questions, conducted all data analyses, interpreted the results, and prepared the manuscript for Study 1. Dr. Schonert-Reichl provided me with feedback on my manuscript draft, which I incorporated in further revisions. Ethics for Study 1 was obtained from the Behavioral Research Ethics Board at the University of British Columbia (H09-00416).

Studies 2 and 3 presented in Chapters 3 and 4 were based on a pre-existing dataset provided by Dr. Schonert-Reichl. For both studies, I formulated the research questions and hypotheses, conducted all analyses, interpreted the results, and prepared the manuscripts. Dr. Schonert-Reichl provided me with feedback for both studies, which I incorporated throughout the revisions. Ethics for both studies was obtained from the Behavioral Research Ethics Board at the University of British Columbia (B05-0921). A version of Study 3 has been published; the research citation for the manuscript is: Oberle, E., Schonert-Reichl, K. A., & Zumbo, B. (2010). Life satisfaction in early adolescence: The importance of personal, neighbourhood, school, family, and peer influences. Journal of Youth and Adolescence, 40, 889-901.
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Chapter 1: Introduction

The social and emotional adjustment and health of youth has been a growing concern in recent years (Bradley, Henderson, & Monfore, 2004). Today, approximately 20% of Canadian youth suffer from social-emotional, behavioural, and mental health problems, and rates have been predicted to increase to 50% by the year 2020 (Canadian Paediatric Society, 2009). Similarly, researchers in the United States report that 30% of teenage students engage in multiple high-risk behaviours or are affected by mental health problems that interfere with school performance and jeopardize their potential for future positive development and life success (Eaton et al., 2008). The increasing numbers of social and emotional health and behaviour problems in Canada, and the increasing need of mental health services for young people are not only disturbing for the future development of society, they are also an enormous economic burden (Stephens & Joubert, 2001). Understanding the processes and mechanisms that facilitate or undermine healthy adjustment and positive development in youth thus needs to become a crucial concern of researchers, educators, and policy makers as they seek empirical evidence to inform the design and implementation of effective preventions and interventions that can deter and prevent problems in our nation’s youth (Durlak, Weissberg, Dymnicki, Taylor, Schellinger, 2011; Masten, Herbers, Cutuli, & Lafavor, 2008; Steinberg, 2005).

Recently, a special issue in the journal *Child Development* was dedicated to “Raising Healthy Children.” In the issue, Stormshak and colleagues (2011) identified a primary theme of human development researchers to be “. . . the question of how to raise ‘healthy’ children who remain on a trajectory of positive development throughout middle
school and high school” (p. 209). Specifically, the authors make a case for the importance of the early adolescent years as a time in which to pave the way for healthy and positive pathways for future positive youth development. Indeed, young adolescents in our communities today are important; they are shaping and defining the core of tomorrow’s society given that two to three decades from now, they are going to be the leaders, workers, and educators of our nation. Yet, do we know how today’s young adolescents are doing and feeling, where their developmental trajectories are pointing, and what supportive factors they need in life in order to develop into happy, responsible and successful citizens in the next generation? In attending to these questions, the purpose of the three studies presented in this dissertation is to inform research on resilience and positive youth development (PYD), shedding light on important supportive resources across various developmental contexts that are related to early adolescents’ social and emotional well-being and academic competence. Note that descriptions and definitions of commonly used terms in this study will be provided on page 9 in the section “Definition of Terms.”

Approaches that focus on opportunities and adaptation in development are based on the assumption that every human being, even in the presence of risk and adversity, possesses the potential for competence (Lerner, Brentano, Dowling, & Anderson, 2002; Masten & Coatsworth, 1998). In fact, resilience—the ability to be healthy and competent in the presence of adversity—appears to be more common than previously thought (Bonanno, 2004; Masten & Coatsworth, 1998). For this reason, resilience has also been described as “ordinary magic” (Masten, 2001, p. 227), indicating that successful adaptation is not an exception, but rather an important resource that occurs frequently
during the lifespan. Factors contributing to positive development have been described according to the way they function, namely as either “protective” (i.e., functioning only in the presence of risk and thus protecting specific individuals experiencing risk), or “promotive” (positively enhancing competence and well-being in all individuals and therefore promoting positive development) (Luthar, Cicchetti, & Becker, 2000; Masten, 2001). Among the core factors that contribute to positive development and adaptation in childhood and adolescence are social competencies—a personal resource, and safe, stable, and healthy relationships in important developmental contexts—a contextual resource (Luthar, 2003a; for reviews see Luthar, 2006; and Masten, 2001).

Early adolescence, commonly designated as the developmental period between the ages of 10 to 14 \(^1\) (Marsh, 1989; Phares, Steinberg, & Thompson, 2004), has been characterized as a transitional time in development due to the multiple changes that occur at several levels in a relatively short time—changes due to pubertal development, and cognitive, social, and emotional development (Simmons & Blyth, 1987; Steinberg, 2005; Stroud et al., 2009). Many of the changes that unfold during this time, such as increasing time spent with peers and decreasing time spent with parents, have been associated with increased risk for individuals as they pass through early adolescence, as well as

\(^1\) Note that the developmental periods of middle childhood (ages 6 to 12) and early adolescence (ages 10 to 14) are predominately identified through their developmental characteristics rather than by strict age limits. In fact, age has only been used as an approximation to describe each of the developmental time spans, and different researchers have used slightly different age criteria to describe the boundaries of middle childhood and early adolescence (see Blume & Zembar, 2007). Furthermore, some overlap exists (ca. ages 10 to 12) when young people are transitioning from middle childhood to early adolescence, and characteristics of both developmental periods may apply to them. In the present study, based on previous research (e.g., Marsh, 1989), I will be referring to students attending grades 4 through to 7 (approximately ages 10 to 14) as early adolescents.
opportunities for positive development (Eccles & Roeser, 2009).

Transitional periods have been characterized as “transition-linked turning points” in development; events that have the potential to alter behaviour, affect, cognition, or context, and can result in lifelong changes (Graber & Brooks-Gunn, 1996; Pickles & Rutter, 1991). In this vein, transitions should not only be thought as “risk promoting” or “vulnerability inducing” times in child development—transitions may also be thought as “windows of opportunity”—times in the life cycle in which positive development can be cultivated and fostered through opportunities provided to the individual in his/her environment that promote success, and serve as protective factors that move the individual onward and upward to a pathway filled with competence. Hence, promoting resilience and positive development is considered to be particularly relevant during this period in human development (Lerner, Phelps, Forman, & Bowers, 2009). Shifting from the long-held focus on the pathology of disadvantage (Luthar, 2006) to an approach that focuses on opportunities and competence in all early adolescents, including those at risk, is critical for understanding the factors that help young people thrive throughout the adolescent years; such an approach is also important for informing intervention and prevention initiatives that aim to promote positive development (Durlak et al., 2011; Lerner et al., 2002; Masten, 2001; Stormshak et al., 2011).

Given that the early adolescent years are characterized with an increased focus on social contexts outside the family, the important developmental contexts for young adolescents include not only the family, but also peer groups, school settings, and neighbourhoods (Bronfenbrenner, 2005). Hence, resilience and PYD need to be examined across multiple developmental contexts that reflect personal resources as well
as the ecology of early adolescents’ lives in order to obtain a comprehensive portrayal of positive development and adaptation (Benson, Leffert, Scales, & Blyth, 1998; Cook, Herman, Phillips, & Settersten Jr., 2002; Luthar & Chicchetti, 2000; Theokas & Lerner, 2006; Wigfield, Byrnes, & Eccles, 2006). Positive development and adaptation in the presence of risk are neither a product of the individual nor of the context alone; instead, positive change results from interactions between individuals and the contexts in which they develop (Lerner, 2006). Following this, in conceptualizing and designing the present series of studies, a developmental systems perspective was adopted that recognizes that human development is a bidirectional, individual ↔ context relational process in which intra-individual factors (e.g., social competencies, motivation, cognitive abilities) influence one’s development course, as well as different levels of organization within the social ecology (e.g., families, schools, neighbourhoods) (Theokas & Lerner, 2006).

**Statement of the Problem**

During the past decade much progress has been made in understanding the factors and processes that enhance positive development and protect against risk during the early adolescent years. Nonetheless, many limitations exist in the extant literature, several of which I aim to address in the present studies. First, empirical and theoretical literature on the middle childhood and early adolescent years is sparse and relatively little is known about social and emotional well-being and competence during this time (Blume & Zembar, 2007). Indeed, the majority of investigations on supportive factors in relation to indicators of thriving have focused on the developmental periods of either early childhood or middle and late adolescence, and scant research in the fields of resilience and PYD has shed light on positive development in the years between childhood and
adolescence (Blume & Zembar, 2007; Eccles & Roeser, 2009; Scales, Benson, Leffert, & Blyth, 2000). For instance, a large number of studies conducted by one of the pre-eminent research groups on developmental assets and PYD during adolescence has focused almost exclusively on middle and late adolescents (see Search Institute, 2010). The exclusive focus on the middle and later adolescent years presents a limitation because the extent to which these research findings are generalizable to younger adolescents is not yet known. Early adolescence is a time in which social, emotional, cognitive, and biological processes differ from those that occur during middle and late adolescence (Eccles, 1999). Further, it is a time in human development in which individuals can be directed on a positive developmental trajectory (Eccles & Roeser, 2009; Stroud et al., 2009). Subsequently, it is necessary to expand research on PYD and resilience by investigating the factors that impede or promote positive development during the early adolescent years, a time in development that has been relatively ignored.

A second limitation in the extant research on PYD and resilience is the absence of population-based data. According to McCain, Mustard, and Shanker (2007), population-based research on child and adolescent development is critical for understanding the concerns in our current population and has the potential to reveal the capacities of the future population. Ideally, population-based research links multiple data sources (e.g., self-report data, community data, performance-based data) to integrate multiple domains of the human experience (Hertzman, 2008; Lloyd & Hertzman, 2009).

Third, often due to the limited sample size in many small-scale studies, there is a paucity of research that investigates the role of supportive factors at multiple levels of the ecological context in which young people live (e.g., individual, family, school,
neighbourhood) in relation to indices of individuals’ social and emotional well-being.

Whereas the ecological contexts perspective suggested by Bronfenbrenner (1979) has become a model that has been commonly used in theory and research on child development in the past thirty years (e.g., Cicchetti & Lynch, 1993; Leventhal & Brooks-Gunn, 2000; Rimm-Kaufmann & Pianta, 2000), few studies have succeeded in incorporating this contextual approach into studies on positive development (see Lerner, 2006). The use of large-scale datasets facilitates the integration of multiple ecological contexts in the study of resilience and PYD. Taking an ecological perspective on development in early adolescence is critical, because as Lerner and colleagues (2002) note, “. . . changes across the life span are seen as propelled by the dynamic relations of the individual and the multiple levels of the ecology of human development (family, peer group, school, community, culture), all changing interdependently across time (history)” (p. 13).

Fourth, relatively little research has examined the relation of social and emotional competencies when examining academic success as a positive developmental outcome (for examples of exceptions see Durlak et al., 2011; Elias & Haynes, 2008; Jones, Brown, & Aber, 2011). This presents a shortcoming in research because all learning in educational settings emerges from interpersonal collaboration and communication; hence, skills that contribute to successful forming and managing of relationships—namely social and emotional competencies—have to be considered when studying school outcomes (Greenberg et al., 2003). Understanding the relationship between social and emotional competencies and academic school outcomes is also important because such competencies can easily be targeted and improved by effective intervention programs
designed to foster social and emotional learning (Zins, Weissberg, Wang, & Walberg, 2004). Consequently the study of social and emotional competencies as they relate to academic achievement adds to the literature on mechanisms that foster positive development and success in early adolescence.

Fifth, despite the proliferation of research on PYD and resilience over the past several decades, many questions still remain unanswered, partly due to a lack of a coherent theoretical framework. For instance, it is still not clear whether some assets in child and adolescent development function as *promotive* factors, promoting positive development in all children and youth, or as *protective* factors, buffering exclusively individuals in the presence of risk and adversity (Luthar et al., 2000). In addition, research has not yet addressed the domain-specificity of promotive and protective factors. Can we assume that, for instance, school assets (e.g., school belonging, having a positive relationship with a significant teacher in school) in comparison to neighbourhood assets (e.g., neighbourhood support) are more or less critical for school-related outcomes (e.g., academic achievement)? In fact, Luthar and colleagues (2000) argue that we cannot assume that different assets function homogeneously across different outcome domains, and that we need to explore which assets are particularly important for which outcomes.

Finally, despite the strong relation between PYD and resilience, and the acknowledgement that assets, thriving, competence, and protective factors are strongly interrelated (e.g., Lerner et al., 2009; Scales et al., 2000), the two perspectives—PYD and resilience—are rarely connected in research (see Kia-Keating, Dowdy, Morgan, & Noam, 2011). Partly because they stem from different research traditions, PYD and resilience have been treated as two separate domains of inquiry in theory and research (Lerner et
al., 2009). This presents a limitation, given that both approaches involve the study of supportive and strength factors in human development, and research in both areas can potentially inform each other (Sesma, Mannes, & Scales, 2006).

**Study Purpose and Objectives**

The goal of the present three studies is to address the above limitations and some of the unanswered questions by investigating important domains of PYD and resilience, namely well-being and competence in early adolescence. Specifically, Study 1—presented in Chapter 2—is based on data from a population-based implementation of the Middle Years Development Instrument (MDI) in 4th grade classrooms in public schools of the Vancouver School District, British Columbia, Canada (for more details on the MDI, see Method section in Chapter 2) In Study 1, I investigated the role of positive relationships with family members, adults in the school, and adults in the neighbourhood in relation to early adolescents’ social and emotional well-being (i.e., optimism, life satisfaction, self-concept, sadness, anxiety) and academic achievement, taking into account students’ socioeconomic status (SES) as indicated by an approximation of participants’ family income obtained via Statistics Canada Census Data from 2006 via a 6-digit-postal code.

Study 2 as presented in Chapter 3, is based on a large-scale, cross-sectional data set of grade 4 to 7 students. The aim of Study 2 was to further understand the importance of resources and supportive factors at the individual level (i.e., optimism, peer support,

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2 Statistics Canada is Canada’s central statistical office and is legislated to serve the country and its provinces and territories ([www.statcan.gc.ca](http://www.statcan.gc.ca)). As part of their federal responsibility, Statistics Canada conducts a Census every five years in order to help Canadians better understand Canada’s population, resources, economy, society, and culture.
family support) and supportive factors aggregated at the institutional level (i.e., school support, neighbourhood support) for satisfaction with life, an important indicator of well-being in early adolescence. Finally, Study 3 as presented in Chapter 4, is based on grade 6 students in the same large-scale data set that was used in Study 2 and investigated the predictive role of social and emotional competencies for academic success. Hence, Study 3 was conducted longitudinally. The aim was to examine indicators of social and emotional competencies in grade 6 students to standardized academic achievement outcomes in grade 7.

Each of the 3 studies in this dissertation contributes to current and past research in novel ways. Study 1 investigated the hierarchy of importance of a number of ecological assets, testing whether they function as promotive or protective factors in relation to individuals’ well-being. Study 2 included personal asset variables and assets at various levels of early adolescents’ ecological context, shedding light on the importance of supportive factors at the individual versus institutional level. Study 3 connected social and emotional competence with academic domains of competence and success longitudinally, using multiple reports of social and emotional competencies (i.e., self-reported as well as teacher-reported). Combined, the present studies present a multifaceted picture of positive development in early adolescence, combining perspectives of PYD and resilience, and methodologically drawing on several sources of information (i.e., self-report, teacher reports, performance on achievement tests, and indicators of SES).
Definition of Terms

Many terms used in this study require definition in order to provide clarity due to the multiple and inconsistent ways in which they have been used in previous research and literature across disciplines. Therefore, the following terms are explained and defined in line with the literature and theory from which this study draws.

Resilience. Resilience is a dynamic and multidimensional phenomenon that consists of two separate dimensions: Risk and positive adaptation. As described by Luthar (2006), “Resilience by definition encompasses atypical processes, in that positive adaptation is manifested in life circumstances that usually lead to maladjustment” (p. 739). Thus, the study of resilience seeks to understand well-being and competence in the presence of risk, and to reveal the underlying processes and mechanism that contribute to positive adaptation despite risk (Luthar, Sawyer, & Brown, 2006). In the present study, such underlying processes and mechanisms will be referred to as protective and promotive factors (Luthar et al., 2000; Masten, 2001). In particular, I will focus on protective and promotive factors that are embedded in significant ecological contexts in which early adolescents develop: Family, peer group, school, and neighbourhood.

Risk. Risk is one of the two key dimensions necessary in the study of resilience (Masten, 2001). Being “at risk” implies that certain risk factors are present in an individual’s life that have been associated with maladjustment, compromised well-being, or failure of achieving important developmental tasks. The concept of risk factors is a statistical concept; risk has been defined as the increased probability of a negative outcome in a specific population (Kraemer, Stice, Kazdin, Offord, & Kupfer, 2001). Risk factors can range from neglect, abuse, and poverty to maternal depression, divorce, and
parental unemployment (Compas & Resslund, 2009; Luthar, 2006; Masten, 2001). In this study, residing in a geographical area in which median family income is low (Guhn, Gadermann, Hertzman, & Zumbo, 2010; Kohen, Brooks-Gunn, Leventhal, & Hertzman, 2002), and living in a single parent family (Cuffee, McKeown, Addy, & Garrison, 2005; Greeff & Fillis, 2009; Greeff & van der Merwe, 2004; O’Connor, Dunn, Jenkins, Pickering, & Rasbash, 2001; Thomson & Rudolph, 2000) is considered a risk factor.

**Protective factors.** Protective factors enhance positive adjustment, competence, and well-being in the presence of risk; they are thus not beneficial for every individual, but only for individuals at risk (Luthar et al., 2000). In the proposed study, a factor will be identified as protective when a significant statistical interaction between a protective factor and risk occurs (Compas, 2004). For example, Luthar (1991), in a sample of high-risk adolescents, found that having an internal locus of control (believing that the forces that shape one’s life are largely within one’s own control) was a protective factor because it interacted with risk in predicting responsible assertiveness in the classroom (Luthar, 1991). That is, a high internal locus of control (in comparison to a low internal locus of control) was important for positive outcomes in adolescents in the presence of high stress (i.e., risk), but not in the presence of low stress, and thus “protected” high-risk adolescents in this study.

**Promotive factors.** In contrast to protective factors, which have a beneficial impact on individual level outcomes exclusively in the presence of risk, promotive factors are positively related to indicators of adjustment, well-being, and competence in all individuals (Gutman, Sameroff, & Eccles, 2002; Sameroff, 2000). In this study, a factor will be identified as promotive when no significant statistical interaction between
factor and risk occurs and the factor yields a significant positive main effect instead (Compas, 2004). For example, Gutman and colleagues (2002) found that, in a sample of African American early adolescents, adult support in the school setting was a promotive factor because it positively predicted math grade point average in all early adolescents, independently of risk factors.

**Assets.** Assets foster positive development and thriving in adolescence and have been described as indicators of strengths, interests, and support characteristic for an individual and his or her environment (Benson, 2006; Benson et al., 1998; Lerner et al., 2009). Assets can exist within the person (e.g., positive values, competencies, goals, and identity) and be external to the person (e.g., supportive factors in important contexts in the environment).

**Thriving.** The concept of thriving is often used synonymously with well-being and positive development; it incorporates two dimensions, namely the absence of problem behaviour or pathology and the presence of indicators of positive development (Scales et al., 2000). Embedded in Developmental Systems Theory (Lerner, Lerner, Almerigi, & Theokas, 2005) and a positive psychology framework, Benson and Scales (2009) define thriving as current and future trajectories of well-being, resulting from bi-directional relationships between the individual and his or her context. Given the cross-sectional nature of the data utilized in the proposed study, the term thriving in this study is limited to *current* well-being and positive development at the time when data were collected, and does not reflect a trajectory over time.
Positive Pathways from Middle Childhood to Adolescence

The recent paradigm shift from a deficit to a strength-focused understanding of human development has spurred an increasing number of researchers to examine the factors and processes that enhance health, well-being, and competence during the transition from childhood to adolescence (Durlak et al., 2011; Scales et al., 2000; Scales, Sesma, & Bolstrom, 2004; Sesma et al., 2006; Weissberg & O’Brien, 2004). Building a scientific model for the examination of processes and mechanisms that lead to positive development during the second decade of life contrasts the traditional view scholars have held of adolescence – namely a time in the life cycle characterized by “storm and stress,” impulsiveness, and increased risk for problems (Lerner & Steinberg, 2009). Specifically, a strength-based understanding of youth development offers a perspective for delimiting factors that lead to competence and positive health throughout the adolescent years.

The study of positive development in adolescence is frequently embedded in either one of the two research fields: PYD (Lerner et al., 2009) and resilience (Masten, 2001). Despite their many similarities, the two fields are often separated, in part, because they stem from different research traditions and are examined from within different disciplines (Lerner, 2006). Despite the disparate research traditions in which resilience and PYD have been conceptualized and examined, they share a unified focus on the promotion of competence and well-being (Kia-Keating et al., 2011; Luthar, 2006). Research on PYD concentrates on informing the promotion of positive development of all youths throughout adolescence (Sesma et al., 2006). As posited by Damon (2004) “The field of positive youth development focuses on each and every child’s unique talents, strengths, interests, and future” (p. 13). In contrast, research on resilience aims to
understand normative and positive development in individuals who are considered to be at risk, searching for protective factors that act as a buffer in development (Sameroff, 2000; Wright & Masten, 2005). Both approaches align with the paradigm shift in positive psychology that reflects a growing interest among researchers to study the positive aspects of human nature rather than the negative aspects. The positive psychology movement, as it has been called, aims to examine the individual strengths, human functioning, and positive features of human development including the study of personal traits such as subjective well-being, optimism, happiness, and self-determination (Seligman & Csikszentmihalyi, 2000).

Research on resilience and PYD can be embedded in the theoretical framework of Developmental Systems Theory (DST), a theory which holds the basic assumptions that human development is a) plastic and never complete, b) embedded within multiple systems representing the ecologies in which humans develop, and c) evolves through a bi-directional relationship between individual and context (Lerner, et al., 2005). In the following sections, I will begin by outlining the theoretical foundations of DST, followed by an overview of the research areas PYD and resilience.

**Foundations of DST.** A systemic view on development transcends the limitations of the traditional idiographic approach (i.e., within-person-approach where human structure, function, and development is unique to each person and no normative or universal developmental patterns exist), and the nomothetic approach (i.e., the same general laws of development apply to different people in the same way) by conceptualizing individual development as a result of a continuous bidirectional person ↔ context relational process (Lerner et al., 2005). DST overcomes the artificial “nature
versus nurture” split and “continuity versus discontinuity” split, and constitutes human development as a function of multiple variables that make up the ecology of human development, ranging from genetic and other intrapersonal variables to those representing the overarching cultural, societal, and historic systems in which individuals develop (Bronfenbrenner, 2005; Lerner, 2006).

The central focus of DST is on systemic change; the underlying belief of continuous change is that relative plasticity in individuals and systems is given at any point in time, reflecting a constant potential for change, and therefore a potential for positive development to occur at any given developmental stage in life (Lerner et al., 2005). Research conducted from a DST perspective typically involves examining developmental trajectories over time across multiple ecological contexts (e.g., family, school, peer group, neighbourhood, culture, society, history) (Baltes, Lindenberger, & Staudinger, 2006; Silbereisen & Lerner, 2007). The unit of analysis in DST research is defined as multiple individual-context relations, whereas unilevel designs focusing on individual components or characteristics are considered inadequate (Magnusson, 1999). The foundations and principles of DST, in particular the presence of relative plasticity throughout the life span, inform research on positive development by legitimizing a search for characteristics, processes, and mechanisms that contribute to the promotion of positive development at different levels of the human ecology (see Figure 1.1; Lerner, 2004; Lerner et al., 2002; Roth, Brooks-Gunn, Murray, & Foster, 1998). Furthermore, in addition to the scientific relevance of this approach, DST has practical relevance by informing policy making processes, such as providing theoretical legitimization for the search for school- and community-based programs and initiatives that provide support.
and foster positive changes in the individual and in ecological systems (Benson, 2003; Lerner, 2004).

![Developmental Contextual View of Positive Youth Development and Thriving](adapted from Lerner et al., 2002).

**Figure 1.1.** Developmental Contextual View of Positive Youth Development and Thriving (adapted from Lerner et al., 2002).

One field of positive development research in which DST has frequently been applied is PYD (see Lerner et al., 2009). According to Lerner (2006), DST forms an appropriate theoretical framework for this area of research for three reasons. First, the focus on plasticity legitimizes positive change and thriving during the adolescent years. Second, the emphasis on an ecological systems approach to development allows research to incorporate relations and processes in multiple ecological levels of development (e.g., family, peer group, school) in their research designs. Third, the utility of the theory in research as well as practice ensures that supportive and promotive processes in youth...
development do not stay isolated in academia, but are translated into educational policy and practice, promoting growth and thriving among youth in our society.

**Positive Youth Development**

Scholars within the PYD tradition take a strengths-based approach in investigating child and adolescent development by including positive dimensions of social and emotional skills, well-being, and support when examining young adolescents’ developmental outcomes (Benson, 2006; Damon, 2004; Larson, 2000). In contrast to the traditional approach to research in adolescence which focuses on measuring, defining, and predicting problem behaviours, research on PYD aims to reveal processes and factors that relate to healthy, positive development, and the achievement of age-specific tasks (Scales, et al., 2000). Specifically, as posited by Damon (2004), “The positive youth development perspective emphasizes the manifest potentialities rather than the supposed incapacities of young people . . .” (p. 15). This perspective overcomes the deficit-driven view on development and yields toward a view of strengths, potential, and positive qualities in youth. Embedded in DST, processes that contribute to PYD are based on bidirectional, individual ↔ context relations, involving the interaction of multiple individual factors and different levels of organization within adolescents’ social ecology (Theokas & Lerner, 2006).

Interest in PYD as a new orientation in the science of adolescence emerged among developmental scientists who had been studying developmental systems, plasticity in human development, and the impact of person-context relationships on individuals’ course of development (e.g., Baltes et al., 2006; Silbereisen & Lerner, 2007). Lerner and colleagues (2009) refer to PYD as a research domain with a long past, but a short history;
that is, elements of the language and ideas of PYD have been in the literature for decades, but only recently have researchers designed rigorous studies and evaluations that provide validation for the PYD approach. One challenge of the PYD approach is the lack of consistence in the use of terminology. Indeed, researchers have used the term positive youth development interchangeably with empowerment (To, 2007), healthy adjustment (Shek, Shiu, & Lee, 2007), and positive well-being (Moore & Glei, 1995), without providing detailed definitions. In the current study, I draw from the PYD framework and terminology used by Lerner and his colleagues at the Search Institute (e.g., Benson, 2007; Lerner et al., 2005). A central component of this PYD framework has been the study of positive and supportive factors known as “assets” which are significantly related to healthy development and thriving.

**Assets in positive development.** Researchers at the Search Institute have created and trademarked the term “developmental assets” as an expression of strengths, interests, and support an individual possesses that foster positive development and thriving (Lerner et al., 2009). A total of over 40 assets that exist either externally or internally to the individual have been identified through a large number of studies on youth development with 6th to 12th grade students (Benson, 2006; Benson et al., 1998; Benson, Scales, Leffert, & Roehlkepartain, 1999; Leffert et al., 1998; Scales et al., 2000; Scales & Leffert, 2004). The 40 assets can be summarized in four external and four internal asset-categories (for an overview and more information, see www.search-institute.org). External assets have been categorized as support, empowerment, constructive use of time, and boundaries and expectations from significant others in important developmental contexts; internal assets have been categorized as personal values, social competencies,
commitment to learning, and positive identity (Benson & Scales, 2009). To name a few examples, internal assets encompass school engagement and prosocial behaviours and attitudes towards peers, whereas external assets include the existence of proactive and positive community-based activities, and interaction with caring adults in the neighbourhood (Benson, 2003, 2007; Eccles & Gootman, 2002).

Internal and external assets are closely connected and function in interaction with each other. Specifically, the presence of external assets in young people’s lives creates a context of important opportunities that contribute to further development of internal assets through social and personal growth; the presence of internal assets in turn helps young adolescents to perceive, value, and make use of opportunities for positive development in their environment (Benson, 2003, 2007). In a series of studies, researchers have garnered evidence that internal and external assets are predictive of indicators of thriving, including school success, helping others, maintaining physical health, academic achievement, and overcoming adversity (Leffert et al., 1998; Scales et al., 2000; Scales, Benson, Roehlkepartain, Sesma, & van Dulmen, 2006; Taylor et al., 2003). Furthermore, one of these studies revealed that the higher the number of assets in adolescents’ life, the more likely they were to receive high scores on indicators of thriving (Scales et al., 2000) and academic achievement (Scales et al., 2006). The scientific study of thriving is critical because it adds to the understanding of the practical importance of assets in young adolescents’ lives.

The concept of thriving in PYD. Processes of thriving are conceptually embedded in DST, resulting from positive bidirectional person ↔ contexts relationships. Thriving is neither attributable to the individual alone, nor to the context
alone, but to the constant person-context interaction (Brandstädter, 1998; Lerner, 2004). Consequently, thriving occurs when an active, engaged, and competent person (internal assets) is presented with the opportunities of a nurturing, caring, and receptive (external assets) developmental context (Benson et al., 2006). When defining significant ecological contexts in youth development, it is critical to take into consideration adolescents’ current stage of development. For instance, development in early adolescence in Western cultures typically reflects the re-configuration of relationships with family members, as well as an increasing orientation towards the peer group and adults outside the family (e.g., Haddad, Chen, & Greenberger, 2011); as a consequence, the school environment and relationships in school gain a more important role in the promotion of positive development (Elmore, 2009; McLaughlin & Clarke, 2010). In late adolescence, in contrast, many high school students become involved in the workforce, begin volunteering, and engage more frequently and independently in their communities, opening new and different niches and contexts for positive development (e.g., Hamilton & Hamilton, 2006).

The past several years in the science of PYD research have witnessed a stimulating discussion about the meaning of thriving in development. A study conducted by King and colleagues (2005), for example, involved interviews about the definition of thriving with over 200 PYD experts, practitioners, parents, and youth themselves. The results not only showed surprisingly little consistency about what participants considered to be indicators of thriving in adolescent development, they were also partly in conflict with theoretical conceptualizations of thriving. For instance, the resulting eight categories of thriving extracted from the interviews included “competence,” a characteristic Masten
and Curtis (2000) consider to be developmental adequacy. Revealing that the term thriving is perceived as equivalent to competence is hence conflicting because contrary to competence, thriving is expressed through more than adequate or average performance (Benson & Scales, 2009). The results of this study have been considered symbolic for the inconsistent use of, and the discrepancies in understanding the term thriving in research and practice.

In response to the problems of inconsistency in the usage of the term thriving, a number of studies have been conducted in the past five years to establish core indicators of thriving. Included in the core indicators for thriving are (a) school success, helping others, valuing diversity, exhibiting leadership, and overcoming adversity (Scales et al., 2000), (b) value of gender equality and diversity, school engagement, and hopeful future orientation (Dowling, Gestsdottir, Andersen, von Eye, & Lerner, 2003), and (c) school engagement, school connection, social consciousness, personal and interpersonal values, community and family connection, parent involvement, and positive identity (Theokas et al., 2005). Overall, the resulting research on thriving has underlined the importance of employing multiple ecological levels of analysis, and focusing on age-appropriate developmental tasks and contexts when searching for indicators of positive development in youth.

Whereas the focus in PYD research rests on factors and processes that promote positive development in all youth, the main interest in resilience research lies in supportive processes that enhance normative and positive development in populations at risk (Luthar, 2006). The main goal of resilience has been to reveal protective factors that emerge in interaction with the presence of risk factors, whereas the main goal of PYD
research is to find *promotive* factors that enhance positive development independently from risk (Lerner et al., 2009). Despite differences, both approaches have in common their alignment with the positive psychology movement, contributing to the growing interest in positive aspects of human nature rather than the negative aspects among researchers, and can be used complementary to inform each other (Kia-Keating et al., 2011; Lerner et al., 2009).

**Resilience: Positive Adaptation in the Presence of Risk**

The systematic study of resilience in theoretical and empirical research on child development emerged approximately five decades ago with Norman Garmezy, Michael Rutter, and Emily Werner, considered pioneers in the field of positive adaptation in the face of adversity (Luthar, 2006). The construct of resilience grew from research on risk within the field of psychopathology, and represents an attempt to understand etiology and treatment factors via the examination of children diagnosed with or at risk for psychopathological disorders (Doll & Lyon, 1998). A classic example in the literature is Garmezy’s (1974) study on the impact of schizophrenia in mothers on child development in which he identified a subset of children who, despite having been identified as “high risk” for psychopathology, showed a surprisingly positive adaptation in their development. Instead of dismissing these children as atypical cases, Garmezy proceeded to investigate the protective factors that contributed to those children’s positive adaptation and success in life, founding the research field of resilience. The early characterization of at-risk children who “beat the odds” as invulnerable and invincible (e.g., Anthony, 1974) is no longer supported. As noted by Schonert-Reichl and LeRose (2008) in a review of research on resiliency, “Today, the term invulnerability has been
replaced by resilience—a term that is preferred because it refers to the capacity of children and youth to face stress without being incapacitated; it does not mean they never experience distress or that they cannot be wounded—as the term invulnerability implies” (p. 6).

Multiple definitions exist for the construct of resilience, with the two key components being (a) the exposure to risk or adversity, and (b) positive adaptation (Masten, 2001). Resilience thus is a superordinate construct that subsumes two distinct measurable dimensions. Risk is defined in terms of statistical probabilities, where a condition can be considered high-risk if it carries high odds for maladjustment (Margolin & Gordis, 2000). The term “at-risk” is frequently used in the literature to describe individuals who live in adverse conditions. Specifically, this label has been applied to persons experiencing a wide spectrum of difficulties and stressful life events, for instance perinatal stress, poverty, abuse, parents’ divorce, community violence, maternal depression, or school failure (Schonert-Reichl, 2000). Positive adaptation, the second essential component of resilience, refers to better than expected outcomes given a child’s adverse life circumstances, for instance when a child or adolescent meets age-appropriate developmental tasks successfully despite being considered at risk (Luthar et al., 2000; Masten, 2001; Masten & Coatsworth, 1998). Positive outcomes can be internal (e.g., happiness, satisfaction with life) or external (e.g., academic success, health), with research usually focusing on the latter (Masten & Wright, 2009).

The challenge in the research domain of resilience has been to find a holistic theoretical explanation for resilience that can explain and predict positive adaptation in different challenging life circumstances, and that can be used to inform prevention and
intervention initiatives. Von Eye and Schuster (2000) point out the need for a clear conceptual, empirical, and methodological basis in resilience research. For example, researchers in the field of resilience have been criticized for (a) the inconsistent use of technical terms including “promotive factors,” “protective factors,” “adaptation,” “vulnerability,” and “risk,” (b) the lack of providing definitions for when the usage of such scientific vocabulary would be appropriate, and (c) a missing shared methodological basis for studies in the same field (Luthar et al., 2000). These authors strongly suggest that researchers clearly define their usage of such terms and present a clear description of how processes, mechanisms, and outcomes involved in resilience are operationalized in a given study. Furthermore they advocate for an increase in shared methodological approaches to enhance the comparability of research results from different studies in the area of risk and resilience.

**Risk.** The term “risk” is a quantitative concept that refers to an increased probability for negative outcomes in a specific population (Kraemer et al., 2001). Risk factors, in turn, are characteristics of an individual or his/her environment that are related to such increase (Compas & Reeslund, 2009). Risk factors can be used as a dichotomous variable dividing a specific population (e.g., high- versus low-risk), or as a continuous variable, describing the degree of risk on a continuum from high to low (Kraemer et al., 1997). Cumulative risk refers to the co-occurrence of two or more risk factors in a population, and has been associated with increases in negative mental and health outcomes (Friedman & Chase-Lansdale, 2002; Sameroff & Rosenblum, 2006). Indeed, risk factors rarely occur in isolation, and most individuals who are classified to be at high risk have been exposed to multiple risk factors across an extended time period (Masten &
Wright, 2009). For example the risk factors of economic hardship and poverty have been
associated with further risk factors including single parent family, family conflict,
residing in a poor neighbourhood, compromised neighbourhood safety, and lack of access
to high quality schools in the area (Cuffee et al., 2005; Friedman & Chase-Lansdale,
2002; O’Connor et al., 2001).

A challenge in understanding multiple risk factors is that they do not necessarily
increase negative outcomes additively; instead, depending on the types of risk factors
present, they may function exponentially, statistically interact with each other, or one risk
factor may statistically moderate another risk factor (Kraemer et al., 2001). A second
challenge arises from the fact that risk factors are not constant and fixed, but rather
dynamic, context-specific, and changing across time (Schonert-Reichl, 2000). For
instance it is reasonable to assume that effects of parents’ divorce on their children
changes over time, and that a divorce in the family results in different degrees of risk for
negative child outcomes depending on how old the child was at the time of parental
separation.

Rutter (1994) assumes that the presence of risk factors is most challenging for
positive developmental outcomes if individuals are undergoing a transitional period in
development (e.g., early adolescent years). Similarly, Graber and Brooks-Gunn (1996)
state that “understanding how individuals navigate developmental transitions is the crux
of understanding risk and resilience across the life-span” (p. 768). Given that the
propensity of risk is heightened during early adolescence—a period of transition in
development—research on risk and resilience during this time is particularly valuable,
because it has the potential to inform ways to promote positive development and adaptation in individuals at risk.

**Models of resilience.** Two main approaches have been used in the study of resilience in childhood and adolescence, namely the variable-focused approach and the person-focused approach (see Masten, 2001). A variable-focused approach involves the use of multivariate statistics to analyze the relationship between degrees of risk, outcomes, and assets that potentially buffer or protect against negative outcomes. The advantage of the variable-focused approach is that it can reveal differential patterns of relationships between risk, protective factors, and outcomes; the disadvantage is that it is usually used in cross-sectional data sets, and causality cannot be implied from the findings. The person-centered approach compares individuals with different risk profiles on a set of outcomes that indicate resilience at a given point in time and longitudinally. In the present study, a variable-centered approach will be applied, and will thus be given more detailed attention in the following paragraph.

Among the studies that apply variable-centered approaches, different types of effects can result from statistical analyses, reflecting different ways of functioning of risk factors and assets. First, as described by Masten (1999, 2001) and Luthar and colleagues (2000), risk factors and assets can contribute independently to the outcome, signalized by two significant main effects in a regression model. Practically, this means that whether an individual is at high risk or at low risk, he or she is always better off in the presence of an asset (see Figure 1.2). Some authors have referred to assets that yield such effects as promotive factors (e.g., Luthar et al., 2000; Sameroff, 2000), because they promote
positive development in all individuals, and not exclusively those at risk.

**Figure 1.2.** Main Effect Model in Resilience Research Showing Assets as a Promotive Factor (adapted from Masten, 2001).

A second model data can reveal an indirect effect between risk, assets, and outcome, and can be tested in a mediation model analysis (see Figure 1.3). For instance, there is evidence that the relation between some risk factors (e.g., socioeconomic disadvantages) and positive child outcomes is mediated by certain assets (e.g., effective parenting) (e.g., Conger, Conger, & Elder, 1997; McLoyd, 1998).
A final model that can be yielded from resilience research data is the possibility that assets moderate the relationship between risk factors and outcomes as tested in an interaction analysis (see Luthar et al., 2000). As illustrated in Figure 4, a moderating asset variable would be more important at high levels of risk than at low levels of risk. Thus, individuals at risk would benefit from a particular asset, whereas the asset would not have any significant impact on outcomes in low-risk individuals. As a hypothetical example, it is possible that for students at low risk for school failure, teacher support is not significantly related to successful academic outcomes, whereas a significant relation may exist for students at high risk, marking teacher support as a protective variable.
Theoretical assumptions underlying resilience. Resilience is never complete; instead, it has to be considered a trajectory in development rather than a static characteristic of an individual, involving a variety of processes and their interactions at multiple levels of functioning and development over time, ranging from cells and the central nervous system, to family, school, society and other complex social systems (Masten, 2006). Resilience is an ongoing process of resources that enable an individual to negotiate current issues adaptively, providing a foundation for dealing with challenges and recovering from unfortunate life circumstances and experiences (Yates, Egeland, & Sroufe, 2003). It is multiply-determined and therefore a quality in individuals, their environments, and the relationship between individual and environment. This quality of resilience calls for an ecological systems approach in order to understand the interactional
processes involved in positive adaptation despite adversity, and to avoid reducing the construct to a small number of individual traits, factors, or contexts (Rutter, 1987, 1990).

The dynamic and changing nature of resilience is widely acknowledged today, identifying resilience as an ongoing and changing process rather than a trait that is stable or inherent to an individual (e.g., Luthar et al., 2000; Masten, 2007). Furthermore, resilience is multidimensional, an assumption that is supported by the finding that at-risk individuals can manifest competence and positive adaptations in some domains of development, whereas they may exhibit problems in others (Luthar, et al., 2000). Theoretical considerations and empirical findings in resilience research support the principles of *equifinality* (i.e., different developmental paths can lead to the same outcome) and *multifinality* (i.e., the same original starting point can lead to different outcomes). Equifinality reflects the notion that there is not one single protective factor that must be given in order to achieve positive adaptation, whereas the principle of multifinality explains that individuals may start at the same developmental trajectory (e.g., adversity because of early neglect), but exhibit very different patterns of adaptation or maladaptation (Cicchetti & Rogosch, 1996; Curtis & Cicchetti, 2003; Luthar et al., 2000). The construct of resilience in human development has relevance for a large number of academic disciplines, such as sociology, social studies, psychology, pediatrics, education, and health studies, and different theories have been borrowed to build a framework for resilience accordingly. Most of them are centered on human competence and the fulfillment of developmental tasks in different developmental domains (Masten & Wright, 2009), with no single theory fully and exclusively explaining resilience.
Despite the diversity in research designs, methodologies, and theoretical frameworks used in past research on resilience, Masten (2001) notes the remarkable consistency in findings on supportive factors that contribute to resilience. As an overview, the commonly found protective factors that buffer children and adolescents at risk have been compiled into a so-called “short list” by Wright and Masten (2005), including factors within the individual (e.g., self-regulation skills, talents, positive outlook on life), family (e.g., close relationships with caring, warm, and responsible caretakers, socioeconomic advantages), and community (e.g., effective schools, prosocial peer relationships, community support). Based on the research findings from which Wright and Masten were drawing, the authors’ conclusion was that resilience fundamentally rests on the quality of relationships in a child’s or adolescent’s life (e.g., Luthar, 2006; Masten, 2001; Wright & Masten, 2005). Thus, the two central and important theories that have often been applied to inform processes of resilience in childhood and adolescence are attachment theory (Bowlby, 1988) and ecological systems theory (Bronfenbrenner, 1979). The critical contribution of attachment theory is the notion that secure, healthy, and safe relationships are the foundation of positive adjustment in the presence of risk, whereas the critical contribution of ecological systems theory is the notion that those supportive and protective relationships can occur at all levels of early adolescents’ developmental contexts (e.g., family, peer group, school, neighbourhood).

**Attachment theory.** Researchers have noted the importance of attachment relationships for resilience in childhood and adolescence across all decades of resilience research (e.g., Garmezy, 1985; Luthar, 2006; Masten & Gewitz, 2006; Masten & Motti-
Stefanidi, 2009; Rutter, 1979). Attachment is an affective bond that young children initially form with their caretakers; it is a basic human connection that is rooted in a biological system, and helps infants to survive (Ainsworth, 1989). Attachment is a universal phenomenon that first develops through the relationship between the child and primary caregivers in infancy, but is subject to change later in life (e.g., Zimmermann & Becker-Stoll, 2002). Secure attachment in early life is typically characterized by children seeking proximity to their caregiver, the knowledge that the caregiver will provide a secure base for the child, and children’s tendency to protest when being separated from their caregiver (Bowlby, 1969/1982; Cassidy, 1999). In order for a secure attachment relationship to develop, studies have shown that the caregiver’s sensitive responsiveness to the child’s needs is critical (e.g., De Wolff & van Ijzendoorn, 1997). Sensitive responsiveness is not only paramount to meet a child’s physical needs, but also to help the child regulate emotions, an important precursor for social-emotional health and well-being later in life (e.g., Rimm-Kaufmann, Grimm, Curby, Nathanson, & Brock, 2009).

Based on early experiences with primary caregivers, children develop an attachment style that influences their future social and romantic relationships throughout the lifespan (Shaver & Hazan, 1994). Despite parents remaining the critical source of a safe relationship that can promote resilience throughout childhood, the number of potentially supportive relationships in the attachment network increases as children develop (Bernat & Resnick, 2009; Masten & Motti-Stefanidi, 2009). Throughout the early childhood years, in addition to parents, siblings and other family members begin to provide important relationships that can foster resilience in children. Eventually, upon entering the middle childhood and early adolescent years, adults outside the family—
teachers, mentors, and friends—become part of young people’s attachment network that plays a critical role in resilience (Luthar, 2006). Indeed, one of the most important sources for resilience in school has been identified to be positive relationships with competence-promoting teachers and other adults (Pianta, 2006). In particular, children and adolescents who lack such resources at home can find a secure base and feel protected in their relationship with a caring supportive teacher or other adult in the school system who believes in their competencies (Reddy, Rhodes, & Mulhall, 2003).

