

PROMOTING POSITIVE DEVELOPMENT IN MIDDLE CHILDHOOD:
THE INFLUENCE OF CHILD CHARACTERISTICS, PARENTS, SCHOOLS,
AND NEIGHBOURHOODS

by

KIMBERLY THOMSON

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Abstract

From a strengths-based approach, the current study explored how individual child characteristics and social resources within children's families, schools, and neighbourhoods singularly and collectively predicted five dimensions of resilience in middle childhood: optimism, self-efficacy, interpersonal sensitivity, and relationships with peers, and relationships with adults. Specifically, this study explored the relative influence of four child characteristics (depressive symptoms, anxiety symptoms, self-concept, positive behaviour), three parenting characteristics (parent support, parent knowledge, dinner with an adult family member), two school characteristics (school adult support, school connectedness), and two neighbourhood characteristics (neighbourhood adult support, neighbourhood safe places) on these dimensions of resilience. Based on the literature, it was hypothesized that individual assets (i.e., characteristics within the child) would explain children's resilience better than ecological assets (i.e., characteristics within the child's environment), but that multiple resources within children's social environments (particularly, supportive adults) would predict higher resilience. Data were collected from 1,250 children ages 9 to 13 (grades 4-7) attending 23 elementary schools in 7 school districts in British Columbia, Canada. All variables were obtained via child self-report with the exception of the positive behavior variable, which was obtained via teacher-report. Correlational and hierarchical regression analyses revealed, as expected, that child characteristics were stronger predictors of resilience than contextual factors, even after controlling for children's age, gender, ESL status, and lone parent status. However, practices within families, schools, and neighbourhoods continued to predict children's resilience even after accounting for child characteristics. Jointly, adult supportiveness at each level of context was also associated with greater resilience in children. This study concludes that during middle childhood, characteristics within the child (i.e.,

psychological well-being and self-concept) are important predictors of resilience, but children's social contexts, including their parents, schools, and neighbourhoods, influence their resilience as well. Suggestions for promoting resilience in middle childhood are presented.

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Introduction

The popular adage “It takes a village to raise a child” has been successful in invoking a sense of collective responsibility for the children in our communities. Nonetheless, the phrase does not explicitly describe what the general public should do to support children or exactly *who* is responsible. Often when such calls to action are made it is easy to ignore them, in part because people have not been equipped with the knowledge of how to participate, or may believe that their individual efforts will be ineffective. However vague, the idea of collective responsibility has at least encouraged us to think of child development in a broader context beyond the individual and his or her family. We now know that there are many influences in children’s lives that can enable them to thrive, or conversely, hinder their success (e.g., Benson, Leffert, Scales, & Blyth, 1998; Cook, Herman, Phillips, & Settersten Jr., 2002; Theokas & Lerner, 2006). The purpose of the current study was to investigate factors that promote children’s well-being within the multiple contexts of children’s lives and consequently to help explore how individual and ecological factors collectively predict children’s resiliency. Resilience typically refers to positive adaptation despite exposure to adversity (Luthar, 2006), though some consider resiliency more broadly as applying to low risk as well as high risk populations (Masten & Motti-Stefanidi, 2009). The current study adopts the latter definition, and herein defines resilience as positive adaptation at multiple levels of adversity.

This study was designed from two related theoretical frameworks, namely Bronfenbrenner’s (1979) ecological theory and Lerner’s (2006) developmental systems model. Bronfenbrenner, in his ecological systems model, proposed that there are multiple levels of systems that influence child development from proximal influences (personal interactions with immediate family, friends, school staff), mid-range influences (neighbourhood quality,

community services), and distal influences (culture, social class). Moreover, he contended that these levels are neither stable nor independent of each other; each level is a system that influences, and is influenced by, the child acting on his or her environment. For example in social relationships, a child will be influenced by a caregiver, but his or her own personality will influence how that caregiver behaves towards him or her. Furthermore, the components of each system change over time. The most immediate influences to an infant would be his or her caregivers, but as that child grows, friends and teachers may also be included in this close circle. Finally, Bronfenbrenner suggested that each of these levels is interconnected, in that each system exerts influence on the other. A diagram of Bronfenbrenner's ecological model can be found in Feldman, 2008, p. 24.

Since Bronfenbrenner (1979) developed this model thirty years ago, studying context when examining individual outcomes has become a common practice in developmental psychology (Belsky, 1980; Cicchetti & Lynch, 1993; Leventhal & Brooks-Gunn, 2000; Rimm-Kauffman & Pianta, 2000). Yet one area that has not been as thoroughly researched is how these multiple contexts