In addition to the school context, previous research has also documented the importance of non-related adults in the community—often referred to as “natural mentors”—in young people’s lives (e.g., Beam, Chen, & Greenberger, 2002; DuBois & Silverthorn, 2005; Haddad et al., 2011; Scales et al., 2001). Non-related significant adults in the neighbourhood and community can act as non-parental role models for youth, and be individuals with whom young people can pursue peer-like relationships while profiting from the adults’ parent-like qualities (Haddad et al., 2011). Specifically, having a relationship with a significant adult outside the family that is perceived as warm and accepting has been associated with higher self-esteem and fewer depressive symptoms in adolescents (DuBois & Silverthorn, 2005; Greenberger, Chen, & Beam, 1998).

Considering the increasing importance of wider relationship networks with the beginning of the middle childhood years, an ecological contexts approach is particularly relevant when investigating patterns and processes of resilience during early adolescence.

**Ecological contexts approach to resilience.** Explaining resilience as part of the ecology of development, Bronfenbrenner’s (1979) ecological model of development can be used as a framework to cluster protective factors and processes at different levels and
systems in which child development is embedded (Masten & Obradovic, 2008; Ungar, 2011). Protective individual characteristics are first influenced by *microsystem* interactions, such as interactions with peers, family, and teachers. On a higher level, the *mesosystems*—interactions between Microsystems—determine the nature of developmentally supportive resources for an individual, helping them to thrive.

*Exosystems*, the institutional environment in which services and policies are designed and put into action, and *macrosystems*, the systems that encompass laws, customs, and cultural practices, can provide further opportunities for positive development to children at risk (see Leadbeater, Dodgen, & Solarz, 2005; McCubbin & McCubbin, 2005; Seidman & Pedersen, 2003). As described by Ungar (2011), individual characteristics influenced by microsystem interactions, such as variations in temperament, self-esteem, attribution style, and problem solving have been the dominant focus of empirical studies in the field of resilience (e.g., Greenberg, 2006; Haeffel & Grigorenko, 2007; Hjemdal, Aune, Reinfjell, Stiles, & Friborg, 2007; Tremblay, 2005).

Summarizing, resilience and PYD approaches both view human development from a positive lens, attempting to understand success, competence, thriving, and positive growth in normal as well as challenging life circumstances. Taking such a perspective in developmental research is critical for answering the question “what works?” and provides an important counterpart to understanding pathology and maladjustment across the life span. The strength of both approaches lies in their underlying theoretical frameworks which emphasize the complex interplay of relationship factors, mechanisms, and processes in the individual and his or her ecological context, providing a holistic view on positive development rather than isolating personality factors versus single context.
factors in explanations for positive development and adaptation. Taking a big picture and including the ecological context as a central space in which development occurs, matters especially during the emerging adolescent years, when young people are no longer under the sole influence of their immediate family, but are developing and growing rapidly in social interactions with peers, classmates, teachers, and adults in the community.

**Early Adolescence: The Importance of Assets During a Time of Risk and Opportunity**

The transition between childhood and adolescence represents a myriad of changes in social, cognitive, physiological, and biological domains (Stroud et al., 2009). One major social change typically observed in Western cultures is the growing shift in social orientation from the family towards the peer group, reflecting increasing autonomy from primary caretakers (Dishion, Nelson, & Bullock, 2004; Steinberg, 2005; Wigfield et al., 2006). Furthermore, early adolescence is also the time when societal expectations increase, including expectations of individuals to master critical life tasks such as self-organization, the pursuit of healthy relationships outside the family, and getting good grades to prepare for the transition to middle school (Luciana, 2010). Finally, early adolescence is the beginning of young people searching for meaning in their lives, exploring who they are, and forming a sense of identity (Erikson, 1968). These and other changes and expectations can be challenging for young people, manifesting early adolescence as the beginning of a critical period in the lifespan.

The transition into adolescence is considered to be a “turning point” in development and is seen not only as a time of heightened risk but also as a “window of opportunity” for prevention and intervention to set the path for positive development in
the later adolescent and early adulthood years (Eccles & Roeser, 2009; Graber & Brooks-Gunn, 1996; Hertzman & Power, 2006; Steinberg, 2005; Stormshak et al., 2011). Lerner (2009) considers the time from early adolescence to early adulthood as the life span period in which most of a person’s changes in biological, cognitive, psychological, and social characteristics are occurring in interrelated manners, transforming individuals from what is considered to be child-like to adult-like. Historically, early adolescence has received relatively little attention by researchers and scholars who traditionally emphasized the importance of only two developmental periods—early childhood and adolescence (Blume & Zembar, 2007). It was only during the 1990s that researchers commenced reconceptualizing early adolescence as a separate developmental period distinct from childhood as well as adolescence (e.g., Montemayor, Adams, & Gullotta, 1990). Today, Roeser, Eccles, and Sameroff (2000) describe this time as a highly potent period. The authors state “Nowhere in the life span other than in infancy is life more pronounced than in the early adolescent years” (p. 443), and pursue describing early adolescence as a time of enormous potential despite the simultaneous emergence of stress and risk factors that can jeopardize healthy development.

**Competence and Well-being During the Transition to Adolescence**

Within the traditional view of adolescence as a period of “storm and stress,” many studies on early adolescent development have highlighted predominantly the challenges, difficulties, and pathological behaviours (e.g., early beginnings of alcohol and drug use, risk taking behaviours) (Lerner & Steinberg, 2009). In fact, several studies have shown an overall decrease in well-being and increase in emotional health problems with the onset of adolescence (Anderman & Anderman, 1999; Bradford, Rutherford, & John,
Documenting such developmental trends is important because they present a threat to the formation of positive and healthy pathways into adolescence. Nonetheless, remaining aware of the risks and challenges during the early years of adolescence, it is also important to desist from viewing this period in development exclusively from a risk-perspective.

Though challenges cannot be denied, findings have also indicated that the majority of early adolescents are able to manage the challenges and transitions throughout the adolescent years constructively, and that assets in young people’s lives, such as healthy and stable relationships inside and outside the family, are critical as they contribute to normative, healthy, and positive development during the transition to adolescence (Darling, Hamilton, & Hames, 2003; Masten, 2001; Roeser et al., 2000). In addition to positive relationships, social competence—including being self-aware, socially aware, and able to engage in social situations in positive ways—has been established as playing a positive role in thriving in early adolescence (Greenberg et al., 2003). Specifically, social and emotional competence have been related to effective coping with stressful situations, and more skillful social problem solving in life (Payton et al., 2000; Zins, Bloodworth, Weissberg, & Walberg, 2007), and programs that increase social competence—also known as social and emotional learning (SEL) interventions—have been found to enhance developmental outcomes in early adolescence, including a positive view of the self, positive behaviours, and better academic achievement (see Durlak, Weissberg, & Pachan, 2010 for a review). It is thus important to understand competence and well-being in addition to the challenges in early adolescents, and to identify multiple factors that have the potential to enhance well-being during the early
adolescent period in development. In the following sections, I will review research on indicators of social and emotional competence and well-being, and academic achievement in early adolescence. I will draw from research describing both the challenges and the opportunities in development of competence and well-being during this time period.

**Social and emotional competence.** Social and emotional competence (SEC) is among the founding skills that foster positive development in life (Durlak et al., 2011). Early adolescents who demonstrate SEC have been described as skilled in understanding their own and others’ emotions, managing their emotions successfully under stressful circumstances, making responsible decisions, and succeeding in negotiating challenging situations (Payton et al., 2000; Zins et al., 2007). Practically, SEC comes into play in a variety of situations in early adolescents’ everyday life, for instance when making friends in school, resolving conflicts in the peer group, interacting with a teacher when feeling treated unfairly, or working on a group project. Such competencies are critical for forming as well as maintaining positive relationships in life, and therefore critical for learning, which occurs through collaboration with others (Elias et al., 1997).

Being socially and emotionally competent plays a crucial role in multiple domains of positive development, including academic growth, and positive personal and behavioral development (Durlak et al., 2010; Durlak et al., 2011; Elias & Haynes, 2008). For instance, previous research based on peer reports of prosocial and antisocial behaviors in the classroom revealed that social competence in the classroom—such as sharing and cooperating—predicted academic success, whereas a lack of acting socially responsibly by starting fights and breaking the rules was related to lower grades in early
adolescence (Wentzel, 1991). Similarly, in a more recent study, social and emotional skills in the beginning of the school year were positively related to both concurrent academic achievement, and achievement in the end of the school year (Malecki & Elliot, 2002). In addition to cross-sectional and longitudinal research, a large number of intervention studies have indicated that individuals benefit from educational programs that successfully foster SEC; for instance, participating in classroom-based social and emotional learning programs has been related to better academic achievement, fewer behavioral problems, and a more positive view of the self, among other indicators of positive development (Collaborative for Academic and Social and Emotional Learning [CASEL] (2005); Durlak et al., 2010; Lauer et al., 2006).

These and other studies, which will be further discussed in Chapter 4, point to the significant role of social and emotional processes in learning and success, and suggest that promoting SEC is part of fostering PYD, and providing young people at risk with important life skills that contribute to their positive adjustment in development. In fact, several indicators for SEC (e.g., self regulatory skills) have explicitly been identified as personal assets that relate to positive development and adaptation in PYD and resilience research (e.g., Catalano, Berglund, & Ryan, 2004; Luthar et al., 2006; Masten & Motti-Stefanidi, 2009). This matters in particular during early adolescence, a challenging period marked by declines in self-concept, school engagement, and academic achievement (Eccles, 1999; Roeser et al., 2000; Shim et al., 2008). Overall, social and emotional competence is an important foundation in development because it helps young adolescents to grow into responsible, knowledgeable, and caring young adults who have
the necessary skills to contribute within their community and society (Greenberg et al., 2003).

**Optimism.** Throughout the adolescent years, decreases in optimism and hope have been observed, forming a challenge to young people’s well-being and positive development (Anderman & Anderman, 1999; Eccles, 1999; Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991). Optimism is typically defined as a dispositional tendency to generally expect the best, whereas hope refers to positive expectations in a specific situation (Snyder, 2000). Optimism can result from the general belief that positive individual outcomes are controllable or from the belief that good things will befall us (Gillham & Reivich, 2004). Optimistic youth tend to trust that they can solve their problems, overcome adversity, and control the events that occur in their life. Such beliefs are important because they have been found to provide a crucial platform for resilience in young people’s development (Reivich & Shatté, 2002).

Optimism in childhood and adolescence has also been positively related to a number of positive characteristics and outcomes, including school success, happiness, and peer acceptance (e.g., Froh, Sefick, & Emmons, 2008; Oberle, Schonert-Reichl, & Thomson, 2010; Oberle, Schonert-Reichl, & Zumbo, 2010; Schulman, 1995; Watkins, 2004). Furthermore, an optimistic thinking style has been negatively related to depressive symptoms, anxiety, and substance abuse, and has thus been considered a buffer for mental health problems during the adolescent years (Abramson et al., 2000; Patton et al., 2011). Although the study of optimism as an indicator of social-emotional health and well-being in early adolescence is in a nascent stage (Gillham & Reivich, 2004), initial
findings are promising and indicate that having a positive outlook on life can have a significant impact on positive development in childhood and adolescence.

**Life satisfaction.** Satisfaction with life is an indicator of subjective well-being, an umbrella term concerned with an individual’s evaluation of his or her own life (Diener & Diener, 2009). Subjective well-being in general and satisfaction with life in particular are important constructs for understanding psychological well-being across the lifespan, because they have been closely related to happiness as well as a number of positive personal, psychological, and social outcomes (Diener & Diener, 2009; Gilman & Huebner, 2003; Lyubomirsky, King, & Diener, 2005; Proctor, Linley, & Maltby, 2009). Despite the importance of life satisfaction across the whole developmental span, the majority of studies to date have been conducted with adult populations, and comparatively little research has focused on satisfaction with life in childhood and adolescence (Diener, Suh, Lucas, & Smith, 1999; Gadermann, Schonert-Reichl, & Zumbo, 2010; Huebner, 2004).

Overall, the years leading up to adolescence have been associated with a significant decrease in life satisfaction (e.g., Bradford et al., 2002; Goldbeck, Schmitz, Besier, Herschbach, & Henrich, 2007). Acknowledging this trend is important, given that life satisfaction has been identified as an important positive indicator for well-being in youth, including mental health and social relationships (see Proctor et al., 2009, for a review). Specifically, Gilman and Huebner (2003) found that high levels of life satisfaction were positively related to interpersonal relations, positive relationships with parents, and hope, and negatively related to depressive symptoms, anxiety, and a negative attitude towards school and teachers. Furthermore, a positive relationship has been
identified between perceived parental support and life satisfaction in adolescence (Oberle et al., 2010; Valois, Zullig, Huebner, & Drane, 2009). Despite being small in number, the consistency of these emerging results, revealing a positive connection between youths’ satisfaction with life, important positive relationships, and individual characteristics, aligns with previous findings in adult populations (see Diener & Diener, 2009). Such findings are promising because they indicate that research on life satisfaction can potentially inform the development of early adolescents’ well-being and optimal functioning in development, as well as the general research domains of resilience and PYD.

**Self-concept.** With the onset of adolescence, young people become increasingly aware of themselves, a process that is reflected in a heightened self-consciousness and an increase in concern about others’ opinions of oneself (see Sebastian, Burnett, & Blakemore, 2008, for a review). Researchers have suggested that the heightened awareness of oneself with the onset of puberty is one of the main sources of the developing and changing self-concept in early adolescence (Parker, Rubin, Erath, Wojslawowicz, & Burskirk, 2006). Two sources of information that can be used in building a self-concept are a) reactions to past experiences and events, and b) beliefs about how we are seen by others (Gallagher, 2000). The rapid changes that occur in self-concept with the onset of adolescence can partly be explained by changes in the interpersonal environment that occur during this time, namely the increasing importance of relationships with teachers, peers, and adults outside the family for the formation of a positive self-concept (Brown, 2004; Harter, 1990).
The general self-concept can be expressed as a cognitive perception of an individual’s treatment of him- or herself, and has been described by Ybrandt (2008) in terms of feelings such as “I like myself very much and welcome and enjoy opportunities to be myself; I accuse myself and blame myself, make myself feel bad, guilty, ashamed, unworthy” (p. 2). A positive or negative self-concept in early adolescence develops in interaction between the individual and his or her social relationships across multiple developmental contexts (Benjamin, 1993). A negative self-concept in early adolescence can be considered a risk factor, contributing to a number of mental and behavioural health problems including aggressive behaviours, rule breaking, depressive symptoms, and anxiety (e.g., Hay, 2000; Marsh, Parada, & Ayotte, 2004; Marsh, Parada, Yeung, & Healey, 2001; Räty, Larsson, Söderfelt, & Wilde Larsson, 2005). In contrast, holding a positive concept of the self has been identified to be a protective factor in development that buffers psychological problems and promotes young adolescents’ well-being (Gilman & Huebner, 2003; McCullough, Huebner, & Laughlin, 2000; Steinhausen & Metzke, 2001). Including the self-concept in the study of well-being in early adolescence is important because the self-concept undergoes rapid and important changes throughout the adolescent years which in turn are closely related to young people’s social and emotional well-being, and future development.

**Academic achievement.** Interest in school has been reported to decrease with the onset of adolescence, and similar findings have been reported for academic achievement and achievement goals (Eccles, Lord, Roeser, Barber, & Jozefowicz, 1997; Shim et al., 2008). There exist several explanations for these findings that focus on the co-occurrence of different developments and stressors during the early adolescent years: First, school
work becomes increasingly difficult as young people prepare for the transition to middle school; second, the social expectation is that early adolescents master their academic work more independently; last, students are already faced with a multitude of challenges during this transitional time, requiring them to adapt to changes in their social life (e.g., increasing importance of the peer group), behavioural changes, biological and physical changes due to puberty, and academic pressure (Barber & Olsen, 2004; Véronneau & Dishion, 2011).

Although an overall decline in academic engagement and achievement has been observed during the transition from childhood to adolescence, a number of positive correlates have been identified to potentially act as a buffer against declining achievement and motivation during this period in human development (Juvonen, 2006; Véronneau & Dishion, 2011). Specifically, a positive relationship has been found between being accepted by peers, having friends who hold positive attitudes towards academic schoolwork, and academic achievement during early adolescence (e.g., Juvonen, 2006; Roseth, Johnson, & Johnson, 2008). In accordance with these findings, Bond and colleagues (2007), in a study with secondary school students, found a significant and positive relation of school belonging and social connectedness in school to academic achievement, thus lending support to the hypothesis that perceived sense of belonging is an important factor in academic success. Overall, researchers have argued that a sense of relatedness to peers, teachers, and adults in the school, along with parental support are all key factors that function as a motivational and supportive resource for early adolescents, and positively impact their performance motivation and academic achievement (e.g., Furrer & Skinner, 2003; Hill & Tyson, 2009; Wentzel, 1998). To date,
the role of neighbourhood support has not yet been investigated in relation to academic success, and it still needs to be determined whether supportive relationships in the neighbourhood are related to academic outcomes in early adolescence.

Taken together, the research reviewed on different indicators of well-being, including optimism, satisfaction with life, self-concept, and academic achievement, indicates that the early adolescent years are characterized with an overall decline in well-being (e.g., Bradford et al., 2002; Shim et al., 2008). Nonetheless, at the same time, many early adolescents master the transition to the adolescent years successfully, a notion that is still fairly recent compared to the traditional view of adolescence as a time of exclusively “storm and stress” (Roeser et al., 2000). In addition, successful and healthy development in the transition from childhood to adolescence can be fostered through caring and supportive relationships across the significant developmental contexts in which early adolescents develop, offering a great resource for positive development in youth (Lerner et al., 2009).

**Supportive Contexts and Relationships in Early Adolescence**

Understanding the contribution of supportive relationships in different ecological contexts to healthy development and well-being is necessary because it informs PYD, and ultimately contributes to promoting resilience, health, and success in early adolescence. In the following sections, specific attention is given to the peer group, school, and neighbourhood context as influential environments in early adolescent development outside the family.

**Peer relationships.** In the past three decades, researchers have recognized the particularly critical role peer relationships play during the adolescent years, and a
dominant focus in research on early adolescents’ relationships has been on the peer group characteristics and dynamics (e.g., Pepler & Craig, 1998). Relationships with the peer group play a significant role in children’s and adolescents’ social, emotional, and academic development, and psychological well-being (Dougherty, 2006; Hartup, 1996; Nangle & Erdley, 2001; Wentzel, 2009). Although the majority of the research in this field has aimed to clarify the negative effects of victimization, rejection, and bullying, a small but conclusive number of research findings have emphasized the benefits of healthy relationships during this time and their effects on well-being, adjustment, and positive development (Wentzel, 2003, 2009).

Considering the increasing orientation towards the peer group in early adolescence, peer relationships can be important sources of affection, intimacy, self-worth, reliable alliance, and feelings of inclusion (Erdley, Nangle, Newman, & Carpenter, 2001). In a study with middle school students, those who had at least one reciprocated friend in 6th grade tended to be more academically motivated, prosocial, and experienced less emotional distress than students without a reciprocated friendship (Wentzel, 2003, 2009; Wentzel & Caldwell, 1997). Having supportive relationships in early adolescence has also been positively related to positive affect as well as an optimistic outlook in life, two central characteristics linked to PYD and resilience (Deptula, Cohen, Phillipson, & Ey, 2006; Schonert-Reichl, Buote, Jaramillo, & Foulkes, 2008). Similarly, Kuperschmidt and Coie (1990) found that having positive peer relationships in elementary school years is associated with an increase in social competence and acceptance throughout the later school years. The findings of those research studies consistently point toward the importance of positive and healthy peer
relationships for individuals’ growth and well-being during the years between childhood and adolescence. Still, the majority of research on peer relationships throughout adolescence at this time has focused on the adverse effect of peer rejection and exclusion in individual development and well-being (e.g., Gazelle & Druhen, 2009; Trentacosta & Shaw, 2009; Vaillancourt et al., 2008).

Considering the potentially negative outcomes of peer relationships, findings indicate that peer rejection in early adolescence is significantly related to adjustment problems in later adolescence and early adulthood (for a review, see Rubin, Bukowski, & Parker, 2006). Specifically, several authors have found significant associations between peer victimization, bullying, and peer rejection, and long-term adjustment problems such as withdrawal, school drop out, and symptoms of mental illnesses (e.g., Dijkstra, Lindenberg, & Veenstra, 2007; Gazelle & Druhen, 2009; Georgiou & Stavrinides, 2008; Nesdale & Lambert, 2007; Trentacosta & Shaw, 2009). Being victimized is associated with a large number of negative consequences (Card, Isaacs, & Hodges, 2007, for a review), such as lower self-esteem and self-worth (Kokkinos & Panayiotou, 2004), social withdrawal and isolation (Espelage & Holt, 2001; Graham, & Juvonen, 1998; Juvonen, Nishina & Graham, 2000; Storch, Brassard, & Masia-Warner, 2003), and mental health symptoms including depression and anxiety (Espelage & Holt, 2001; Vaillancourt et al., 2008).

Research and theory are in accord in suggesting that there is a heightened importance of peer acceptance and peer group inclusion during the early adolescent years. Despite the smaller number of studies informing the role of positive peer relationships, there is evidence that healthy, supportive relationships with peers, and
being accepted in the peer group are significantly and positively related to important indicators of academic and social and emotional development (e.g., Erdley et al., 2001; Kuperschmidt & Coie, 1990; Oberle et al., 2010; Wentzel, 2003; Wentzel, Barry, & Caldwell, 2004). In addition to the peer group, the larger school setting is an important developmental context in which students can form stable, healthy, and supportive relationships with peers as well as adults outside of the family.

**Supportive school settings.** About two decades ago, Rutter (1991) wrote about the power of schooling and its long lasting effects on academic success as well as social and emotional well-being. Up to today, a large number of studies has shown that positive school experiences and healthy and supportive relationships within the school setting indeed have a crucial impact on early adolescents’ social and emotional well-being and academic achievement (see McLaughlin & Clarke, 2010, for a review). School begins to play a central role in students’ lives during the early adolescent years, and is often the main context in which young adolescents make friends and have a large amount of further social resources, such as a teacher or school staff who can help them when problems arise (Hamre & Pianta, 2005; Pianta & Hamre, 2009; Vieno, Santinello, Pastore, & Perkins, 2007).

Early research on resilience has shown that effective schools and stable and supportive relationships between students and teachers significantly contribute to resilience in children and early adolescents identified as at risk (Howard, Dryden, & Johnson, 1999; Rutter, 1991). Specific protective factors that can be fostered in effective schools include the development of coping strategies, a sense of self-efficacy, self-reflection, self-reliance, effective problem solving strategies, and an optimistic, positive
outlook on life (Vostanis, 2007). The teacher-student relationship has been identified to play a central role in school related factors that promote well-being and academic success in young people (Birch & Ladd, 1997; Durlak & Wells, 1997; Murray & Greenberg, 2000; Pianta, 1999; Weare & Gray, 2003; Wentzel, 1998). For instance, Smith (2006) emphasizes the role of the teacher in students’ healthy attachment to school. Specifically, having an adult at school who cares about the student’s performance, the student’s well-being, and his or her inclusion into the classroom has been related positively to engagement in school, motivation, self-esteem, and negatively to depression (McLaughlin & Clarke, 2010; Reddy et al., 2003).

Having a stable relationship with a caring and supportive teacher or adult at school is also key in experiencing school and the classroom as places of belonging (Resnick, Bearman, Blum, & Bauman, 1997; Woolley & Bowen, 2007). School connectedness is key in determining the extent to which students experience their school as a community to which they belong (Finn, 1993, 1997; Osterman, 2000). In addition, a positive climate has been linked to important positive motivational, behavioural, and attitudinal aspects of learning, as well as psychological well-being and adjustment (Bateman, 2002; Battistich & Hom, 1997). Whereas most studies have emphasized the importance of a significant teacher, fewer research has explored the potential support and positive impact other adults in the school system (e.g., staff members, coach, school counselor) can have on early adolescents’ positive development and resilience (Woolley, 2006). Bowen, Rose, and Ware (2006) have argued that staff members and other adults in school who feel like they are making an impact in students’ lives contribute to a positive
and supportive social climate, and can thus be a supportive and significant person in students’ lives.

School connectedness. The construct of school connectedness has been defined as “the extent to which students feel personally accepted, included, and supported by others in the school environment” (Goodenow, 1993, p. 80). School connectedness matters particularly in early, middle, and late adolescence, when individuals increasingly engage in and rely on extra-familiar relationships with friends and social networks as found in schools (Goodenow, 1993). Scores on measures of school connectedness have been found to correlate positively with students’ academic performance, motivation, and adjustment in school (Anderman & Freeman, 2004; Elias & Haynes, 2008; Furlong et al., 2003; Haynes, Emmons, & Ben-Avie, 1997), and are furthermore linked to self-esteem, self regulation, and attitudes towards school (Osterman, 2000). In studies with early adolescents, students who were perceived to have a sense of membership in the school context tended to have higher expectations of themselves in the future (Israelashvili, 1997), exhibited less negatively associated problem behaviours in grades 6 to 8 (Simons-Morton, Crump, Haynie, & Saylor, 1999), and engaged significantly less in risky behaviours such as alcohol and drug use (Catalano, Haggerty, Oesterle, Fleming, & Hawkins, 2004), and sexual risk taking (Kirby, 2001).

Investigating the relationship between the sense of connectedness in school and mental health symptoms in a longitudinal study, Shochet, Dadds, Ham, and Montague (2006) found that higher levels of connectedness in 12- to 14-year-olds predicted fewer depressive symptoms in both genders, fewer anxiety symptoms in girls, and better general functioning in boys one year later. The authors explained this finding with early
adolescents’ heightened sensitivity to social evaluation (see Calvete & Cardeñoso, 2005), suggesting that high levels of school connectedness can play a protective role in early adolescence. Given the collective evidence for the benefits of connectedness and belonging for young adolescents’ social and emotional well-being and academic success, school connectedness can be theorized as a promotive well-being in typically developing youth, as well as a protective factor contributing to resilience among individuals at risk (Masten & Motti-Stefanidi, 2009).

In addition to the school context, Benson (2003) and Eccles and Gootman (2002) have argued that communities and neighbourhoods are ecological contexts that play a vital, but largely unrealized, role in influencing positive development throughout adolescence. According to these authors, perceived social support in the neighbourhood is one of the key ecological assets that can help youth to thrive and develop positively, and buffer adolescents who are confronted with risk factors in other domains of their lives.

**Neighbourhood support.** In the past two decades, the wide acceptance of contextual approaches to research in the developmental sciences as suggested by Bronfenbrenner (1979) has spurred interest in the effects of neighbourhood characteristics on child and adolescent development (Leventhal & Brooks-Gunn, 2000). Considering beneficial neighbourhood influences on well-being and adaptation during early adolescence, investigations of individuals’ perceptions of relationships within the community and neighbourhood setting have revealed the importance of experiencing non-related adults in the community as supportive and caring for the promotion of
positive development in children and youth (e.g., Battistich, 2005; Scales et al., 2001; Scales, Benson, & Mannes, 2006).

A basic theoretical assumption here has been that both healthy development and well-being are inextricably linked to a sense of belonging, connectedness, and participation in community and neighbourhood groups (Baumeister & Leary, 1995; Putnam, 2000). However, little empirical research has been conducted on the link between perceived community and neighbourhood support to indicators of well-being (Farrell, Aubry, & Coulombe, 2004), particularly during the early adolescent years. One exception is a study by Theokas and colleagues (2005). In a sample of 50,000 early adolescents, these authors found that the ecological asset of self-reported community connection was positively and significantly related to several behavioural indicators of thriving, such as having high expectations for oneself, and holding a positive identity. The results of this study are promising because they align with important theoretical assumptions about the significance of community support in early adolescence and throughout the life span (e.g., Baumeister & Leary, 1995; Theokas & Lerner, 2006). Still, further research needs to be conducted to reveal significant connections between community support and indicators of well-being in youths across multiple domains of development, such as positive social, emotional, and academic growth.

**Summary and the Present Studies**

Early adolescence is a time of growth and changes, bearing opportunities and potential, but also risk and challenges (Eccles, 1999). Taking a perspective of health and well-being, PYD and resilience approaches frame early adolescent development in a positive way, revealing factors and influences that contribute to competencies, success,
and well-being among other positive developmental outcomes (Kia-Keating et al., 2011). Furthermore, PYD and resilience frameworks also highlight the importance of the individual in interaction with his or her contexts—such as the family, peer group, school, or neighbourhood—when understanding development (Lerner et al., 2009; Luthar, 2006). Furthermore, in addition to contextual resources, they see the importance of personal resources—including social and emotional competencies—and their contribution to developmental outcomes including academic success (Durlak et al., 2003). Based on this background, the present dissertation thesis includes three research studies that are closely connected to each other methodologically and theoretically. All three studies are based on data obtained from early adolescents, informing research on PYD and/or resilience. All studies investigate positive developmental outcomes, and take into consideration the importance of personal resources and/or ecological resources.

**Study 1.** Based on a population sample of grade 4 students in Vancouver, Study 1 presented in Chapter 2 investigated the role of SES and the assets of family, school, and neighbourhood support on social and emotional well-being and academic achievement on a standardized, provincially administered test in grade 4 students. I hypothesized that the assets—perceived family support, school support, and neighbourhood support—would all positively relate to social and emotional well-being, and academic success. Significant assets in relation to the outcomes would be considered promotive factors in the model, promoting overall positive developmental outcomes in all early adolescents. Furthermore, using family SES as an indicator for whether early adolescents come from a relatively advantaged or disadvantaged background in Study 1, I explored interactions between SES and the three contextual assets in predicting social and emotional well-being, and
academic achievement. Significant interactions of an asset with SES would be an indicator for the protective role of the asset. Analyses were conducted using multiple linear regression models. Furthermore, I explored the hierarchy of importance in predicting the two developmental outcomes by using the PRATT index as an indicator for each variables’ relative importance in the model. Study materials, including the MDI survey, parent consent and student assent forms, and the teacher manual for the implementation of the survey are presented in Appendices 2.A to 2.F.

**Study 2.** In a large-scale sample of early adolescents in grades 4 to 7, Study 2 presented in Chapter 3 investigated the role of personal assets (optimism), and ecological assets (perceived positive peer relationships, family support, school connectedness, and neighbourhood support) in relation to students’ reports of satisfaction with life, an important indicator of well-being. In the present study, I hypothesized that all assets would be positively related to satisfaction with life. In addition, I assumed that school support and neighbourhood support would also significantly predict individuals’ life satisfaction when aggregated at school-level (e.g., assuming that schools that are on average characterized by individuals reporting a high sense of connectedness would be positively related to early adolescents’ life satisfaction). All analyses were conducted with Multilevel Modeling, nesting students within schools. Study materials, including the survey, and parent consent and student assent forms for Study 2 can be found in Appendices 3.A to 3.C.

**Study 3.** Based on a subset of the same large-scale dataset used in Study 2, Study 3 presented in Chapter 4 was based on a subsample of grade 6 students. Specifically, using indicators of early adolescents’ self- and teacher-reported social and emotional
competencies in the end of grade 6, and achievement on a standardized academic achievement test in math and reading mid-way through grade 7, I hypothesized that social and emotional competencies in grade 6 would be positively predictive of academic achievement in grade 7, taking into account previous academic achievement.

Furthermore, I explored whether gender significantly interacted with the indicators of social and emotional competencies when predicting academic outcomes. All analyses were conducted using multiple linear regression analyses. Regarding the study materials, the same materials listed for Study 2 (i.e., Appendices 3.A to 3.C) apply to Study 3. In addition, Appendices 4.A and 4.B show the teacher consent form and the teacher survey specific to Study 4.
Chapter 2: Supportive Adults Matter: Promoting Positive Development and Adjustment in Early Adolescents from Diverse Socioeconomic Backgrounds

Social and emotional well-being and academic achievement are two important markers of positive development and growth during the early adolescent years—the former functioning as an indicator of health and well-being, and the latter indicating competence on developmental tasks in the scholastic domain (Durlak et al., 2011; Gomez & Ang, 2007; Lerner, 2006, 2009; Lopez & McKnight, 2002; Wright & Masten, 2005; Scales, Sesma, & Bolstrom, 2004; WHO, 2003). Past research has indicated that supportive relationships with adults in core developmental settings are paramount in promoting positive social, emotional, and academic growth (Lerner, von Eye, Lerner, Levin-Bizan, & Bowers, 2010; Scales et al., 2006; Theokas & Lerner, 2006; Wooley, 2006; Youngblade et al., 2007). Specifically, feeling supported by the family (Berns, 2012; Hillaker, Brophy-Herb, Villaruel, & Haas, 2008), at school (Battistich, 2005; Hughes, Luo, Kwok, & Loyd, 2008; Li, Lerner, & Lerner, 2010), and in the community (Benson, 2003; Leventhal & Brooks-Gunn, 2000; Scales et al., 2001) has been found positively related to positive and healthy social, emotional, and academic development during adolescence.

Nonetheless, a few questions remain unanswered. For instance, at this stage it is still unclear whether some supportive relationships matter more than others for positive development (Jose, Ryan, & Pryor, 2012), and whether supportive relationships function domain-specifically (i.e., different supportive relationships being related to specific positive developmental outcomes) (Luthar, Chiccetti, & Becker, 2000). Furthermore, although all young adolescents probably benefit from supportive relationships with adults
in the family, at school, and in the community, it is an open question as to whether some relational support factors are particularly beneficial for youth who come from disadvantaged socio-economic backgrounds (Cuffee et al., 2005). In addition to considering the positive role of supportive adults in different developmental contexts in general, research needs to take into consideration the interaction between support and risk factors that can jeopardize healthy and positive development (Sesma et al., 2006).

Hence, the present study is embedded in the joint theoretical frameworks of positive youth development (PYD; e.g., Lerner, 2006, 2009; Lerner et al., 2002) and resilience—the study of positive outcomes in the presence of risk (e.g., Luthar, 2003a, 2006; Wright & Masten, 2005). Whereas PYD is concerned with relating individual and contextual assets to positive developmental trajectories in adolescence, research on resilience aims to reveal assets that can buffer disadvantaged individuals in particular (e.g., Luthar, 2006). Despite shared interest—positive developmental outcomes—PYD and resilience have rarely been merged in empirical studies (Kia-Keating et al., 2011).

Therefore, the present study investigated the importance of supportive adults in the family, at school, and in the neighbourhood for social and emotional well-being and academic achievement in early adolescence. The study had three aims: (1) to conduct a population-based study on positive development in youth, (2) to investigate PYD and resilience simultaneously, (3) to focus on the developmental period of early adolescence, and (4) to investigate the relative importance of specific support factors within a multi-domain approach that considers multiple assets in different developmental contexts at the same time.
Whereas most research on PYD and resilience is based on representative small and large-scale samples of certain sub-populations (e.g., Brown Urban, Lewin-Bizan, & Lerner, 2010; Scales et al., 2001; Scales et al., 2006), the present study included the population of grade 4 students in a large Canadian city. Population-based studies on PYD and resilience are rare but important because they provide insight into current developmental patterns in an entire population of young adolescents. Population-based research can also uncover and illustrate current concerns, and has the potential to discover opportunities for future generations (McCain et al., 2007). Furthermore, as suggested by Kia-Keating and colleagues (2011), a shortcoming of the current PYD and resilience literatures is that research either tends to focus on positive outcomes in at-risk populations (i.e., resilience), or the general relationship between assets and positive outcomes in adolescence, without considering risk factors (i.e., PYD). Merging both approaches can provide a more complete picture of positive development. First, such research can uncover processes of resilience across ecological contexts – a missing link in most research studies on resilience (Kia-Keating et al., 2011). Second, it allows an opportunity for investigating the role of supportive relationships in early adolescents from different socioeconomic backgrounds.

Last, following the suggestion that support factors and developmental outcomes in resilience research need to be conducted with respect to multiple developmental domains (Cicchetti & Rogosch, 1996; Luthar et al., 2000), the present study investigated the importance of support factors in three contexts—namely, family, school, and the neighbourhood—in relation to positive development in two crucial domains, social and emotional well-being and academic success. A multi-domain approach allows
investigating whether the pattern of support factors that predict social and emotional well-being is comparable to the pattern predicting academic success (see Luthar et al., 2000). Finally, shedding light on the role of family, school, and neighborhood support in positive development discerning the relative importance of each of the supportive relationships for social and emotional well-being and academic success, providing important information for parents, educators, and other practitioners, and for the design of interventions and prevention programs (Durlak et al., 2011).

Social, Emotional, and Academic Development: Indicators of Thriving in Youth

A broad mission of schools is to support young people to become “knowledgeable, responsible, healthy, caring, connected, and contributing” citizens of the world (Weissberg & O’Brien, 2004, p. 87). This mission combines two important goals, fostering social and emotional aspects in development, and the promotion of successful academic achievement in students. Including social and emotional health in addition to academic success in school outcomes is fairly recent (Weissberg & O’Brien, 2004), and aligns with both the views of PYD and resilience that consider social and emotional well-being as a critical sign that young people are moving on a positive trajectory through adolescence (Fredericks & Simpkins, 2011; Gomez & Ang, 2007; Lopez & McKnight, 2002; Park, 2004; Roeser et al., 2000; Scales et al., 2000). An extensive review of both research areas would be beyond the scope of this manuscript. Hence, in the following section I highlight the most important findings relevant to the present study.

Indicators of social and emotional well-being include—among others—optimism (e.g., Froh et al., 2008; Gillham & Reivich, 2004; Reivich & Shatté, 2002), satisfaction with life (e.g., Diener & Diener, 2009; Lyubomirsky et al., 2005; Proctor et al., 2009),
and holding a positive view of the self (e.g., Gilman & Huebner, 2003; McCullough et al., 2000). All three indicators have been related to positive growth, health, and well-being in several developmental domains. For instance, optimism in youth—the general tendency for young people to expect the best and the belief that good things will happen to them (Gillham & Reivich, 2004; Snyder, 2000)—has been positively related to success in school, happiness, and being socially accepted (Froh et al., 2008; Oberle et al., 2010; Oberle et al., 2011; Watkins, 2004). Furthermore, research has suggested that optimism can indicate resilience in challenging life conditions (Reivich & Shatté, 2002), and be a buffer against mental health problems in young people (Abramson et al., 2000; Patton et al., 2011). Though the scientific study of optimism in adolescence is still in a nascent stage, preliminary findings have identified optimism as a key indicator of social and emotional health (Gillham & Reivich, 2004).

Similarly, satisfaction with life—an indicator of subjective well-being—encompasses how individuals evaluate their own life, and thus provides critical insight into early adolescents’ psychological well-being (Diener & Diener, 2009). Even though most research on satisfaction with life has been done with adult populations (e.g., Diener & Diener, 2009; Lyubomirsky et al., 2005), the focus on children and adolescents has increased steadily in the past few years, with promising findings for the study of positive development in adolescence (see Huebner, 2004; Oberle et al., 2011; Proctor, et al., 2009; Valois et al., 2009). For example, high levels of satisfaction with life in youth have been positively related to healthy social relationships, self-esteem, engagement in activities in and out of schools (see Proctor et al., 2009, for a review). Higher life satisfaction has also been related to fewer mental health problems, including anxiety, depression, and
substance abuse (Donohue et al., 2003; Kuntsche & Gmel, 2004). Overall, results indicate that satisfaction with life is an important construct for PYD and resilience, because it indicates healthy social, emotional, and mental functioning (Proctor et al., 2009).

Including general self-concept as an indicator of social and emotional well-being is important because it allows understanding how early adolescents perceive themselves, and how such positive or negative views of the self relate to important aspects of development (Benjamin, 1993; Ybrandt, 2008). Whereas positive overall self-perceptions (e.g., “liking oneself, enjoying to be oneself;” Ybrandt, 2008, p. 2) indicate well-being and positive social functioning (Gilman & Huebner, 2003; McCullough et al., 2000; Steinhausen & Metzke, 2001), a negative view of the self is related to mental and behavioral health problems (Hay, 2000; Marsh et al., 2004; Marsh et al., 2001), jeopardizing positive development. Perceiving oneself in a positive—though not inflated—light matters in particular in early adolescence, a time of formation and transition, when young people embark on pathways that form a trajectory for the years to come (Blume & Zembar, 2007; Simmons & Blyth, 1987; Stroud et al., 2009).

In addition to indicators of well-being, indicators of competence and success on developmental tasks are also fundamental to positive development (Scales et al., 2006). Academic success is one of the main educational objectives valued by parents, educators, and stakeholders (Malecki & Elliot, 2002). Doing well in school can be considered a sign that young people are engaged learners, motivated, and more likely to graduate from high school than students who are failing to keep up with the school’s and teachers’ expectations (Bond et al., 2007). Consequently, together, academic achievement and
social and emotional health indicators form an important part of the study of positive developmental outcomes, offering a holistic picture of how early adolescents feel about themselves and their success in social and academic settings. A main goal of PYD and resilience research is to identify the underlying factors that can promote positive social, emotional, and academic development. Research on promotive factors matters particularly during early adolescence—a time during which social, behavioral, and mental health problems increase and interest in school and academic goals begin to decline (Eccles et al., 1997; Shim et al., 2008). Because the beginning of early adolescent years are characterized with a shift away from the family, promotive factors for positive developmental outcomes need to be identified within additional core ecological contexts (e.g., school, communities) in which young people develop (Wigfield et al., 2006).

**The Power of Supportive Relationships in Multiple Ecological Contexts**

Positive development in early adolescence has its foundations in a continuous bidirectional person context process (Lerner et al., 2005). According to Lerner and colleagues (2010), fostering an adaptive regulation between the individual and its core developmental contexts is a first step toward positive development in early adolescence. In particular, adult support in early adolescents’ core environmental contexts adds to their “social capital” and hence promotes young people’s well-being and buffers them from risks (Wooley & Bowen, 2007, p. 93). Given that early adolescents immerse themselves in ever-widening circles of social interactions (Wigfield et al., 2006), three core developmental settings emerge: The family, the school, and the neighbourhood (Bronfenbrenner, 2005; Richman, Bowen, & Woolley, 2004; Woolley & Bowen, 2007).
Research highlights for the role of support in the family, school, and neighbourhood context are presented in the following paragraphs.

Supportive parents and other adults in the family are critical for healthy social and emotional development, and academic success (Boutelle, Eisenberg, Gregory, & Neumark-Sztainer, 2009; Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999). Having responsive parents who are engaged in their children’s life and foster their strengths and talents, has been associated with being happier, healthier, and exhibiting more prosocial development in early adolescence (Barnes, Mitic, Leadbeater, & Dhami, 2009; Suldo & Huebner, 2004; Roth, Assor, Niemic, Ryan, & Deci, 2009; van de Wetering, van Exel, & Brouwer, 2010). Furthermore, early adolescents whose parents care about homework and school achievement tend to be more engaged and achieve higher grades (Wild, 2012). Parent support has also been associated with better psychosocial functioning, higher self-esteem, and better academic outcomes in adolescents from socioeconomically disadvantaged families in particular (Taylor, 2010; Tiet, Huizinga, & Byrnes, 2010).

In addition to a supportive family context, school support and connectedness play a paramount role in positive development in children and early adolescents. In fact, in a study with 3rd to 6th grade students, Furrer and Skinner (2003) found that connectedness with parents and teachers was both uniquely related to academic engagement and motivation, an important determinant of academic achievement. Similarly, feeling supported by teachers and believing that an adult at school cares about the students’ performance has been related positively to engagement and achievement in school, motivation, self-esteem, well-being, and negatively to depression (Bond et al., 2007; McLaughlin & Clarke, 2010; Reddy et al., 2003; Resnick, Harris, & Blum, 1993;
Wentzel, 1998). Considering the socioeconomic context, school and teacher support has been identified as particularly critical for positive development in school among low-income students as it can buffer individuals at risk and promote well-being and competence (DuBois & Silverthorn, 2005; Elias & Haynes, 2008; Tiet et al., 2010; Wright & Masten, 2005).

With increasing age, the neighbourhood evolves as a further ecological niche in which early adolescents spend time; just like the school setting, the community context is particularly significant because it can reach out to all young people, including those who are socioeconomically disadvantaged or experience little support at home (Anthony & Stone, 2010; Hawkins et al., 2007; Pretty, 2002). One of the few studies on the importance of neighbourhoods on child development revealed that early adolescents who experienced non-related adults in the neighbourhood as caring and supportive scored higher on indicators of thriving, such as high expectations for achievement and a positive view of the self (Theokas et al., 2005). This finding aligns with theoretical considerations by Baumeister and Leary (1995), stating that connectedness and belonging to the community is an important component of well-being, health, and positive development. Though the role of communities and neighbourhood support in early adolescence has been understudied at this point (Farrell et al., 2004), theory and research in this field indicate the potential of supportive adults in the neighbourhood for helping youths thrive (Benson, 2003; Putnam, 2000; Scales et al., 2001; Wolkow & Fergusson, 2001).

Taken together, the scientific literature on PYD and resilience lends both theoretical and empirical support for investigating positive development in early adolescents from different socioeconomic backgrounds from a multidimensional point of
view by including important contexts in which young adolescents grow and develop (Baumeister & Leary, 1995; Bronfenbrenner, 2005; Jose et al., 2012; McLaughlin & Clarke, 2010; Theokas et al., 2005). Even though the family is still central in young adolescents’ lives (Roth et al., 2009), the increasing outward orientation from the family toward relationships in the school and community in early adolescence provides a rationale for considering school and neighbourhood support in addition to family support when investigating indicators of well-being and success (Roeser et al., 2000).

**Summary and Hypotheses**

Early adolescence is a time of social transitions, and increasing support can be gained from significant relationships outside the family (e.g., Boutelle et al., 2009; Jose et al., 2012; Wigfield et al., 2006). Healthy connections with adults in school and in the neighbourhood can contribute in positive and significant ways to positive development and growth during this time (Elias & Haynes, 2008; Furrer & Skinner, 2003; McLaughlin & Clarke, 2010; Wright & Masten, 2005). Two critical indicators of positive development for which supportive adults in core developmental contexts play a vital role are social and emotional well-being and academic competence (Fredericks & Simpkins, 2011; Gomez & Ang, 2007; Luthar, 2006; Masten & Motti-Stefanidi, 2009; Park, 2004; Wright & Masten, 2005). Some of the limitations in the current literature involve a lack of population-based research on positive development in early adolescence, little clarity about whether adult support matters in different ways for young people from different socioeconomic backgrounds, and a paucity of research documenting support in different ecological contexts comparatively, allowing to identify whose support matters more or
less regarding developmental outcomes (Cicchetti & Rogosch, 1996; Kia-Keating et al., 2011; Luthar et al., 2000; McCain et al., 2007; Tiet et al., 2010).

Given the importance of addressing gaps in the current literature, the following hypotheses and explorative research questions were formed: (1) Based on previous research and theory (e.g., Boutelle et al., 2009; Jose et al., 2012; McLaughlin & Clarke, 2010; Wild, 2012; Wooley & Bowen, 2007) I expected that family, school, and neighbourhood support would be positively and significantly related to social and emotional well-being, and academic achievement in the population of grade 4 students in Vancouver. (2) Considering the relative impact of the different supportive relationships for positive development, I explored the hierarchy of importance for family, school, and neighbourhood support for both positive outcomes. (3) I explored whether the supportive relationships function in different ways for individuals from different socioeconomic backgrounds. (4) My aim was to explore whether different contextual support emerges as relatively more/less important for social and emotional well-being compared to academic achievement. Figure 2.1. displays an overview of the variables included in the present study, and the relationships among them.
Method

Participants. Participants included 3,026 4th grade students (48% girls) with a mean age of 9.75 years ($SD = .25$). Participants were from 201 classrooms in 72 public elementary schools in a diverse, urban public school district (with a student population of over 50,000) in Vancouver, British Columbia, Canada. Forty percent of early adolescents indicated that English was their first language learned at home. The remaining 37% reported Mandarin, Cantonese, Punjabi, Korean, Vietnamese, Farsi, or other languages different from English as their first language learned. A total of 33% indicated both English and one other language as their first languages. Regarding family composition, 77% of the participants reported living with both parents, 21% with one parent or part time with each parent, and the remaining participants reported family compositions such as living with an aunt and uncle, grandparents, or with foster parents.

A “passive consent” procedure was used to obtain tacit approval from the parents of 4th grade students in participating classrooms. That is, primary guardians were
informed via letters about the research project prior to the survey administration, and they were given the opportunity to withhold their child from participating. However, a guardian’s signature was not required for participation. In addition to parental consent, students were asked to give verbal assent based on an assent form that was read out loud to them by their teachers, indicating whether or not they would like to participate in the project. In the 72 participating elementary schools (out of a total of 81 elementary schools in the district), the student participation rate was 93%. This sample represents 80% of the public school district’s total grade 4 student population. All students whose parents had not withheld their participation also gave student assent.

**Procedure.** Data collection of the district-wide implementation of the survey named the Middle Years Development Instrument (MDI)\(^1\) took place in January 2010. Participation in the MDI research project was voluntary for teachers and their students. The aim of the MDI research project was to conduct a population-based administration of the survey in all grade 4 classrooms in the Vancouver School District in British Columbia, Canada.\(^2\) Students in private schools and those that were homeschooled were not included. All school administrators of the 81 elementary schools in the Vancouver School District were contacted, informed about the purpose and procedure of the MDI project, and invited to participate. First, an information session was hosted for school administrators, and all administrators were sent additional detailed information about what participation would entail. In a second step, those school administrators who were

\(^1\) A more detailed introduction of the MDI measure will be provided in the measures section.

\(^2\) In the Vancouver School District, students in the public school system attend elementary school from Kindergarten to 7th grade. Following elementary school, they attend secondary school from 8th to 12th grade.
interested in their school’s participation distributed the information about the MDI project to their grade 4 classroom teachers, and together they made a joint decision of whether and how many classrooms in the school should participate. Out of the 81 elementary schools, nine schools opted out of the project. Reasons for opting out included scheduling conflicts and competing projects at the time during which the MDI was to be administered. The 72 schools which agreed to participate were sent an initial information package four weeks before the anticipated start of the MDI data collection; the package included basic information about the MDI survey as well as parental consent forms to distribute to the grade 4 students. A second information package was sent to teachers two weeks prior to the data collection with detailed instructions on how to administer the survey.

The MDI survey was administered by classroom teachers and/or the school principal in January 2010. The completion of the MDI took, on average, two 40-minute class periods. The teachers and/or school principals were instructed to begin the assessment by reading out loud a verbal student assent script, informing students that participation was voluntary and confidential, and that there would be no consequences if a student chose not to participate. After completing the assent forms, teachers began the administration of the MDI survey according to the guidelines in their information package. To guard against biases due to variability in children’s reading proficiencies, the teachers were instructed to read each item in the survey out loud, so that students could mark their responses accordingly. Students were encouraged to ask questions during the administration if they did not understand an item.
Because the questionnaire asks questions about peer relationships, bullying/victimization, and school climate, children may indicate at the end of the questionnaire—on a separate, detachable sheet—whether they “want help with problems [they] are having with other students.” Teachers and/or school principals were advised to follow their school’s protocol regarding addressing those students’ needs. After data collection was completed, all schools that had participated in the MDI project received a school report for their particular school. The report was a summary of data reflecting 4th graders’ social, emotional, and mental well-being, health, relationships, and how they spend their time outside of the school. Schools were also given guidelines for how to use this information and how to incorporate the school report feedback into their future planning.

**Measures.** The MDI survey is a measure of student well-being and assets derived from research and theory in the fields of resilience and PYD (e.g., Luthar, 2006; Masten & Coatsworth, 1998; Masten & Motti-Stefanidi, 2009; Scales et al., 2006). It was developed over the course of four years, and tested in three pilot studies. The final version of the MDI survey contains seven demographic questions (gender, birth date, family/household members, siblings, first language(s) learned, language(s) spoken at home, English reading proficiency) and 72-items that assess five domains of children’s development and well-being (i.e., 1. Social and emotional development, 2. Connectedness with parents, schools, peers, and neighbourhoods, 3. School experiences, 4. Physical health and well-being, and 5. Constructive use of after-school time). The current study is based on several MDI subscales, including social and emotional development (domain 1) and connectedness with parents, schools, peers, and
neighbourhoods (domain 2). Almost all of the MDI subscales are adapted from original scales. They were derived from factor analytical procedures of data from three initial pilot studies\(^3\) and previous studies on large-scale samples including grade 4 students. Scale adaptation was based on stable psychometric properties (e.g., satisfactory reliability). In addition to the MDI data, StatsCanada (http://www.statcan.gc.ca/start-debut-eng.html) data on income at the postal code level, and Edudata\(^4\) data on academic achievement in 4\(^{\text{th}}\) grade as assessed with the provincial Foundational Skills Assessment (FSA) exam were linked to the MDI data to assess relationships between MDI variables, academic achievement, and indicators of socioeconomic status. Means, standard deviations and ranges for all variables used in this study are presented in Table 2.1.

**Demographics.** A demographic questionnaire was administered to each student to gather information about his or her gender, birthdate, first language learned, and family composition.

**Social and emotional well-being.** The variables optimism, self-concept, and satisfaction with life were aggregated to form the composite social and emotional well-being. All three variables were positively and significantly correlated with each other, with correlations among the three variables ranging from \(r = .56\) to \(r = .64\) (\(ps < .001\)). The Cronbach’s alpha of the composite indicated satisfactory reliability (\(\alpha = .87\)).

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\(^3\) Earlier versions of the MDI were piloted at three different time points between 2008 and 2010. These initial pilot studies informed the current version of the MDI which was used in the present study. The pilot study data are not part of the current study.

\(^4\) Edudata (www.edudata.educ.ubc.ca) is a research unit located in the Faculty of Education at the University of British Columbia; it is a secure facility for linking, storing, and analyzing personal information across a broad range of sectors, including education (e.g., students’ provincial test scores).
**Optimism.** Early adolescents’ optimism was assessed with the Optimism subscale from the Resiliency Inventory (RI; Noam & Goldstein, 1998; Song, 2003). The original scale consists of nine items assessing respondents’ positive perspective on the world and the future in general. The adapted version of this scale consisted of three items (sample item: “More good things than bad things will happen to me”). Students were asked to rate each item on a 5-point Likert-type scale ranging from 1 = *Not at all like me*, 2 = *A little bit like me*, 3 = *Kind of like me*, 4 = *A lot like me*, 5 = *Always like me*. For the present research study, Cronbach’s alpha for the Optimism subscale was acceptable (α = .65).

**Self-concept.** General self-concept was assessed with an adapted version of the Marsh Self Description Questionnaire (Marsh, 1988). The original scale consists of eight items. The adapted version of the scale used in this study consisted of three items, such as “In general, I like being the way I am,” and “Overall, I have a lot to be proud of.” Items were rated on a scale ranging from 1 = *Never*, 2 = *Hardly ever*, 3 = *Sometimes*, 4 = *Often*, 5 = *Always*. Cronbach’s alpha in this sample was satisfactory (α = .70).

**Satisfaction with life.** Satisfaction with Life was assessed using the Satisfaction With Life Scale for Children (SWLS-C; Gadermann et al., 2010), an adaptation of the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larson, & Griffin, 1985), which is a five-item instrument that assesses global life satisfaction in adults. A validation study of the SWLS-C indicated that the instrument was psychometrically sound and showed construct validity in a sample of 4th to 7th graders (Gadermann et al., 2010; Gadermann, Guhn, & Zumbo, 2011). Students were asked to rate the five items on a 5-point Likert scale ranging from 1 = *Disagree a lot* to 5 = *Agree a lot*. Sample items were: “In most
ways my life is close to the way I want it to be,” and “So far, I have gotten the important things I want in life.” Cronbach’s alpha in this sample was satisfactory ($\alpha = .83$).

**Perceived family support.** Perceived family support was assessed with the Parental Support subscale of the California Healthy Kids Survey (CHKS; WestEd, 2005). The original subscale consists of six items. The adapted scale in this study consisted of four items. On a scale from $1 = Not\ at\ all\ true$ to $4 = Very\ much\ true$, early adolescents were asked to rate statements concerning their parent/caregiver in the family, for example “In my home, there is a parent/caregiver or another adult who talks with me about my problems,” “In my home, there is a parent/caregiver or another adult who believes that I will be a success,” and “In my home, there is a parent/caregiver or another adult who always wants me to do my best.” Cronbach’s alpha in this study was .75, indicating satisfactory internal consistency.

**Perceived neighbourhood support.** The Neighbourhood Support subscale of the California Healthy Kids Survey (WestEd, 2005) was used to assess the existence of non-related supportive adults that early adolescents perceived in their community/neighbourhood. The original subscale consists of seven items. The adapted version used in this study consisted of three items. On a scale from $1 = Not\ at\ all\ true$ to $4 = Very\ much\ true$, early adolescents were asked to rate each of the three items as to the degree to which in their neighbourhood or community (NOT in their school or family) they had a supportive relationship with a non-related adult (i.e., “…there is an adult who I can talk to about my problems,” “…there is an adult who believes that I will be a success,” and “…there is an adult who listens to me when I have something to say.”). Cronbach’s alpha was satisfactory in the present study ($\alpha = .85$).
**Perceived school support** was composed of the variables school support and school belonging. The variables were positively and significantly correlated ($r = .49; p < .001$). The Cronbach’s alpha of the composite indicated satisfactory reliability ($\alpha = .75$).

**School support.** Sense of school support was assessed via a subscale of the School Support subscale of the CHKS (WestEd, 2005) —a scale that assesses students’ perception of supportive adults in school. The original subscale consists of seven items. For the purposes of the present study, the 7-item scale was shortened to include 3 items. On a scale from 1 = *Not at all true* to 4 = *Very much true*, early adolescents were asked to rate each of the three items as to the degree to which they perceived that they had a supportive relationship with a teacher or other adult in their school (i.e., “...there is a teacher/adult who really cares about me,” “...there is an adult who believes that I will be a success,” and “...there is an adult who listens to me when I have something to say.”). For the present study, Cronbach’s alpha was found to be satisfactory ($\alpha = .70$).

**School belonging.** Sense of school connectedness was assessed via the school belonging subscale of the Patterns of Adaptive Learning Survey (PALS) developed by Roeser, Midgeley, and Urdan (1996). Rated on a 5-point-scale ranging from 1 = *Disagree a lot* to 5 = *Agree a lot*, students were asked how much they agreed with the statements “I feel like I belong to this school” and “I feel like I am important in this school.” Cronbach’s alpha in this sample was satisfactory ($\alpha = .73$).

**Socioeconomic status.** Socioeconomic status (SES) data were obtained from 2006 tax filer data through StatsCanada. Specifically, the variable median equalized disposable income at census enumeration area (i.e., 6-digit postal code level) was used as an indicator of approximate family socioeconomic status. The variable represents the
equalized disposable income per person within a given enumeration area (Ebert, 1999). In the present study, median equalized disposable income ranged from 3,400 to 77,500 with a mean of 26,757.12 ($SD=10,949.58$).

As described by Guhn and colleagues (2010), median equalized disposable income is equalized according to a) family size because the living costs of a household do not linearly increase with increasing family size, and b) the age of the family members because children and teenagers have lower living costs than adults on average. Even though the variable is calculated based on individual census family income, Statistics Canada provided data only at an aggregated enumeration area code level (e.g., postal code). Enumeration areas can range from block size in densely populated areas to larger areas in sparsely populated areas, and coincide with the area captured by the 6-digit postal code (Guhn et al., 2010).

Because data in this study were obtained from a population of grade 4 students attending elementary schools in Vancouver – a major Canadian city – it can be assumed that the enumeration areas in which the participants resided are all fairly densely populated and have geographical resemblance to block areas (Guhn et al., 2010). Representative studies conducted in the Canadian context have shown that census income data aggregated at the postal code/block level serve as a reasonable proxy for family-level income in large-scale analyses (e.g., Mustard, Derksen, Berthelot, & Wolfson, 1999). Based on these findings previous population-level studies have employed the same methodology and used income at the level of enumeration area as an indicator for individual family income (Guhn et al., 2010; Oliver, Dunn, Kohen, & Hertzman, 2007).
**Academic achievement.** Students’ performance on a standardized provincial achievement test for 4th grade students (FSA; Ministry of Education British Columbia, 2011) were used as an indicator for academic achievement. The FSA exam in 4th grade is an annual, province-wide assessment of students foundational academic skills in reading, writing, and mathematics that was designed to inform schools, districts, and the province about students’ academic learning progress (Ministry of Education British Columbia, 2011). According to the Ministry (2011), all students are expected to take part in the FSA exam; however parents may withhold their children from participating in the assessment, and entire schools may opt out of participation. As described by Lloyd and Hertzman (2009), the British Columbia Ministry of Education and the school districts use FSA results to report about students’ performance in core parts of the curriculum (i.e., reading comprehension, writing, numeracy skills), to inform curriculum development and discussions on student learning, to examine academic achievement across different student populations, and to create school development plans. The current study is based on FSA data and MDI collected in 2010. Of the 3026 grade 4 students who took part in the MDI study, 1995 students also completed the FSA numeracy assessment, and 1997 completed the FSA reading assessment.\(^5\)

The FSA consists of multiple-choice and open-ended questions assessing skills in the three foundational areas of learning. Specifically, students complete a computerized

---

\(^5\) Comparing the demographics of early adolescents who took part in the FSA test and those who did not participate revealed a similar gender distribution \(\chi^2 (1) = 1.10, \text{n.s.}\) and a similar distribution of ESL versus English first language speakers \(\chi^2 (1) = 0.50, \text{n.s.}\) in both groups. Regarding SES the average median equalized disposable income was significantly higher those who participated \((M = 25,809.80; SD = 10,460.58)\) than for those who didn’t participate \((M = 27,235.39; SD = 11,163.59)\) in the FSAs \(t(2973) = -3.36; p < .01\). However, the effects size \((d = -.12)\) for this difference in income was small, indicating little practical relevance.
test version of 39 reading comprehension questions and 40 numeracy questions in multiple-choice format. Furthermore, students complete one written question assessing reading comprehension, two written questions assessing numeracy skills, as well as one long and one short written answer addressing a writing topic (Ministry of Education British Columbia, 2011). Each of the scales is designed to measure cumulative learning, testing the skills 4th grade students are supposed to have acquired between kindergarten and grade 4 (Lloyd, Li, & Hertzman, 2010; Ministry of Education British Columbia, 2011). For the purpose of the present study, performance on numeracy skills questions and performance on reading comprehension questions in the multiple-choice portion of the test were used. Scores on the writing scale were excluded because it has been suggested that they tend to be prone to subjective marking (Lloyd & Hertzman, 2009).

For the multiple-choice part, students’ performance on the FSA is indicated by the Ministry of Education British Columbia through raw scores ranging from 200 to 800 (see Table 2.1 for FSA descriptives in the present study). The Ministry of Education British Columbia categorizes students’ performance in a given domain into one of four categories based on their FSA score: “Not yet meeting expectations,” “Meeting expectations,” “Exceeding expectations,” or “Performance level unknown.” Table 2.2 displays the numbers of preadolescents in each of the achievement categories, and the correspondent range of each category.
Table 2.1. Means, Standard Deviations, and Range for All Variables.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M (SD)</th>
<th>Min. to Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social and Emotional Well-being</td>
<td>2,987</td>
<td>43.19 (7.90)</td>
<td>8 to 55</td>
</tr>
<tr>
<td>Family Support</td>
<td>2,958</td>
<td>3.48 (.65)</td>
<td>1 to 4</td>
</tr>
<tr>
<td>School Support</td>
<td>2,973</td>
<td>16.84 (3.23)</td>
<td>2 to 21</td>
</tr>
<tr>
<td>Neighbourhood Support</td>
<td>2,951</td>
<td>2.71 (.96)</td>
<td>1 to 4</td>
</tr>
<tr>
<td>SES</td>
<td>2,976</td>
<td>26,757.12 (10,949.58)</td>
<td>3,400 to 77,500</td>
</tr>
<tr>
<td>Reading Comprehension</td>
<td>1,997</td>
<td>478.73 (101.01)</td>
<td>200 to 742</td>
</tr>
<tr>
<td>Numeracy Skills</td>
<td>1,995</td>
<td>487.31 (96.81)</td>
<td>200 to 755</td>
</tr>
</tbody>
</table>
Table 2.2. Distribution of the Number of Participants Across the Three FSA Achievement Categories, and Each Category’s Score Range.

<table>
<thead>
<tr>
<th></th>
<th>Not yet meeting expectations</th>
<th>Meeting expectations</th>
<th>Exceeding Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reading Comprehension</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>416</td>
<td>1319</td>
<td>240</td>
</tr>
<tr>
<td>Min. to Max.</td>
<td>200 to 399</td>
<td>399 to 606</td>
<td>607 to 742</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>346.15 (54.19)</td>
<td>491.24 (54.19)</td>
<td>647.13 (32.87)</td>
</tr>
<tr>
<td><strong>Numeracy Skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>432</td>
<td>1369</td>
<td>194</td>
</tr>
<tr>
<td>Min. to Max</td>
<td>200 to 410</td>
<td>410 to 618</td>
<td>618 to 755</td>
</tr>
<tr>
<td>Mean (SD)</td>
<td>360.01 (45.84)</td>
<td>502.91 (56.86)</td>
<td>660.71 (31.69)</td>
</tr>
</tbody>
</table>

**Results**

**Data analytic procedure.** First, preliminary analyses were conducted to test whether the assumptions for linear regression analysis were met and to explore intercorrelations among all variables. Second, a hierarchical linear regression analysis was conducted to investigate SES and the assets family, school, and neighbourhood support as predictors for social and emotional well-being in Block 2 after controlling for age, gender, and ESL in Block 1. Interactions between SES and each of the three MDI assets were computed and entered in Block 3. Interactions were composed as the multiplicative product of two variables. The PRATT-index (see Thomas, Hughes, & Zumbo, 1998) was used as an indicator for the relative importance of variables in the model, calculating the proportion of overall variance each variable explains in the
regression model. Significant interactions were analyzed with simple slopes analysis (Aiken & West, 1991) and interpreted based on graphical illustrations. Last, two hierarchical linear regressions were computed to predict reading comprehension and numeracy skills in the FSA assessment from demographic variables in Block 1, MDI assets and SES in Block 2, and interactions between SES and assets in Block 3. All three regression analyses were based on z-standardized variables in the model. Simple slopes investigations of significant interaction effects were based on the mean centered model as recommended by Aiken and West (1991).

Preliminary analyses. Assumptions for regression were tested. The Durbin Watson test indicated that the residuals were independent of each other (Durbin Watson statistic < 2). Graphical examinations suggested that the standardized residuals in the regression model were normally distributed. Furthermore, the VIF indicator was > 4 and the Tolerance indicator was < .2, indicating no significant multicollinearity. Last, there was a linear relation between predictors and outcome, and homoscedasticity could be assumed. The linearity assumption was particularly important to test here because the concern may be raised that the theoretical argument for complex person context relationships in PYD (Lerner, 2006) may result in non-linear relationships between the support variables and the developmental outcome variables. Non-linearity, in turn, could bias the results obtained when inappropriately using a linear statistical model. As mentioned above, the linearity assumption was met in the present study. As recommended by Pallant (2007), missing data were excluded pairwise from the regression analysis.
Intercorrelations among the variables (see Table 2.3) indicated that several of the demographic variables (age, gender, ESL) were significantly correlated with the three outcome variables of social and emotional well-being, reading comprehension, and numeracy skills, providing rationale for including those variables as control variables in subsequent analyses. Furthermore, positive and significant correlations were found for social and emotional well-being and the three asset variables family, school, and neighbourhood support. The magnitude of the correlations (ranging from r = .308 to r = .447) was moderate. Family support was significantly and positively related to reading comprehension and numeracy skills, though the magnitude of the correlations was weak (r = .112 and r = .04). Significant positive, but weak in magnitude correlations were found between SES and social and emotional well-being, family support, neighbourhood support, reading comprehension and numeracy skills (ranging from r = .108 to r = .154).
Table 2.3. *Pearson Product-Moment Correlations Between all Variables.*

<table>
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<th>1.</th>
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<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender(^a)</td>
<td>.022</td>
<td></td>
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<td></td>
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<tr>
<td>3. ESL(^b)</td>
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<td>.016</td>
<td></td>
<td></td>
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<tr>
<td>4. Social Emotional Well-being</td>
<td>.035</td>
<td>-.097**</td>
<td>.106***</td>
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<td></td>
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<td>5. Family Support</td>
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<td>.104***</td>
<td>.447***</td>
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<td></td>
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<tr>
<td>6. School Support</td>
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<td>-.072**</td>
<td>.030</td>
<td>.493***</td>
<td>.326***</td>
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<td>7. Neighbourhood Support</td>
<td>.028</td>
<td>-.063**</td>
<td>.144***</td>
<td>.308***</td>
<td>.312***</td>
<td>.246***</td>
<td></td>
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<td>8. SES</td>
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<td>.035</td>
<td>.171***</td>
<td>.108***</td>
<td>.119***</td>
<td>0.028</td>
<td>.114***</td>
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<td></td>
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<td>9. Reading comprehension</td>
<td>.071*</td>
<td>-.106***</td>
<td>.016</td>
<td>.002</td>
<td>.112***</td>
<td>-.025</td>
<td>-0.023</td>
<td>.154***</td>
<td></td>
</tr>
<tr>
<td>10. Numeracy skills</td>
<td>.093**</td>
<td>.044</td>
<td>-.090***</td>
<td>-.026</td>
<td>.044*</td>
<td>&lt;.001</td>
<td>-0.038</td>
<td>.130***</td>
<td>.523***</td>
</tr>
</tbody>
</table>

\(^a\)1 = female, 2 = male; \(^b\)0 = ESL, 1 = English first language.

\(*p < .05; **p < .01; *** p < .001\)
Predicting social and emotional well-being. A hierarchical linear regression analysis was conducted to investigate whether perceived family, school, and neighbourhood support, SES, and two-way interactions between SES and each of the support variables significantly predicted social and emotional well-being in early adolescence, controlling for age, gender, and ESL. The control variables were entered in Block 1, the support variables and SES were entered in Block 2, and the interaction terms between SES and the support variables were entered in Block 3 of the regression model (see Table 2.4). Overall, Model 1 including the control variables age, gender, and ESL was statistically significant, explaining 2.2% of the variance in early adolescents’ social and emotional well-being \([\text{adjusted } R^2 = .021, F(3, 2887) = 21.784, p < .001]\). Age was a significant positive predictor in the model, gender was a significant negative predictor with females reporting higher social and emotional well-being than males on average, and ESL was a significant positive predictor, with higher average scores for early adolescents whose first language was English compared to ESL.

Entering perceived family, school, and neighbourhood support, and SES in the next step, Model 2 explained 35.2% of the variance in social and emotional well-being \([\text{adjusted } R^2 = .351, F(7, 2883) = 223.910, p < .001]\). The change in explained variance between Models 1 and 2 was statistically significant \([R^2\text{change} = .330, F\text{change}(4, 2883) = 367.214, p < .001]\). Table 2.4 shows that all support variables as well as SES significantly and positively predicted social and emotional well-being in Model 2. The predictive pattern of the control variables remained similar to Model 1, except that age was no longer a statistically significant predictor. Last, after entering the three interaction terms between SES and each of the three support variables in step 3, the full model
explained 35.6% of the variance in social and emotional well-being [adjusted $R^2 = .354$, $F(10, 2880) = 159.163, p < .001$]. Adding the interaction terms significantly increased the variance explained in the model [$R^2_{\text{change}} = .004$, $F_{\text{change}}(3, 2880) = 5.591, p < .01$]. In the full model all three support variables and SES remained significant predictors; higher perceived support and SES scores were related to higher social and emotional well-being. In addition, the family support x SES interaction and the school support x SES interaction emerged as statistically significant predictors in the model, indicating that the association of family support and school support to social and emotional well-being differed significantly by SES.\(^6\) The predictive pattern for the control variables remained the same as in Models 1 and 2.

**Simple slopes analyses.** Post-hoc analyses of the significant interactions were conducted according to the guidelines of Aiken and West (1991) to further decompose the two significant interactions. First, continuous variables were plotted at high and low values of the variables (social and emotional well-being at +1SD and -1SD of SES, and at the minimum and maximum of the mean centered support variables). Next, simple slopes analyses were conducted to determine whether the slopes of the plotted regression lines were significantly different from zero (Preacher, Curran, & Bauer, 2006).

**Family support x SES.** Figure 2.2 and Table 2.4 show that the association between family support and social and emotional well-being differed significantly for early adolescents from different socioeconomic backgrounds. Overall, the graphical

---

\(^6\) To further take into account the possibility of non-linear relationships of the three asset variables in relation to well-being in the present study, three-way interactions among family, school, and neighbourhood support in predicting social and emotional well-being were conducted. None of those interactions emerged as significant, and they were therefore excluded in the presented model.
illustration indicates that family support was a stronger predictor for social and emotional well-being than SES in the current study. Specifically, when perceived family support was low, early adolescents from a high SES background reported the lowest social and emotional well-being, followed by those from medium SES background. Social and emotional well-being was highest for early adolescents from a low SES background at low perceived family support. The cross-over nature of the interaction led to an opposite pattern for high perceived family support. In fact, when family support was high, early adolescents from a high SES background reported the highest social and emotional well-being, followed by those from medium SES background, and early adolescents from a low SES background reported the lowest well-being scores. Simple slopes analyses revealed that the slope line for low SES was statistically significant \( [b =2.90, t = 10.30, p < .001] \), as were the slope lines for medium SES \( [b = 3.44, t = 17.00, p < .001] \), and for high SES \( [b = 3.99, t = 12.19, p < .001] \).

*School support x SES.* As can be seen in Figure 2.3 and Table 2.4, the association between school support and social and emotional well-being also differed significantly for early adolescents from different socioeconomic backgrounds. Overall, the graph indicates that school support had a higher impact on social and emotional well-being than SES in the current study. Specifically, at low school support, early adolescents from a high SES background reported the highest social and emotional well-being, followed by those from a medium SES background, and those from a low SES background who reported the lowest scores on well-being. However, when school support was high, SES no longer had a significant impact on social and emotional well-being. In fact, everyone was doing equally well. The slope line for low SES was statistically significantly
different from zero \( b = 1.01, t = 18.53, p < .001 \), as were the slope lines for moderate SES \( b = .87, t = 19.36, p < .001 \), and for high SES \( b = .73, t = 13.13, p < .001 \).

![Graph](image_url)

**Figure 2.2.** Interaction Effect of Family Support x SES on Social and Emotional Well-Being.

![Graph](image_url)

**Figure 2.3.** Interaction Effect of School Support x SES on Social and Emotional Well-Being.
**PRATT-index.** Next, I calculated the PRATT-index as an indicator for relative importance of each predictor variable in the full model of the hierarchical linear regression (Block 3). A predictor variable’s PRATT-index is computed based on the variable’s $\beta$-weight, its correlation with the outcome variable, and the total $R^2$ in the regression model $[d = (\beta \times r_{xy})/R^2]$ (see Thomas et al., 1998). The PRATT-index indicates what percentage of the total $R^2$ is explained by each variable in the model. It hence allows interpreting which of the predictor variables are most important in predicting the explained variability of the model’s outcome. The PRATT-index of a given variable in a regression model can range between 0 and 1. The sum of all PRATT-indices within a regression model is 1, indicating that all variables together explain 100% of the $R^2$ in the regression model. As an operating principle, a predictor is relatively unimportant in the model if $d < 1/(2*p)$ with $p$ indicating the total number of predictors in the model (Thomas, 1992). Applying this principle to the present study, predictors with a PRATT-index smaller than 0.05 [$d < 1/(2*10)$] could be considered relatively unimportant in explaining variance in the model, explaining less than 5% of the $R^2$ in the model.

Table 2.4 shows that the three support variables emerged as most important indicators for predicting social and emotional well-being according to their PRATT-index. Specifically, school support emerged as the most important variable with the highest PRATT-index ($d = .49$), explaining 49% of the total variance in social and emotional well-being in the present study. Family support emerged as the second most important predictor, explaining 39% of the total variance in well-being ($d = .39$), and neighbourhood support was ranked third in relative importance, explaining 10% of the model’s $R^2$ ($d = .10$). The remaining indicators’ contribution was below 5%.
Table 2.4. *Regression Analysis Predicting Social and Emotional Well-Being.*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th></th>
<th>Model 2</th>
<th></th>
<th></th>
<th>Model 3</th>
<th></th>
<th></th>
<th>PRATT (d)</th>
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<tbody>
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<td></td>
<td>$B$</td>
<td>$SE$</td>
<td>$\beta$</td>
<td>$t$-value</td>
<td>$B$</td>
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<td>$\beta$</td>
<td>$t$-value</td>
<td>$B$</td>
<td>$SE$</td>
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<td>Age</td>
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<td>5.704*</td>
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<td>.394</td>
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<td>1.113</td>
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<td>.394</td>
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<td>.237</td>
<td>-.050</td>
<td>-3.294**</td>
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<td>.042</td>
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</tbody>
</table>

$^a$1=female, 2=male; $^b$0=ESL, 1=English first language; *$p < .05$; **$p < .01$; ***$p < .001$
**Predicting Academic Achievement.** Two hierarchical linear regression analyses were conducted to predict early adolescents’ reading comprehension and numeracy skills on a standardized provincial achievement test from SES, support variables, and interactions between SES and support variables, controlling for age, gender, and ESL. Table 2.5 provides an overview of the results. None of the interactions between SES and the support variables were statistically significant when predicting reading and numeracy, and are thus not included in Table 2.5.

**Reading comprehension.** Overall, Model 1 including the control variables age, gender, and ESL was statistically significant, explaining 1.7% of the variance in reading comprehension \[ \text{adjusted } R^2 = .016, F(3, 1935) = 11.473, p < .001 \]. Age was a significant positive predictor in the model and gender was a significant negative predictor with females scoring significantly higher on the reading test than males on average; ESL was a not a significant predictor in the model.

Adding perceived family, school, and neighbourhood support, and SES in the next step, Model 2 explained 6% of the variance in early adolescents’ reading comprehension scores \[ \text{adjusted } R^2 = .056, F(7, 1931) = 17.568, p < .001 \]. The change in explained variance between Models 1 and 2 was statistically significant \[ R^2 \text{change} = .042, F_{\text{change}}(4, 1931) = 21.770, p < .001 \]. Family support and SES emerged as positive and significant predictors for reading comprehension. In contrast, school and neighbourhood support were both found to be negative and statistically significant predictors in the model. However, the meaning of school and neighbourhood support as negative statistically significant predictors needs to be further discussed given that the Pearson
Moment-Product correlations between school support and reading comprehension 
\(r(1997) = -0.023, \text{n.s.}\) and neighbourhood support and reading comprehension \(r(1988) = -0.025, \text{n.s.}\) were not only non-significant, but also very small in magnitude, sharing less than 3% of variability. A finding with such small magnitude can emerge to be significant because of the large number of data points in the present study. The pattern of significance for the control variables in Model 2 remained the same as it was established in Model 1. Entering the three interactions of SES with each of the support variables in Block 3 did not significantly change the variance explained in reading scores \([R^2\text{change} = 0.003, F\text{change}(3, 1928) = 2.335, \text{n.s.}]\) Model 3 explained 6.3% in the variance of reading comprehension in early adolescence \([\text{adjusted } R^2 = 0.058, F(10, 1928) = 13.042, p < .001]\). None of the interactions were statistically significant.

**Numeracy skills.** Similar to reading comprehension, the control variables in Model 1 explained 1.9% of the variance in numeracy skills \([\text{adjusted } R^2 = 0.018, F(3, 1932) = 12.489, p < .001]\). Age was a significant positive predictor in the model and ESL was a significant negative predictor with ESL participants scoring on average significantly higher on the numeracy test than those whose first language was English; Gender was a not a significant predictor in the model. Entering the support variables and SES in the next step, Model 2 explained 4.5% of the variance in numeracy scores \([\text{adjusted } R^2 = 0.041, F(7, 1928) = 12.837, p < .001]\), indicating a significant change in variance explained \([R^2\text{change} = 0.026, F\text{change}(4, 1928) = 12.930, p < .001]\). As with reading comprehension, family support and SES were positive significant predictors for numeracy skills. Again, neighbourhood support was found to be a negative significant predictor; school support was not statistically significant. As before, the neighbourhood
support as a negative statistically significant predictor needs to be further discussed, given that the simple correlations between neighbourhood support and numeracy skills ($r(1974) = -.038, \text{n.s.}$) was non-significant and very small in magnitude. The pattern of significance remained the same for the control variables in Model 2 as it was established in Model 1. After entering the three interactions of SES with each of the support variables in Block 3, the variance explained in Model 3 remained similar to Model 2 [adjusted $R^2 = .042, F(10, 1925) = 9.536, p < .001$]; the change in explained variance was not significant [$R^2$ change $= .003, F_{\text{change}}(3, 1925) = 1.716, \text{n.s.}$]. None of the interactions was statistically significant and will not be further reported.
Table 2.5. *Regression Analysis Predicting Reading Comprehension and Academic Achievement.*

<table>
<thead>
<tr>
<th>Block</th>
<th>Variable Name</th>
<th>Reading Comprehension</th>
<th></th>
<th></th>
<th>Numeracy Skills</th>
<th></th>
<th></th>
</tr>
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<tr>
<td></td>
<td></td>
<td>$B$</td>
<td>$SE$</td>
<td>$\beta$</td>
<td>$t$-value</td>
<td>$B$</td>
<td>$SE$</td>
</tr>
<tr>
<td></td>
<td>Gender(^a)</td>
<td>-22.379</td>
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<td>-.111</td>
<td>-4.928***</td>
<td>8.119</td>
<td>4.338</td>
</tr>
<tr>
<td></td>
<td>ESL(^b)</td>
<td>2.570</td>
<td>4.799</td>
<td>.012</td>
<td>.536</td>
<td>-18.297</td>
<td>4.576</td>
</tr>
<tr>
<td>2</td>
<td>Age</td>
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<td>7.565</td>
<td>.067</td>
<td>3.039**</td>
<td>29.674</td>
<td>7.966</td>
</tr>
<tr>
<td></td>
<td>Gender</td>
<td>-24.128</td>
<td>7.565</td>
<td>-.120</td>
<td>-5.400***</td>
<td>6.930</td>
<td>4.306</td>
</tr>
<tr>
<td></td>
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<td>-.016</td>
<td>-.700</td>
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<tr>
<td></td>
<td>SES</td>
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<td>2.239</td>
<td>.156</td>
<td>6.852***</td>
<td>14.304</td>
<td>2.156</td>
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<td></td>
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<td>.130</td>
<td>5.376***</td>
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<td></td>
<td>School Support</td>
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<td>-.068</td>
<td>-2.886**</td>
<td>-.315</td>
<td>2.363</td>
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<td></td>
<td>Neighbourhood Support</td>
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<td>2.384</td>
<td>-.072</td>
<td>-3.014**</td>
<td>-5.046</td>
<td>2.297</td>
</tr>
</tbody>
</table>

\(^a\)1=female, 2=male; \(^b\)0=ESL, 1=English first language; *$p < .05$; **$p < .01$; ***$p < .001$. 

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Discussion

The goal of the present study was to better understand the role supportive adults play in fostering positive development and resilience during early adolescence. Taking an ecological contexts perspective (e.g., Bronfenbrenner, 2005; Darling, 2007) and building on the theoretical frameworks of PYD and resilience (e.g., Lerner, 2006; Lerner et al., 2010; Luthar, 2006; Wright & Masten, 2005; Theokas & Lerner, 2006), I investigated adult support in the family, school, and neighbourhood in relation to social and emotional, and academic indicators of positive development, taking into account early adolescents’ socioeconomic backgrounds.

Specifically, based on the population of grade 4 students in a large Canadian city, I investigated a) the relationship between each support factor and each of the two positive outcomes under investigation, b) the relative importance of family, school, and neighbourhood support to identify which source of support relates the strongest to positive development in the present study, and c) the interplay of support and socioeconomic background in predicting well-being and academic achievement. In the following paragraphs, the findings are discussed in light with the literature on PYD and resilience beginning with the results for social and emotional well-being, followed by academic achievement. Last, strengths and limitations of the current study, and future considerations for the study of PYD and resilience in early adolescence are discussed.

Social and emotional well-being. The study of adult support as it relates to social and emotional growth in early adolescence is important because it can reveal factors that help promote and protect the well-being of young people in a turbulent time of development (e.g., Eccles & Roeser, 2009; Jose et al., 2012; Stroud et al., 2009). As
hypothesized, adult support in the family, at school, and in the neighbourhood each were positively and significantly related to social and emotional well-being in the population of grade 4 students attending public elementary schools in Vancouver, BC in Canada in the present study. This finding aligns with past research in the field of PYD that has identified adult support within core developmental contexts—including the family, school, and neighbourhood—to be positively related to thriving and well-being (e.g., Battistich, 2005; Benson, 2003; Furrer & Skinner, 2003; Haddad et al., 2011; Jose et al., 2012; Leventhal & Brooks-Gunn, 2000; McLaughlin & Clarke, 2010; Scales et al., 2006; Theokas et al. 2005). Revealing the importance of adult support for well-being in a population-based study is critical because it allows drawing conclusions from a representative group of youth rather than those who were recruited for research through individual and selected community groups, schools, or youth services (Waters, Salmon, Wake, Wright, & Heketh, 2001).

In addition to adult support, average income in the residential block in which individuals resided—used as an indicator for early adolescents’ SES—positively and significantly predicted social and emotional well-being. Again, this finding is in accordance with past research showing that socioeconomic background is overall positively related to indicators of health and well-being in children and adolescents (e.g., Mcleod & Owens, 2004; von Rueden, Gosch, Rajmil, Bisegger, & Ravens-Sieberer, 2006). Two different explanations have traditionally been offered in the literature to understand the positive relationship between SES and well-being: First, social evaluation processes can shape individuals’ well-being through their messages about self-worth which may impact individuals’ self-concept (see Gerth & Mills, 1953; Rosenberg, 1979);
second, having a higher social status may be associated with a lower number of stressors and more resources available to cope which can positively impact well-being (e.g., Turner, Wheaton, & Lloyd, 1995). Considering the relative importance of SES and each of the support factors, I found that school support was the strongest predictor, explaining 49% of the overall variance in social and emotional well-being, followed by family support which explained 37%, and neighbourhood support which explained 10%. Even though SES was a significant predictor in the study, it only explained 1% of variance in social and emotional well-being, contributing relatively little to explaining well-being in this study.

These findings are interesting and have practical importance regarding the importance of out-of-home support. First, support in the school was perceived as most important by young adolescents—even more important than family support—in the present study. Even though this finding may be counter-intuitive, there are a few different ways of understanding it. Theoretically, it could be explained by the notion of a shifting social focus away from the family toward relationships in important contexts outside the family in the beginning of adolescence (e.g., Eccles, 1999; Eccles & Roeser, 2009; Wigfield et al., 2006). It is possible that early adolescents in the present study were more oriented towards relationships in the school context because this is where they spend a large amount of time during their day.

However, methodological explanations for this finding also need to be considered. First, the survey of the current study was implemented within the school setting, and items were read out loud by the teacher. It is possible that completing the questionnaire in the school setting contributed to an implicit bias towards weighing the importance of
school support. This explanation stems on research in social psychology that provides evidence for the effects of the research context on answer tendencies in surveys (e.g., Schwarz, 1999; Schwarz & Sudman, 1996). Furthermore, it is possible that participants did not trust that the completed survey would indeed stay confidential and answers remain unseen by teachers, influencing early adolescents to answer questions about adult support in the school in a more favorable way (see Scott, 2000).

Furthermore, the practical relevance for revealing the school and the community as key in explaining well-being in the present study is vital. First, it raises awareness among educators and community members about their potential role in fostering positive development (see Eccles, 1999; Hamre & Pianta, 2005; McLaughlin & Clarke, 2010; Wooley & Bowen, 2007). Second, it informs the design of intervention and prevention initiatives in the school and community setting, and provides a case for defining schools and neighbourhood groups as key resource for adolescents and hence a key context to consider when planning community development and funding (Greenberg et al., 2003; McNeely, Nonnemaker, & Blum, 2002). Revealing the significant role of both neighbourhood and school support in early adolescents’ well-being is also a promising finding for individuals who experience little support in their family. Especially with the onset of adolescence when part of the responsibility begins to shift to schools and the community in contributing to raising healthy young adults, the creation of supportive contexts can open doors and provide opportunities for all young adolescents – including those who lack support at home (Luthar, 2006; Wooley & Bowen, 2007).

**Resilience effects.** In addition to direct relations between adult support and social and emotional well-being, I explored the interplay between SES and support. The present
findings revealed that for both family support and school support, the relationship between support and well-being was dependent on the socioeconomic background from which early adolescents came. Overall, family support was more important in predicting well-being than SES in the present study. Furthermore, when family support was high, those with high SES reported the highest level of well-being, followed by those with moderate SES, and last by those with low SES. In contrast, when family support was low, high SES early adolescents reported the lowest well-being, followed by those with moderate SES, and those with low SES reported the highest well-being under low family support. This perhaps counterintuitive finding is interesting because it suggests that family support was identified as crucial for well-being—even and especially in the presence of high SES. The fact that early adolescents with high SES in were reporting the highest well-being when experiencing high family support, but the very lowest well-being when experiencing low family support can be explained by taking into account recent research on affluence as a potential opportunity versus risk for positive development (Luthar, 2003b).

As described by Luthar and Sexton (2004), although wealth is usually considered a protective and promotive factor for well-being (e.g., Csikszentmihalyi & Schneider, 2000), it can also emerge as a potential risk factor for positive development. Specifically, affluent adolescents who experience little parental supervision, lack of support in the family, and pressure in school tend to have more mental, emotional, and behavioral problems, and report higher substance use (Luthar & D’Avanzo, 1999; Luthar & Becker, 2002; Luthar, 2003b). Hence, in alignment with Luthar (2003b), the present findings suggest that even though high SES can promote well-being, the presence of supportive
adults in the family is paramount and if family support is lacking, high SES may even be a disadvantage for early adolescents’ well-being. Overall, given that family support was positively related to well-being in high, medium, and low-SES participants, I can conclude that family support can be viewed as a factor contributing to both PYD and resilience in the present study. This pattern is in accordance with theoretical considerations and empirical support in PYD and resilience, identifying supportive relationships with parents as crucial for positive social and emotional growth (Luthar, 2006; Wooley & Bowen, 2007; Wright & Masten, 2005). Identifying family support as a more important predictor than SES for well-being is a promising finding because it suggests that wealth alone is not sufficient for happiness, optimism and a positive view of the self; instead caring and supportive relationships with parents seem to matter more for positive development and can contribute to social and emotional well-being even in young adolescents from more disadvantaged backgrounds (also see Taylor, 2010; Tiet et al., 2010).

The significant interaction between school support and SES again indicated that school support was overall more important than SES in explaining early adolescents’ social and emotional well-being. At low school support, different levels of SES seemed to distinguish between well-being in early adolescents; those with high SES reported the highest well-being, followed by those with moderate SES, and early adolescents with low SES reported the lowest well-being. However, when school support was high, all early adolescents were reporting equally high levels of well-being, indicating that high school support could compensate for the disadvantage of a lower SES background. In accordance with previous research, this finding identifies school support as a promotive
factor for all early adolescents, and a compensating factor for those from low SES backgrounds (DuBois & Silverthorn, 2005; Elias & Haynes, 2008; Tiet et al., 2010). In support of theory and research, school support can thus be seen as a factor of resilience and PYD in the present study, indicating that adolescents in general (Furrer & Skinner, 2003; Lerner et al., 2009), and particularly adolescents from low SES backgrounds benefit from supportive adults at school (Masten & Motti-Stefanidi, 2009; Wright & Masten, 2005).

Overall, the present findings provide support for the importance of adult support in all ecological contexts in and outside the family. Specifically, based on my findings and previous literature I can argue that family, school, and neighbourhood support are vital in positive development in adolescence, and need to be investigated jointly in the study of adult support and positive development in youths (Jose et al., 2012). Additionally, the results of the present study suggest that family support and school support are related to resilience in early adolescence; not only can they foster well-being in youth from disadvantaged backgrounds, the absence of family support in particular was even revealed as a risk factor for well-being in individuals from high SES backgrounds. Practical implications of the present findings include the suggestion to increasingly create opportunities through support in the school and neighbourhood contexts in early adolescence, for instance when considering prevention and intervention initiatives.

**Academic achievement.** As an indicator of competence in early adolescence, I also investigated academic achievement on a standardized provincial exam as predicted by social support variables and SES. Overall, only SES and family support emerged as
positive and significant predictors of academic achievement in both domains—with SES emerging as the strongest predictor in the models, after controlling for ESL, age, and gender. Contrary to what I had hypothesized, school and neighbourhood support were not positively related to academic achievement in the present study. Furthermore, the full predictive model including demographics, SES, adult support variables, and interactions between the support variables and SES, explained only 6% of the variance in reading comprehension scores and only 4.5% of the variance in numeracy scores. Given that a relatively small amount of variance was accounted for by the variables tested in the present model, further research is needed to delineate and test additional factors (e.g., family demographics such as parents’ education level, parental involvement in school, school SES, neighbourhood SES) that may predict academic achievement.

Although a large amount of unexplained variance remained in the overall model, there remain two important findings. First, family support significantly contributed to academic outcomes in reading and math in the present study, and second, SES was the most important predictor when explaining academic achievement in both domains. In the following paragraphs, I will briefly discuss the role of family support in academic achievement, followed by considering why school and neighbourhood support may have failed to emerge as significant predictors in the present study, and closing the discussion by considering the role of SES in academic achievement, and why SES may have played a stronger role in relating to achievement than in relating to social and emotional well-being in the present study.

Finding a positive connection between family support and achievement in math and reading aligns with previous research in the field that suggests that supportive parents
play a large role in engagement in school and in developing academic competence (see Fan & Chen, 2001; Wild, 2012). Specifically, in a meta-analysis of 41 studies examining the relationship between parent involvement and academic outcomes in kindergarten to 6th grade, Jeynes (2005) found that elementary school students from families in which parents cared about school, were involved in school, helped their children with homework, and had high expectations regarding achievement tended to have better grades and were more engaged in school. This finding is important because it identifies family support as an important promotive factor related to academic success. However, given that the interaction between SES and family support was not significant, family support did not contribute to resilience in early adolescents from low SES backgrounds in the present study when predicting academic achievement.

Contrary to my hypothesis, neighbourhood support was significantly and negatively related to numeracy scores, and both neighbourhood and school support were significant and negative predictors for academic achievement in both academic domains. However, even though the predictors emerged as significant in unexpected ways, it should be noted that from a statistical standpoint the meaning of this finding is unclear. First, the beta-weight value for the school and neighbourhood support predictors was very low for both academic outcomes, and second, a correlation analysis revealed that the relation between the two support variables and the two academic outcomes was very weak, sharing less than 3% of the variance. Unfortunately, it is difficult to discuss the reliability of the academic achievement measure. Academic achievement was assessed via a provincial standardized assessment, and no data are available on grade 4 students’
motivation to do well on the assessment, and whether their test results hold up to reliability and validity standards.

One aim in the present study was to explore whether the same or different support factors emerge as important for well-being compared to academic achievement. Given that the findings for social and emotional well-being and academic achievement differed widely, I can assume that different types of support may be necessary for positive outcomes in the two domains. This finding supports the suggestion that positive outcomes need to be studied comparatively to distinguish their underlying support factors (e.g., Luthar et al., 2000). Although perceived adult support in the family, school, and neighbourhood unanimously were positive predictors, contributed to resilience, and explained a large amount of the variance in well-being, the finding did not hold up for academic achievement. Instead, only family support emerged as a positive support factor for academic achievement, and no processes of resilience were identified. Unlike the finding for social and emotional well-being, the most important positive predictor when investigating academic achievement in the present study was SES. Hence, the question arises why, in the present study, there was a stronger relationship between SES and early adolescents’ academic achievement than between SES and their reports of social and emotional well-being. This question can be understood by considering previous research on linking SES to the two outcome domains of academic success and well-being.

The positive link between SES and academic achievement in elementary and high school has been established in a large number of studies conducted over the past three decades (see Sirin, 2005, and White, 1982, for meta-analytic reviews). Explanations for this often strong and positive connection include several factors. For instance, high SES
families are more likely than low SES families to provide an environment for their children which is educationally stimulating and offers a variety of learning opportunities from early on (e.g., exposure to books, visits to educational places such as aquariums, libraries, enrollment in programs that foster creativity and literacy, experiences during summer vacations, etc.) (Alexander, Entwisle, & Olsen, 2001; Caro, 2009). In contrast, low SES families often lack the financial resources to provide their children with such an environment (Reevers, 2012; Leventhal & Brooks-Gunn, 2000). Explanations involving financial resources are particularly relevant in the present study, given that I used family income as an indicator for SES. Over and above the direct effect of family SES, families with high socio-economic resources also tend to live in neighbourhoods in which families, on average, are socio-economically advantaged, whereas socioeconomically disadvantaged families tend to live in low SES neighbourhoods that often have less resources and opportunities to offer to the residents (Leventhal, Dupéré, & Brooks-Gunn, 2009). Previous research has found that more educational opportunities exist in high SES neighbourhoods, that schools in those neighbourhoods tend to have more resources for students, and that students in those school overall achieve higher than students in neighbourhoods with aggregated socio-economic disadvantage (Leventhal & Brooks-Gunn, 2000; Sirin, 2005). Taken together, this past research provides some empirical support for finding in the present study in which a significant relationship emerged between SES and achievement.

In contrast, previous research investigating the role of SES for indicators of well-being has revealed an only modest link between the two variables. In studies in which income is used as an indicator for SES, research has suggested that even though money
matters for well-being, “money can’t buy you happiness” (DeLaire & Kalil, 2010, p. 166). Specifically, research with adults has indicated that contrary to common belief, more money does not necessarily guarantee more emotional well-being, but a low income or loss of income is associated with more emotional pain and a decline in well-being (Aknin, Norton, & Dunn, 2009; Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Kahnemann & Deaton, 2010). A possible explanation that has been offered for the notion that a higher income does not necessarily predict more well-being stems from the idea that people tend to adapt more to positive than to negative life circumstances, and that increasing resources lose their positive effect on people’s well-being when they are already in a financially stable situation (Baumeister et al., 2010). In alignment with this argument, Kahnemann and Deaton (2010) suggest that the positive relationship between income and well-being does not grow linearly, and that it matters most at the low end of income spectrum, with emotional well-being being fully satiated at an annual income of ca. $75,000.

A small number of studies have also been conducted to investigate the relationship between SES and subjective well-being in adolescence. As described by Proctor (2009), such research has revealed a relatively weak positive link between SES and well-being (e.g., Ash & Huebner, 1998; Seligson, Huebner, & Valois, 2003). In addition, research focusing on the high-end spectrum of SES and wealth in particular has indicated a negative relationship between income and well-being (e.g., Csikszentmihalyi & Schneider, 2000), suggesting that affluence may actually be related to unhappiness in adolescence (see Luthar, 2003, for a review). However, as indicated by Proctor (2009), research in this field is still sparse and more research needs to be conducted to understand
the relationship between SES and well-being during the adolescent years. Overall, the findings of present study—indicating a stronger connection between SES and academic achievement than between SES and social and emotional well-being—align with previous research. However, it needs to be noted that the present study used a composite of optimism, self-concept, and satisfaction with life as an indicator for social and emotional well-being, whereas most of the research conducted on SES linked to well-being has focused on subjective well-being as a specific indicator of well-being. Future research is hence needed to understand to which degree SES plays a role, and whether it plays a different role when predicting different well-being indicators such as optimism and a positive self-concept separately.

**Limitations and future considerations.** The present study on positive development in early adolescence was conducted as population-based research, revealing the role of support factors for young adolescents from diverse socioeconomic backgrounds in the population of grade 4 students in a large Canadian city. However, because the research was only conducted in one city, findings may be specific to young adolescents and their families residing in this particular and demographically comparable cities. It is necessary for future research to extend population-based research across larger geographic areas, and to include both urban and rural populations of early adolescents. Furthermore, because a cross-sectional design was employed, causal conclusions cannot be drawn about the relationship between adult support and positive outcomes. It is necessary to conduct longitudinal research to investigate whether previous adult support enhances positive developmental outcomes. This suggestion is in line with theoretical considerations of PYD, which note that research on thriving should ideally be conducted
longitudinally to shed light on adolescents’ trajectories in development (Lerner, 2006).

Although the PYD framework assumes that developmental outcomes during adolescence emerge from complex person ↔ context relationships (Lerner, 2006), the hypotheses in the present study were statistically tested using linear regression models rather than nested models. Nested models would have been appropriate to examine the role of the environmental contexts in which individuals are embedded (e.g., school, neighbourhood) and their context-specific characteristics (e.g., school level SES, neighbourhood social capital). The reason for which a nested model approach could not be used in the present study was that the variables that would have identified which schools participants’ attended, and in which neighbourhoods they resided were not available. This presents a limitation that needs to be addressed in future research by using multilevel modeling techniques to account for the contribution of context-specific variables to early adolescent development.

Another limitation in the present study was that earlier indices of positive development—such as school readiness assessed by the Early Development Instrument (EDI; Janus & Offord, 2007)—were not included. The EDI identifies whether or not children are ready for school by considering their development across the dimensions of physical health and well-being, social competence, cognitive development, communication skills, and general knowledge (Lloyd & Hertzman, 2009). Previous research has established that the EDI stably predicts future academic achievement on the provincial FSA tests; specifically, performance the EDI has been significantly related to achievement on the FSA-domains reading and math in both grades 4 and 7 (e.g.,
Based on those findings, adding EDI scores to the models that predicted reading and math outcomes in the present study would likely identify the EDI as a significant predictor of achievement, and increase the explained variance in math and reading scores. Furthermore, it is possible that controlling for the relationship between EDI and FSA outcomes would affect the significant relationship I found between SES and FSA scores by decreasing the positive effect of SES in the model. This argument is based on the finding that family SES has been significantly related to EDI scores, and EDI scores in turn have been significantly related to achievement in math and reading outcomes in grade 4 (Janus & Duku, 2007; Lloyd & Hertzman, 2010; Lloyd et al., 2010a). Part of the effect between SES and achievement is arguably based on the fact that families with higher SES have more resources and can create a better learning environment for their children (Sirin, 2005). This in turn puts young people on a more advantaged trajectory for learning and ultimately academic achievement from early on (Caro, 2009). Future research, however, needs to address this that can contribute important information to understanding the basis of the positive link between SES and grade 4 achievement in math and reading.

One of the contributions in this study was to combine the theoretical frameworks of PYD and resilience by investigating the role of adult support in positive outcomes for adolescents from various socioeconomic backgrounds. This type of research can be further extended by including a larger number of risk indicators in addition to income, such as parental education levels and neighbourhood risk. Furthermore, even though
block-level median equalized disposable income has been identified as a reliable indicator for family-level income (Guhn et al., 2010; Mustard et al., 1999), it is possible that some participants from families with low income in the present study resided in affluent neighbourhoods (e.g., renting an inexpensive basement apartment), and were therefore falsely associated with high SES. Last, in the present study, well-being and support in different ecological contexts were exclusively based on early adolescents’ self-reports. Future research needs to conducted with multiple measures, including early adolescents’ perceptions about support, teachers’ perceptions about student-teacher relationships, and more objective indicators such as the existence of social and emotional learning programs in schools, and resources accessible in the community.

**Conclusions.** Overall, the current study contributes to the study of well-being, competence, and positive psychology in the larger sense (Seligman & Csikszentimihalyi, 2000). It is in line with the request for more research revealing positive and supportive processes instead of problem behaviors in adolescent development (Benson, 2006; Damon, 2004; Larson, 2000). The findings of the present study support the idea that early adolescent development needs to be studied from a systemic point of view, considering the multiple ecological contexts in which young people live, learn, and grow (Benson, 2006). Based on the present study, I can conclude that adult support is crucial for social and emotional well-being in particular, and may be even more important than affluence alone. The findings of the present study strongly suggest that assets and support factors may differ for different positive outcomes, and that research needs to investigate multiple positive outcomes at the same time in order to understand whether findings are domain-specific or apply to several outcomes in similar ways.
Chapter 3: Life Satisfaction in Early Adolescence:
Personal, Neighbourhood, School, Family, and Peer Influences

Theory and research support the notion that subjective well-being – an umbrella term concerned with an individual’s evaluation of his or her own life – is an important construct for understanding psychological well-being and overall mental health (Diener & Diener, 2009; Gilman & Huebner, 2003; Proctor et al., 2009). Subjective well-being can include either cognitive judgments, such as life satisfaction, or emotional responses to events, such as feeling positive emotions (Diener & Diener, 2009). Life satisfaction, in particular, is an important construct in the field of positive psychology because it is closely associated with happiness as well as a range of positive personal, behavioral, psychological, and social outcomes (e.g., Diener, 2009; Lyubomirsky et al., 2005). Much of the research conducted to date on subjective well-being in general and life satisfaction in particular, however, has been carried out primarily with adult populations (e.g., Diener et al., 1999), and comparatively limited work has examined life satisfaction in children and adolescents (Gadermann et al., 2010; Huebner, 2004). Moreover, there has been relatively little research specifying the critical elements of contextual factors important for life satisfaction in a large community sample of early adolescents (for exceptions, see Gilman & Huebner, 2003; Proctor et al., 2009). Given that subjective well-being has consistently been identified as a significant psychological factor associated with positive growth, health, and well-being in adults (Diener & Diener, 2009), increasing the understanding of life satisfaction in early adolescence is important because it allows researchers to relate subjective well-being to critical contemporaneous developmental characteristics, such as social adjustment, mental health, and school performance.

In light of the limited research conducted with younger populations, the current study was designed to extend the understanding of subjective well-being in early adolescence by examining...
the ways in which critical personal and ecological assets jointly influence life satisfaction. Seeking to identify assets from important developmental contexts in early adolescents’ development, we draw from aspects of developmental systems theory (e.g., Lerner, 2002), positive youth development (Benson, 1997), positive psychology (Huebner, Sulbo, & Gilman, 2006), and ecological contexts theory (Bronfenbrenner, 1989). Investigating subjective well-being in a large community sample of early adolescents, the objective of this study was to reveal the importance of positive personal traits and supportive relationships in important developmental contexts in relationship to satisfaction with life.

**Developmental Systems Theory and Assets**

The course, pace, and direction of development during the adolescent years is influenced by relationships between the individual and his or her context (Theokas & Lerner, 2006). Developmental systems theory views human development as a bidirectional, individual ↔ context relational process with multiple individual factors and different levels of organization within the social ecology and underscores the plasticity of human development (Theokas & Lerner, 2006). As posited by Theokas and colleagues (2005, p. 114), “[i]nstead of anticipating and trying to fix or prevent problems, this new paradigm considers the strengths, competencies, and contributions that youth can make, and ways to align these strengths with resources and supports in the environment to maximize healthy development of individuals and society.” Fostering adaptive regulations between the individual and the multiple contexts of development (e.g., family, peer group, school, community) can be an important step to increase the likelihood of positive development and thriving (Lerner et al., 2010). Indeed, several recent studies have shown that supportive families, schools, peer groups, and communities are important for positive development and well-being during early adolescence (Benson & Scales, 2009; Hughes et al., 2008; Leventhal & Brooks-Gunn, 2000; Li et al., 2010; Scales et al., 2006). Because early
adolescents interact in ever widening social environments, shifting their focus from the family to the peer group, and relationships in the school and community context (Eccles & Roeser, 2009; Steinberg, 2005; Wigfield et al., 2006; Simmons & Blyth, 1987), the external environment becomes increasingly important during this time. Accordingly, research on positive adaptation and competence indicates that dimensions in the external environment, such as caring and supportive caretakers, a sense of belonging to school, friendships with prosocial peers, and living in a neighbourhood that supports families and children, are core assets that serve protective and promotive functions that direct youth on positive developmental trajectories (Masten, 2001; Wright & Masten, 2005).

Given the increasing significance of social relationships outside the family (Eccles & Roeser, 2009; Luciana, 2010), the school environment and peer group are particularly important contexts that influence development during this time period (Battistich, 2005). Past research has revealed that high levels of school connectedness operate as a protective force for youth and are positively related to self-esteem, academic engagement, academic achievement, motivation, and adjustment in school (Anderman & Freeman, 2004; Bernat & Resnick, 2009; Furlong et al., 2003; Haynes et al., 1997; Osterman, 2000; Whitlock, 2006). In contrast, low levels of school connectedness have been associated with increased risk of peer victimization (Skues, Cunningham, & Pokharel, 2005; Young, 2004) and depressive symptoms in adolescence (Shochet, Dadds, Ham, & Montague, 2006). Experiencing a strong sense of belonging and connectedness to school can thus be considered a critical factor in overall positive youth development, contributing to social and emotional well-being, and academic growth in early adolescence.

In addition to the significance of relationships in the school context, recent research has also emphasized the importance of supportive and caring adults in communities and
neighbourhoods for promoting positive development in children and youth (e.g., Battistich, 2005; Scales et al., 2001; Scales et al., 2006). Benson (2003) and Eccles and Gootman (2002) have argued that communities and neighbourhoods are ecological contexts that play a vital, but largely unrealized, role in influencing positive development throughout adolescence. According to these authors, perceived social support in the neighbourhood is one of the key ecological assets that helps youth to thrive and develop positively. A basic theoretical assumption is that both healthy development and well-being are inextricably linked to a sense of belonging, connectedness, and participation in community and neighbourhood groups (Baumeister & Leary, 1995; Putnam, 2000). However, little empirical research has been conducted on the link between perceived community and neighbourhood support to indicators of well-being (Farrell et al., 2004), particularly during the early adolescent years. One exception is a study by Theokas and colleagues (2005). In a sample of 50,000 early adolescents, these authors found that the ecological asset of self-reported community connection was positively and significantly related to several behavioral indicators of thriving, such as having high expectations for oneself, and holding a positive identity. The results of this study are promising because they align with important theoretical assumptions about the significance of community support in early adolescence and throughout the life span (e.g., Baumeister & Leary, 1995; Theokas & Lerner, 2006). However, further research needs to be conducted to reveal significant connections between community support and indicators of well-being in youths across multiple domains of development, such as positive social, emotional, mental, and academic development.

Given that both ecological and personal assets are critical for young people to thrive and flourish (Lerner et al., 2010), there is a clear need for researchers to concurrently examine the role of personal trait assets as well as ecological assets at multiple levels such as family, peer group, school, and neighbourhood when linking assets to indicators of well-being during the
years of early adolescence. In the literature on personal assets, dispositional optimism, or a positive outlook on life, has been described as an essential and key protective personal trait that contributes to adjustment and positive development (Kumpfer, 1999; Wright & Masten, 2005), and has been identified as a promotive factor for overall health and well-being (Scheier & Carver, 1993). To date, the study of optimism has primarily been conducted with adult samples and research on optimism in childhood and adolescence has received little attention (Deptula et al., 2006). Nonetheless, there is some empirical evidence that suggests that optimism is valuable psychological trait in early adolescence as well. For instance, a previous study revealed significant and positive associations between trait-optimism and positive peer- and adult relationships in a sample of pre- and early adolescents (Schonert-Reichl et al., 2008).

Furthermore, optimism has been shown to positively predict peer acceptance (Oberle et al., 2010), and has been found to be negatively related to peer victimization, rejection and loneliness (Deptula et al., 2006). Whereas personal assets and ecological assets are independently critical and important in positive and healthy development, theory and research indicates that well-being, thriving, and positive growth can best be understood when choosing a integrative framework that incorporates personal as well as contextual assets in relationship to children’s and adolescents’ developmental outcomes (Theokas & Lerner, 2006).

**Correlates of Life Satisfaction in Youth**

Past research has identified life satisfaction as a positive indicator of several dimensions of well-being in youth (see Proctor et al., 2009 for a review), such as positive personality characteristics, health and psychopathology, life events, social relationships, and living environments. For instance, Gilman and Huebner (2003) found that high levels of life satisfaction were positively related to interpersonal relations, positive relationships with parents, and hope, and negatively related to depressive symptoms, anxiety, and a negative attitude towards school.
and teachers. Furthermore, a positive relationship has been found between perceived parental support and life satisfaction in adolescence (Valois et al., 2009). The consistency of these findings, revealing a positive connection between youths’ satisfaction with life and important positive relationships as well as developmental characteristics, aligns with previous findings in adult populations (Diener & Diener, 2009). Such research is promising because it suggests that life satisfaction is significantly related to other important indicators of mental health, and social and emotional well-being, and can thus provide an insight into children’s and adolescents’ happiness and optimal functioning in development.

Fewer studies have focused on the relationship between life satisfaction and school specific assets, such as the feeling of belonging to and connectedness with school. Valois and colleagues (2009) posit that there is a general lack of research investigating the relationship between life satisfaction and assets in development, such as perceived support from adults and teachers, school support, and positive peer relationships. In a longitudinal study exploring the link between life satisfaction and dimensions of student engagement in a sample of 779 middle school students, Lewis, Huebner, Malone, and Valois (2010) found a significant and bidirectional relationship between life satisfaction and cognitive engagement. Specifically, higher life satisfaction in the beginning of the school year significantly predicted stronger beliefs in the importance of school five months later. Furthermore, students with higher life satisfaction also reported feeling more connected to school and liked school more. Given the increasing amount of time early adolescents spend in schools and in their communities, there is a particular need for further research investigating life satisfaction in relation to school and neighbourhood characteristics and the significant relationships young people form within those environments.

**Summary and Hypotheses**

The purpose of this research was to examine early adolescents’ life satisfaction as it
relates to both personal and ecological assets. In accord with the ecological approach to human development (Bronfenbrenner, 1989), and the positive youth development approach (e.g., Damon, 2004; Larson, 2000), we defined ecological assets in the family, peer, school, and neighbourhood context (i.e., parental support, positive peer relationships, school belonging, neighbourhood support) that have been identified to be especially critical during the early adolescent age-period (Theokas et al., 2005). Additionally, we included optimism as a personal trait asset in our model because optimism has been identified to be a valuable psychological resource that protects and promotes both mental and physical health in adolescent development (e.g., Brodhagen & Wise, 2008).

Although previous studies have examined the relationship of individual and contextual factors to adolescent life satisfaction (see Gilman & Huebner, 2003 for a review), fewer studies have examined such relationships in a large community sample of early adolescents. Furthermore, few studies have connected life satisfaction with school characteristics (Valois et al., 2009) and, to our knowledge, no research has been conducted investigating life satisfaction’s relationship to neighbourhood support. One particular strength of this study is the use of multilevel modeling (MLM) to examine variability occurring in life satisfaction due to characteristics of specific contexts in which students develop (i.e., school, neighbourhood). MLM can thus be used to separate the importance of assets at the level of the individual from those at the level of the school context.

We hypothesized that in a model including two levels of analysis—student-level and school-level—average school-connectedness and average perceived neighbourhood support would be positive and significant school-level-predictors for life satisfaction in early adolescence above and beyond their effect at the student-level. We also hypothesized that optimism, positive relationships with peers, and perceived parental support would be significant and positive
student-level-predictors. Finally, we hypothesized that the addition of school-level variables and student-level variables would explain a significant portion of student- as well as school-level variability in life satisfaction.

Method

Participants. A stratified random sampling procedure was employed across eight school districts located in urban and suburban areas in Western Canada. Stratification was done according to the neighbourhood level vulnerability rates for children’s development, as reported by the Human Early Learning Partnership (Kershaw, Irwin, Trafford, & Hertzman, 2005; www.earlylearning.ubc.ca). The vulnerability rates were determined according to the Early Development Instrument (EDI; see Janus & Offord, 2007), a teacher-report measure that assesses children’s school readiness in five domains (i.e., Physical health and well-being, Social competence, Emotional maturity, Language and cognitive development, Communication skills). Kershaw and colleagues (2005) report high correlations between vulnerability rates and socioeconomic status at the neighbourhood level. We randomly selected and approached schools stratified by “high,” “medium,” and “low” vulnerability rates within the school districts to obtain a diverse representation of participants. Early adolescents were recruited from 65 classrooms (4th to 7th grade) in 25 public elementary and middle schools across eight school districts.1

Of those early adolescents invited to participate, 87% gave assent and received parental/guardian consent to participate, resulting in a total of 1,402 participants (47% female) who were on average 11 years and 6 months old (SD = 1.03). In total, 147 participants were in 4th grade, 306 in 5th grade, 471 in 6th grade, and 478 in 7th grade. Sixty-three percent of the students

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1 In some school districts in the Lower Mainland of British Columbia, where data were collected, primary education from Kindergarten to 7th grade is based exclusive elementary schools, and secondary education from 8th grade to 12th grade is based in high schools. However, some school districts offer students in grades 6 to 8 the option to attend middle school as a transition between elementary and high school. In the present study, 8 of the 65 classrooms were set in middle schools, whereas the remaining classrooms were set in elementary schools.
reported English as their first language learned at home; the remaining early adolescents reported Chinese (13%), Punjabi (4%), Korean (4%), Vietnamese (3%), or another language (e.g., Farsi, Tagalog, Hindi). The wide range of languages spoken by participants in this study is representative of the ethnically diverse population in the districts in which data were collected. All students spoke English fluently. Regarding family composition, 73% of the early adolescents reported living with a mother and a father (this included biological as well as reconstituted families with stepparents). Nine percent of adolescents reported living half time with their mother and half time with their father, and the remaining adolescents reported other family configurations, including mother only, grandparents, and foster care.

**Procedure.** Data were gathered in the Spring semester during two regular 45-minute class periods. Prior to providing early adolescents with parental permission slips, a trained research assistant or the principal investigator of the research project provided a 15-minute presentation to each participating class, describing the study in age-appropriate language. Early adolescents were told that the study was a survey of 4th to 7th grade students’ experiences within and outside of school. All students who received parental consent signed assent forms, that stated assurances of confidentiality. Research assistants administered the self-report survey, to the adolescents by reading questions out loud to the students while teachers remained in their classrooms.

**Measures.** The internal consistency reported in the text refers to the average Cronbach’s alpha in the sample. Because the sample consisted of participants across a wide span of grade levels, Table 3.1 provides an overview of the internal consistencies for each of the study measures by grade.

**Demographic information.** A demographic questionnaire was administered to each student to gather information about his or her gender, age, grade, first language learned, and family composition.
Life satisfaction. Life satisfaction was assessed using the Satisfaction With Life Scale for Children (SWLS-C; Gadermann et al., 2010), an adaptation of the Satisfaction With Life Scale (SWLS; Diener et al., 1985), which is a five-item instrument that assesses global life satisfaction. A validation study of the SWLS-C indicated that the instrument was psychometrically sound and showed construct validity in a sample of 4th to 7th graders (Gadermann et al., 2010; Gadermann, et al., 2011). Students were asked to rate the five items on a 5-point Likert scale ranging from 1 = Disagree a lot to 5 = Agree a lot. Sample items were: “In most ways my life is close to the way I want it to be,” and “So far, I have gotten the important things I want in life.” Cronbach’s alpha in this sample was satisfactory (α = .86).

School connectedness. Sense of school connectedness was assessed via the 14-item Sense of School as a Community Scale developed by the Developmental Studies Center to assess school connectedness in 3rd to 6th graders (DSC; 1994). Rated on a 5-point-scale ranging from 1 = Disagree a lot to 5 = Agree a lot, students were asked how much they agreed with statements such as “When I am having a problem, some other student will help me,” “Students in this school really care about each other,” and “I feel I can talk to the teachers in this school about things that are bothering me.” Cronbach’s alpha in this sample was satisfactory (α = .88).

Perceived neighbourhood support. We used the Neighbourhood Support subscale of the California Healthy Kids Survey (WestEd, 2005) to assess the existence of non-related supportive adults that early adolescents perceived in their community/neighbourhood. The subscale consists of seven items. On a scale from 1 = Not at all true to 4 = Very much true, early adolescents were asked to rate each of the seven items as to the degree to which in their neighbourhood or community (NOT in their school or family) there was a supportive relationship with a non-related adult (e.g., “. . . there is an adult who really cares about me,” “. . . there is an adult who tells me when I do a good job,” and “. . . there is an adult who notices when I am upset about
something.”). Cronbach’s alpha was satisfactory in the present study ($\alpha = .93$).

**Parental support.** Early adolescents’ perceived support by their primary caretakers was assessed with the Parental Support subscale of the California Healthy Kids Survey (WestEd, 2005). The subscale consists of six items. On a scale from $1 = \text{Not at all true}$ to $4 = \text{Very much true}$, early adolescents were asked to rate statements concerning their parent/caregiver at home, for example “In my home, there is a parent/caregiver or another adult who talks with me about my problems,” “In my home, there is a parent/caregiver or another adult who believes that I will be a success,” and “In my home, there is a parent/caregiver or another adult who always wants me to do my best.” Cronbach’s alpha in this study was .81, indicating satisfactory internal consistency.

**Positive peer relationships.** We assessed early adolescents’ positive peer relationships using the Relationships with Peers subscale from the Resiliency Inventory (RI; Noam & Goldstein, 1998; Song, 2003). The subscale is comprised of seven items assessing respondents’ relationships with friends (sample items: “I make friends easily,” “I have a friend I can trust,” “I have fun with my friends”). Students were asked to rate each item on a 5-point Likert-type scale ranging from $1 = \text{Not at all like me}$, $2 = \text{A little bit like me}$, $3 = \text{Kind of like me}$, $4 = \text{A lot like me}$, to $5 = \text{Always like me}$. According to Song’s (2003) validation study of the RI, participants with high scores on this factor are likely to be popular among friends, experience having friends as fun and positive, and are overall characterized by having an active social life with peers. For the present research study Cronbach’s alpha for the Relationships with Peers subscale was satisfactory ($\alpha = .83$).

**Optimism.** We assessed early adolescents’ optimism with the Optimism subscale from the Resiliency Inventory (RI; Noam & Goldstein, 1998; Song, 2003). The scale consists of nine items assessing respondents’ positive perspective on the world and the future in general (sample item:
“More good things than bad things will happen to me”). Students were asked to rate each item on a 5-point Likert-type scale ranging from 1 = Not at all like me, 2 = A little bit like me, 3 = Kind of like me, 4 = A lot like me, 5 = Always like me. For the present research study, Cronbach’s alpha for the Optimism subscale was acceptable (α = .79).

Table 3.1. Internal Consistency of Measures by Grade Level.

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4th Graders</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>.82</td>
</tr>
<tr>
<td>Optimism</td>
<td>.75</td>
</tr>
<tr>
<td>Perceived Parental Support</td>
<td>.78</td>
</tr>
<tr>
<td>Positive Peer Relationships</td>
<td>.78</td>
</tr>
<tr>
<td>School Connectedness</td>
<td>.90</td>
</tr>
<tr>
<td>Perceived Neighbourhood Support</td>
<td>.91</td>
</tr>
</tbody>
</table>

**Results**

**Data analytic procedure.** MLM was conducted using the SPSS-mixed procedure (Peugh & Enders, 2005), modeling early adolescents’ life satisfaction as a linear function of student- and school-level variables. Student-level variables of main interest were optimism (OP), positive peer relationships (PR), and perceived parental support (PPS). We were interested in the effect of school connectedness (AvgSC) and perceived neighbourhood support (AvgPNS) at the school level, and therefore aggregated respondents’ scores within each school to a school average. The rationale for entering perceived neighbourhood support as a school-level variable in the model
was that schools are set in neighbourhoods and typically, students attend a school in their
neighbourhood; thus perceived neighbourhood support by students from the same school cannot
not be considered to be independent of each other.\textsuperscript{2} However, to control for effects at the
individual level, school connectedness (SC) and perceived neighbourhood support (PNS) were
also entered as student-level variables in the model. Student-level variables were group-mean
centered, and school-level variables were grand-mean centered to facilitate interpretation (see
Peugh & Enders, 2005, for a brief introduction into centering procedures). Restricted maximum
likelihood REML was chosen as the estimation method in all models because it provides more
accurate variance estimates in smaller sample sizes (e.g., Peugh, 2010). First, an unconditional
model with no predictors was built (Model 1). Second, a conditional model was built with the
five student-level predictors and the two school-level predictors as fixed effects (Model 2). The
estimated parameters and variance explained in Model 2 were compared to those in the initial
null model.

The rationale for excluding demographic variables such as gender, grade, and ESL was
that the addition of three variables to the model would have led to compromises in power given
the small school-level sample size ($N = 25$). Moreover, including the demographic variables in
our analyses did not change the overall pattern of the results for the five variables of interest.

\textbf{Preliminary analyses.} Initial analyses indicated that normality of the Level 1 residuals
and Level 2 residuals in the model could be assumed. The model residuals were uncorrelated

\footnote{In the school districts in which data collection took place, students are by default expected to
attend a public school within their so-called catchment area (“neighbourhood school”).
Catchment areas are geographical boundaries that define neighbourhoods; the rationale for
students to register in a school in their catchment area is to ensure that students are able to attend
a school in their proximate living environment. If students wish to consider a school outside the
boundaries of their neighbourhood catchment area, they need to undergo an application process;
their request to attend a school in a different catchment area can only be met if the particular
school the student wishes to attend has the additional resources and space to accept a student
from outside the catchment.}
with Level 1 and Level 2 predictors in the model. Table 3.2 provides an overview of the intercorrelation of all variables included in the analysis, and displays ranges, means, and standard deviations for all variables.

Table 3.2. Intercorrelation Matrix and Descriptives for all Variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Life Satisfaction</td>
<td>3.82</td>
<td>.91</td>
<td>1-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Optimism</td>
<td>3.65</td>
<td>.74</td>
<td>1-5</td>
<td>.65**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived Parental Support</td>
<td>3.47</td>
<td>.55</td>
<td>1-4</td>
<td>.41**</td>
<td>.42**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Positive Peer Relationships</td>
<td>4.19</td>
<td>.69</td>
<td>1-5</td>
<td>.36**</td>
<td>.36**</td>
<td>.33**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. School Connectedness</td>
<td>3.56</td>
<td>.71</td>
<td>1-5</td>
<td>.42**</td>
<td>.41**</td>
<td>.30**</td>
<td>.30**</td>
<td></td>
</tr>
<tr>
<td>6. Perceived Neighbourhood Support</td>
<td>2.76</td>
<td>.92</td>
<td>1-4</td>
<td>.28***</td>
<td>.23**</td>
<td>.36**</td>
<td>.29**</td>
<td>.23**</td>
</tr>
</tbody>
</table>

**p < .01. ***p < .001.

**Multilevel Analyses. Unconditional model (Model 1).** A basic unconditional means model was built to test the proportion of variation in life satisfaction scores occurring between schools.

Level 1 (individual): \( Y_{ij} = \beta_{0j} + r_{ij} \)

Level 2 (school): \( \beta_{0j} = \gamma_{00} + u_{0j} \)  

(1)

The life satisfaction score of the student \( i \) in school \( j \) \( (Y_{ij}) \) was modeled as a function of the mean life satisfaction score for school \( j \) \( (\beta_{0j}) \) plus a residual term reflecting individual student differences around the mean of school \( j \) \( (r_{ij}) \). The mean life satisfaction score for school \( j \) \( (\beta_{0j}) \)
was modeled as a function of the grand mean of life satisfaction in the sample ($\gamma_{00}$) plus a school-specific deviation from the grand mean ($u_{ij}$). An overview of all parameter estimates along with the results of the hypotheses tests for Models 1 and 2 can be found in Table 3.3. Analysis of the unconditional model suggested statistically significant variability in life satisfaction scores within schools ($\sigma^2 = 0.80, Z = 26.06, p < .001$), as well as between schools ($\tau_{00} = 0.04, Z = 2.52, p = .01$).

The presence of heterogeneity at the individual- and school-level provided support for adding covariates at both levels in subsequent analyses. The intraclass correlation coefficient (Bickel, 2007), computed as an indicator for the proportion of variability that exists between Level 2 units, $\tau_{00} / (\tau_{00} + \sigma^2)$, was .048, indicating that almost 5% of the variability in life satisfaction scores were due to the specific school context to which early adolescents belonged. Despite 5% being a fairly small percentage, researchers have argued that analyses should be continued in the form of MLM, because even a small amount of variability in Level 2 units can result in invalidated hypotheses tests and confidence intervals when MLM is not used (see Kreft & de Leeuw, 1998). In addition, the design effect was computed as quantification for the effect of independence violations on standard error estimates, estimating the multiplier that needs to be applied to the standard errors to correct for the negative bias that results from the nested data (Peugh, 2010). The design effect, calculated based on the average amount of students per school and the intraclass correlation coefficient in the unconditional model was 3.64 in this study. It has been suggested that a design effect larger than 2.0 indicates the need for MLM (e.g., Muthén & Satorra, 1989, 1995). Finally, previous research has shown that even small degrees of non-independence can lead to biased parameter estimates (e.g., Bliese, 1998), and it was therefore appropriate to continue with a MLM approach in this study.

**Conditional model with Level 1 and Level 2 predictors (Model 2).** A conditional model was built adding perceived parental support, positive peer relationships, optimism, school
connectedness, and perceived neighbourhood support as student-level predictors, and average school connectedness and average perceived neighbourhood support as school-level predictors.

Level 1 (individual): \( Y_{ij} = \beta_{0j} + \beta_{1j}(PPS_{ij}) + \beta_{2j}(PR_{ij}) + \beta_{3j}(OP_{ij}) + \beta_{4j}(SC_{ij}) + \beta_{5j}(PNS_{ij}) + r_{ij} \)

Level 2 (school): \( \beta_{0j} = \gamma_{00} + \gamma_{01}(AvgSC_{j}) + \gamma_{02}(AvgPNS_{j}) + u_{0j} \)

\[ \begin{align*}
\beta_{1j} &= \gamma_{10} \\
\beta_{2j} &= \gamma_{20} \\
\beta_{3j} &= \gamma_{30} \\
\beta_{4j} &= \gamma_{40} \\
\beta_{5j} &= \gamma_{50}
\end{align*} \]

The purpose of this model was to estimate life satisfaction as a linear function of student \( i \)'s perceived parental support, positive peer relationships, optimism, school connectedness, and perceived neighbourhood support in school \( j \), and the average school connectedness and the average perceived neighbourhood support of students in school \( j \). All three student-level variables of interest were positive statistically significant predictors in the model, indicating the significant relation of perceived parental support, \( \gamma_{10} = .19, t(1,339.23) = 4.80, p < .001 \), positive peer relationships, \( \gamma_{20} = .12, t(1,339.55) = 4.00, p < .001 \), and optimism, \( \gamma_{30} = .61, t(1,339.66) = 20.85, \) \( p < .001 \), to life satisfaction in early adolescence. The significant student-level life satisfaction slopes showed an increase in life satisfaction as perceived parental support, positive peer relationships, and optimism increased. For instance, a one-point increase in optimism was associated with a .61 increase in life satisfaction.

Furthermore, above and beyond the significant and positive effect of individuals’ school connectedness, \( \gamma_{40} = .18, t(1339.33) = 6.11, p < .001 \), and perceived neighbourhood support, \( \gamma_{50} = .05, t(1339.25) = 2.33, p = .02 \), at the student-level, we found a significant effect of the variables averaged at the school level, entered as Level 2 predictors in the model. Average school
connectedness in a school was positively and significantly associated with students’ life satisfaction, \( \gamma_{01} = .43, t(18.59) = 2.76, p = .01 \), as was average perceived neighbourhood support of students in a school, \( \gamma_{02} = .60, t(19.70) = 5.44, p < .001 \). A one-point increase in average school connectedness was associated with a .43 increase in life satisfaction, and a one-point increase in average perceived neighbourhood support was associated with a .60 increase in life satisfaction. Note that when including the control variables gender, grade, and ESL in the full model, the estimate for average school connectedness decreased to .34, a marginally significant result (\( p = .055 \)).

Despite the addition of Level 1 predictors, there was still statistically significant variability in life satisfaction at the within-school-level (\( \sigma^2 = 0.44, Z = 25.88, p < .001 \)). However, computing a so-called Pseudo-\( R^2 \) (e.g., Bickel, 2007; Hayes, 2006; Peugh & Enders, 2005) by comparing Model 2’s within-school-variance in life satisfaction (\( \sigma^2 = 0.44 \)) to the variance in the unconditional model (\( \sigma^2 = 0.80 \)) revealed that adding parental support, positive peer relationships, optimism, perceived neighbourhood support, and school connectedness as student-level predictors in Model 2 resulted in approximately 45% reduction of Level 1 variance. After entering the school-level predictors, there was no longer statistically significant variability in life satisfaction between schools (\( \tau_{00} = 0.009, Z = .162, ns \)). Furthermore, the intraclass correlation coefficient in Model 2 was .02, suggesting that 2% variability in life satisfaction scores due to the specific school context in which early adolescents were nested, remained after adding average neighbourhood and school connectedness to the model.

Last, comparing the deviance of the null model (-2LL = 3,645.38) to the deviance of the full model (-2LL = 2,803.79), the addition of the two school-level and five student-level variables resulted in a deviance reduction of 842.04. As Model 2 and Model 1 differed by seven parameter estimates (\( \gamma_{01}, \gamma_{02}, \gamma_{10}, \gamma_{20}, \gamma_{30}, \gamma_{40}, \gamma_{50} \)) the difference between these deviances is distributed as a
chi-square with seven degrees of freedom: \( \chi^2 (7) = 842.04, p < .001 \), indicating a significant reduction in deviance in Model 2 compared to Model 1.

Table 3.3. Parameter Estimates for Life Satisfaction as a Function of Student-Level and School-Level Variables

<table>
<thead>
<tr>
<th>Fixed components</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>3.80***</td>
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<tr>
<td>Perceived Parental Support</td>
<td>.19***</td>
<td></td>
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<tr>
<td>Positive Peer Relationships</td>
<td>.12***</td>
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<tr>
<td>Optimism</td>
<td>.61***</td>
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<tr>
<td>School Connectedness</td>
<td>.19***</td>
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<tr>
<td>Perceived Neighbourhood Support</td>
<td>.05*</td>
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<td>School-Average School Connectedness</td>
<td>.43*</td>
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<tr>
<td>School-Average Perceived Neighbourhood Support</td>
<td>.60***</td>
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<th>Variance of random components</th>
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<tr>
<td>( \tau_{00} )</td>
<td>.04*</td>
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<tr>
<td>( \sigma^2 )</td>
<td>.80***</td>
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<tr>
<td>Deviance (-2 LL)</td>
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\( \star p < .05. \quad \star \star p < .01. \quad \star \star \star p < .001. \)
Discussion

This investigation furthers our understanding of the importance of life satisfaction as it relates to important ecological assets representing key contexts in which development takes place during the early adolescent age-period. Assessing life satisfaction in early adolescence is critical for a number of reasons. For instance, it can contribute to the understanding of subjective well-being’s relationship to contemporaneous developmental characteristics, such as social adjustment, mental health, and school performance (Gilman & Huebner, 2003). Additionally, the assessment of life satisfaction can be used to monitor well-being over time and assist in the evaluation of preventative interventions aimed at fostering and promoting positive psychological adjustment in children and youth (Ben-Arieh & Frones, 2007). We believe that one of the most important contributions of this study is the finding that supportive and positive relationships with peers, non-related adults in the community, and a strong sense of school belonging were significantly and positively related to life satisfaction, a critical aspect of happiness in early adolescence. These findings are important because they identify critical sources for fostering positive youth development outside the family, and are especially relevant when taking into consideration the large amount of time early adolescents spend with their peers, in school, and in their communities. Furthermore, we consider the use of MLM a methodological strength in this study because it allowed us to investigate both the variability in life satisfaction due to the individual as well as the school context to which individuals belong. In the following sections, we discuss our findings in light of theory and research on satisfaction with life and positive development in adolescence. We end the discussion with limitations of the current study and directions for future research.

Our initial analyses revealed that, in addition to the significant individual variability in early adolescents’ life satisfaction, there was also significant variability due to the school
contexts to which our participants belonged. This finding is not surprising when taking into account that students spend the majority of their day in the school environment, and the nature of the school context as well as the relationships with teachers and students in school have been identified as critical factors in students’ current and future development and well-being (Anderman & Freeman, 2004; Battistich, 2005; Whitlock, 2006). Although life satisfaction as a dimension of subjective well-being (Diener & Diener, 2006) is an individual phenomenon, Sarason (1997) urges researchers to understand satisfaction with life as embedded in the ecological context of life, such as the interpersonal, social-familial, and institutional contexts.

Identifying that life satisfaction varies between schools on average is important because it suggests a link between the larger school context—a setting that can be changed, improved and optimized to meet students’ needs—and positive development in early adolescence. Knowing that school characteristics are related to individual students’ well-being is a first step to stimulate further investigations examining specific factors such as relationships within this context, that have the potential to promote and protect the well-being of students. Taking this finding into a practical context, in addition to interventions and preventions targeted at the individual level, efforts to enhance positive development and thriving in children and youth can also be targeted at the level of the context (i.e., school) in which individuals spend significant amounts of time (Lerner et al., 2010; Li et al., 2010).

Based on the initial differences in life satisfaction due to the school context, further analyses revealed that, as hypothesized, average school connectedness and average perceived neighbourhood support within the school’s neighbourhood were significantly and positively related to life satisfaction, and that the addition of those two variables to the statistical model led to a significant decrease in life satisfaction variability at the school-level. This relationship was maintained even after controlling for the effect of school connectedness and perceived
neighbourhood support at the individual level, and in addition to the significant impact of relationships in the family context. In alignment with previous theory and research on the importance of neighbourhood and community support (Baumeister & Leary, 1995; Knowlton, 2008; Scales et al., 2001; Scales et al., 2006; Yonas et al., 2010), this finding confirms a key relationship between caring and supportive adults in the neighbourhood and early adolescents’ satisfaction with life. Furthermore, the significant relationship between a strong sense of school belonging and life satisfaction is in accordance with previous findings indicating the positive impact of an overall positive school environment and school connectedness on children’s and adolescents’ well-being (e.g., Shochet et al., 2006). Our findings suggest the significance of the school and the neighbourhood as larger contexts that are experienced as positive and caring, with individuals within these contexts experiencing a strong sense of belonging and support.

In a larger scheme, our findings indicating a link between school and neighbourhood context to early adolescents’ positive development are consistent with research demonstrating a shifting focus towards relationships outside the family, and thus the increasing importance teachers, peers, and members in the community in emerging adolescents’ lives (Eccles & Roeser, 2009). Practically speaking, these findings are important because they identify that relationships with adults in the community and in important institutions such as schools can provide critical support for thriving in early adolescence. Especially for young adolescents who may have few assets and little support in their home, positive relationships in the school, a school climate wherein students feel a strong sense of belonging, and a strong and positive sense of community in the neighbourhood can become an important source of support and care that enhances trust and other indicators of healthy social and emotional development.

Finally, we found that the assets representing perceived parental support, positive peer relationships, and optimism were positively and significantly related to early adolescents’ life
satisfaction. Identifying a significant link between satisfaction with life and perceived parental support is in concert with previous research that has revealed a significant connection between youths’ subjective well-being and parental support or a positive relationship with parents (Gilman & Huebner, 2003; Valois et al., 2009), and illustrates the importance of caring, supportive families in fostering social and emotional well-being. Similarly, the finding that life satisfaction is significantly linked to positive peer relationships adds to an existing body of research that has connected peer relationships and indicators of well-being in early adolescence. Specifically, a large number of studies has identified a significant link between positive peer relationships and indicators of social and emotional well-being, such as optimism (Oberle et al., 2010), happiness (Dougherty, 2006), positive beliefs about the self (Rubin et al., 2006), and overall psychological well-being (Nangle & Erdley, 2001; Wentzel, 2009). A positive relationship with peers has thus been identified as a key influence on young people’s adjustment, psychological health, and well-being (Vitaro, Boivin, & Bukowski, 2009). Given that satisfaction with life is an indicator of subjective well-being, our finding is in alignment with research in this domain.

Despite the increasing research that has been conducted on satisfaction with life throughout the middle childhood and adolescence years (e.g., Proctor et al., 2009), we could not find any specific studies that have investigated life satisfaction in relationship to optimism. However, given that optimism is a construct in positive psychology that reflects a generally positive attitude about life (e.g., Brodhagen & Wise, 2008), our finding that optimism was significantly and positively related to life satisfaction is of no surprise. Including personal trait assets when examining satisfaction with life is important, given that positive youth development and well-being needs to be understood from a holistic standpoint, including ecological assets, individual resources such as positive attitudes, as well as the relationship between individual and context (Theokas & Lerner, 2006). Dispositional optimism as a personal asset has previously
been identified as an essential resource in positive adjustment that has been related to successful adjustment, especially in the context of stress and adversity (Kumpfer, 1999). Previous theory and research have indicated that optimistic people view desired outcomes as attainable and work towards the desired goal (Carver & Scheier, 2002). We can therefore conclude that it is likely that optimistic people’s tendency to focus on and believe in the positive side of life is also related to their tendency to be more satisfied with life.

Overall, our findings are consistent with Proctor and colleagues’ (2009) assumption that positive social interactions in all core developmental contexts play a key role in youths’ satisfaction with life. The key is thus not to form positive relationships in a single social domain exclusively (e.g., peer group), but to engage emerging adolescents in supportive relationships at home, school, in the community, and in other important social settings in which young people are a part (e.g., sports teams). Our results also support the assumption that we can best explain life satisfaction when including indicators from several important contexts of children’s and adolescents’ development (Gilman & Huebner, 2003). The findings of this study have the potential to inform practices that promote positive youth development, such as prevention and intervention initiatives in schools and communities, because they identify important relationships that can be fostered and strengthened, and ultimately contribute to young adolescents’ social and emotional well-being.

**Limitations.** The data reported here are encouraging for continued investigation of how personal and ecological assets relate to life satisfaction in early adolescence. Nonetheless, despite these promising findings, there are several important limitations in our study that should be raised. First, we relied solely on the self-reports of our participants. Hence, future research should gather the perspectives of others, including teachers, peers, and parents to further our understanding regarding the nature of ecological assets’ relationship to life satisfaction during the early
adolescent age-period. A second limitation is that we focused on only a portion of the ecological contexts in which early adolescents develop. We therefore cannot assume that we captured all of the possible indicators that are assets in the ecology of early adolescent development. For instance, other contexts that may influence early adolescents might include extracurricular activities, religious organizations, and sibling relationships. Third, because of the relatively small Level 2 sample size for MLM, only a small number of predictors could be tested in the model. Finally, because of the cross-sectional nature of our study, the findings are correlational, and the results cannot be interpreted in any causal way. Taken together, clearly more research needs to be conducted to discern the complexity of the relationship between subjective well-being and assets within early adolescents’ ecological niches to ultimately reveal the factors that can enhance young peoples’ happiness and optimal functioning.

**Future directions and conclusions.** The burgeoning research on life satisfaction in childhood and adolescence holds great potential for discerning a deeper understanding of the role of subjective well-being in development throughout the life-span. There are a number of ways in which future studies can address the limitations of current and past research. Future research needs to be conducted that includes objective measures of neighbourhood assets, such as social efficacy, social capital, and social ties. Furthermore, future studies should include measures representing additional ecological contexts in which early adolescents develop that were not addressed in this study, such as community settings involving after-school activities, sports, and volunteering. In addition to indicators of well-being, more investigations need to be conducted on life satisfaction and indicators of personal distress (e.g., depressive symptoms). Life satisfaction also needs to be investigated for specific sub-groups of early adolescents in order to uncover whether the indicators for life satisfaction differ for early adolescents who are considered to be at risk, and whether there are specific ethnic and cultural differences. The study of life satisfaction
as it relates to ecological context-variables in early adolescence also needs to be approached with a longitudinal design, allowing researchers to investigate fluctuations in life satisfaction throughout the early adolescent years, and possible increases and decreases in the importance of specific assets throughout development.

Although a great deal still needs to be learned about how personal and ecological assets relate to social and emotional well-being and thriving in early adolescence, the current research supports the notion that positive and supportive relationships with non-related adults in the community coupled with a strong sense of belonging in school can be critical in determining life satisfaction or happiness. Indeed, what is clear is that early adolescents are adaptationally advantaged when they are in systems that are coordinated (Benson et al., 1998). Our research suggests that we cannot focus on single relationships when fostering social and emotional well-being in elementary school students; instead, our findings support the popular adage “It takes a village” (Benson et al., 1998), and encourage others to take into account all of the contexts in young people’s environments and to create caring, positive and supportive relationships and settings in which early adolescents develop and grow, ranging from the family and the peer group, to the school and the neighbourhood.
Chapter 4: Social and Emotional Competencies Make the Grade: A Longitudinal Study Predicting Academic Success in Early Adolescence

Understanding and fostering academic success in children and adolescents has been a major priority for parents, educators, and social agencies (Aronson, 2002; Caprara, Barabaranelli, Pastorelli, Bandura, & Zimbardo, 2000). In fact, academic success in elementary school is an important indicator for overall positive development in early adolescence, and sets a promising trajectory for positive academic development in late adolescence, as well as college attendance in early adulthood (Bond et al., 2007; Eccles, Vida, & Barber, 2004; Shim et al., 2008). Even though research has indicated that academic growth is best understood when including social and emotional aspects of development (e.g., Elias & Haynes, 2008; Elliott, Malecki, & Demaray, 2001), social and emotional competence (from here on referred to as SEC) as it relates to academic development is still underrepresented in both educational research and practice (Cohen, 2001).

A common public perception is that investing time into social-emotional skills development in the classroom would unnecessarily take time away from what is perceived to be the main goal of schooling—academic competence (Malecki & Elliott, 2002). This opinion has been widely criticized by researchers in the field of education and child development (e.g., DiPerna & Elliott, 2000; Durlak et al., 2011; Elias & Haynes, 2008; Zins et al., 2004). Instead, based on growing evidence that SEC and academic success are in fact interrelated, researchers have urged that monitoring and ultimately fostering positive social and emotional development may even be the key to enhance academic growth, and could be effectively used in interventions designed to teach such
competencies (see Greenberg et al., 2003; Hawkins, Kosterman, Catalano, Hill, & Abbott, 2008; Jones et al., 2011; Zins, et al., 2004). However, for this goal to be achieved, more high quality research – including longitudinal designs that investigate the role of social and emotional aspects in academic outcomes for specific developmental periods – needs to be conducted to provide a basis for the development and implementation of such interventions (Hawkins et al., 2008; Malecki & Elliott, 2002; National Research Council, 2012; Welsh, Parke, Widamann, & O’Neill, 2001).

Using a short-term longitudinal design, the aim of the present study was to test the relative impact of self- and teacher-rated social-emotional skills in 6th grade on early adolescents’ academic achievement in 7th grade. Although a number of previous studies have found a link between indicators of SEC in the classroom and academic success (e.g., Malecki & Elliott, 2002; Jones et al., 2011; Welsh et al., 2001; Wentzel, 1991), several gaps remain in the literature. For instance, the majority of research connecting SEC and academic outcomes has been conducted cross-sectionally, and evidence is therefore limited to correlational findings (e.g., Bryant, Schulenberg, Bachman, O’Malley, & Johnston, 2000; Chen, Rubin, & Li, 1997; Gumora & Arsenio, 2002; Lounsbury, Sundstrom, Loveland, & Gibson, 2002; Parker et al., 2004). In addition, past research has predominately been based on single-informant designs, highlighting exclusively students’ own perceptions and reports of their social-emotional skills rather than considering multiple informants and perspectives (e.g., Izard et al., 2001; Jones et al., 2011; Gil-Olarte Márquez, Palomera Martín, & Brackett, 2006; Seider, Gilbert, Noviz, & Gomet, in press). Furthermore, a large number of previous studies have used grades assigned by teachers as an indicator of academic achievement rather than objective achievement.
indices obtained via standardized tests (e.g., Elias & Haynes, 2008; Welsh et al., 2001; Wentzel et al., 1991). Whereas grades are a measure of academic achievement that can be obtained through teachers and school records fairly easily, their reliability may be limited (McMillan, 2001). Specifically, school grades have been criticized for being highly subjective and examples of unreliable measurement (see Bowers, 2011). In fact, criteria for grading tend to differ among teachers, and factors other than academic skills (e.g., teacher’s values; students’ demographics, and social characteristics) may influence grading practices (Bowers, 2011; McMillan, 2003; Randall & Englehard, 2009; Feinberg & Shapiro, 2009).

The present study was designed to address those limitations. First, it was conducted longitudinally, investigating the predictive rather than correlational relationship between SEC and academic outcomes. Second, this study utilized a multi-informant design and included self- as well as teacher-reports of early adolescents’ social-emotional skills, thus presenting a wide array of indicators for school-related SECs. Furthermore, academic outcomes in two domains—reading and math—were included, and both outcomes were drawn from a standardized provincial assessment, providing a standardized and objective measure of academic success in early adolescence that reflects curriculum-based provincial expectations for achievement (Ministry of Education British Columbia, 2011). Investigating two separate academic subjects also allowed an exploration of whether the predictive patterns differ for SEC in relation to achievement in the math versus the reading domain.

Overall, although competencies in social and emotional domains provide a critical foundation for young people’s life skills, they have traditionally received relatively little
attention in research and practice of education (Zins et al., 2004). Researchers today emphasize that SEC is a separate core domain that students need to master successfully in order to graduate from high school and succeed in life (Durlak et al., 2011). Moreover, a lack of SEC has been found to be negatively related to several indicators of success, including lower connectedness to school, less engagement, lower academic achievement, and a higher risk for school drop out (Appleton, Christenson, & Furlong, 2008; Elias & Haynes, 2008; Libbey, 2004; Wentzel, 1991; Whitted, 2011; Zsolnai, 2002).

Understanding the role of SEC in the school context is paramount because it can provide researchers and educators with important indicators of students’ social characteristics and functioning and may serve as a key to jointly promote social, emotional, and academic competencies in young people (Greenberg et al., 2003).

**Defining School-Related SEC**

SECs have been described as “life skills for adaptation to diverse ecologies and settings” (Haggerty, Sherrod, Garmezy, & Rutter, 1994, p. 275). In general, socially and emotionally competent children and adolescents are commonly characterized as being able to understand, reflect on, and manage their own emotions and behaviors, solve problems successfully, and act appropriately in social situations at home, school, and in the community – hence, being able to adapt to the various ecological niches in which they socialize (e.g., Durlak et al., 2011; Elias et al., 1997). In the school context, SECs that facilitate cooperation with peers, learning in the classroom setting, and social functioning in the group seem to be particularly critical for developmental advances and success in the classroom context (January, Casey, & Paulson, 2011; Roseth et al., 2008; Wentzel, 1993). With the rise of research on social-emotional skills over the past years (see,
Durlak et al., 2011; Greenberg et al., 2003; Kress & Elias, 2006), however, the number of empirically supported indicators for SECs has increased tremendously—each embedded in a different theoretical framework. Hence, scholars in the field are encouraging researchers to provide definitions as well as theoretical frameworks for the SEC indicators central to their empirical or theoretical studies (National Research Council, 2012).

In the present study, SEC was defined in terms of students’ self-reports of social responsibility goals and teachers’ reports of each student’s social-emotional skills in the classroom. As suggested by Wentzel (1991), socially responsible behavior reflects adherence to rules and norms in the classroom, and helps create a positive classroom environment conducive to learning and instruction. Given that goals are a powerful motivator for behavior (Eccles & Wigfield, 2002), social responsibility goals—defined here as the degree to which students try to keep promises and commitments made to peers and to follow classroom rules—have been considered an important indicator for students’ intentions to act in responsible, cooperative, and compliant ways that benefit a positive classroom setting, and facilitate social acceptance and learning (Wentzel, 1994). Furthermore, pursuing social responsibility goals requires self-regulatory and self-management abilities, such as setting, planning, and pursuing goals (Wentzel, 1991); self-management and self-regulation have both been considered critical markers of SEC, given that they affect regulation of emotions as well as behaviors, and thus are related to positive social interactions and relationships across the developmental span (Buckner, Mezzacappa, & Beardslee, 2009; Garner, 2010; Garner & Waajid, 2012; Trentacosta & Shaw, 2009).
In addition to students’ social responsibility goals, teachers’ observations of students’ social-emotional skills can provide a further perspective of early adolescents’ SEC, including critical behaviors that emerge in the classroom context (Gardner, Dishion, & Connell, 2008; Hightower et al., 1986; Ryan, Jamison, Shin, & Thompson, 2012). Elementary school students spend a large portion of their school day with the classroom-teacher, allowing teachers to obtain valuable insights with regard to students’ social-emotional skills, behaviors, and characteristics across multiple situations both in- and outside of the classroom (e.g., Pepler & Craig, 1998; Ryan, Patrick, & Shim, 2005). Specifically, teachers have the opportunity to witness a wide range of students’ SECs that are critical for school success, including peer interactions, cooperation in groups, interaction with adults, and self-regulatory abilities while working on classroom-specific academic and non-academic tasks (e.g., Gardner et al., 2008; Oberle & Schonert-Reichl, in press; Pepler & Craig, 1998; Ryan et al., 2012). Teachers’ perspectives are therefore crucial and need to be considered when understanding early adolescents’ social and emotional functioning in the school setting, and how such functioning relates to further school outcomes (Kersting, Givvin, Sotelo, & Stigler, 2010; Merrell, Bradley, & Karalyn, 2011).

**The Importance of SEC for School Success**

There is a general consensus among parents and educators in North America that teaching children how to read, write, and calculate is not sufficient to become mature future workers, leaders, and citizens of the world (Cohen, 2006; Public Agenda, 2002). Whereas science, arts, and literature have predominantly been the main teaching focus of schools, the broader mission of 21st century schools needs to be educating students to
become academically knowledgeable as well as responsible, caring, mature, and healthy members of society (Greenberg et al., 2003). In fact, SEC has been considered the basis of successful social functioning in society, providing the necessary foundation for young people to develop into life-long learners (Cohen, 2001, 2006; Zins et al., 2004). Consequently, researchers argue that social aspects of success need to be better understood through research, and ultimately be given more weight in education curricula and school development planning (Durlak et al., 2011).

Within the school context, students benefit from utilizing their social-emotional skills in various ways, for instance when participating in a group-based project, interacting with peers during recess, and interacting with both peers and teachers in the classroom setting (Elias & Haynes, 2008). Elias and Haynes argue that being “fluent” in social and emotional understanding and competence helps children and adolescents to self-regulate their emotions and behaviors more effectively, which consequently helps them to increase their focus on the academic curriculum. Similarly, Blum and Libbyy (2004) suggest that early adolescents who lack SEC tend to experience more challenges in social interactions with teachers and peers, leading to less classroom connectedness which in turn ultimately contributes to negative academic performance.

A number of studies provide empirical support for the social-emotional foundations of academic success, and indicate that failure to develop such competencies can result in a variety of personal, social, and academic difficulties (Durlak et al., 2011; Malecki & Elliott, 2002; Weissberg & Greenberg, 2008; Welsh et al, 2001; Wentzel, 1991). Specifically, a classic study conducted with children in middle school revealed that socially responsible behaviors, such as sharing, cooperating, and helping others, were
important positive correlates of academic achievement assessed via end-of year school
grade point averages (GPA), whereas problem behaviors, such as starting fights and
breaking rules were negatively related to success on academic development tasks
(Wentzel, 1991). In another study examining the link between social behaviors and
academic outcomes, Malecki and Elliott (2002) found that among third and fourth grade
students, problem behaviors in the beginning of the school year were negatively related to
concurrent levels of academic achievement, whereas social-emotional skills were
positively predictive of both concurrent academic achievement and achievement at the
end of the school year.

Evidence on the importance of social and emotional aspects for academic success
also extends to different age groups, and children and adolescents from various
socioeconomic backgrounds. For instance, in a study with high school students,
emotional intelligence, as assessed via the Mayer-Salovey-Caruso Emotional Intelligence
test (EI; Mayer & Salovey, 1997), was positively and significantly related to both SEC
and students’ end-of-year grades (Gil-Olarte Márquez et al., 2006). Similarly, in a study
with kindergarten children from disadvantaged families, Izard and colleagues (2001)
found that emotion knowledge at age five positively predicted social relationships and
academic achievement at age nine (Izard et al., 2001). Last, in a sample of urban and
disadvantaged third grade students, Elias and Haynes (2008) found that SEC in the
beginning of the school year as well as improvement in SEC throughout the year
positively predicted academic achievement in the end of the school year.

Further support for the importance of social-emotional skills to school success
stems from intervention research with programs designed to teach SEC in the school
setting. Findings from a number of studies indicate that participating in programs that are successful in enhancing SEC is also positively related to children’s and adolescents’ academic achievement (for reviews see Durlak et al., 2011; Zins et al., 2004). For example, in a study examining the effectiveness of the Child Development Project (Schaps, Battistich, & Solomon, 2004), a program that integrates social emotional learning into language arts, researchers found that the program successfully enhanced social-emotional skills as well as academic achievement in the end of the school year. Similarly, the Resolving Conflict Creatively Program (RCCP) was found to enhance social-emotional skills through professional development for teachers, who then aimed to foster social and emotional understanding and prosocial behavior in their classrooms (Brown, Roderick, Lantieri, & Aber, 2004). Again, the RCCP program was successful in promoting social-emotional skills, and this improvement in turn was related to positive academic growth. In alignment with those findings, Brackett, Rivers, Reyes, and Salovey (2012) found that a social and emotional learning program that teaches students to recognize, understand, label, express, and regulate (RULER) their emotions was related to higher grades in English Language Arts and Work Habits, as well as teacher-reported adaptive skills in the classroom in 5th and 6th grade. These findings are critical because they indicate that SEC includes core skills that can be fostered and promoted in the classroom setting, and that such promotion can possibly be used to target academic progress at the same time.

In conclusion, recent research has indicated the fundamental role of social success for positive academic development (Taylor & Dymnicki, 2007). Support comes from studies investigating the relation among social and academic aspects of development, as
well as program evaluations of school-based interventions. Nonetheless, a few gaps remain in the extant research and several issues need to be addressed to extend the understanding of the link between SEC and academic achievement. First, more evidence is needed from large-scale longitudinal studies that investigate the manner in which SEC predicts later academic achievement (Welsh et al., 2001). Second, multiple indicators of SEC as well as multiple indicators of academic success need to be considered together in research studies in order to provide a detailed picture of the relationships of SEC to academic achievement. Last, research needs to be conducted during specific developmental periods—such as early adolescence—in order to inform and facilitate the design of social and emotional learning (SEL) programs and interventions that are calibrated to specific developmental periods. Having reviewed the existing empirical evidence and gaps in the literature, I now turn to theoretical frameworks that can provide a deeper understanding of why social success is linked to academic success.

**Theories Linking SEC to Academic Success**

Theoretical support for the paramount role of social and emotional development in positive academic growth can be found in existing theories about learning processes. For instance, both Bandura’s (1997) and Vyotsky’s (1978) early writings about social influences in learning emphasize the importance of SEC in positive learning processes and successful. According to Vygotsky’s theoretical considerations of learning (1978), SEC is required for positive functioning in the peer group and positive relationships with teachers, which in turn is helpful and even necessary for developing new academic skills, concepts, and ideas in the school setting. Vygotsky believed that working together cooperatively would help children to acquire more skills than working alone because
each child acts within their own zone of proximal development; thus, in effective group work with peers, individual children benefit from older and more skilled peers because they can acquire the skills that they are not yet able to master independently (Malecki & Elliott, 2002; Slavin, 1995).

Similarly, Bandura (1997) argued that one way to learn is by observing and imitating peers and adults in the environment. Both observation and imitation require awareness of the social context, regulating one’s own attention (e.g., listening to others), and understanding others’ actions and intentions in order to successfully imitate—all of those skills are typically used when describing SEC (see Zins et al., 2007). Hence, the connections among positive social, emotional, and academic development are not only supported by empirical research, these connections are also solidly grounded in theory.

When considering the direction of the relationship between SEC and academic success, two different explanations have been provided by Coie and Krehbiel (1984). The first explanation suggests that SEC influences academic skills; the second one offers a reverse causation account. In the first account, the authors suggest that established SEC could help children to self-regulate and focus on school tasks, steering them toward scholastic success, whereas children who lack such skills may become distracted more easily within the learning context, and ultimately demonstrate lower academic performance. In the second account, Coie and Krehbiel argue that children who are academically low achievers in the first place could easily become frustrated and display socially disruptive behaviors soon after entering the education system, due to their failure to perform at grade level. Acting socially inappropriate, those children may be at higher
risk for being rejected by peers and have poorer relationships with teachers than academically successful children.

Welsh and colleagues (2001) have built on the two explanations provided by Coie and Krehbiel (1984), and tested them empirically in a longitudinal study. The authors tested, and found statistical support for their reciprocal model in which better academic achievement in first grade students predicted higher SEC in second grade, which in turn significantly predicted better academic achievement in third grade. Their findings suggest that a “chicken and the egg” dynamic in the case of SEC relating to academic success, and that competencies versus deficiency in both domains reciprocally influence each other.

Despite the varying explanations that have been put forth regarding causality and direction between SEC and academic achievement, what remains is a notion that has often received insufficient attention in research and practice. That is, being responsible, kind, and friendly matters for positive academic growth, and that such competencies need to be promoted in school as much as the teaching of academic subjects (Durlak et al., 2011; Greenberg et al., 2003; Hymel, Schonert-Reichl, & Miller, 2006; Osher et al., 2008; Payton et al., 2000). The existing evidence hence strongly suggests that the foundations of positive academic growth include social and emotional aspects of development (Caprara et al., 2000; Gil-Olarte Márquez et al., 2006, Seider et al., in press). Still, although investigations of the connection between the social-emotional and the academic sides of development have increased over the past years, there still are a number of important gaps in the literature. The present study was designed to address these gaps and expand the current state of research on SEC linked to academic success.
Summary and Hypotheses

In contrast to the common public perception that using class time to teach SEC would be a waste of precious time that might better be used to focus on academic subjects (Malecki & Elliott, 2002), theory and research are in accord in suggesting that social-emotional and academic growth are inextricably connected and that both need to be promoted in educational settings to achieve school goals including academic competence (Durlak et al., 2011; Taylor & Dymnicki, 2007; Zins et al., 2004). Based on a number of empirical studies that have investigated the connection between social, emotional and academic aspects of development, there is increasing evidence that earlier SEC predicts later academic success (e.g., Caprara, et al., 2000; Elias & Haynes, 2008; Hawkins et al., 2008; Izard et al., 2001; Jones et al., 2011). In addition, the scientific evaluation of interventions that are aimed to enhance social-emotional skills has suggested that participation in programs that successfully enhance SEC also seems to be related to improvements in academic skills and achievement (e.g., Brown et al., 2004; Schaps et al., 2004). Yet, more research is needed to investigate the predictive properties of SEC for academic competence in early adolescence (Malecki & Elliott, 2002; National Research Council, 2012; Welsh et al., 2001), including multiple indicators of SEC and academic success.

The present study was conducted longitudinally and included data from three time points. I used 4th grade academic achievement in reading and math as a baseline measure; self-reports and teacher-reports of social-emotional skills were assessed at the end of grade 6; academic achievement in math and reading was assessed mid-way through grade 7 and used as the two outcome measures. First, I hypothesized that self-reported social
responsibility goals and teachers’ reports of students’ social-emotional skills at the end of sixth grade would significantly and positively predict the change in provincial reading and math test scores between 4th and 7th grade. Second, I explored whether gender moderated the relation between each indicator of SEC, and academic outcomes in the two domains. The rationale for including gender in the present investigation was based on past evidence that females tend to rate higher on measures of social-emotional skills and understanding than males (e.g., Bosacki & Astington, 1999; Brackett, Mayer, & Warner, 2004; Jaffee & Hyde, 2000; Welsh et al., 2001). Specifically, in a study conducted with adolescents, girls were rated as acting more socially and emotionally competent by their peers than were boys (Sandstrom & Cillessen, 2003), and girls scored higher than boys on self-report measures of perspective taking and empathic concern (Charbonneau & Nicol, 2002). In alignment with this finding, studies also have revealed that early adolescent girls respond more prosocially to hypothetical conflict scenarios than boys (Rose & Asher, 1999), and teachers tend to report higher social competence for girls when compared to boys (Ladd & Profilet, 1996). Given these gender differences, research suggests that the role of gender needs to be explored in more detail when investigating social indicators of competence.

Method

Participants. The current study was based on a sub-sample of 6th grade students who were part of a larger study on the psychological and social well-being of children in grades 4 to 7. A stratified random sampling procedure was employed across seven school districts located in urban and suburban areas in Western Canada. Stratification was done according to the neighborhood level vulnerability rates for children’s development, as
reported by the Human Early Learning Partnership (Kershaw et al., 2005; 
www.earlylearning.ubc.ca). The vulnerability rates were determined according to the 
Early Development Instrument (EDI; see Janus & Offord, 2007). Schools were randomly 
selected and approached to represent “high,” “medium,” and “low” vulnerability rates 
within the eight school districts in order to obtain a diverse representation of participants. 
The participants in the present study were recruited from 33 classrooms in 20 public 
elementary and middle schools across eight school districts.¹

Of those early adolescents invited to participate, 82% gave assent and received 
parental/guardian consent to participate, resulting in a total of 461 participants (47% 
female) who were on average 12.02 years old (SD = .41). Sixty-three percent of the 
students reported English as their first language; the remaining early adolescents reported 
Chinese (14%), Punjabi (5%), Vietnamese (3%), or another language. Regarding family 
composition, 75% of the early adolescents reported living with a mother and a father (this 
includes biological as well as reconstituted families with stepparents). Seven percent of 
adolescents reported living half time with their mother and half time with their father, and 
the remaining adolescents reported living with their mother only (7%), grandparents (3%), 
foster care (1%), or other family configurations.

Procedure. Data in the present study were obtained from three separate points in 
time. For the first time point, I obtained students’ previous Foundational Skills 
Assessment (FSA) scores from the annual provincial assessment in British Columbia that 
they had completed while in the 4th grade (February 2004). For the second point in time, 
these same students completed a self-report survey at the end of 6th or beginning of 7th

¹ In the present study, 8 of the 33 classrooms were set in middle schools, whereas the remaining classrooms were set in elementary schools.
grade. Last, at the third point in time I obtained students’ FSA scores mid-way through 7th grade (February 2007).

Regarding the survey data collection procedure, a trained research assistant or the principal investigator of the research project provided a 15-minute presentation to each participating class prior to providing early adolescents with parental permission slips and describing the study in age-appropriate language. Early adolescents were told that the study was a survey about students’ experiences within and outside of school. Those who obtained parental consent were provided with a student assent form to indicate whether they wished to participate in the research project. After obtaining consent and assent, research assistants administered the survey to the students during two 45-minute sessions while teachers remained in their classrooms. All items were read out loud to students to take into account any reading difficulties. At the time of survey administration, teachers were given a package of teacher-report questionnaires and asked to complete one for each participating student. As an incentive, teachers obtained an honorarium of $100.00 (CA). In addition, a teacher-on-call (TOC) was provided for their classroom to free the classroom teacher from teaching obligations for half a day, facilitating the completion of the teacher-surveys. FSA scores for 4th and 7th grade students were obtained through

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2 Note that because of the large study scope, data collection took place during the months of May/June and September/October 2006. Hence, even though the participants of the current study are considered being in the same developmental stage, some of them took part in the self-report data collection of this study at the end of grade 6, and others in the beginning of grade 7. All students completed the grade 7 provincial academic achievement test at the same time, in February 2007. Excluding the students whose data were collected in the beginning of grade 7 did not alter the overall results – I hence decided to include the whole sample to improve the statistical power in the present study.
Edudata\textsuperscript{3} from the Ministry of Education in British Columbia, and linked to participants’ survey data via Personal Education Number (PEN; an identifier assigned to each student by the Ministry of Education, BC) by a data steward.

**Measures.** Student self-reports, teacher-reports, and measures of students’ academic achievement were the sources of data used in the present study. Students’ self-report survey included basic demographic information and a measure of social responsibility goals. Teachers completed the Teacher Child Rating Survey (T-CRS; Hightower et al., 1986) as an indicator for students SEC for each of their participating students. Last, achievement on the FSA test in grades 4 and 7 was used as an indicator for present and previous academic achievement.

**Student-reports.** **Demographics.** A demographic questionnaire was administered to each student to gather information about gender, birth date, grade, first language learned, and family composition.

**Social responsibility goals.** Social responsibility goals were assessed with a subscale of the Social Goals Questionnaire (Wentzel, 1993). The Social Goals Questionnaire is comprised of two scales measuring Prosocial Goals and Social Responsibility. In the present study, the 7-item Social Responsibility Goals subscale was used. The subscale assesses among others how often early adolescents try to “…keep promises you have made to other kids?,” “…be nice to other kids when something bad has happened to them?,” “…be quiet when other kids are trying to study?” Students indicate their answers on a Likert-type scale ranging from 1 = *Never* to 5 = *Always*, with

\begin{footnote}{\textsuperscript{3} Edudata (\url{www.edudata.educ.ubc.ca}) is a research unit located in the Faculty of Education at the University of British Columbia; it is a secure facility for linking, storing, and analyzing personal information across a broad range of sectors, including education (e.g., students’ provincial test scores).} \end{footnote}
higher scores indicating higher social responsibility goals. The reliability for the social responsibility goals subscale in the present study was satisfactory ($\alpha = .75$).

**Teacher-reports. Students’ social-emotional skills.** Teachers rated early adolescents social-emotional skills on a subscale of the TCR-S (Hightower et al., 1986), a measure shown to be reliable and valid with elementary school-aged children (Hightower et al., 1986). The total social-emotional skills score is a composite of four subscales assessing skills in four different domains: 1. *Frustration Tolerance*, 2. *Assertive Social Skills*, 3. *Task Orientation*, and 4. *Peer Interaction*. Each subscale includes five items. Sample items for the subscales include 1. “Accepts things not going his/her way,” 2. “Expresses ideas willingly,” 3. “Functions well even with distractions,” and 4. “Is well-liked by classmates.” Items on these scales were rated on a scale of 1 = *Not at all* to 5 = *Very well*, and scores were computed by averaging the items across subscale items. Higher scores indicated better social-emotional skills. The reliability of the subscales was satisfactory in the present study, ranging from $\alpha = .92$ to $\alpha = .96$. The Cronbach’s alpha of the teacher-reported social-emotional skills score was .97, also indicating good satisfactory reliability. These psychometric properties are comparable to the ones found in previous research (e.g., Cowen et al., 1997; Hightower et al., 1986; Weissberg et al., 1987).

**Academic achievement.** Early adolescents’ scores on standardized provincial achievement tests in 4th and 7th grade (Ministry of Education British Columbia, 2011) were used as indicators for previous and present academic achievement. The FSA examinations in 4th and 7th grade are annual, province-wide assessments of students’ foundational academic skills in reading, writing, and mathematics. The assessments were
designed to inform schools, districts, and the province about students’ academic learning progress at two crucial times in development (Ministry of Education British Columbia, 2011). According to the Ministry (2011), all students in grades 4 and 7 are expected to take part in the FSA exam; however parents may withhold their children from participating in the assessment, and entire schools may opt out of participation.

As described by Lloyd and Hertzman (2009), the British Columbia Ministry of Education and the school districts use FSA results in various ways, for instance to report about students’ performance, inform curriculum development, examine academic achievement across different student populations, and create school development plans. The current study is based on early adolescents’ 4<sup>th</sup> grade FSA scores as an indicator for previous academic achievement, and 7<sup>th</sup> grade FSA scores as an indicator for current academic achievement. Of the 461 participants who completed the self-reports for the present study and for whom teacher-ratings on social-emotional skills were obtained, 389 also completed the 7<sup>th</sup> grade FSA numeracy assessment, and 399 completed the 7<sup>th</sup> grade FSA reading assessment in the following year. Furthermore, a total of 398 had previously completed the 4<sup>th</sup> grade FSA numeracy assessment, and 406 had completed the 4<sup>th</sup> grade FSA reading assessment.

The FSA consists of multiple-choice and open-ended questions assessing skills in the three foundational areas of learning. Specifically, in both the grade 4 and the grade 7 assessments, students complete a computerized test version of 35-40 reading comprehension questions, and 40 numeracy questions assessing math skills in a multiple-choice format. Furthermore, students complete one written question assessing reading comprehension, two written questions assessing math skills, as well as one long and one
short written answer addressing a writing topic (Ministry of Education British Columbia, 2011). Each of the scales is designed to measure cumulative learning, testing the skills 4\textsuperscript{th} /7\textsuperscript{th} grade students are supposed to have acquired between kindergarten and grade 4/7 (Lloyd et al., 2010; Ministry of Education British Columbia, 2011). For the purpose of the present study, \textit{performance on math items} and \textit{performance on reading comprehension items in the multiple-choice portion} of the test were used. Scores on the writing scale were excluded because they have been suggested to be prone to subjective marking (Lloyd & Hertzman, 2009).

For the multiple-choice parts in 2004 and 2007, the Ministry of Education British Columbia provided z-standardized raw scores to indicate students’ performance on the FSA (see Table 4.1 for FSA descriptives in the present study). The Ministry categorizes students’ performance in a given domain into one of three categories based on their FSA score: “Not yet meeting expectations,” “Meeting expectations,” “Exceeding expectations.” Table 4.2 displays the numbers of early adolescents in each of the achievement categories, and the correspondent range of each of category.
Table 4.1. *Means, Standard Deviations, and Range for all Variables.*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>M (SD)</th>
<th>Min. to Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-reported Social Responsibility Goals</td>
<td>461</td>
<td>4.00 (.58)</td>
<td>1.71 to 5.00</td>
</tr>
<tr>
<td>Teacher-rated social-emotional skills</td>
<td>452</td>
<td>3.44 (.90)</td>
<td>1.20 to 5.00</td>
</tr>
<tr>
<td>Gr. 4 Reading</td>
<td>396</td>
<td>-.11 (.90)</td>
<td>-2.41 to 2.32</td>
</tr>
<tr>
<td>Gr. 4 Math</td>
<td>389</td>
<td>-.30 (.98)</td>
<td>-1.84 to 2.81</td>
</tr>
<tr>
<td>Gr. 7 Reading</td>
<td>399</td>
<td>-.08 (.96)</td>
<td>-2.82 to 2.64</td>
</tr>
<tr>
<td>Gr. 7 Math</td>
<td>389</td>
<td>-.24 (.98)</td>
<td>-1.64 to 2.83</td>
</tr>
</tbody>
</table>
Table 4.2. Number of Participants in the Three FSA Achievement Categories, and Each Category’s Score Range.

<table>
<thead>
<tr>
<th></th>
<th>Grade 4</th>
<th></th>
<th>Grade 7</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not yet meeting expectations</td>
<td>Meeting expectations</td>
<td>Exceeding Expectations</td>
<td>Not yet meeting expectations</td>
</tr>
<tr>
<td>Reading</td>
<td>N</td>
<td>67</td>
<td>305</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Min. to Max.</td>
<td>-2.41 to -.76</td>
<td>-.73 to 1.49</td>
<td>1.51 to 2.32</td>
</tr>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>-1.27 (.43)</td>
<td>.29 (.59)</td>
<td>1.74 (.21)</td>
</tr>
<tr>
<td>Math</td>
<td>N</td>
<td>39</td>
<td>278</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Min. to Max.</td>
<td>-1.84 to -.99</td>
<td>-.95 to 1.12</td>
<td>1.15 to 2.81</td>
</tr>
<tr>
<td></td>
<td>Mean (SD)</td>
<td>-1.28 (.23)</td>
<td>.11 (.58)</td>
<td>1.75 (.36)</td>
</tr>
</tbody>
</table>
Results

**Data analytic procedure.** First, preliminary analyses were conducted to test whether the assumptions for linear regression analysis were met, to explore intercorrelations among all variables, and to investigate gender differences for the predictor and outcome variables. Cohen’s $d$ is presented as an indicator for effect size where appropriate. Second, two hierarchical linear regression analyses were conducted to investigate whether self- and teacher reported indicators of SEC predict grade 7 reading comprehension scores and math scores. Control variables (age, ESL, gender) were entered in Block 1, previous academic achievement on the grade 4 reading or math test was entered in Block 2, self-reported social responsibility goals and teacher rated social-emotional skills were entered in Block 4, and last the interaction between social responsibility goals and gender was entered in Block 5. Adding the main variables of interest individually in each step determines both the statistical significance of a variable and whether the change from a previous model to the model containing the variable of interest is statistically significant (Pallant, 2007). The interaction was composed as the multiplicative product of the two variables. Significant interactions were analyzed with simple slopes analysis (Aiken & West, 1991) and interpreted based on graphical illustrations. All variables in the analysis were mean centered except the academic achievement scores that were $z$-standardized variables.

**Preliminary analyses.** Assumptions for regression were tested. The Durbin Watson test indicated that the residuals were independent of each other (Durbin Watson statistic < 2). Graphical examinations suggested that the standardized residuals in the regression model were normally distributed. Furthermore, the VIF indicator was > 4 and
the Tolerance indicator was < .2, indicating no significant multicollinearity. Last, there was a linear relation between predictors and outcome, and homoscedasticity could be assumed. As recommended by Pallant (2007), missing data were excluded pairwise from the regression analyses. Intercorrelations among the variables are displayed in Table 4.3. Students’ social responsibility goals and their SEC indicated by teachers were both positively and significantly related to grade 4 and grade 7 reading scores, and grade 7 math scores. The magnitude of the correlations was small to moderate.

Furthermore, social responsibility goals and teacher-rated social-emotional skills were significantly and positively related to gender; girls tended to score higher than boys. Gender was also significantly and negatively related to grade 7 math scores; boys tended to have higher scores than girls. All the academic achievement variables in grade 4 and 7 were positively and significantly related. The magnitude of the relationships was high (see Table 4.3). Given that the demographic variables gender and ESL were significantly correlated with the outcome variables they were included as control variables in subsequent analyses. Age in grade 7 was not significantly correlated with grade 7 reading \([r(399) = -.013, ns]\) or math scores \([r(389) = .089, ns]\), and was therefore not included as a control variable in subsequent analyses.

Gender differences were found in social and academic competence. Teachers reported significantly higher scores on SEC for girls \((M = 3.56, SD = .85)\) than for boys \((M = 3.34, SD = .94)\) \([t(450) = 2.12, p < .05]\); the magnitude of the effect was small \((d = .25)\). Similarly, girls \((M = 4.09, SD = .55)\) compared to boys \((M = 3.93, SD = .59)\) rated themselves significantly higher on the social responsibility goals measure \([t(459) = 2.98, p < .01]\), with small to medium effect \((d = .28)\). On the grade 7 math test, girls \((M = .03, \ldots)\).
$SD = .90$) received significantly lower scores than boys ($M = .41, SD = 1.01$) [$t(387) = 3.94, p < .001$]; the magnitude of the effect was small to medium ($d = .40$). On the grade 4 math test, girls ($M = .20, SD = .97$) received marginally significantly lower scores than boys ($M = .39, SD = .99$) [$t(398) = 1.96, p < .1$]; the magnitude of the effect was small ($d = .19$). There were no significant differences for girls ($M = -.14, SD = .96$) and boys ($M = -.01, SD = .96$) on the grade 7 reading test [$t(397) = 1.26, ns$]. Similarly girls ($M = .20, SD = .86$) and boys ($M = .04, SD = .94$) did not score differently on the grade 4 reading test [$t(394) = 1.72, ns$].

Table 4.3. Pearson Product-Moment Correlations Among all Variables.

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
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<tr>
<td>2. ESL</td>
<td>-.043</td>
<td></td>
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<td></td>
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<tr>
<td>3. Social</td>
<td>.138**</td>
<td>-.018</td>
<td></td>
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<td>Responsibility</td>
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<td>Goals</td>
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<td>4. Teacher-</td>
<td>.117*</td>
<td>-.039</td>
<td>.246***</td>
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<td>emotional</td>
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<td>skills</td>
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<tr>
<td>5. Gr. 4 Math</td>
<td>-.098</td>
<td>-.023</td>
<td>.088</td>
<td>.265***</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6. Gr. 4</td>
<td>.086</td>
<td>-.126*</td>
<td>.177***</td>
<td>.348***</td>
<td>.655***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
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<tr>
<td>7. Gr. 7 Math</td>
<td>-.197***</td>
<td>.198***</td>
<td>.116*</td>
<td>.231***</td>
<td>.614***</td>
<td>.392***</td>
<td></td>
</tr>
<tr>
<td>8. Gr. 7</td>
<td>.063</td>
<td>.003</td>
<td>.224***</td>
<td>.374***</td>
<td>.526***</td>
<td>.603***</td>
<td>.571***</td>
</tr>
<tr>
<td>Reading</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

$1 = \text{English}, \ 2 = \text{ESL}; \ 0 = \text{male}, \ 1 = \text{female}; \ *p < .05; \ **p < .01; \ ***p < .001.$
Predicting Grade 7 Reading Scores. A hierarchical linear regression analysis was conducted to investigate whether perceived social responsibility goals and teacher-rated social-emotional skills predicted change in reading comprehension scores from grades 4 to 7, controlling for gender and ESL. The control variables were entered in Block 1, grade 4 reading score was entered in Block 2, social responsibility goals were entered in Block 3, teacher-rated social-emotional skills were entered in Block 4, and the interaction term between gender and social responsibility goals entered in Block 5 of the regression model (see Table 4.3). Model 1 including gender and ESL was not statistically significant [adjusted $R^2 < .001, F(2, 347) = 1.014, ns$]; none of the control variables were significant. Adding grade 4 reading scores, Model 2 was statistically significant [adjusted $R^2 = .369, F(3, 346) = 69.128, p < .001$] and explained 37.5% of the variance in grade 7 reading scores. Grade 4 reading was a positive and statistically significant predictor in the Model.

Entering social responsibility goals in the next step, Model 3 explained 39% of the variance in grade 7 reading scores [adjusted $R^2 = .383, F(4, 345) = 55.117, p < .001$]. The change in explained variance between Models 2 and 3 was statistically significant [$R^2$ change $=.015, F_{change}(1, 345) = 8.555, p < .001$]. Table 4.3 shows that both grade 4 reading scores and social responsibility goals significantly and positively predicted grade 7 reading scores in Model 3. Adding teacher-rated social-emotional skills in the next step, Model 4 explained 41% of the variance in grade 7 reading scores [adjusted $R^2 = .398, F(5, 344) = 47.240, p < .001$]. Again, the change in explained variance between Models 3 and 4 was statistically significant [$R^2$ change $=.017, F_{change}(1, 344) = 8.555, p < .001$].
Grade 4 reading scores, social responsibility goals, and teacher-rated social-emotional skills were all significant and positive predictors for grade 7 reading scores. Last, entering the interaction between gender and social responsibility goals in the classroom, the full Model explained 42% of the variance in grade 7 reading scores [adjusted $R^2 = .407$, $F(6, 343) = 40.857, p < .001$]. The interaction term significantly added to the explained variance between Models 4 and 5 [$R^2$ change = .010, $F$ change(1, 343) = 5.017, $p < .001$]. The interaction term was negatively statistically significant. Grade 4 reading scores, social responsibility goals, and teacher-rated social-emotional skills remained significant and positive predictors for grade 7 reading scores in the full Model. Follow-up analyses were conducted next to understand the nature of the interaction term.

**Simple slopes analysis.** Post-hoc analyses of the significant interaction term were conducted according to the guidelines of Aiken and West (1991) to further decompose the significant interaction between gender and social responsibility goals. First, reading comprehension at high and low levels of social responsibility goals was plotted separately for boys and girls. Next, simple slopes analyses were conducted to determine whether the slopes of the plotted regression lines were significantly different from zero (Preacher, Curran, & Bauer, 2006). Figure 4.1 and Table 4.3 indicate that the association between social responsibility goals in grade 6 and reading comprehension in grade 7 differed for boys and girls. Specifically, a positive significant relationship between grade 6 social responsibility goals and reading comprehension in grade 7 was found for boys [slope line was statistically significantly different from zero; $b = .302$, $t = 3.376$, $p < .001$]. For girls,

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4 The interaction term between gender and teacher-rated social-emotional skills was not statistically significant and were therefore not included in the model.
there was no significant association between social responsibility goals and reading comprehension [slope lines was $b = -0.023$, $t = -0.23$, $ns$].

![Figure 4.1](image)

*Figure 4.1. Interaction Effect of Gender x Social Responsibility Goals on Grade 7 Reading.*

**Predicting Grade 7 Math Scores.** Similarly, to understand whether perceived social responsibility goals and teacher-rated social-emotional skills predicted change in math scores from grades 4 to 7 a hierarchical linear regression analysis was conducted using the same predictive model as reported for reading comprehension. Model 1 including gender and ESL was statistically significant [adjusted $R^2 = .062$, $F(2, 339) = 12.249$, $p < .001$]; the model explained 6% of the variance in grade 7 math scores. Gender was statistically significant with boys achieving higher math scores than girls on average, and ESL was statistically significant with students whose first language was not English achieving higher scores than native speakers on average in grade 7. Adding grade 4 math
scores in the next step, Model 2 was statistically significant \([\text{adjusted } R^2 = .260, F(3, 337) = 40.001, p < .001]\) and explained 27% of the variance in grade 7 math scores. Grade 4 reading was a positive statistically significant predictor in the Model, and the predictive pattern of the control variables remained the same as in the previous model. Adding grade 4 math scores led to a significant change in the explained variance \([R^2 \text{ change} = .199, F\text{change}(1, 338) = 91.943, p < .001]\).

Entering social responsibility goals in the next step, the explained variance in grade 7 math scores did not change significantly \([R^2 \text{ change} = .003, F\text{change}(1, 337) = 1.396, ns]\). The overall model remained statistically significant \([\text{adjusted } R^2 = .261, F(4, 337) = 20.790, p < .001]\). Table 4.3 shows that social responsibility goals were marginally significant in the model. Grade 4 math scores, ESL, and gender remained statistically significant with the same pattern as in the previous steps of the analysis. Adding teacher-rated social-emotional skills in the next step, Model 4 explained 28% of the variance in grade 7 math scores \([\text{adjusted } R^2 = .268, F(5, 336) = 17.188, p < .001]\). Again, the change in explained variance between Models 3 and 4 was statistically significant \([R^2 \text{ change} = .017, F\text{change}(1, 335) = .009, p < .05]\). Teacher-rated social-emotional skills significantly and positively predicted grade 7 math scores; grade 4 math scores and the control variables remained statistically significant with the same predictive pattern as in the previous models.\(^5\)

\(^5\) Neither the interaction term between gender and social responsibility nor gender and teacher-rated social-emotional skills were statistically significant and were therefore not included in the model.
Table 4.4. Hierarchical Linear Regression Predicting Grade 7 Reading Comprehension and Math Scores.

<table>
<thead>
<tr>
<th>Block</th>
<th>Variable Name</th>
<th>Grade 7 Reading</th>
<th></th>
<th></th>
<th></th>
<th>Grade 7 Math</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>$B$</td>
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1 = English, 1 = ESL; 0 = male, 1 = female; *p < .05; **p < .01; ***p < .001; 

3 In analyses where grade 7 reading comprehension was the outcome, grade 4 reading comprehension scores were entered as a control variable; in analyses where grade 7 math achievement scores were the outcome, grade 4 math scores were entered as a control variable.
Discussion

The main goal of the present study was to investigate whether SEC in early adolescence play a significant role in future academic achievement in the domains of math and reading. Moreover, given that previous research has indicated gender differences for the development in the social and emotional, as well as the academic domains (e.g., Bosacki & Astington, 1999; Brackett et al., 2004; Hyde, Fennema, & Lamon, 1990; Jaffee & Hyde, 2000; Sandstrom & Cillessen, 2003; Welsh et al., 2001), a further aim was to explore whether differences exist for boys and girls when predicting academic success from SECs. Though elementary school curricula are typically focused on teaching academic subjects in order to foster academic growth, recent research has indicated that promoting competencies in social and emotional domains can be an effective and essential way to spurt positive academic development (Brackett et al., 2012; Brown, 2004; Durlak et al., 2011; Schaps et al., 2004; Weissberg & Greenberg, 1998). However, research is still in an early stage and more evidence is needed to discern the relations among different domains of social, emotional, and academic competence (Cohen, 2006; Hawkins et al., 2008; Malecki & Elliott, 2002; National Research Council, 2012).

In the present study, self-reports of social responsibility goals and teacher-rated social-emotional skills in the end of grade 6 were used to predict change in reading and math achievement on a standardized academic test between grades 4 and 7. In the following paragraphs, the findings will be discussed in line with the existing literature as well as considering their practical relevance. Given that the findings in the present study differed for the two academic subjects of investigation, I will first discuss the findings for
predicting reading outcomes, followed by math outcomes. Last, I will consider
limitations of the study, and provide suggestions for future research.

**SEC and Reading Comprehension.** As hypothesized and in alignment with
previous findings (e.g., Elias & Haynes, 2008; Malecki & Elliott, 2002; Welsh et al.,
2001), the present study revealed that reading achievement in grade 7 was independently
predicted from early adolescents’ perceptions of their own social responsibility goals, and
from teachers’ reports of students’ SEC at the end of grade 6, controlling for prior
reading scores in grade 4. Previous achievement in reading accounted for the largest
amount of variance in grade 7 reading scores (37%), and the two indicators of SEC added
a significant contribution of 3.5% to understanding reading achievement in the two
domains over and above previous achievement scores—indicating that the most
important predictor for grade 7 reading remained to be previous reading comprehension.
Yet, revealing a significant link between SEC and reading is important because it adds to
the emerging evidence that has established positive connections between social success
and academic success (Caprara et al., 2000; Hawkins et al., 2008; Izard et al., 2001;
Seider et al., in press).

Further analyses that took into account the role of gender in the present study,
indicated an interaction between social responsibility goals and gender when predicting
change in reading scores, suggesting that the predictive relationship between students’
social goals and reading outcomes differed for boys and girls in the present study.
Specifically, social responsibility goals significantly predicted an increase in reading
achievement in boys, but not in girls. There was no interaction with gender when
predicting change in reading outcomes from teacher-rated social-emotional skills. In the
subsequent paragraphs, I discuss the role of students’ social responsibility goals in interaction with gender when predicting future reading scores, followed by the role of teacher-rated social-emotional skills, and closing with a discussion about the impact of methods used to assess self- and teacher-rated social-emotional skills on the presented findings.

**Gender differences.** Investigating the interactive effect between gender and social responsibility goals when predicting change in reading outcomes, the present study revealed that social responsibility goals significantly predicted an increase in reading outcomes in boys only. For girls, social responsibility goals were unrelated to achievement on the reading test. There were no gender differences in overall reading achievement in the present study. The fact that no gender differences were found may be surprising, given that previous studies have consistently revealed differences in reading ability across elementary and high school years, with girls typically outperforming boys on reading tests (e.g., Chiu & McBride-Chang, 2006; Logan & Johnson, 2009; Wagemaker, Taube, Munck, Kontogiannopoulou-Polydorides, & Martin, 1996). One explanation for this finding lies in the nature of measure used to assess reading comprehension in the present study.

The reading comprehension test used here was developed by the Ministry of Education in British Columbia to assess to what degree young people meet the expectations for “foundational skills” in reading in grade 7, based the provincial curriculum that is followed by schools. This measure was hence designed to assess whether or not students meet expectations in reading comprehension in order to inform curriculum development; it was not developed to test the full range of general reading
ability. General reading ability is typically assessed in standardized reading tests that assess a wider scope of achievement in reading, and may therefore capture abilities that go beyond foundational reading skills, capturing the higher and lower ends of achievement in which gender differences tend to be found (Chiu & McBride-Chang, 2006). Furthermore, it is important to note that gender tends to predict only a small amount of variability in reading ability, suggesting the need for a bigger picture to understand which variables are important to understand reading ability (Logan & Johnson, 2009). For instance in a study conducted across 43 countries, Chiu and McBride-Chang (2006) found that 25% of differences in reading scores occurred at the country level, 30% occurred at the school level, and 45% occurred at the individual level. Predicting the variability in reading scores at the individual level, gender differences accounted for only 1% of variability in reading ability, whereas family SES accounted for 6%, schoolmates’ family SES accounted for 2%, percentage of girls in the school accounted for 1%, number of books at home accounted for 3%, and reading enjoyment for 3% of variance in reading scores. This finding suggests taking into account context, demographics, and student preferences, interests, and characteristics in addition to gender differences when understanding reading ability in young people.

Though there were no differences in reading outcomes between boys and girls per se in the present study, my findings indicated that social responsibility goals related to reading outcomes differently in boys and girls, with a positive relationship found for boys and no relationship found for girls. One possible explanation for this finding stems on past evidence for gender differences in overall social competencies. In fact, previous research with early adolescents and young adults has indicated that on average, girls tend
to rate higher on measures of social and emotional understanding, and they tend to report a stronger orientation toward behaving in prosocial ways than boys (Bosacki & Astington, 1999; Brackett et al., 2004; Jaffee & Hyde, 2000; Rose & Asher, 1999). A similar finding emerged in the present study, with girls reporting significantly higher social responsibility goals on average than boys, with the variability in those scores being lower in girls than in boys. This finding indicates more cohesion in social responsibility goals in girls compared to boys. It is possible that the positive relation between social responsibility goals and reading achievement in boys could have emerged due to overall more variability and a lower average score in social responsibility goals among boys; in contrast it is possible that overall higher scores, and less variability indicated a possible ceiling effect for social responsibility goals in girls.

An alternative explanation is that girls overall tend to exhibit more socially competent behaviors than boys (e.g., Bosacki & Astington, 1999; Brackett et al., 2004; Jaffee & Hyde, 2000), and therefore may benefit less from additionally high social responsibility goals than boys. In fact, the tendency for girls to be seen as more socially and emotionally competent was also reflected in the present study, in which teachers reported significantly better SEC for girls than for boys. This finding is consistent with previous school- and classroom-based research, indicating better learning- and classroom-related social-emotional skills, and less disruptiveness in the classroom for girls compared to boys (Maccoby, 1998; McClelland, Morrison, & Holmes, 2000). Last, it needs to be considered that for girls, an SEC dimension other than social responsibility goals, not measured in the present study, may be critical for academic success. Hence, future research needs to assess several dimensions of self-report SEC in order to explicate
the present finding. Overall, revealing a significant gender difference for the relationship between social responsibility goals and reading outcomes may be due to gender differences in observed socially competent behaviors, as well as girls’ tendency to report consistently higher social goals compared to boys. To my knowledge, there is no published research discerning gender-specific relations between SEC and academic outcomes at this stage, and more evidence is needed to replicate this finding, and to understand the roots for possible gender differences concerning social responsibility goals in relation to reading outcomes.

Students’ versus teachers’ perspectives of SEC. In contrast to the predictive pattern for student’s social responsibility goals, the significant role of teacher-rated social-emotional skills did not differ for boys and girls. This finding indicates that teachers’ views of students’ SEC seemed to be equally important for both genders when predicting changes in reading achievement. In accordance with previous research in the field, this finding indicates that teachers’ reports of students’ social-emotional skills, and behaviors in the school context are positively related to indicators of positive adjustment and achievement in the classroom (Gardner et al., 2008; Kersting et al., 2010; Merrell et al., 2011; Ryan et al., 2005, 2012). However, considering the different findings for the two indicators for SEC used in the present study, the question arises as to why social responsibility goals seemed to matter for boys but not girls, whereas teachers’ perspectives of students’ SEC seemed to be relevant for both genders when predicting reading outcomes.

To understand this finding, a closer look needs to be taken at the teacher-rated social-emotional skills measure, and the self-reported social responsibility goals measure
that were used in the present study. First, the teacher measure (see Hightower et al., 1986) captured four different domains of SEC (i.e., assertive social skills, frustration tolerance, peer interactions, task orientation). All four domains have been significantly and positively related to academic achievement on standardized tests in the past (Trickett, McBride-Chang, & Putman, 1994). Reporting on four different SEC domains, it can be reasoned that this measure reflects a broad range of social-emotional skills and behaviors observed by teachers in and outside the classroom setting that are relevant to positive learning processes and academic success in all students. In comparison, the self-reported social responsibility goals measure (Wentzel, 1993) only captured one SEC domain—namely the intention to act in socially responsible and compliant ways. Hence, the self-report measure reflects early adolescents’ perceptions of their own social goals and intentions, rather than observed behaviors in the school setting. It is possible that students’ goals and intentions to be socially responsible only partially translate into actual behaviors, and that social responsibility goals—a single indicator of SEC—are therefore an overall weaker predictor for change in reading outcomes than teacher-rated social-emotional skills which presents an aggregation of several indicators and reflects a range of social-emotional skills. This notion can be supported with the present findings, where social responsibility goals emerged as significantly related, but weaker in magnitude than teacher-rated social-emotional skills, when predicting change in reading outcomes.

Concluding, the two assessments of SEC in the present study captured critical perspectives (i.e., student, teacher) as well as different domains (i.e., goals/intentions, observed behaviors/skills) representing social and emotional development in early adolescents. Combing measures that assess students’ perspectives in addition to teachers’
perspectives is important because they reflect multiple critical voices when reporting relevant indicators for SEC in early adolescence. Furthermore, the multi-informant assessment used in the present study also provided an opportunity to reflect students’ intentions in addition to teachers’ observed actions reflecting students’ SEC, and to investigate how far they differ in relation to academic reading achievement.

Overall, the most critical finding when investigating SEC in relation to reading outcomes in the present study was that student’s social responsibility goals and teacher-ratings of students’ social-emotional skills both played an independently significant role in predicting increases in reading achievement. This finding is important for several reasons: First, it indicates that students’ intentions as well their actual behaviors in and outside the classroom need to be taken into account when understanding their academic achievement in reading. Second, this finding can inform the design and implementation of intervention programs. It suggests that programs need to be multifaceted, consider gender-differences in SEC and—among other goals—and be targeted towards early adolescents’ social goals and intentions. Furthermore, it suggests that programs also need to address behavioral aspects such as enhancing social behavior skills and dealing with stressful and frustrating situations in the school context (Cohen, 2001; Devaney, O’Brien, Resnik, Keister, & Weissberg, 2006; Elias, Zins, Gracyk, & Weissberg, 2003). Last, this finding lends support to the overall argument that competence in the social and emotional domain needs to be part of the scholastic curriculum and gain more visibility in research and practice, given that it is significantly related to positive academic development and success in school (Durlak et al, 2011; Greenberg et al., 2003; Jones et al., 2011; Taylor & Dymnicki, 2007).
**SEC and Math Achievement.** Similar to the investigation of reading outcomes, SEC in grade 6 played a significant role when predicting changes in math achievement between grades 4 and 7. Previous achievement scores on the math test in grade 4 played the most important role in grade 7 math achievement, explaining 38% of the variance in math scores. SEC contributed an additional 1% of explained variance in math scores to the model—a relatively small amount. Still, this finding is line with previous research (see Hawkins et al., 2008; Malecki & Elliott, 2002; Welsh et al., 2001) and makes a contribution to the relatively new field of linking social success to academic success.

Comparing the findings for SEC in relation to reading and math in the present study, there were some differences in the pattern of the findings when predicting changes in math achievement in comparison to achievement on the reading test. First, only teacher-ratings of students’ social-emotional skills emerged as a significant predictor when forecasting changes in math scores; social responsibility goals were not significantly related to changes in math achievement. Second, gender significantly predicted math achievement in grade 7, with boys scoring higher on the math test than girls; there were no interactions with gender when predicting math from SEC indicators. Both findings will be discussed in the order they are presented here.

Considering explanations for why teacher-ratings of students’ social-emotional skills, but not students’ social responsibility goals significantly predicted math achievement, the nature of the two SEC measures used in this study needs to be discussed. As mentioned above, the social responsibility goals measure used in the present study (see Wentzel, 1991) captured self-reported intentions and goals for social responsibility in the classroom community, such as helping others, being respectful and quiet when
others are studying, and keeping promises. This measure therefore reflected students’
goals rather than actual social behaviors. In comparison, the teacher-rated social-
emotional skills measure (see Hightower et al., 1986) captured teacher’s views about
each student’s overall SEC in and outside the classroom setting, based on a range of
teachers’ observations. Teachers’ reports therefore reflected a wider span of students’
SEC, based on early adolescents’ actual behaviors rather than goals. It is conceivable that
the wide range of teachers’ observations formed a stronger indicator for SEC than
students’ perceived social intentions and goals (Merrell et al., 2011; Ryan et al., 2005).

Furthermore, it is possible that the teacher-rated social-emotional skills measure
captured skills that are more learning-related than the social responsibility goals measure.
Learning-related social-emotional skills are those that are especially conducive to
learning, such as interacting positively with peers, cooperating, acting responsibly in
group work, and staying on task (Cooper & Farran, 1991; McClelland et al., 2000).
Research conducted by McClelland and colleagues (2000) has indicated that learning-
related social-emotional skills in kindergarten are significantly and positively related to
academic outcomes in grade 2. The authors argue that learning-related social-emotional
skills may be a particularly important subgroup of social-emotional skills for academic
growth across the developmental span. Based on this argumentation, it is possible that
learning-related social-emotional skills are more important when predicting math
achievement than intentions and goals about social responsibility.

Moreover, the present study revealed overall gender differences in math
achievement, with boys performing significantly better than girls on average on the grade
7 standardized math test. This finding aligns with previous research, indicating small
differences in math achievement favoring boys with the onset of adolescence, typically found to emerge in the late elementary or early high-school years (Guiso, Monte, Sapienza, & Zingales, 2008; Hyde et al., 1990). Similar to the studies reported by Hyde and colleagues (1990) in their meta-analytic review, the size of the gender difference effect for math achievement was small to medium in the present study. It is also noteworthy to mention that in contrast to math achievement in grade 7, the gender differences for math achievement in grade 4 were only marginal in the present study, with the same trend toward favoring boys. Again, this finding is in line with previous research indicating that differences in math achievement seem to be less apparent in the earlier elementary school years and become larger throughout the later elementary and early high school years (Hyde et al., 1990). This developmental trend is thought to occur due to a continuous decline in girls’ competence-beliefs and values in math throughout elementary and high school compared to boys (Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002; Skaalvik & Skaalvik, 2004); this decline in turn has been argued to be a result of gender-role stereotypic socialization (Jacobs, 1991; Ruble & Martin, 1998). Supporting the argument that the achievement gap in math is related to gender differences in socialization, Guiso and colleagues (2008) found that gender differences in math are predominately found in countries in which gender-equality is relatively low, and that such differences tend to disappear with increases in gender-equality in cultures.

In conclusion, the present study provides further evidence for the importance of SEC in predicting academic achievement in the two domains of reading and math (Caprara, et al., 2000; DiPerna & Elliott, 2000; Durlak, et al., 2011; Elias & Haynes, 2008; Izard et al., 2001; Malecki & Elliott, 2002; Welsh et al., 2001). Specifically, they
indicate that both social goals as well as actual behaviors that indicate SEC need to be considered when examining academic success in reading and math. However, present findings suggest taking into account gender differences when exploring the relationship between SEC and academic achievement, and considering that relationships between SEC and achievement may differ across the range of academic domains. Thus, the present findings suggest that future research may benefit from investigating achievement in individual academic domains, rather than using GPA as an overall indicator of achievement. Furthermore, in accordance with previous recommendations (see National Research Council, 2012), the different relational pattern for social responsibility goals compared to teacher-rated social-emotional skills in predicting academic achievement suggests distinguishing among individual indicators of SEC, and taking into account multiple perspectives when assessing social-emotional skills to obtain a broader understanding of what particular SECs play a significant role in academic achievement.

Overall, the findings of the present study are critical because they inform both research and practice in the field of social and emotional learning in education. They add to the existing evidence about the interconnectedness of SEC and academic outcomes, and can potentially inform the educational practice of promoting SEC in the school setting. Specifically, by identifying important indicators of social success that predict academic achievement in early adolescence, the findings in the present study inform the development of potential intervention programs aimed to foster social goals and skills that may in turn enhance positive academic growth.

Limitations and Future Directions. A number of limitations need to be considered when interpreting the results of the present study. First, although the present
study predicted academic achievement longitudinally, self-reports and teachers’ reports of social-emotional skills were only provided at one time point—at the end of the school year in grade 6. As discussed by Welsh and colleagues (2001), studies investigating the relationship between social, emotional, and academic success should ideally obtain indicators of SEC and academic achievement at several points in the longitudinal data collection. Such designs have the advantage that they can test a circular model in which present SEC may predict future academic achievement and present academic achievement may also predict future SEC. Second, the present study was conducted with early adolescents from a range of socioeconomic backgrounds. More research is needed to understand whether the present findings replicate in specific sub-groups of the population, for instance affluent or socioeconomically disadvantaged early adolescents in particular, as well as specific ethnic groups. Furthermore, the study of SEC predicting academic success also needs to be conducted across several stages of development, ranging from kindergarten to the late high school years, to allow identifying trajectories in social, emotional, and academic development.

Future research needs to be conducted to further investigate gender differences in SEC related to academic achievement. The present study revealed that social responsibility goals significantly predicted future scores on a reading test for boys, but not for girls. Even though several possible reasons were discussed with regards to the methods used in the present study and overall gender differences in SEC (e.g., Brackett et al., 2004; Jaffee & Hyde, 2000; Rose & Asher, 1999), more research needs to be conducted in order to fully comprehend this finding. Last, the present study investigated SEC via self- and teacher-reported measures. In future research, it is important to also
include peer-reported indicators of SEC. Teachers’ perspectives of social behaviors in the classroom are limited to their observations, and it is likely that teachers only witness a small number of social interactions that occur among early adolescent students in schools (Ogden, 2003). Hence, peer-reports of early adolescents’ SEC can provide additional information about students’ social skills. In addition, future research needs to assess multiple self- and teacher-reported indicators of SEC to discern which indicators are particularly relevant for academic success.

Concluding, the findings from the present study provide an important contribution to the growing field of educational and developmental science that connects social, emotional, and academic growth. Specifically, the present findings provide empirical evidence that social and emotional development plays a significant role in predicting academic success, suggesting that advances in SEC may be a way to promote academic growth. These findings are important because they highlight the contention that the focus of schooling needs to remain on “the whole child” rather than exclusively on teaching academic subjects (DiPerna & Elliott, 2000; Elias & Haynes, 2008). Adding to the scientific evidence that views SEC and academic achievement as closely interrelated, the present study suggests that SEC needs to be a focus of early adolescent development in both research and practice, and that fostering and promoting social and emotional growth may be a crucial way to raise responsible and competent learners and citizens in society (Greenberg et al., 2003).
Chapter 5: General Discussion

The aim of this dissertation research was to examine the role of contextual assets and personal assets in relation to indicators of positive development and resilience in early adolescence. Specifically, to pursue this aim, three research studies were conducted to (a) identify the role of family, school, and neighbourhood support in social and emotional well-being and academic achievement, taking into account the role of early adolescents’ SES, (b) examine the role of school-wide perceptions of school and neighbourhood support as contextual characteristics in relation to early adolescents’ satisfaction with life, and (c) identify whether self- and teacher-reported indicators of SEC can predict early adolescents’ academic achievement in a short-term longitudinal context. In the following paragraphs, I will begin by briefly highlighting the rationale for the present research, and identifying the main research questions asked in each of the three studies conducted. Following, I will discuss the main contributions of each study to the present state of research in the field, and confer to what extent the findings from the three studies inform and build on each other. Furthermore, I will discuss the practical relevance of the present research in the context of education. Last, strengths and limitations of the present research are considered, and future directions for research are suggested.

Identifying the factors that help young people to develop positively and finding ways to promote developmental trajectories that guide youths towards well-being and competence has been a major interest of parents, educators, and policy makers in the past decade. Although research on PYD, resilience, and the underlying mechanisms that promote positive development and adjustment in children and youth has grown in the
past decade, a number of gaps and limitations still exist in the current literature. For instance, the majority of research has been based on relatively small sample sizes, often focusing on specific sub-groups (e.g., high-risk adolescents, focus on specific ethnic groups) rather than the whole population (e.g., Luthar, 1991, 2003a; Scales et al., 2006). Furthermore, most research has failed to combine the two theoretical approaches of PYD and resilience together in one study; hence, researchers have not yet distinguished between support factors that promote all young adolescents’ positive development, and protective factors that enhance positive outcomes specifically in young adolescents exposed to certain risk factors in life (Kia-Keating et al., 2011). In addition, relatively little research has been dedicated to understanding positive development during the period of early adolescence—a time during which developmental trajectories are formed and many opportunities and challenges emerge due to developmental changes (Dishion et al., 2004; Roeser et al., 2000; Stroud et al., 2009). Finally, little research has viewed early adolescent development holistically and emphasized the role of supportive relationships across the developmental contexts in which young people learn and grow.

Drawing from self-reports, teacher reports, standardized achievement test scores, and demographic information, the present research was designed to address these limitations. The research studies reported in this dissertation expand research on social and emotional well-being, adjustment, and competence in early adolescence. Specifically, Study 1 investigated early adolescents’ assets across the contexts of SES, and family, school, and neighbourhood support in relation to positive development indicators of their social and emotional well-being and academic achievement. It was assumed that all assets would be positively related to social and emotional well-being and academic
achievement. Assets were ranked regarding their relative importance for positive developmental outcomes, exploring the hierarchy of importance of family, school, and neighbourhood support. Furthermore, the promotive and protective potential of the individual assets were investigated by exploring interactions between SES and each of the contextual support factors, seeking to identify both mechanisms of PYD and resilience.

The main goal of Study 2 was to expand on Study 1 by investigating the role of school-wide school connectedness and neighbourhood support in relation to early adolescents’ satisfaction with life. It was hypothesized that being part of a school characterized by high connectedness levels and a neighbourhood characterized by high support levels would be positively related to early adolescents’ life satisfaction, over and above individual perceptions of connectedness and support. Finally, the aim of Study 3 was to expand on Studies 1 and 2 by taking into consideration competencies in the social and emotional domain as a personal asset, and connecting them to academic success longitudinally. Including both self- and teacher-reported indicators of SEC and linking them to scores on a standardized academic reading and math test in Study 3, it was hypothesized that earlier SEC would significantly predict later academic achievement.

Theoretically, the present research was embedded in the PYD and resilience frameworks in recognition of recent research and theory that posits that positive development in early adolescence can only be fully understood when identifying the strength and support factors that relate to positive growth (Larsen, 2000; Lerner et al, 2010; Masten & Gewirtz, 2006). In contrast to the traditional risk-centered perspective of youth development, the present series of studies were situated in current theory and
research that highlight the potential for positive development in all young adolescents, and the importance of identifying personal and contextual characteristics that contribute to continuous positive growth (Kia-Keating et al., 2011; Luthar, 2006; Masten, 2001; Stormshak et al., 2011; Theokas & Lerner, 2006).

**Predicting Positive Development and Adjustment in Early Adolescence**

**The importance of feeling supported by adults.** The main finding in Study 1 was that, as hypothesized, early adolescents’ reports of their adult support in the family, in school, and in their neighbourhood were positively related to their social and emotional well-being. In alignment with previous literature, this finding highlights the paramount role of positive relationships and connectedness with supportive adults across multiple developmental contexts in early adolescence (Battistich, 2005; Jose et al., 2012; McLaughlin & Clarke, 2010; Murray & Greenberg, 2000; Scales et al., 2006; Smith, 2006). Further analysis examining the importance of each of the support contexts separately revealed that supportive adults in the school ranked as most important in predicting early adolescent social and emotional well-being, followed by support in the family, and neighbourhood support. Furthermore, Study 1 also revealed that school support was particularly relevant for early adolescents from disadvantaged socioeconomic backgrounds, indicating its protective qualities.

Several arguments can be made to reason for the importance of supportive relationships with adults outside the family during early adolescence. For instance, as social circles begin to widen, adults in the school and neighbourhood can become an important part of the attachment network in early adolescence (Masten & Motti-Stefanidi, 2009; Reddy et al., 2003). Given the amount of time young people spend in the school
setting, schools especially provide a context in which close non-familial relationships can be developed with teachers and other staff members, identifying a potential niche of support (McLaughlin & Clarke, 2010). Though all early adolescents benefit from positive and supportive relationships with teachers or community members, such connections can be especially valuable for young people who lack support at home. Especially during the transition from childhood to adolescence, when multiple cognitive, social, behavioral, and biological changes are taking place, supportive adults are necessary for opportunity-driven guidance and stability (Eccles, 1999; Roth & Brooks-Gunn, 2003; Rueger, Malecki, & Demaray, 2010).

When considering socioeconomic influences in interaction with support, another important finding in Study 1 was that students from high SES families but with low perceived family support reported the lowest levels of social and emotional well-being. This finding reflects Luthar’s (2003b) notion of the psychological costs of material wealth and the culture of affluence, suggesting that without the presence of supportive adults in the family, affluent early adolescents may do less well than their socioeconomically less advantaged peers when it comes to social and emotional well-being. Specifically, the research conducted by Luthar and Becker (2002) provided empirical support for significantly higher levels of depression among affluent grade 7 students compared to national norms for their age-group. Furthermore, their research revealed that no adult-supervision after school, lack of feeling closeness to the own mother, and perceiving high levels of academic pressure were among the main predictors for more internalizing problems and higher levels of substance abuse among affluent
early adolescents, suggesting that connectedness with a supportive adult at home may be key for well-being—even in the face of economic advantage.

Overall, the findings of Study 1 are in accordance with the theoretical notion that positive relationships with adults in young people’s lives are a basic need for feeling connected to and having a sense of belonging in developmental niches (Baumeister & Leary, 1995), and that such connectedness is key for early adolescents’ self confidence, happiness, and health (Holder & Coleman, 2009; Libbey, 2004). In contrast to the findings for social and emotional well-being as an indicator of positive development, the hypotheses in Study 1 suggesting that the presence of support in family, school, and neighbourhood would also be positively related to achievement in math and reading were only partially supported. Family support was the only support variable that was significantly related to reading and math achievement. No protective factors could be revealed for academic achievement among low SES early adolescents. Instead, the main positive predictor for academic achievement on the standardized math and reading tests was SES in this study, followed by age. Gender was a significant predictor for reading achievement, with girls scoring higher than boys on average. Revealing the important role of family SES in academic achievement is in line with previous research suggesting that among other reasons, families with more financial resources can provide a more stimulating educational environment for children from early on, setting them on a pathway of advantage regarding academic development (Sirin, 2005). However, the overall large amount of unexplained variance in the predictive model for achievement in reading and math (6% variance explained for math, 4.5% for reading) also indicated that
key factors that relate to academic achievement in early adolescence were missing in the present study.

The lack of positive relationships of school support and neighbourhood support to academic achievement is not in accord with theory and research in PYD and resilience (Garmezy, 1993; Gutman & Midgley, 2000; Gutman et al., 2002; Luthar, 2006; Sanders, 1998). One possible reason for this lack of alignment with the literature is that most previous studies have been conducted with a focus on specific sub populations—such as predominately African-American students (e.g., Gutman et al., 2002), and students living in poverty (e.g., Gutman & Midgley, 2000) – whereas the demographic characteristics of the population of grade 4 students in Study 1 was comprised of mostly Caucasian and East Asian students from middle class backgrounds. Furthermore, participants in Study 1 were attending 4th grade at the time of research, a very early stage in the transition to adolescence. It is possible that during this stage, family support is still the most foundational influence on academic achievement, and that the benefits of school and neighbourhood support for academic achievement emerge later in early adolescence.

Concluding, Study 1 provided evidence for the positive relationships of each family, school, and neighbourhood support with social and emotional well-being in early adolescence, and indicated that family and school support in particular may play a protective role if SES is low. As suggested by Kia-Keating and colleagues (2011), these findings reflect the connection between processes of PYD and resilience, and highlight the role of promotive and protective factors in development. Whereas Study 1 was focused solely on early adolescents’ self-reports of support in relation to individual outcomes, research conducted in Study 2 expanded these findings by taking into
consideration school-wide perceptions of support in schools and neighbourhoods in which young people develop. Hence, Study 2 addressed the influence of the context—as perceived on average by students in a given school—on early adolescents’ satisfaction with life, a core indicator of well-being (Diener, 2009).

The role of positive developmental contexts. In addition to individuals’ perceptions of peer, family, school, and neighbourhood support, Study 2 indicated that school and neighbourhood contexts in which all students collectively tend to feel connected and supported, play a significant role for students’ reports of well-being. Specifically, not only were students’ own perceptions of school support and neighbourhood support significantly and positively related to their satisfaction with life, but also whether they attended a school and resided in a neighbourhood in which students, on average, reported high levels of support and connectedness. This is an important finding that extends the research conducted in Study 1 by highlighting the substantial role of developmental contexts and their characteristics for promoting individuals’ positive outcomes. Furthermore, founded within a PYD framework, it has the potential to inform practical initiatives and programming that are aimed to create positive and supportive schools and neighbourhoods.

The positive relation between school-wide higher feelings of school connectedness among students and more life satisfaction at the level of the individual student aligns with previous research, suggesting the importance of a sense of community within schools and a positive school climate for individual student outcomes (Anderman & Freeman, 2004; Catalano et al., 2004; Goodenow, 1993; Sweetland & Hoy, 2000). In particular, research has indicated that students who attend schools in which the social
climate is perceived as supportive, respectful, and caring tend to feel more connected, achieve better academically, report higher self-esteem, are more engaged, and display less disruptive and violent behaviours (Blum, McNeely, & Rhinehart, 2002; McNeely et al., 2002; Ostermann, 2000; Wooley et al., 2008). Similarly, research that has examined the effects of neighbourhoods on developmental outcomes has indicated that more connectedness among neighbourhood residents—often described as neighbourhoods’ “bonding social capital” (Woolley et al., 2008, p. 135)—is related to a number of developmental outcomes in adolescence, including the tendency to experience school as important, the belief that one can succeed in school, fewer conduct problems, and more satisfaction with life (Ainsworth, 2002; Cartland, Ruch-Ross, & Henry, 2003; Furman, 1998; Seaton & Yip, 2009; Simons, Simons, Conger, & Brody, 2004; Woolley & Grohan-Kaylor, 2006).

The findings of Study 2 furthermore reflect the theoretical developmental systems perspective that views positive development as an individual ↔ context relational process including both person-characteristics as well as contextual factors in the social ecology (e.g., schools and neighbourhoods) when explaining PYD processes (Theokas & Lerner, 2006). Overall, it can be noted that school and neighbourhood contexts that are perceived as positive, supportive, and caring, and in which students feel connected and part of a community, play a critical role in students’ well-being. Connecting this finding with the findings of Study 1 offers an important insight into the relevance of both an individuals’ sense of support and connectedness in developmental settings, and the climate that emerges from collective perceptions of support and connectedness. Thus, linking the findings from both studies and considering them from a practical lens, it can
be concluded that schools and communities need to prioritize two types of support provided to young people: One being positive relationships and connectedness between young adolescents and adults outside the family, and the second one being the promotion of community characteristics that contribute to the creation of positive school and neighbourhood contexts reflecting an overall climate of support and connectedness.

**The importance of social and emotional skills for positive development.**

Expanding Studies 1 and 2 by the inclusion of personal competences as assets, the goal of Study 3 was to shed light on the role of early adolescents’ social and emotional skills in relation to the academic achievement in reading and math. The hypotheses were partially supported by the findings, indicating that SEC overall positively predicted academic achievement in early adolescence, using students’ social goals (intentions to be socially responsible and compliant in the classroom setting) and teachers’ ratings of students’ social-emotional skills as indicators of SEC. However, an interaction with gender was found when predicting reading achievement from students’ social goals, with a significantly positive relationship between social goals and reading achievement only emerging for boys, and not for girls. No interaction with gender was found when predicting reading achievement from teachers’ ratings of students’ social-emotional skills, and no interactions with gender were found when predicting academic achievement in math. When investigating achievement in math, social goals did not significantly predict academic achievement, and only teachers’ ratings of students social-emotional skills were predictive of math achievement.

The pattern of these findings needs to be understood considering previously established gender differences in SEC that may also play out in the way girls’ and boys’
SEC relates to academic outcomes. For example, girls have previously been found to rate higher on scales assessing socially competent behaviors and social understanding in comparison to boys (e.g., Bosacki & Astington, 1999; Brackett et al., 2004; Jaffee & Hyde, 2000). It is possible that the gender differences across a range of skills reflecting competencies in social and emotional domains also influence to what extend social responsibility goals in particular are significant in predicting academic achievement in reading. To understand why teacher-rated social-emotional skills but not social responsibility goals predicted math achievement, differences between students’ social goals versus their observed behaviours as indicators of SEC influence their academic achievement need to be considered. For instance, it is possible that students’ intentions to be socially responsible and compliant in the classroom context—a potential precursor of their actual behaviors and actions—is less connected to academic achievement than teachers’ views of student’s social-emotional skills, a direct and independent observation of students’ behaviors and functioning in the school context.

Study 3’s findings are in accordance with past research that has positively linked social and emotional skills to academic achievement in elementary and high school students (e.g., Bond et al., 2007; Caprara et al, 2000; Elias & Haynes, 2008; Hawkins et al., 2008; Jones et al., 2011; Shim et al., 2008; Welsh et al., 2001; Wentzel, 1991). In addition, the present research advances the field by indicating that different indicators of SEC—such as social goals versus behaviours reflecting social-emotional skills—may relate to academic achievement in different ways, a matter of interest that has not yet been investigated to my knowledge. Last, they suggest that there may not be one unitary
link between SEC and achievement, and instead relations may differ across academic domains, as well as for boys and girls.

Overall, Study 3 expands on the ecological context focus taken in Studies 1 and 2 by highlighting the role of social and emotional skills and competencies in predicting positive development in early adolescents. Hence, Study 3 links and expands on Studies 1 and 2 by informing PYD with a focus on academic competence as a developmental outcome, and by examining the role of SECs—foundational competencies necessary to form and maintain successful relationships (Steinberg & Sheffield Morris, 2001)—in positive development. Finally, the findings of Study 3 align with the theoretical PYD framework (see Chapter 1 for a detailed description of PYD theory and framework) in that they underline the substantial value of holding prosocial goals, and being able to engage in interactions in socially and emotionally skilled ways (Lerner et al., 2005; Scales & Leffert, 2004; Scales et al., 2004). Furthermore, the findings are of particular value because they inform both research and practice, and can be used to design programs, interventions, and approaches that foster or promote young people’s social and emotional development. Taking together, the research described and presented in Studies 1, 2, and 3 not only contributes to the extant theoretical and empirical research in the areas of PYD and resilience, the findings also have practical implications. Indeed, ranging from program design to educational decision-making, the present research informs action and application in the school and larger community context. The next section discusses the practical relevance of the present findings in different contexts, and considers how the present research can be translated to inform positive development initiatives in practice.
Practical Applications of the Findings

Approximately 20% of today’s Canadian youth are faced with social, emotional, and mental problems that threaten their potential to develop positively and establish themselves as healthy, successful, and contributing young adults in society (Canadian Pediatric Society, 2009). One important approach is to recognize the challenges and understand the risk factors for problems with social, emotional, and mental health, and school failure. However, a second crucial approach is for researchers and practitioners to understand factors that enhance positive development, and to be able to identify multiple resources and assets that can foster well-being and competence in young adolescents. Applying the findings of PYD and resilience research can thus inform the creation of educational environments and practices that are designed to guide young adolescents to their fullest potential.

In alignment with the PYD and resilience approach to research and practice, the findings of the present studies can be applied in several ways. For instance, highlighting the importance of a supportive school context and supportive and caring adults within that context emphasizes the importance of professional development of educators and staff members in the school system, to equip them with resources and skills to connect with and support young adolescents. Knowing that adults in the school context can make a significant difference in early adolescents’ lives and development, teachers and school staff need to understand their role in early adolescents’ lives, and receive the appropriate training to recognize and foster students’ strength, and support them in socially, emotionally, and academically stressful situations. Educators need to be taught skills that are necessary for creating caring, safe, and supportive classroom environments, and find
ways to establish a positive and strength-focused school climate (Greenberg et al., 2003). This matters for all early adolescents, but seems particularly relevant for those from low-SES backgrounds, as indicated by the research findings in Study 1 in which findings indicated that school support served as a protective factor for social and emotional well-being in young people from lower SES background.

Additionally, the present research underlines the significance of taking a contextual view on positive development by defining supportive resources across all contextual niches in which young people grow and learn—the family, peer group, school, and neighbourhood. This finding highlights the need for creating family-school-neighbourhood partnerships for guiding and raising the next generation of young adults in our society. Schools alone cannot be given all responsibility to promote well-being and competence in young people; instead, this needs to become a common goal of educators, parents, and community members, achieved through joint initiatives, programs, communication, and collaboration (Epstein, 2010).

The present research also indicates that social and emotional competencies—both in the form of goals as well as actual skills—are critical for successful academic development during the early adolescent years. This finding informs the design and implementation of education practices, approaches, and interventions, and suggests that teaching positive social goals and values, as well as social and emotional skills in the classroom and school setting needs to be one of the foci of schooling. Although parents, educators, and policy makers generally agree that the focus of schooling should be life skills as well as academic competence, the practical reality is that academic teaching stands in the forefront of educational curricula, and little room is given to social and
emotional skills development, due to a lack of financial and time resources (Durlak et al., 2011; Greenberg et al., 2003; Zins et al., 2007). Hence, the findings of the present research indicating that social and emotional competences, reported by both students and teachers, were significantly related to later academic success informs policy making and curriculum development, because it provides rationale to invest more time and resources into including competencies foundational to life success in educational teachings. The applicability on the present findings in practical settings is one of the main strengths of my presented work. In addition, a number of further strengths and limitations need to be considered to comprehensively view the academic and practical contribution of the present research.

Strengths and Limitations of the Present Research

The present research studies were designed to understand several aspects of positive development during the developmental period of early adolescence. This is a strength and limitation at the same time. Taking the emerging years of adolescence as a focal point in all three studies informs research on the transitional years from childhood to adolescence; an in-between time in development which has been understudied and deserves more attention in developmental science (Blume & Zembar, 2007; Eccles & Roeser, 2009). The early years in adolescence define the beginning of a developmental trajectory that takes young people through mid- and late adolescence into early adulthood (Stormshak et al., 2011). Thus, identifying individual skills, characteristics, and contextual support factors that foster positive development during this time is critical for informing approaches to promote thriving in young people. However, because the present
research only focused on early adolescent development, the findings are limited to this developmental span and cannot be generalized to other developmental periods.

A further limitation lies in the fact that none of the present studies were conducted as part of a controlled experiment, and that most of the research was cross-sectional (with the exception of Study 3 presented in Chapter 4, in which previous social and emotional competencies were related to later academic achievement). For this reason, causal inferences about the relationships among the predictors and outcomes of interest cannot be drawn. For instance we cannot conclude that higher family, school, and neighbourhood support is what leads to higher well-being given the correlational nature of the research, and thus the possibility of a reverse explanation.

In addition, one portion of the present research focused on contextual support (i.e., support in the school, family, and neighbourhood) in relation to indicators of early adolescents’ well-being. Here, it needs to be highlighted that both, well-being and indicators of contextual support, were assessed via self-report items answered by early adolescents; the single-informant approach limits the findings and conclusions about the role of support factors in ways that it reflects early adolescents’ perceptions of support, which may differ from the actual support offered or given to them.

A strength of the present research is that the three studies were based on large-scale data, and can therefore be considered representative for early adolescents in urban Western Canada. Study 1 was conducted as a population-based study, and represents the population of grade 4 students in Vancouver’s (BC, Canada) public schools. Studies 2 and 3 were based on data from a large-scale research study for which participants were selected via stratified sampling. All studies’ participants are representative of the
ethnically and socioeconomic diversity of Vancouver. However, even though this suggests generalizability of the findings to early adolescents in the Lower Mainland of Vancouver, findings cannot be generalized to early adolescents across the country in rural areas, areas with a different socioeconomic makeup, and areas with a different concentration of ethnic and cultural groups.

A further generalizability limitation concerns the findings about protective influences contributing to resilience in Study 1. The present research only considered median annual family income—averaged at the residential block-level and linked to study participants via postal code information—as an indicator for early adolescents’ relative socioeconomic (dis)advantage. This single indicator of risk does not allow for in-depth understanding of resilience, and it does not allow for identifying high-risk individuals. Furthermore, because it is a block-level indicator, a possibility remains that the average block-level SES and actual family SES living in a particular block differ. Readers therefore need to keep in mind the definition of resilience in the present study, and in other studies conducted in the field when attempting a comprehensive understanding of the positive adaptation in the presence of risk.

Taken together, one of the main strengths of the three research studies presented in Chapters 2, 3 and 4 is that they reflect research on a wide array of indicators signaling positive development in early adolescence. Indicators address multiple levels of early adolescent development, including personal characteristics (e.g., optimism, socioeconomic background) as well as skills (e.g., social and emotional competencies as reported by students and their teachers), academic success in two domains (math and reading), perceived support in school, family, and neighbourhood, and reports about own
well-being. This dissertation research therefore provides a multi-faceted and holistic picture on positive development during the transition to adolescence, and gives a wide impression on what matters for healthy growth in multiple domains.

**Future Directions**

Future research needs to be conducted longitudinally, accompanying research young people through several developmental stages. Only such research allows identifying trajectories over time, and drawing conclusions about the importance of different support factors in different developmental stages. Furthermore, it is important for future research to be conducted as multi-informant-designs to take into account different perspectives of the same phenomenon (e.g., family support perceived by young adolescents, as well as family member’s perceptions about support offered; SEC as reported by peers, and as reported by an independent observer in the classroom). In addition, future studies need to remain large-scale or population-based, and include young adolescents from rural school districts, and those from geographical areas with a concentration of ethnic and cultural groups different than in the present study. Through such designs, researchers can gain insight into the cultural specificity of the present findings.

The inclusion of additional risk-factors (e.g., parental education level, employment status, previous school failure) is necessary in future studies, in order to allow for more in-depth understanding of single and multiple risk factors, and the role of protective mechanisms in relation to positive outcomes. For instance, it would be interesting to investigate the protective role of school support for outcomes in youth with one, two, or multiple risk factors present in their lives. Considering that risk factors can
have different strengths, it would also be of interest to understand the role of support factors for high versus moderate risk factors (e.g., homeless youth and youth living in poverty versus socioeconomically disadvantaged youth) (see Yoshikawa, Aber, & Beardslee, 2012). Last, prospective research needs to consider including more data at the school level, and the neighbourhood level. Specifically, information about socioeconomic characteristics of a given school, available resources, and programs offered to foster positive development should be included in prospective studies, as well as socioeconomic neighbourhood characteristics, and what type of activities and programming neighbourhoods offer for young people. For example, it would be interesting to investigate how living in an affluent neighbourhood and going to a high SES school is related to developmental outcomes in socioeconomically disadvantaged youth.

Taken together, the present research predominantly focused on early adolescents’ perspectives, their perceived support from, and positive relationships with adults and peers in relation to self-reports of well-being, and achievement on academic tasks. This research—especially in the present large-scale format—is critical for understanding how youth are doing in our societies. Despite several limitations, the findings of the present study advance the fields of PYD and resilience from a contextual perspective, and build an important stepping stone for future studies in the field.
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Appendices Chapter 2

Appendix 2.A: Parent Information Letter Study 1
Appendix 2.B: Parent Consent Form Study 1
Appendix 2.C: Student Assent Form Study 1
Appendix 2.D: Teacher Administration Instructions Study 1
Appendix 2.E: Teacher Administration Manual Study 1
Appendix 2.F: MDI Survey Study 1
Appendix 2.A: Parent Information Letter Study 1

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“Understanding the World of Middle Childhood: The Middle Years Development Instrument Survey of Grade 4 Students”

Parent/Guardian Information Letter

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Date: November, 2009

Dear Parent/Guardian:

Please read the following form carefully. This letter contains information about a project in your child’s elementary school and in all elementary schools in the Vancouver School District (VSB). This project is administered by the Human Early Learning Partnership (HELP) at the University of British Columbia (UBC). We are writing this letter to tell parents and guardians more about the study.

Project Background and Purpose

Being successful in school and in life requires more than knowing the “A,B,Cs and 1,2,3s”, it also involves social and emotional well-being, good physical health, using time constructively, and being supported by families, schools, and communities. What are the ways in which we can help children experience success and feel supported during the elementary school years? What do children need to lead them on a positive path to becoming caring and capable citizens of tomorrow? What can children tell us about what they need to give them a sense of competence in their achievements and feel supported in their families, schools, and communities? The answers to these questions are not yet known for children during the elementary schools years in Canada. What we do know is that what happens during the middle childhood years—the ages between 9 and 12 years of age— is critical and has long lasting effects. This is a time period in which important changes occur across almost every sphere of life—
intellectual/cognitive changes, physical changes, and social and emotional changes. 
Middle childhood is also a time when children expand their contexts beyond the family 
to the school, neighbourhood, and larger community setting.

Canadian researchers, with the help of educators and community members, have 
developed a questionnaire called the Middle Years Development Instrument (also called 
the MDI) to help learn more about children’s development and well-being during the 
middle childhood years. For this study, teachers will administer the MDI to grade 4 
children attending elementary schools in the Vancouver School District. The specific 
purpose of our study is to understand how grade 4 children think and feel about their 
lives both in and outside of school. This study is one of the first of its kind taking place in 
Canada and is being undertaken by researchers at UBC, educators at the VSB, and 
individuals at United Way of the Lower Mainland (UWLM) who share an interest in 
developing a better understanding of child development and well-being during the 
middle childhood years. There is a clear need for more information about children 
during middle childhood – specifically, information is needed that is directly from the 
children themselves so that it reflects the perspectives of the children. The results 
from this study will help your child’s school, school district, and community to better 
understand what needs to be done in your community to make sure that all children 
experience success both inside and outside of school so that children can reach their 
fullest potential.

What data are collected?
The MDI asks children to answer questions about five areas of children’s development 
and well-being: 1) social and emotional development; 2) feelings of connectedness to 
school, family, friends, and communities; 3) school experiences, 4) physical health and 
well-being; and 5) time use during the after school hours. More specifically, the survey 
asks children questions about their classrooms and school, as well as their perceptions 
of their relationships with peers, parents/guardians, and other important adults such as 
neighbours. Children are then asked to provide information about their perceived 
physical health. In the final section of the survey, children are asked to provide 
information about how they spend their time out of school during a typical week. In this 
section we not only ask children to provide information about what they do after school 
but also what they wish they could be doing during after school time. Because there are 
four questions on the MDI that ask your child about problems that he/she may be having 
with classmates, we have inserted a form at the end of the survey that asks if your child 
would like to be contacted by his/her teacher or school counsellor for help. Your child 
will be asked to answer with a “yes” or “no” (if he/she answers with a “yes” he/she is 
asked to also print his/her name). This form will be removed from the survey by your 
child and handed separately to the teacher. If your child marks “yes” for help, the 
teacher will follow the procedures of the school on how to deal with problems with other 
students.

The school district will also let the researchers know your child’s Personal Education 
Number (PEN) (without your child’s name), which will be connected with MDI data and 
used to assist with approved research data linkages. Future data linkages will only 
include other data sets for research purposes, such as linking data with the Early 
Development Instrument, which collects information on kindergarten children.
Note that students’ PENs will not be connected to students’ names when the surveys are brought to UBC for data entry and analysis. The steps for obtaining PENs from the school district and separating PENs from students’ names will occur in the following manner. First, the school district contact will prepare a class list (including PENs) for participating grade 4 students so teachers can verify which students are participating in the MDI research study. Although children’s names are not included anywhere on the MDI, they are collected for class lists to help the teachers and, in turn, raise the level of data reporting accuracy. Second, the school district contact will provide class lists and PENs to teachers. The school district contact will instruct teachers to include their class list(s) and PENs with their completed surveys so the school district contact can shred class lists once surveys are collected. Third, class lists are used only within the district and are considered to be temporary data records which, by privacy law, are destroyed immediately after they have been used by teachers. HELP requests that the school district contact (i) collects class lists with completed surveys, and then (ii) shreds class lists once they are received. Upon receiving the completed MDI surveys from classroom teachers, the MDI researcher will remove PENs from the MDI and put the PENs in a file separate from the MDI surveys. Note that only the school district has the list that connects students’ names with their PENs.

**How is the MDI done?**

The survey will be completed by your child during school hours. The entire survey takes children approximately one class period (50 to 60 minutes) to complete. All questions will be read out loud by your child’s classroom teacher. Due to the language-based nature of the surveys, teachers will determine if children who are English learners or have difficulty understanding the questions will be able to participate in the study. Students will be able to ask for teacher assistance at their own discretion. Questionnaires will then be sent to UBC for data entry, secure storage, and analysis. Students’ names are not collected on the MDI. School district contacts will work directly with grade 4 teachers and the HELP project administrator to ensure safe handling of all student data.

It is important to note that we are not “testing” the children. **We simply want to know how children are feeling and doing as well as how children understand themselves and others.** Participation in the project is voluntary. As these surveys will be administered during class time, your child has the right to refuse or withdraw from the project at any point before, during, or after completion of the survey. Your child can also refuse to answer any question that he/she does not want to answer. If a child chooses not to participate, his/her classroom teacher will provide an alternate activity that is related to the regular school curriculum.

**What are the benefits of the MDI?**

This is the first survey of its kind in Canada that obtains comprehensive information on the lives of grade 4 children inside and outside of school, from the children themselves. What we do know is that listening to what children tell us and making their voices heard provides information that is critical for assisting school professionals, community leaders, and researchers who wish to learn more about children during middle childhood find ways to promote positive development for all children.
How are the data reported?
The MDI is a population health measure. Results are reported only at the level of the group (neighbourhood, school district or school). HELP will provide the Vancouver School District with reports of the MDI results for each individual school. To secure against the identification of any students, schools that have less than five grade 4 students will not receive results back from HELP. HELP researchers will also create and make public maps and provide written community summaries of the results. This information will be posted on HELP’s website (www.earlylearning.ubc.ca). As always, student identification information is not connected in any way to the research findings.

How will the Vancouver School District and your community benefit?
Receiving reports from HELP will benefit the Vancouver School District and Vancouver communities in a number of ways. For example, the research helps show where there are large neighbourhood differences in the number of children who are healthy and feel supported by schools and communities, where groups of children are doing well across communities, and how social and economic factors may affect children’s development. The information from this project can help schools, program planners, and community members become more aware of ways to create environments to help children in their community thrive.

How will the MDI data be used and stored?
Each student’s MDI information will be stored in a secure database. Personal identification data, such as PEN numbers, date of birth, and postal code are needed for data linkage purposes only. For confidentiality reasons this identification data is stored separately from the MDI data in a secure research environment. All MDI questionnaires are stored at HELP. Your child’s school does not keep a copy of the questionnaire and no information is added to your child’s school record. Because the results of the study are reported at the group-level only, your child’s own specific questionnaire information will never be made public in any way.

HELP will share MDI data with Population Data BC. The purpose of Population Data BC is to facilitate access to data for bona fide, public-interest research purposes, while at the same time ensuring protection of privacy and confidentiality of individuals. Access to data for research purposes under the Freedom of Information and Protection of Privacy Act (FIPPA) will be approved by HELP, the Data Steward, who is responsible for MDI data. Each research application will be assessed on its own merits and must be used consistently for the purposes for which the data was obtained or compiled pursuant to FIPPA section 34(1). Access to MDI data will be provided, upon request, to researchers for bona fide public-interest research purposes, while at the same time ensuring protection of privacy and confidentiality of individuals. Bona fide researchers who apply to use the MDI data for research or statistical purposes will be provided research data that is anonymized (to make your child’s personal information anonymous) to maintain the confidentiality promised in the consent. No PENs will be associated with what is provided. This de-identified data is referred to as a research abstract.

Why are data being linked?
The data may be combined with other data sources in order to learn more about the factors that impact children’s well-being and sense of competence. Other data sources
may include education and health information. The linked data can only be used for research or statistical purposes.

**What is involved in project participation?**
The Vancouver School District will arrange for your child’s grade 4 teacher to administer the MDI questionnaire to his/her grade 4 students. If you have any questions about the questionnaire, or to view the questionnaire, you may contact Gillian Corless via e-mail at gillian.corless@ubc.ca, or by phone at 604-822-1836. The teachers have been informed on how to administer the questionnaire.

Your taking part is voluntary and will not affect any services that your family receives from the Vancouver School District. You have the right to withdraw from the study at any time and you have the right to ask that your child not answer any of the questions. If you wish to remove your child's name from the participant list, please contact your child's teacher within 4 weeks upon receiving the letter. Also, we always respect a child’s wish whether or not he/she wants to participate. Your child has the right to refuse or withdraw from the study at any time, even after he/she completes the questionnaire. Refusing to participate or withdrawal will not affect your child's education in any way.

If at any time you have any concerns about your treatment or rights as a person who takes part in this project, you may contact the Research Subject Information Line in the UBC Office of Research Services at the University of British Columbia at (604) 822-8598. If you have any questions or concerns regarding this project, you may contact the principal investigator at the numbers provided above or by email at: kimberly.schonert-reichl@ubc.ca.

**Where can I get more information on the study?**
If you have any questions or concerns about this research project, please do not hesitate to contact either me (Kimberly A. Schonert-Reichl, 604-822-3420, e-mail: kimberly.schonert-reichl@ubc.ca) or Gillian Corless (604-822-1836, email: gillian.corless@ubc.ca).

Sincerely,

Kim Schonert-Reichl, Ph.D.  
Faculty of Education &  
Human Early Learning Partnership  
University of British Columbia  
Telephone: 604-822-3420  
Email: kimberly.schonert-reichl@ubc.ca
Appendix 2.B: Parent Consent Form Study 1

Dear Parent/Guardian:

We are writing to inform you that your child is invited to participate in a new and important research project. This research study is concerned with understanding the psychological and social worlds of children inside and outside of school during middle childhood (ages 9 to 12).

**Purpose of the project**
The purpose of our study is to understand how children during the middle childhood years think and feel about their lives both inside and outside of school. This study is one of the first of its kind taking place in Canada and is being undertaken by Canadian researchers and educators.

**What data are collected?**
The Middle Years Development Instrument (MDI) asks children to answer questions about five areas of children's development and well-being: 1) social and emotional development; 2) feelings of connectedness to school, family, friends, and communities; 3) school experiences, 4) physical health and well-being; and 5) time use during the after school hours.

**How is the MDI done?**
The survey will be completed by your child during school hours and the entire survey takes children approximately one class period (90 minutes) to complete. All questions will be read out loud by your child’s classroom teacher. The MDI information will be kept in a secure facility at UBC. Students’ names are never collected on the MDI.

**What are the benefits of the MDI?**
This is the first survey of its kind in Canada that obtains comprehensive information on the lives of grade 4 children inside and outside of school, from the children themselves. Listening to what children tell us and making their voices heard provides information that is critical for assisting school and community leaders, and researchers to find ways to promote positive development for all children.

**How are the data reported?**
Results are reported only at the level of the group (neighbourhood, school district or school). Student identification information is not connected in any way to the research findings.

**How will the Vancouver School District and your community benefit?**
The information from this project can help schools, program planners, and community members become more aware of ways to create environments to help children in their community thrive.
**How will the MDI data be used and stored?**
Each student's MDI information will be stored in a secure database. All MDI questionnaires are stored at the Human Early Learning Partnership (HELP). All information is collected, used and/or disclosed only for research purposes, in strict agreement with the British Columbia Freedom of Information and Protection of Privacy Act (FIPPA).

**Why are data being linked?**
The data may be combined with other data sources in order to learn more about the factors that impact children's well-being and sense of competence. Data linkage is only for research or statistical purposes.

**What is involved in project participation?**
The Vancouver School District will arrange for your child's grade 4 teacher to administer the MDI questionnaire to his/her grade 4 students. Your taking part is voluntary and will not affect any services that your family receives from the Vancouver School District. You have the right to withdraw from the study at any time and you have the right to ask that your child not answer any of the questions. If you wish to remove your child's name from the participant list, please contact your child's teacher within 4 weeks upon receiving the letter.

Your child has the right to refuse or withdraw from the study at any time, even after he/she completes the questionnaire. Refusing to participate or withdrawal will not affect your child's education in any way.

If you have any questions about the questionnaire, or to view the MDI questions, you may contact Gillian Corless via e-mail at gillian.corless@ubc.ca, or by phone at 604-822-1836.

If you have any questions or concerns regarding this project, you may contact the principal investigator at the numbers provided on the next page or by email at: 
kimberly.schonert-reichl@ubc.ca.

If you have any concerns about your child’s treatment as a research participant, you may contact the Research Subject Information Line at the UBC Office of Research Services at 604-822-8598.

Sincerely,

Kim Schonert-Reichl, Ph.D.  
Faculty of Education  
University of British Columbia  
Telephone: 604-822-3420  
Email: kimberly.schonert-reichl@ubc.ca
Appendix 2.C: Child Assent Form Study 1

THE UNIVERSITY OF BRITISH COLUMBIA
Student Verbal Assent Script
January, 2009

"Dear Participating Student,

Purpose of this Study
Today, researchers from the University of British Columbia (UBC) want to ask you to be a part of their research project on grade 4 students. The researchers need your help in understanding how grade 4 students think and feel about themselves and other things, like school and friends. The best way to find this out about kids your age is by asking kids just like you! All of the grade 4 students who go to elementary schools in the Vancouver School District are being invited to participate in this important research project. This means that there will be thousands of grade 4 students who will take part!

If you say yes to helping, then there is a survey for you to complete. The title of the survey is, "Understanding Our Lives: The Middle Years Development Instrument: Survey of Grade 4 Students." This survey will help the researchers learn more about how children your age feel and think. This information can then be used to help teachers, parents, community members, and others figure out ways to help grade 4 students experience success and feel good about themselves.

Survey Content
On the survey, you will be asked to answer questions that ask you about your feelings about yourself; your physical health; your relationships with other children, parents and other adults; and your school. The last part of the survey contains questions that ask you about what you do after school AND what you wish you could be doing after school. Also, your school will give us your Personal Education Number (PEN), which gives us educational information about you.

It is important that you know that THIS IS NOT A TEST and there are NO RIGHT OR WRONG ANSWERS. Your answers on this survey will not affect your marks. The researchers are only interested in your opinions and thoughts about different things in your life.

It is Voluntary
The survey is voluntary. That means that it is YOUR CHOICE whether or not you want to be a part of this research study. If you change your mind at any time during the study, you may stop filling in the survey and there will be no consequences (you will not get in trouble, there will be no punishment).

If you choose not to participate, it will not affect your marks. I [the teacher] will give you something else to work on related to our regular classroom curriculum.

Version 2  Page 1 of 2  9/24/09
It is Confidential
The information that you give on the survey is confidential – that means it will be kept PRIVATE! No one at our school or in our community—not even your parents/guardians, me, other teachers, or school administrators (like the principal)—will ever be able to see how you answered the questions. The researchers will keep your answers from the survey in a privately locked location at the University of British Columbia. No names will be used when the information is studied. This means that the INFORMATION YOU GIVE THE RESEARCHERS WILL BE KEPT PRIVATE.

Administration of the Survey
There is one survey you have to complete. During your class, I [the teacher] will read out loud each question from the survey. The survey will be placed in a sealed envelope so that all answers are confidential (private). This means that NO ONE will read your answers except for the researchers at UBC who work on this project.

Potential Risks
The researchers have told us that doing the survey will not be harmful to you— that is, there are no known risks of physical, emotional or mental harm to you. You may feel uncomfortable answering a question or two. It is okay to answer the best you can. Also, there will be four questions about problems you may be having with classmates. Remember, there are no right or wrong answers — the researchers are only interested in hearing about how YOU feel and how YOU think. At the end of the survey, make sure you check “yes” or “no” if you want help from your teacher or school counsellor because of problems you may be having with classmates.

Potential Benefits
It is important that you know that THIS IS THE FIRST SURVEY IN CANADA on grade 4 students that asks the children to tell us about how they feel and how they think about their lives inside and outside of schools. YOU ARE THE TEACHERS! The researchers hope that the results from these surveys — that come from listening to what the kids have to tell them — will provide information that is important for helping school and community leaders, and parents to find ways to help all children be the best they can be, and to be successful in school and in life.

Verbal Assent
If you do not want to participate in the project, raise your hand to tell me that you do not want to fill out the survey and you will be given something else to do related to our classroom curriculum.

Thank you for your help!"
Appendix 2.D: Teacher Administration Instructions Study 1

What is the Middle Years Development Instrument (MDI)?

- The MDI is a child self-report survey that helps you and us (the researchers) learn more about the well-being of grade 4 children both inside and outside of school from the perspective of the children themselves. It is designed from a strengths-based approach in order to provide information about the social, emotional, and physical health of children during the middle childhood years – the ages between 9 and 12 years. The MDI will provide critical data regarding the ways in which resiliency and well-being can be promoted so that all children can flourish and reach their highest potential.

What is your role in this MDI project?

- Your school administrator and administrators at the Vancouver School Board have agreed to take part in the MDI implementation project, and your assistance and expertise are needed to administer this survey to your grade 4 students. It is up to you whether or not you would like to participate in this project, and we sincerely appreciate your help in collecting this important information.

- We, the researchers, are here to support you through the administration process. If you choose to take part in this important project, we ask that you pay careful attention to all of the details regarding the steps that need to be followed for the administration of the MDI to your grade 4 students. Your efforts are critical in ensuring that the information we collect about grade 4 students in Vancouver is valid and reliable.

- You do not have to fill out the survey yourself; however, we ask that you read the survey out loud to your students. The MDI takes about 50 to 60 minutes to complete. You can choose when to administer the survey over the course of a week, over one or more sessions. We have provided you with a suggested break time at the midway point. You can choose to take more than one break and choose when to resume the survey during the week.

FOLLOWING ARE THE STEPS FOR ADMINISTERING THE MDI SURVEY

**STEP #1 — PREPARE FOR THE MDI ADMINISTRATION**

To be fully prepared to administer the survey, review the following steps:

- Receive the **survey materials**
  At least two or three days before the administration of the MDI survey, you should receive: 1) the surveys, 2) transmittal envelopes (envelopes used to return the surveys), 3) teacher administration manual, 4) note page, 5) student assent script for you to read out loud to your students, 6) a generated class list with labels,
THE UNIVERSITY OF BRITISH COLUMBIA

7) a teacher evaluation form, and 8) the teacher flyer.

• **Answer student questions**
  Students may have questions about their participation in the survey. Your school or district coordinator will have made preparations on how to answer these questions or provide referrals to other people or specific programs. Be sure you have been informed about these arrangements.

• **Choose times to administer the survey**
  The dates for administering the MDI survey to your children are January 4 to 15. During these two weeks, you can choose which week you would like to administer the survey. During your chosen week, you can administer the survey in two periods of 25 minutes each, or in three periods of 15 minutes each. It is important that children are fully alert and motivated when the MDI survey is administered to them.
  Therefore, please AVOID administering at times when your students might be distracted and have a difficult time paying attention (e.g., around a scheduled fire drill, the end of the school week, prior to a holiday).

**STEP #2 — SET UP ROOM ENVIRONMENT**

On the day of the survey:

**Materials Needed:**
1. List of parents/guardians who declined child’s participation
2. Class work or activities for students not participating

• Identify students who will participate.
• Identify those students whose parents have indicated that they do not want their child to participate.
• Provide class work or activities for students who will not be participating. They do not have to be removed from the classroom.
• Organize students’ seating arrangements so that participating students’ responses can not be observed by other students.

**STEP #3 — SURVEY ADMINISTRATION**

On the day of the survey:

**Materials Needed:**
1. Student Verbal Assent Form
2. Class List with Labels
3. MDI Surveys
4. Teacher Administration Manual
• Read introductory script to students – “Student Verbal Assent Form”
You will be provided with a script that assures that students know that there are no consequences for choosing to participate or not to participate, and that their parents already know about this project. The information collected from them on the MDI is confidential and will be kept private. Reassure them that no one in the school or their parents will see how they respond to any of the questions. Only the UBC researchers will have access to their information and that they too have no way of knowing who the students are.

• Distribute surveys
Place each unique identification number label on the front page of each survey. The unique identification number corresponds with students’ names provided on the class list sheet. Please make sure each survey distributed is given to the correct student. If you are administering the survey during more than one session, in order to insure privacy, we ask for you to provide each student with an envelope (note that we have included these in your package). After each session, ask that each student put his or her incomplete survey in the envelope, seal it, and put his/her name on the envelope. Collect these and keep in a secure location until the next session. When all of the surveys are completed by your students, please shred the class list. According to UBC Ethics Guidelines, the researchers cannot see the class list as it links student names to the MDI-ID, and the survey.

• Monitor students
To ensure privacy and confidentiality, and to help students feel that their answers will be kept private, we ask that you do not look at students’ responses on their surveys while you read the items out loud to them and the students complete the survey. However, do observe your students’ behaviours to ensure that disruptions do not occur or that students do not try to look at other students’ responses. Also, in order to insure that we have students’ own response, we ask that you not help children by prompting their responses.

• During administration
While administering the survey, please remain neutral while reading the instructions and questions to students (e.g., refrain from making jokes, additional comments, pointing out certain students).

• Administering the survey during more than one session
If the survey is administered during more than one time period, make sure that students close their surveys and place them in the individual envelopes provided for you, and have them write their MDI-ID unique number on the outside of their envelopes. You can then collect these and place them in a locked and secure location (e.g., desk drawer). At the next time period available, distribute the surveys to students according to the MDI-ID number on the envelope that corresponds with the class list to ensure students receive their correct survey.

STEP #4 — COLLECT SURVEYS

• At the end of survey administration
• Have students remove the Help for Students form at the end of the survey and collect separately.
• Have students close their surveys and place it in their transmittal envelope, and hand them in to you.
• Publicly seal the envelope in front of the students so they can see that you are keeping their surveys private.
• Thank the students for their participation.
• Please place all remaining surveys and labels (both used and not used) with all completed surveys to be given to your school administrator.

AFTER THE SESSION
• Go through the separated sheet (*Help for Students form*) to determine which students responded with a “Yes” for help and follow your school’s protocol for assisting students who have requested help for problems.

Suggested Action-Plan:
1) Notify school counselor(s) that students will be completing the MDI survey.
2) Identify students who marked “Yes” for help.
3) Communicate with the school counselor(s) and your principal of students who marked “Yes”, and utilize available school-based resources to address student(s)’ needs.

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**STEP #5 — TEACHER EVALUATION FORM**

**Materials Needed:**
1. Teacher Evaluation Form

• Please take a few minutes to complete the teacher evaluation form.

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**WHAT SHOULD I DO IF...**

• A student asks a question about any particular item that is confusing to him or her:
  ➔ Please do not provide your own interpretation to the student.
  ➔ Re-read the question, directing it to the individual student (e.g., “What would you say to me if I said—READ QUESTION—?”).
  ➔ Please write down any issues that arise on the “survey administration notes” sheet provided to you.

• There is a particular word that is confusing for your students:
  ➔ Help them with a dictionary definition.
  ➔ Please note any issues that arise.

• If a student must leave the room during the administration of the survey:
  ➔ Have the student “bookmark” his/her booklet where he/she stopped so the student may later return to the questions he/she missed.

• Turn in sealed transmittal envelopes and other materials to the MDI school coordinator (your school
Appendix 2.E: Teacher Administration Manual Study 1

MIDDLE YEARS DEVELOPMENT INSTRUMENT
2009/2010
Pilot of a District-Wide Implementation

Teacher Administration Manual

**TO BE READ PRIOR TO MDI SURVEY ADMINISTRATION**

A. Points to note:

- In addition to the questions on the student survey, this manual contains specific instructions for teachers in highlighted boxes. Instructions will appear like this:

  Step 3: Distribute Student Surveys

- Instructions that need to be read out to students will be preceded by a “READ OUT” prompt and followed by “Reading ends” at the end.

- For most of the survey, you will have to read out everything to the students (both questions and options). You will see the following prompt that indicates where this begins: **Continue reading each question and option starting here below**

- Words printed in light gray do not have to be read out but are here for your reference of what your students see on their surveys. A light gray statement will appear like this:

  PLEASE TELL US A LITTLE ABOUT YOURSELF

- If you do not plan to administer the entire survey in one session, please collect all the surveys and instruct students to place in a sealed envelope. Please store envelopes in a secure and locked place. Suggested breaks are included if you choose to administer the survey over more than one session.

B. IMPORTANT:

- Remind students that there are NO right or wrong answers and there is no consequence to their marks. They can choose to stop participating at any time before, during, or after filling in the survey. Also, remind students that NO ONE in their school or in their home will see their answers.

- Ask students to raise their hands and ask questions if they have any problems. It is important that they understand the questions and answers before they make a response.

- Emphasize that students must select only ONE answer unless otherwise specified.

- When there is a change in answer format (e.g., from checking one answer to potentially checking more than one; or if there is a follow-up question after a “Yes” option), please highlight those differences to the students.

- Remind students if they have chosen the “other” option, they should write down their description in the space provided.

- Ask students periodically if you are going too fast or too slow.

Ready to start?
Please proceed to the next page when you are ready to begin administering the survey.
Do not hand out anything to your students yet.
MDI TEACHER PREPARATORY WORK
(Approximately a 20 minute prep time for Steps 1 and 2 before administering the survey)

Step 1: Go through this checklist by yourself before handing out the survey

Do I have:
- Any students whose parent(s) opted him/her out of participating?
  - If so, do I have an activity for students who are not participating?
- Enough surveys for all of the students in the classroom who are participating?
- The class list that includes the unique identification number for each student?
- The Student Verbal Assent Form ready to read out loud to participating students?
- Enough pencils (#2 or softer) for every child?
- A note page to record any comments, questions, or situations you would like communicated to us?
- Envelopes for students to place their completed surveys?
- Information about what to do with the sealed envelope of completed surveys?

Step 2: Place labels on surveys
(Before handing out the survey)

Before handing out the survey, place the student label on each survey according to the unique identification number provided in the class list.

1. Retrieve the class list and labels provided in your teacher administration package.
2. Make sure the identification number on the label corresponds with the identification number next to the student’s name on the class list. (For example, Joe Smith = MDI-ID: 39123450901201)
3. Place the label on the front page of the survey, on the top, right corner where it states: [LABEL].
4. Please DO NOT add a label for students who are NOT participating. Instead, write the MDI-ID number of students not participating on the note sheet provided in your package.
5. When all of the surveys are completed by your students, please shred the class list. According to UBC Ethics Guidelines, the researchers cannot see the class list as it links student names to the MDI-ID, and the survey.

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Step 3: Inform students what they will be doing
(Just *before* handing out the survey)

**READ OUT**: Today we are going to do a survey to help find out more about how grade 4 students are thinking and feeling. We will begin by having you separate your desk from other desks (or create a barrier for privacy around your desk), clear off your desks, and get out a pencil.

Before we start to fill out the surveys, there are a few things you need to know:

- This survey will take between 50 to 60 minutes to complete, but we may do this over a few days.
- It is important that you answer **every** question.
- **No talking** is allowed while we do the survey so that you and your classmates can keep your answers private.
- Don’t worry about how anyone else answers their survey; just mark how **you** feel for each question. *(Reading ends)*

↓ Distribute Surveys Now ↓

Step 4: Hand out Surveys

**READ OUT**: Please do not open until I tell you to. It is important that we all start at the same time. *(Reading ends)*

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The steps that follow from here onwards will be found in the survey itself (modified for administrative purposes). You will continue to see the same prompts wherever instructions need to be read out.
Appendix 2.F: MDI Survey Study 1

MIDDLE YEARS DEVELOPMENT INSTRUMENT
Survey of Grade 4 Students

We would like to learn more about the lives of elementary school children in Canada. To do that, we would like to ask you some questions about how you think and feel about things in your life and about what you like to do.

This is NOT A TEST! There are NO RIGHT OR WRONG ANSWERS. Some people think or feel one thing and other people think or feel something else. We want to know what you think and how you feel. Your answers are VERY IMPORTANT and will help improve programs for children your age.

It is your choice to fill out the survey. If you choose not to participate at any time before, during, or after you complete the survey, you will not be punished or lose marks.

The information you put in this booklet will be CONFIDENTIAL (private) and will NOT be shared with your teacher, principal, parents, or your school friends.

Please answer each question the best you can.

Thank you for your help!
PLEASE TELL US A LITTLE BIT ABOUT YOURSELF

1. Are you a boy or a girl? (Circle One)  BOY  GIRL

2. What is your birth date?  __________  __________  __________
   Month  Day  Year

3. Which of these adults do you live with MOST OF THE TIME? (Check all adults you live with.)
   □ Mother  □ Grandmother  □ Second Father
   □ Father  □ Grandfather  □ Part time with each Parent
   □ Stepfather  □ Second Mother  □ Foster Parent(s) or Caregiver(s)
   □ Stepmother
   □ Other Adults (Write in the space below, for example, aunt, uncle, mom's boyfriend or girlfriend,
dad's boyfriend or girlfriend): __________________________

4. Do you have any brothers or sisters?
   □ NO
   □ YES  How many?  □ 1  □ 2  □ 3  □ 4  □ 5  □ 6  □ 7 or more

5. What is the first language you learned at home? (You can check more than one if you need to.)
   □ English  □ French  □ Mandarin
   □ Cantonese  □ Hindi  □ Punjabi
   □ Farsi  □ Japanese  □ Spanish
   □ Filipino/Tagalog  □ Korean  □ Vietnamese
   □ Other __________________________

6. Which language(s) do you speak at home? (You can check more than one if you need to.)
   □ English  □ French  □ Mandarin
   □ Cantonese  □ Hindi  □ Punjabi
   □ Farsi  □ Japanese  □ Spanish
   □ Filipino/Tagalog  □ Korean  □ Vietnamese
   □ Other __________________________

7. How difficult is it for you to read in English?
   □ Very HARD  □ Hard  □ Easy  □ Very EASY

PLEASE CHECK THAT YOU HAVE ANSWERED ALL QUESTIONS ON THIS PAGE BEFORE TURNING TO THE NEXT PAGE
INSTRUCTIONS

- Each question will be **read out loud**.
- If you do not understand a question, please raise your hand and **ask for help**.
- Make sure you **understand** the question and the answers **before** you answer.
- Only check **one answer** for each question.

Here are sample questions for practice. Give them a try!

These questions ask you how much you **AGREE** or **DISAGREE** with the statement.

<table>
<thead>
<tr>
<th></th>
<th>Disagree A Lot</th>
<th>Disagree A Little</th>
<th>Don’t Agree or Disagree</th>
<th>Agree A Little</th>
<th>Agree A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>I like to eat pizza.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>I like to eat carrots.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
</tbody>
</table>

**LET’S START NOW!**
Remember, there are NO right or wrong answers!

<table>
<thead>
<tr>
<th>How much is each statement like you?</th>
<th>Not at All Like Me</th>
<th>A Little Like Me</th>
<th>Kind of Like Me</th>
<th>A Lot Like Me</th>
<th>Always Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I feel sorry for other kids who don’t have the things that I have.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>2. When I see someone being treated mean it bothers me.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>3. I am a person who cares about the feelings of others.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>4. I have more good times than bad times.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>5. I believe more good things than bad things will happen to me.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>6. I start most days thinking I will have a good day.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How often do you feel like this?</th>
<th>Never</th>
<th>Hardly Ever</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. In general, I like being the way I am.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>8. Overall, I have a lot to be proud of.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>9. A lot of things about me are good.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
</tbody>
</table>

PLEASE CHECK THAT YOU HAVE ANSWERED ALL QUESTIONS ON THIS PAGE BEFORE TURNING TO THE NEXT PAGE
How much do you agree or disagree?

<table>
<thead>
<tr>
<th>Question</th>
<th>Disagree A Lot</th>
<th>Disagree A Little</th>
<th>Don’t Agree or Disagree</th>
<th>Agree A Little</th>
<th>Agree A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. In most ways my life is close to the way I would want it to be.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>11. The things in my life are excellent.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>12. I am happy with my life.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>13. So far I have gotten the important things I want in life.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>14. If I could live my life over, I would have it the same way.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
</tbody>
</table>

How much do you feel like this?

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Hardly Ever</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>15. I feel unhappy a lot of the time.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>16. I feel upset about things.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>17. I feel that I do things wrong a lot.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>18. I worry about what other kids might be saying about me.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>19. I worry a lot that other people might not like me.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
<tr>
<td>20. I worry about being teased.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
<td>□ 5</td>
</tr>
</tbody>
</table>

Since the start of this school year, how often did you do this?

<table>
<thead>
<tr>
<th>Question</th>
<th>Never</th>
<th>Once or Twice</th>
<th>A Few Times</th>
<th>Many Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>21. I cheered someone up who was feeling sad.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>22. I helped someone who was being picked on.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
<tr>
<td>23. I helped someone who was hurt.</td>
<td>□ 1</td>
<td>□ 2</td>
<td>□ 3</td>
<td>□ 4</td>
</tr>
</tbody>
</table>

24. Are there any adults who are IMPORTANT TO YOU at your SCHOOL?

☐ NO  ☐ YES

If YES, list all the adults who are IMPORTANT TO YOU at your SCHOOL. You can use just their initials, for example, H.R. for the school nurse or Miss H. for the Principal. You do not have to fill all six spaces.

1. __________________  3. __________________  5. __________________
2. __________________  4. __________________  6. __________________

PLEASE CHECK THAT YOU HAVE ANSWERED ALL QUESTIONS ON THIS PAGE BEFORE TURNING TO THE NEXT PAGE
Even if you did not write any names, please answer the following questions about your **SCHOOL**.

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at All True</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>At my <strong>school</strong>, there is a teacher or another adult …</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>25. … who really cares about me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>26. … who believes that I will be a success.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>27. … who listens to me when I have something to say.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please answer the following questions about your **NEIGHBOURHOOD/COMMUNITY**.

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at All True</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>In my <strong>neighbourhood/community</strong> (NOT from your school or family), there is an adult …</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>28. … who really cares about me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>29. … who believes that I will be a success.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>30. … who listens to me when I have something to say.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Think of your **NEIGHBOURHOOD/COMMUNITY** where you live.

**Which of the following activities and services are in your neighbourhood/community?**

| 31. Are there places in your neighbourhood/community that provide programs for kids your age, like sports (for example, swimming, soccer, hockey, art, dance, music classes, and other clubs and activities)? | ☐  | ☐  | ☐  | ☐  |

| 32. Are there safe places in your neighbourhood/community where you feel comfortable to hang out with friends, like playgrounds, parks, or community centers? | ☐  | ☐  | ☐  | ☐  |

The next few questions are about your **PARENTS** (or guardians). PARENTS can be biological parents, adoptive parents, stepparents, same-sex parents or foster parents.

Please answer the following questions about a **PARENT** or **OTHER ADULT** who lives in your home.

<table>
<thead>
<tr>
<th>In my <strong>home</strong>, there is a parent or another adult …</th>
<th>Not at All True</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>33. … who believes that I will be a success.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>34. … who listens to me when I have something to say.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>35. … who I can talk to about my problems.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**How often do you feel like this?**

<table>
<thead>
<tr>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>36. I care about what my parents (or guardians) think of me.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

PLEASE CHECK THAT YOU HAVE ANSWERED ALL QUESTIONS ON THIS PAGE BEFORE TURNING TO THE NEXT PAGE.
Please answer the following questions about you and your **FRIEND(S)** and **CLASSMATES**.

### How true is each statement for you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All True</th>
<th>Hardly Ever True</th>
<th>Sometimes True</th>
<th>Most of the Time True</th>
<th>Always True</th>
</tr>
</thead>
<tbody>
<tr>
<td>37. I feel part of a group of friends that do things together.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>38. I feel that I usually fit in with other kids around me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>39. When I am with other kids my age, I feel I belong.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40. I have at least one really good friend I can talk to when something is bothering me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41. I have a friend I can tell everything to.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42. There is somebody my age who really understands me.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How much is each statement like you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All Like Me</th>
<th>A Little Like Me</th>
<th>Kind of Like Me</th>
<th>A Lot Like Me</th>
<th>Always Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>43. I am certain I can learn the skills taught in school this year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>44. If I have enough time, I can do a good job on all my school work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45. Even if the work in school is hard, I can learn it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How much do you agree or disagree?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree A Lot</th>
<th>Disagree A Little</th>
<th>Don’t Agree or Disagree</th>
<th>Agree A Little</th>
<th>Agree A Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>46. Teachers and students treat each other with respect in this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>47. People care about each other in this school.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>48. Students in this school help each other, even if they are not friends.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### How true is each statement for you?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All True of Me</th>
<th>Somewhat True of Me</th>
<th>Very True of Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>49. I feel like I belong in this school.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50. I feel like I am important to this school.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51. When I grow up, I have goals and plans for the future.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
52. How important is it to you to do the following in school:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Not Important at All</th>
<th>Not Very Important</th>
<th>Somewhat Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Make friends?</td>
<td>□, □, □, □</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Get good grades?</td>
<td>□, □, □, □</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Learn new things?</td>
<td>□, □, □, □</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Important definition – **BULLY** – There are a lot of different ways to bully someone, but a bully has some advantage (stronger, more popular, or something else), wants to hurt the other person (it’s not an accident), and does so repeatedly and unfairly. Sometimes a group of students will bully another student.

The next four questions might make you feel uncomfortable, but it is important for us to know. Please answer the questions honestly.

53. Physical Bullying (for example, someone hit, shoved, or kicked you, spat at you, beat you up, or damaged or took your things without permission).
   □, □, □, □

54. Verbal Bullying (for example, someone called you names, teased, embarrassed, threatened you, or made you do things you didn’t want to do).
   □, □, □, □

55. Social Bullying (for example, someone left you out, excluded you, gossiped and spread rumors about you, or made you look foolish).
   □, □, □, □

56. Cyberbullying (for example, someone used the computer or text messages to exclude, threaten, embarrass you, or to hurt your feelings).
   □, □, □, □

57. Which answer is more like you?

<table>
<thead>
<tr>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
<th>Excellent</th>
</tr>
</thead>
</table>
   □, □, □, □

58. Do you have a physical or health condition that keeps you from doing some things other kids your age do?
(For example, school activities, sports, or getting together with friends.)

☐ NO
☐ YES, a physical disability (for example, deafness, cerebral palsy, wheelchair, or something else)
☐ YES, a long term illness (for example, diabetes, asthma, or something else)
☐ YES, overweight
☐ YES, something else (please specify) ____________________________

PLEASE CHECK THAT YOU HAVE ANSWERED ALL QUESTIONS ON THIS PAGE BEFORE TURNING TO THE NEXT PAGE
<table>
<thead>
<tr>
<th>Which answer is more like you?</th>
<th>Very Underweight</th>
<th>Slightly Underweight</th>
<th>About the Right Weight</th>
<th>Slightly Overweight</th>
<th>Very Overweight</th>
</tr>
</thead>
<tbody>
<tr>
<td>59. How do you rate your body weight?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often do you feel like this?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60. How often do you like the way you look?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often does this happen?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>61. How often do you eat breakfast?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. How often do your parents or other adult family members eat meals with you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63. How often do you eat food like pop, candy, potato chips, or something else?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>64. How often do you get a good night’s sleep?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What time do you do this?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65. What time do you usually go to bed during the weekdays?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
About My After School Time

66. On school days, who are you usually with for MOST of the afternoon (from AFTER SCHOOL to 6:00pm)? (Please check ALL the people you are with.)

☐ By Myself
☐ Friend(s) about my age
☐ Mother (or Step Mother, Foster Mother)
☐ Father (or Step Father, Foster Father)
☐ Younger Brothers/Sisters
☐ Older Brothers/Sisters
☐ Other Adult(s) (for example, grandparent, aunt or uncle, coach, babysitter)
☐ Other (Describe) ____________________________

67. How often do you go to these places after school until 6:00pm?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once or Twice a Week</th>
<th>Three or Four Times a Week</th>
<th>Every Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. I go home.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. I stay at school to participate in after school activities (for example, sports, tutoring, clubs).</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. I go to an after school program/daycare (in my school or someplace else).</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. I go to a friend’s house.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. I go to a park, playground, or community centre.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. I hang out at the mall or stores.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. I go someplace else, for example, a family member’s home, or other places.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Important definition – The following questions ask you about activities that are **ORGANIZED**. That is, the questions are about activities that are planned and supervised by a teacher, instructor, adult, coach, or volunteer. This section will also ask about individual sports and team sports.

- We would like to know what you did after school LAST WEEK. If last week was not a normal week, then think of a recent week that was a normal week. For example, if you stayed home from school, or went on a trip last week, then think of what you did two weeks ago.
- Please answer each question by first checking **YES** or **NO** if you participated in certain activities.
- If you check **NO**, go **DOWN** to the next question.
- If you check **YES**, go **ACROSS** and answer the amount of days.

### SAMPLE QUESTIONS
During last week AFTER SCHOOL (3:00pm to 6:00pm), did you:

<table>
<thead>
<tr>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YES, 1-2 days during the week</th>
<th>YES, 3-4 days during the week</th>
<th>YES, 5 days, every day of the week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

68. During last week **AFTER SCHOOL (3:00pm to 6:00pm)**, did you participate in:

<table>
<thead>
<tr>
<th>NO</th>
<th>YES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YES, 1-2 days during the week</th>
<th>YES, 3-4 days during the week</th>
<th>YES, 5 days, every day of the week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Educational lessons or activities (for example, tutoring, math, language school, or something else)?

b. Art or music lessons (for example, drawing, painting, playing a musical instrument, or something else)?

c. Youth organizations (for example, Scouts, Girl Guides, Boys and Girls Clubs, or something else)?

d. Individual sports with a coach or instructor (for example, swimming, dance, gymnastics, tennis, skating, or something else)?

e. Team sports with a coach or instructor (for example, basketball, hockey, soccer, football, or something else)?
**Important definition** – The following questions ask you about activities that are **NOT ORGANIZED**. That is, these questions are about activities that are NOT planned and usually NOT supervised by a teacher, instructor, adult, coach, or volunteer.

- Please answer each question like the above section, and if you check YES, go ACROSS and answer the amount of days **AND** the amount of time you participated in the activity.

**SAMPLE QUESTIONS**

During last week **AFTER SCHOOL** (3:00pm to 6:00pm), did you:

<table>
<thead>
<tr>
<th>NO</th>
<th>YES</th>
<th>YES, 1-2 days during the week</th>
<th>YES, 3-4 days during the week</th>
<th>YES, 5 days, every day of the week</th>
<th>ABOUT how much time did you usually spend doing the activity on one of those days?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Less than 30 minutes</td>
</tr>
<tr>
<td>Take a nap</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Talk to a friend on the phone</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

69. During last week **AFTER SCHOOL** (3:00pm to 6:00pm), did you:

<table>
<thead>
<tr>
<th>a. Do sports and/or exercise for fun (for example, shooting hoops, swimming, yoga, dancing, or something else)?</th>
<th>NO</th>
<th>YES</th>
<th>YES, 1-2 days during the week</th>
<th>YES, 3-4 days during the week</th>
<th>YES, 5 days, every day of the week</th>
<th>ABOUT how much time did you usually spend doing the activity on one of those days?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Less than 30 minutes</td>
</tr>
<tr>
<td>a. Do homework?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Watch TV (including watching videos or DVDs)?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Activity</td>
<td>NO</td>
<td>YES</td>
<td>YES, 1-2 days during the week</td>
<td>YES, 3-4 days during the week</td>
<td>YES, 5 days every day of the week</td>
<td>Less than 30 minutes</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>----</td>
<td>-----</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
<td>-----------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>d. Play video or computer games (for example, Game Boy, Play Station, Xbox, on-line computer games)?</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Instant Message (for example, MSN, e-mail, or something else)?</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Read for fun?</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Do household chores (for example, clean your room, wash the dishes, feed a pet, or something else)?</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Practice a musical instrument (for example, drums, clarinet, violin, or something else)?</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Do Arts &amp; Crafts (including painting, drawing, or something else)?</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Hang out with friends?</td>
<td>□</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
70. Sometimes, what people do does not exactly match what they WANT to do! Think about what you WISH you could do after school that you are NOT already doing from 3:00pm to 6:00pm. Are you already doing the activity you wish you could be doing?

☐ NO  ☐ YES

If NO, list ONE of the activities you wish you could do: ________________________________

If YES, what are you already doing that you wished for: ________________________________

71. Where would you like this activity to be?

☐ School  ☐ Park or Playground

☐ Community Centre  ☐ Other (Describe) ________________________________

☐ Home

72. What stops you from participating in the activities that you want to participate in after school? (Check all of the things that stop you.)

☐ I have to go straight home after school.

☐ It is too difficult to get there.

☐ The activity that I want is not offered.

☐ The schedule does not fit the times that I can attend.

☐ It’s not safe for me to go.

☐ I have too much homework to do.

☐ My parents do not approve.

☐ It costs too much.

☐ I need to take care of brothers or sisters or do other things at home.

☐ I am afraid I will not be good enough in that activity.

☐ I’m too busy.

☐ I don’t know what is available.

☐ None of my friends are interested or want to go.

☐ Other, please describe ________________________________

YOU ARE FINISHED WITH THE SURVEY! BEFORE YOU CLOSE YOUR BOOKLET, TURN TO THE NEXT PAGE AND READ THE INSTRUCTIONS.

THANK YOU FOR YOUR HELP!
IMPORTANT!

Some of the questions on this survey may have made you think of problems you are having with other students.

If you are having problems with other students at school, please know that you do not have to deal with it alone. You can get help.

You can talk to your parents or other family members. They may have some ideas that you have not yet thought of.

You can talk to any adult that you trust at the school such as a counsellor, a teacher or coach, a custodian, a youth worker, a bus driver, or a friend to help you go to an adult.

We want to help you.

- Please check one box only: YES or NO
- Print your name ONLY IF YOU CHECK OFF THE “YES” BOX – YOU WOULD LIKE HELP
- Remove this page from the survey and hand it to your teacher so that your answers on the survey stay PRIVATE

Do you want help with problems you are having with other students?

☐ NO, everything is ok
☐ YES, I would like help – Please print your name below

Print your name ONLY IF YOU PUT YES (write your first name and last name)

THANK YOU FOR COMPLETING THIS SURVEY!
Remove this page from your survey and hand it to your teacher.
Appendices Chapter 3

Appendix 3.A: Parent Consent Form Studies 2 & 3
Appendix 3.B: Student Assent Form Studies 2 & 3
Appendix 3.C: Experiences of Children Survey Studies 2 & 3
Appendix 3.A: Parent Consent Form Studies 2 & 3

THE UNIVERSITY OF BRITISH COLUMBIA

Parent Consent Form

January, 2006

Department of Educational and Counselling Psychology, and Special Education

Faculty of Education
2125 Main Mall
Vancouver, BC, Canada V6T 1Z4

Dear Parent/Guardian:

We are writing to request permission for your son/daughter to participate in an important new research project that we are conducting at his/her school. The project is entitled "What do kids do when they are not in School? The Experiences of Canadian Children During Out-of-School Time," and is taking place in several districts in the Lower Mainland.

Purpose
The purpose of our study is to find out how intermediate grade children spend their time outside of school. This study is the first step undertaken by Dr. Kim Schonert-Reichl with the support of the United Way of the Lower Mainland in order that Lower Mainland communities have information about how children spend their out of school time during middle childhood.

Study Procedures
There are two parts to the questionnaires. In the first part, students will be asked to report on how they spent their out of school time during a typical week and their level of satisfaction with their out of school time. This will be done in the classroom for five consecutive days and will take approximately ten minutes per day. Children will do this via a questionnaire which will be placed in a sealed envelope by the student so that all answers are confidential. In the second part of our questionnaires, children will be asked to provide information on their feelings about themselves, their classroom, and their relationships with peers, parents and other adults. Completion of these questionnaires will take approximately two class periods of 45-60 minutes each. In our project, we are not, in any sense “testing” the children. We simply want to know where children are during out of school time and the nature of the activities in which they
engage during their out of school time as well as how children understand themselves and others. In addition, information relating to school attendance, and school achievement (marks) will be collected from students’ school records and from the BC Ministry of Education (Foundation Skills Assessment). Teachers will also be asked to complete a checklist assessing various dimensions of each child’s social, emotional, academic and physical well-being. We have found that children genuinely enjoy these questionnaires, and are eager and happy to participate in helping us better understand Canadian children. As these questionnaires will be administered during class time, any child who does not have permission to participate will work on an activity that is related to their regular program in the classroom.

Confidentiality
All of your child’s answers on all questionnaires will be completely confidential and will not be available to teachers, parents, or other school personnel. No specific child will be referred to by name or identified in any way in the report of the results. Children’s names will be removed from any questionnaires and be replaced with a code number. All information will be kept in a locked file cabinet in Dr. Schonert-Reichl’s research office at UBC.

Contact
If you have any questions about this research project, please do not hesitate to call us at 604-822-2215 or e-mail me at: kimberly.schonert-reichl@ubc.ca. You can also contact Denise Buote at 604-671-1441 or e-mail her at dbuote@shaw.ca. If you have any concerns about your child’s treatment as a research participant, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598. Participation in this study is entirely voluntary and you or your child may refuse to participate or withdraw from the study at any time, even after signing this consent form. Refusing to participate or withdrawal will not jeopardize your child’s standing at his/her school in any way.

Please keep a copy of this consent form for your own records.

Sincerely,

Kim Schonert-Reichl, Ph.D.
Principal Investigator
Associate Professor
University of British Columbia
Department of Educational and Counselling Psychology, and Special Education
Faculty of Education, 2125 Main Mall Vancouver, B.C. V6T 2E8
Phone: 604-822-2215      Fax: 604-822-3302
Email: kimberly.schonert-reichl@ubc.ca

Denise Buote, Doctoral Candidate
Project Coordinator
Phone: (604) 671-1441,
E-mail: dbuote@shaw.ca
PARENT CONSENT FORM: STUDENT PARTICIPATION

Study Title:
“What do kids do when they are not in school? The experiences of Canadian children During out-of-school time”

Principal Investigator:
Kimberly A. Schonert-Reichl, Ph.D.
University of British Columbia
Department of Educational and Counselling Psychology, and Special Education
Phone: (604) 822-2215, e-mail: kimberly.schonert-reichl@ubc.ca

(KEEP THIS PORTION FOR YOUR RECORDS)
PARENT CONSENT FORM: STUDENT PARTICIPATION

I have read and understand the attached letter regarding the study entitled “What do kids do when they are not in school? The Experiences of Canadian Children During Out-of-School Time.” I have also kept copies of both the letter describing the study and this permission slip.

☐ Yes, my son/daughter has my permission to participate.
☐ No, my son/daughter does not have my permission to participate.

Parent’s Signature____________________________________________________________

Son or Daughter’s Name _______________________________________________________

Date ________________________________________________________________

(DETACH HERE AND RETURN TO SCHOOL)
PARENT CONSENT FORM: STUDENT PARTICIPATION

I have read and understand the attached letter regarding the study entitled “What do kids do when they are not in School? The Experiences of Canadian Children During Out-of-School Time.” I have also kept copies of both the letter describing the study and this permission slip.

☐ Yes, my son/daughter has my permission to participate.
☐ No, my son/daughter does not have my permission to participate.

Parent’s Signature____________________________________________________________

Son’s or Daughter’s Name _____________________________________________________

Date ________________________________________________________________
Appendix 3.B: Student Assent Form Studies 2 & 3

THE UNIVERSITY OF BRITISH COLUMBIA

Student Assent Form

October, 2006

Department of Educational and Counselling Psychology, and Special Education

Faculty of Education
2126 Main Mall
Vancouver, B.C., V6T 1Z4

Dear Participating Student,

The purpose of this form is to give you the information you need in order to decide whether or not you want to be in our research study entitled “What Do Kids Do When They Are Not In School? The Experiences of Children in Canada During Out-of-School Time.”

**Purpose**

The purpose of our study is to find out how intermediate grade children spend their time outside of school. This study is the first step undertaken by Dr. Kim Schonert-Reichl with the support of the United Way of the Lower Mainland in order that Lower Mainland communities have information about how children spend their out of school time during middle childhood.

**Study Procedures**

There are two parts to the questionnaires. In the first part, you will be asked to report on how you spend your out of school time during a typical week and how satisfied you are with your out of school time. This will be done in the classroom for five consecutive days and will take approximately ten minutes per day. You will do this via a questionnaire which will be placed in a sealed envelope so that all answers are confidential. In the second part of our questionnaires, you will be asked to provide information on your feelings about yourself, your classroom, your relationships with peers, parents and other adults. Completion of these questionnaires will take approximately one class period. THIS IS NOT A TEST. There are no right or wrong answers. We simply want to know where children are during out of school time and the nature of the activities in which they engage during their out of school time as well as how children understand themselves and others. In addition, information relating to school attendance, and school achievement (marks) will be collected from your school records and from the BC Ministry of Education (Foundation Skills Assessment). Teachers will also be asked to complete a checklist assessing various dimensions of your social, emotional, academic and physical well-being.

**Confidentiality**

Remember no one at school or in your community (not even your parents/guardians, teacher, or school principal) will ever see your answers (they will be confidential). We will keep your answers in locked cabinets at UBC. No names will be used when the information is studied. In this way, the information that you give us will be kept private. The only people who will see these materials are research assistants who have been trained in ways to protect confidentiality.

It is your choice whether or not you want to take part of this study. If you change your mind at any time during the study, you tell us that you don’t want to participate and there will be no consequences. If you choose not to participate, it will not affect your marks. We will be happy to answer any questions you have before signing or later. Please show that you have read this form by signing your name on the line below. If you want a copy of this form, please ask us.

Thank you for your help!

Date: ____________________________

Name (Please print): ____________________________

Signature: ____________________________

Version: March, 2006
Appendix 3.C: Experiences of Children Survey Studies 2 & 3

School: _______________________
First Name: ___________________
Last Name: ___________________
Grade: _______________________

What Do Kids Do When They Are Not in School?
The Experiences of Children in Canada During Out-of-School Time
2006
Part One

Thank you for helping us learn more about what kids in Canada do when they are not in school. By taking part in our research project you will help us better understand what children in Canada do during their out of school time.

REMEMBER -- this is not a test. THERE ARE NO RIGHT OR WRONG ANSWERS, WE ARE ONLY INTERESTED IN YOUR OPINIONS, SO PLEASE ANSWER HONESTLY. The information you put in this booklet will not be shared with your teacher, principal, parents, or your school friends. The researchers will be the only people to collect your booklets. When we get back to the university, we will take off the page that has your name on it and we will give you an ID number. In this way, no one will see your name with your answers. The information will then be used by the researcher to find out how children in Canada spend their out of-school time.

Remember that NO ONE at school or in the community (not even your parents) besides the researchers will ever see your answers.

Therefore, feel free to give answers that truly reflect your own feelings, situations, and understanding.

Thank you for your help and co-operation!
TELL US ABOUT YOURSELF

1. Are you a boy or a girl? (CIRCLE ONE)  BOY  GIRL

2. What grade are you in? (CIRCLE ONE)  4  5  6  7

3. What is your birthdate?  ________ (Month)  ________ (Day)  ________ (Year you were born)

4. Which of these adults do you live with MOST OF THE TIME? (Check all the adults you live with).
   □ Mother  □ Grandmother  □ 1/2 Mom, 1/2 Dad
   □ Father  □ Grandfather  □ Foster Parent(s)
   □ Stepmother  □ Other adults (EXPLAIN, for example, aunt, uncle, mom's boyfriend)

5. Do you live in (Check where you live)?
   □ House  □ Apartment  □ Basement Suite  □ Townhouse  □ Condo  □ Duplex
   □ Other (Describe)  ____________________________________________________________

6. How long have you lived there?  __________________________________________________

7. Do you have any brother(s) in your family? (Include stepbrothers)
   □ No  □ Yes  If yes, how old are they?  __________________________________________

8. Do you have any sister(s) in your family? (Include stepsisters)
   □ No  □ Yes  If yes, how old are they?  __________________________________________

9. What is the first language you learned at home?
   □ English  □ Chinese  □ Punjabi  □ Vietnamese  □ Spanish  □ Other
   __________________________________________________________

10. Which language(s) do you speak at home?
    □ English  □ Chinese  □ Punjabi  □ Vietnamese  □ Spanish  □ Other
    __________________________________________________________

11. Which language do you prefer to speak?
    □ English  □ Chinese  □ Punjabi  □ Vietnamese  □ Spanish  □ Other
    __________________________________________________________

12. Does your mom (or female caregiver) work outside the home?
    □ Yes  □ No  □ This does not apply to me
    If yes, is it:  □ part-time or  □ full-time?

13. Does your dad (or male caregiver) work outside the home?
    □ Yes  □ No  □ This does not apply to me
    If yes, is it:  □ part-time or  □ full-time?
THOUGHTS AND FEELINGS QUESTIONNAIRE

The following sentences describe ways children might feel about others. For each sentence, indicate how well it describes you by circling the number that describes HOW TRUE it is for you. Read each question carefully. Thank You!

<table>
<thead>
<tr>
<th>Thoughts and Feelings</th>
<th>Not at All Like Me</th>
<th>A little Bit Like Me</th>
<th>Kind of Like Me</th>
<th>A Lot Like Me</th>
<th>Always Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I often feel sorry for people who don't have the things I have.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. It's easy for me to understand why other people do the things they do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Sometimes I feel very sorry for other people when they are having problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. When I see someone being picked on, I feel kind of sorry for them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Sometimes I try to understand my friends better by imagining how they think about things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Even when I’m mad at someone, I try to understand how they feel.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I often feel sorry for other children who are sad or in trouble.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I try to understand how other kids feel before I decide what to say to them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. When I see someone being treated mean, it bothers me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Even when I know I’m right, I listen to what other people think.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I often have strong feelings about things that happen around me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. Before I say anything bad about anyone, I try to imagine how I would feel if I were that person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I am a person who cares about the feelings of others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. There are different ways to think about a problem and I try to look at all of them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE

299
### MORE ABOUT ME

For each sentence, indicate how well it describes you by circling the number that describes HOW TRUE it is for you. **Read each question carefully.** Thank You!!

<table>
<thead>
<tr>
<th>More About Me</th>
<th>Not at All Like Me</th>
<th>A Little Bit Like Me</th>
<th>Kinda Like Me</th>
<th>A Pretty Good Like Me</th>
<th>Always Like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have more bad times than good times.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I am proud for defending what I believe in.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. There is at least one adult I can talk to about my problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I make friends easily.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. If I don’t like something about someone else, I try to say it in a nice way so they don’t get hurt.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Even little things make me upset.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. More good things than bad things will happen to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. When there is a lot to think about or do, I can break it into smaller pieces and handle one thing at a time until everything gets done.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I trust adults.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I like being around friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I apologize when I accidentally hurt someone’s feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I keep making the same mistake over and over again.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I start most days thinking I will have a bad day.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I try to look at a situation in different ways to understand it from different points of view.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. There are adults I look up to and admire.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I have fun with my friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. I like to help people with their problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. I get impatient when I have to wait for something.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. Even if there are bad things, I’m able to see the good things about me and my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. If the way that I am doing something isn’t working I try to think of different ways to do it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21. Adults usually ignore me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
<table>
<thead>
<tr>
<th>More About Me...</th>
<th>Not at all like Me</th>
<th>A little bit like Me</th>
<th>Kind of like Me</th>
<th>A lot like Me</th>
<th>Always like Me</th>
</tr>
</thead>
<tbody>
<tr>
<td>22. I have a friend I can trust.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. I stick to what I want and don’t pay attention to others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. I make decisions before I have a chance to think about the consequences.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. I’m bored by most things in life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. I am just as important as anyone else.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. I show extra respect to authority figures.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. I have many friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. People say that I understand them very well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30. I stay calm even when there is an emergency.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31. I think that things will get worse in the future.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32. I have adults other than my parents whose advice I listen to and who are important to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>33. I am popular among friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>34. I am a good listener.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>35. I feel good about school life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>36. I am happy with the choices that I have made in my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>37. I discuss my problems with adults.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>38. I get along well with my friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>39. I try to speak from another person’s perspective.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>40. I think that I am a lucky person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>41. There are lots of things that I am good at.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>42. I listen to adults.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>43. When something bad happens to me, I think that it will last long.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>44. I will get good grades in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

**CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE**
HOW OFTEN DO YOU TRY TO...?

For each sentence, indicate how well it describes you by circling the number that describes HOW TRUE it is for you. Read each sentence carefully. Thank you.

<table>
<thead>
<tr>
<th>How Often Do You Try To...?</th>
<th>Never</th>
<th>Hardly Ever</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How often do you try to cheer someone up when something has gone wrong?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. How often do you to try to share what you’ve learned with your classmates?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. How often do you try to keep promises that you’ve made to other kids?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. How often do you try to keep secrets that other kids have told you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. How often do you try to do what your teacher asks you to?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. How often do you try to be nice to kids when something bad has happened to them?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. How often do you try to help other kids when they have a problem?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. How often do you try to help your classmates learn new things?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. How often do you think about how your behaviour will affect other kids?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. How often do you try to do the things you’ve told other kids you’d do?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. How often do you try to be quiet when others are trying to study?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. How often do you try to keep working even when you’re tired?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. How often do you try to keep working even when other kids are goofing off?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. How often do you try to help your classmates solve a problem once you’ve figured it out?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
THOUGHTS ABOUT ME

For each sentence, indicate how well it describes you by circling the number that describes HOW TRUE it is for you. Read each sentence carefully. Thank you.

<table>
<thead>
<tr>
<th>Thoughts About Me</th>
<th>Never</th>
<th>Hardly Ever</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am good at school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I enjoy doing work in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I do lots of important things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. In general, I like being the way I am.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I get good marks in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Overall, I have a lot to be proud of.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I learn things quickly in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I can do things as well as most other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. I am interested in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Other people think that I am a good person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I look forward to all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. A lot of things about me are good.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Work in all school subjects is easy for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I'm as good as most other people.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I like all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. When I do something, I do it well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

STOP CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE

303
DEVELOPMENTAL STUDIES CENTRE STUDENT QUESTIONNAIRE

We would like to know how much you agree or disagree with each of the following statements. Please answer each of the following questions by circling the number that shows how much you agree or disagree. Read each sentence carefully. Thank you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Disagree a Lot</th>
<th>Disagree a Little</th>
<th>Neither Agree nor Disagree</th>
<th>Agree a Little</th>
<th>Agree a Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People should work out their own problems by themselves.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I care about my family and my friends; other people can take care of themselves.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Problems in other parts of the world are not a concern of mine.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. When I hear about people who are sad or lonely, I want to do something to help.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Most people who ask for help are just being lazy.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. When I see someone having a problem, I want to help.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I should just take care of myself and let others take care of themselves.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Everybody has enough problems of their own without worrying about other people’s problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. A student has enough schoolwork to do without worrying about other students’ work.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. People should look after themselves and not try to solve other people’s problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

STOP! CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
Please show how many times you have done each of the following things since the start of the school year. Circle the number that shows your answer: 1 for Never, 2 for Once or Twice, 3 for A Few Times, and 4 for Many Times.

<table>
<thead>
<tr>
<th>Since the start of this school year</th>
<th>Never</th>
<th>Once or Twice</th>
<th>A Few Times</th>
<th>Many Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. I helped someone who was hurt</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>16. I cheered someone up who was feeling sad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>17. I helped someone who was being picked on..</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>18. I shared my lunch or snack with someone who didn’t have any</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>19. I got help for someone who was hurt</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>20. I stopped someone from hurting another student</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>21. I helped an older person.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>22. I stopped someone from hurting an animal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

When you help another student in your class, why do you usually do it?

<table>
<thead>
<tr>
<th>Not a Reason</th>
<th>A small Reason</th>
<th>A Big Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>23. Because I think it is good to help</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>24. So I will get help in return</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>25. Because I would feel bad if I didn’t</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>26. Because I want to get a reward or praise from the teacher</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>27. Because the teacher told me to help</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>28. Because I am concerned about the other person</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

STOP! CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
For the following saying, think about yourself and people your age when you answer. For each sentence, circle the number that describes HOW TRUE it is for you. Read each sentence carefully. Answer honestly. Thank you.

<table>
<thead>
<tr>
<th>Questions</th>
<th>Disagree a Lot</th>
<th>Disagree a Little</th>
<th>Don’t Agree or Disagree</th>
<th>Agree a Little</th>
<th>Agree a Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I’m having a problem, some other student will help me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Students at this school really care about each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Students at this school are willing to go out of their way to help someone.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Teachers and students treat each other with respect in this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. People care about each other in this school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Students at this school work together to solve problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Students in this school don’t seem to like each other: very well.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Students in this school are just looking out for themselves.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Students in this school treat each other with respect.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. My school is like a family.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. The students in this school don’t really care about each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I feel that I can talk to the teacher in this school about things that are bothering me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. Teachers and students in this school don’t seem to like each other.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Students in this school help each other, even if they are not friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
For each of the following statements, please circle the number that describes YOU the best. **Read each sentence carefully. Answer honestly.** Thank you.

<table>
<thead>
<tr>
<th>Question</th>
<th>Disagree a Lot</th>
<th>Disagree a Little</th>
<th>Don't Agree or Disagree</th>
<th>Agree a Little</th>
<th>Agree a Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In most ways my life is close to the way I would want it to be.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. The things in my life are excellent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I am happy with life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. So far I have gotten the important things I want in life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. If I could live my life over, I would have it the same way.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
**WHO AM I?**

For the following questions, think about yourself. For each sentence, circle the number that describes HOW TRUE it is for you. Read each sentence carefully. Thank you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Sometimes</th>
<th>Always</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you feel afraid a lot of the time?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>2. Do you worry about what other kids might be saying about you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>3. Are you afraid to try new things?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>4. Do you get a lot of aches and pains?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>5. Do you feel like throwing up a lot?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>6. Do you worry a lot that other people might not like you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>7. Would it be hard for you to ask kids you didn't know to join them in a game?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>8. Do you have a lot of scary dreams or nightmares?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>9. Do you get a lot of headaches?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>10. Do you get a lot of tummy aches?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>11. Do you think school is fun?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>12. Do you have kids to play with at school?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
</tbody>
</table>

**STOP** CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>A little</th>
<th>Sometimes</th>
<th>Always</th>
<th>Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. Do you worry about what other people think of you?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>14. Do you worry about being teased?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>15. Do you feel unhappy a lot of the time?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>16. Do you feel like crying a lot of the time?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>17. Do you feel upset about things?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>18. Do you have trouble paying attention in class?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>19. Do you feel that you do things wrong a lot?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don't Know</td>
</tr>
<tr>
<td>20. Do you feel that most things are not much fun?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>21. Do you feel sorry for yourself?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>22. Do you have trouble falling or staying asleep?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>23. Do you feel tired a lot of the time?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>24. Do you often feel like not eating even though it is meal time?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>25. Do you want to be by yourself a lot?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>26. Do you feel lonely?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
<tr>
<td>27. Do nice things happen to you at school?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>Don’t Know</td>
</tr>
</tbody>
</table>

**CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE**
WHOM IS AROUND?

For each of these statements, please indicate how many times you have

<table>
<thead>
<tr>
<th>Since the beginning of the school year, how many times have you...</th>
<th>Not at All</th>
<th>Once or Twice</th>
<th>About Once a Week</th>
<th>Twice or Three Days a Week</th>
<th>Four or more Days a Week</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Been home alone after school without an adult there.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Taken care of a sister or brother after school without an adult there.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Hung out with friends after school without an adult there.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

IMPORTANT ADULTS IN MY LIFE

**Part I:** Think about the adults at your school. List all the adults who are important to you at your school (You can use initials or names, for example H.R., Gym teacher, Principal, Miss H.)

1. ___________________________ 4. ___________________________
   2. ___________________________ 5. ___________________________
   3. ___________________________ 6. ___________________________
   7. ___________________________ 8. ___________________________
   9. ___________________________

Now, please answer the following questions thinking about your school.

<table>
<thead>
<tr>
<th>At my school, there is a teacher or another adult...</th>
<th>Not at all True</th>
<th>A little True</th>
<th>Pretty much True</th>
<th>Very much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Who really cares about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Who tells me when I do a good job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Who notices when I am not there.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Who always wants me to do my best.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Who listens to me when I have something to say.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Who believes that I will be a success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

STOP CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
Part II: Think about the adults in your neighbourhood. (Note: Neighbourhood is the place where you and the people around you live.) List all the adults who are important to you in your neighbourhood (You can use initials or names; for example H.R., coach, Miss H.)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Now, please answer the following questions thinking about your neighbourhood or community (adults not at the school or in your home).

<table>
<thead>
<tr>
<th>In my neighbourhood (NOT from your school or family), there is an adult...</th>
<th>Not at all True</th>
<th>A little True</th>
<th>Pretty much True</th>
<th>Very much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Who knows your name.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Who really cares about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Who tells me when I do a good job.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Who notices when I am upset about something.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Who believes that I will be a success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Who always wants me to do my best.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Whom I trust.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Part III: Now, please answer the following questions thinking about your home.

<table>
<thead>
<tr>
<th>In my home, there is a parent/caregiver or another adult...</th>
<th>Not at all True</th>
<th>A little True</th>
<th>Pretty much True</th>
<th>Very much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Who expects me to follow the rules.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Who is interested in my schoolwork.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Who believes that I will be a success.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Who talks with me about my problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Who always wants me to do my best.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Who listens to me when I have something to say.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Part IV: Me and my parents/caregivers

<table>
<thead>
<tr>
<th>Please answer the following questions.</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have a happy home life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. My parents/caregivers trust me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. What my parents/caregivers think of me is important.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. My parents/caregivers encourage me to do well in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

STOP CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE

311
MY FUTURE

For each of the following statements, please circle the answer that describes YOU the best. Read each sentence carefully. Thank you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All True</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have goals and plans for the future.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I plan to graduate from high school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I plan to go to college or some other school after high school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I feel I have important things to do in the future in my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

MY FRIENDS

For each of the following statements, please circle the number that describes YOU the best. Read each sentence carefully. Answer honestly. Thank you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All True</th>
<th>A Little True</th>
<th>Pretty Much True</th>
<th>Very Much True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have a friend about my age who really cares about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I have a friend about my age who talks with me about my problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. I have a friend about my age who helps me when I am having a hard time.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. My friends get into a lot of trouble.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. My friends try to do what is right.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. My friends do well in school.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE

312
### MY PARENTS

Now we would like to ask you about you and YOUR PARENT(S) or Guardian(s). Tell us how true these statements are for you by circling the number that best describes you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not at All True</th>
<th>Somewhat True</th>
<th>Very True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My parent(s) wants me to follow their directions even if I disagree with their reasons.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. I have to ask my parent(s)’ permission to do most things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. My parent(s) get upset if I disagree with them when their friends are around.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. My parent(s) are very strict.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. My parent(s) worry that I am doing things they will not like.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. I take part in family decisions that concern me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. My parent(s) encourage me to give my ideas and opinions even if we might disagree.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

These questions are about what a parent or other adult knows about the things you do.

<table>
<thead>
<tr>
<th>How much does a parent or another adult in your home know about...</th>
<th>Doesn’t Know at All</th>
<th>Knows a Little Bit</th>
<th>Knows a Lot</th>
<th>Knows Everything</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Who you spend time with?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. How you spend your free time?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. How you spend your money?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Where you go right after school?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Where you go throughout the day on the weekend?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. The problems you are having at school?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How much does a parent or another adult in your home know about...</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
<th>A parent or adult is staying with you</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. When you leave your home to go somewhere, do you tell a parent or other adult where you are going?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. If a parent or other adult isn’t home and you leave the house, do you leave a note or call to say where you are going?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. When you are home without a parent or other adult, do you know how to get in touch with them?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

STOP CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
MY NEIGHBOURHOOD

The following questions are about where you live. Think of your neighborhood where you live...

<table>
<thead>
<tr>
<th>Which of the following activities and services are in your neighborhood?</th>
<th>YES</th>
<th>NO</th>
<th>DON'T KNOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are there organizations in your neighborhood providing programs for youth, like sports programs, art classes, or hobby clubs?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. Are there safe places in your neighborhood to hang out with friends, like parks or community centres?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. Are there organizations in your neighborhood where you could go for advice or help if you had a problem?</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

WHAT I DO ON THE COMPUTER...

For each of these statements, please indicate how much you do this activity on the computer at home.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Entertainment games just for fun.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Educational games (for example, games that help you learn for school).</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Typing a letter, story, report, etc.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. E-mail.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Visiting chat rooms sites.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Chatting (for example, MSN, yahoo, etc.)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Using web sites on the internet.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
MY PHYSICAL WELL-BEING

For each of the following statements, please circle the answer that describes YOU the best. Read each sentence carefully. Answer honestly. Thank you.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How do you rate you body?</td>
<td>□ Very Underweight  □ Slightly Underweight  □ About the Right Weight  □ Slightly Overweight  □ Very Overweight</td>
</tr>
<tr>
<td>2. Have other kids at school ever teased you about what your body looks like?</td>
<td>□ Yes    □ No</td>
</tr>
<tr>
<td>3. How many days each week do you exercise, dance, or play sports?</td>
<td>□ 0 Days  □ 1 Day  □ 2 Days  □ 3 Days  □ 4 Days  □ 5 Days  □ 6 or 7 Days</td>
</tr>
</tbody>
</table>

MY FRIEND...

A FRIEND is someone who you like and who you feel close to. Please answer the following questions:

1. Do you have a friend similar to your age?  □ Yes    □ No

2. If yes, does your friend go to your school?  □ Yes    □ No

3. How often do you see this friend?
   a. □ Everyday
   b. □ Four to Five Times a Week
   c. □ Two to Three Times a Week
   d. □ Once a Week
   e. □ Once a Month
   f. □ Never

About This Survey...

<table>
<thead>
<tr>
<th>How much did you enjoy completing this survey?</th>
<th>Not at All</th>
<th>A Little</th>
<th>Somewhat</th>
<th>Quite a Bit</th>
<th>All of the Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

THANK YOU FOR HELPING US WITH OUR RESEARCH STUDY!!!

CHECK TO MAKE SURE YOU ONLY HAVE ONE NUMBER CIRCLED PER LINE
Appendices Chapter 4

Appendix 4.A: Teacher Consent Form Study 3

Appendix 4.B: Teacher Survey Study 3
Appendix 4.A: Teacher Consent Form Study 3

February, 2006

Department of Educational and Counselling Psychology, and Special Education

Dear Participating Teacher:

Faculty of Education
2125 Main Mall
Vancouver, BC, Canada V6T 1Z4

We are writing to invite you to participate in an important research project that we are conducting at various schools in the Lower Mainland. The project is entitled "What do kids do when they are not in School? The Experiences of Canadian Children During Out-of-School Time."

Purpose: The purpose of our study is to find out how intermediate grade children spend their time outside of school. This study is the first step undertaken by Dr. Kim Schonert-Reichl with the support of the United Way of the Lower Mainland in order that Lower Mainland communities have information about how children spend their out of school time during middle childhood.

Study Procedures for Children: There are two parts of questionnaires for the children to complete. This first part is that children will be asked to complete a daily log (diary) each morning of the way they spent their out of school time the previous day. This will take approximately fifteen minutes each day. Students will be asked to do this for five consecutive days. The second part of the study for the children will be to complete a series of questionnaires designed to assess various aspects of children's social, emotional, academic and physical well-being. Completion of these questionnaires will be done as a class and take approximately one hour and fifteen minutes. In our project, we are not, in any sense "testing" the children. We simply want to know where children are during out of school time and the nature of the activities in which they engage during their out of school time, and how this relates to their social, emotional, academic and physical well-being. In addition, information related to school achievement (marks) and school attendance will be collected from student records and from the BC Ministry of Education (Foundation Skills Assessment). We have found that young children genuinely enjoy these questionnaires, and are eager and happy to participate in helping us better understand Canadian children.

Study Procedures for Teachers: Teachers will be asked to complete measures assessing various aspects of each participating child's social,
emotional, academic and physical well-being. In addition, teachers will be asked to provide students with fifteen minutes each morning for five consecutive mornings in order that students can fill out their daily diaries outlining how they spent their out of school time.

**Remuneration/Compensation:** Participating children will be provided with a small token (e.g., pen/pencil) of appreciation as a thank-you. In addition, each participating class will receive a pizza lunch at a time that is convenient for the classroom. Teachers who participate in this study will receive an honorarium of $100.00 for their participation in this project as well as a half-day TOC in order that they have time to complete the questionnaires on each participating student.

**Confidentiality:** All of the information provided on the questionnaires will be kept completely confidential and will not be available to the school personnel. No specific teacher or child will be referred to by name or identified in any way in the report of the results of this study. Names will be removed from questionnaires and replaced with ID numbers. Questionnaires will kept in a locked file cabinet in Dr. Schonert-Reichl's research office at UBC.

**Benefits:** The results of this study, which will be presented to interested parties, will assist the United Way of the Lower Mainland in their decision making around community support for school aged children in the Lower Mainland.

**Contact:** If you have any questions about this research project, please do not hesitate to call us at 604-822-2215 or e-mail me at: kimberly.schonert-reichl@ubc.ca. You can also contact Denise Buote at 604-671-1441 or e-mail her at: dbuote@shaw.ca. If you have any concerns about your treatment as a research participant, you may contact the Research Subject Information Line in the UBC Office of Research Services at 604-822-8598. Participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time, even after signing this consent form. Refusing to participate or withdrawal will not jeopardize your job or professional standing in any way.

Please keep a copy of this consent form for your own records.

---

*Version:* September 12, 2005
Sincerely,

Kim Schonert-Reichl, Ph.D.
Principal Investigator
Associate Professor
University of British Columbia
Phone: 604-822-2215
Fax: 604-822-3302

Denise Buote, Doctoral Candidate
Project Coordinator
University of British Columbia
Phone: (604) 671-1441

(KEEP THIS PORTION FOR YOUR RECORDS): TEACHER CONSENT FORM

I have read and understand the attached letter regarding the study entitled "What do kids do when they are not in School? The Experiences of Canadian Children During Out-of-School Time." I have also kept copies of both the letter describing the study and this permission slip.

☐ Yes, I will participate.
☐ No, I will not participate

Signature____________________________________
Please Print____________________________________
Date________________________________________

(DETACH HERE AND RETURN): TEACHER CONSENT FORM

I have read and understand the attached letter regarding the study entitled "What do kids do when they are not in School? The Experiences of Canadian Children During Out-of-School Time." I have also kept copies of both the letter describing the study and this permission slip.

☐ Yes, I will participate.
☐ No, I will not participate

Signature____________________________________
Please Print____________________________________
Date________________________________________
Appendix 4.B: Teacher Survey Study 3

Please rate this student on the following items by circling the number on the scale which best describes the student:

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Not a Problem</th>
<th>Mild Problem</th>
<th>Moderate Problem</th>
<th>Serious Problem</th>
<th>Very Serious Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disruptive in class</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Withdrawn</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Underachieving (not working up to ability)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Fidgety, difficult sitting still</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Shy, timid</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Poor work habits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Disturbs others while they are working</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Anxious, worried</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Poor concentration, limited attention span</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Constantly seeks attention</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Nervous, frightened, tense</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>Difficulty following directions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>Overly aggressive to peers (fights)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>Does not express feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>Poorly motivated to achieve</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>Defiant, obstinate, stubborn</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17</td>
<td>Unhappy, sad</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>Learning academic subjects</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Not at All</th>
<th>A little</th>
<th>Moderately Well</th>
<th>Well</th>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Accepts things not going his/her way</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Defends own views under group pressure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Completes work</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Has many friends</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Ignores teasing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Comfortable as a leader</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>Well organized</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>Is friendly towards peers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Accepts imposed limits</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>Participates in class discussions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>Functions well even with distractions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>Makes friends easily</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>Copes well with failure</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>Expresses ideas willingly</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>Works well without adult support</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16</td>
<td>Classmates want to sit near this student</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>#</td>
<td>Item</td>
<td>Not at All</td>
<td>A Little</td>
<td>Moderately Well</td>
<td>Well</td>
<td>Very Well</td>
</tr>
<tr>
<td>----</td>
<td>------------------------------------------</td>
<td>------------</td>
<td>----------</td>
<td>-----------------</td>
<td>------</td>
<td>-----------</td>
</tr>
<tr>
<td>17</td>
<td>Tolerates frustration</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18</td>
<td>Questions rules that seem unfair/unclear</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19</td>
<td>A self-starter</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20</td>
<td>Well-liked by classmates</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

### CHILDREN’S BODY IMAGE

Please rate this student on the following item by selecting the answer that best describes the student:

1 How do you rate this child’s body:  
(Check **ONE**)

- Very Underweight
- Slightly Underweight
- About the Right Weight
- Slightly Overweight
- Very Overweight

### CHILDREN’S BEHAVIOUR

For each item, please circle the number that corresponds to the single best response:

<table>
<thead>
<tr>
<th>#</th>
<th>Item</th>
<th>Never</th>
<th>Hardly Ever</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>This child finds it hard to make friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>This child gets anxious when he/she sees another child who is hurt or upset.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>This child usually comforts others who are upset or hurt.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>This child often feels sorry for others who are less fortunate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>This child usually acts appropriately.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>This child does not often become sad when reading or listening to a sad story.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7</td>
<td>This child feels sympathy for others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>This child is popular with others his/her age.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>This child often gets in trouble because of the things he/she does.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10</td>
<td>This child usually feels sorry for other children who are being teased.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11</td>
<td>This child has a lot of friends.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12</td>
<td>This child rarely feels sympathy for other children who are upset or sad.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13</td>
<td>This child is usually well-behaved.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14</td>
<td>This child gets upset when she/he sees another child being hurt.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15</td>
<td>Compared to other children this child’s age, this child has very good social skills.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>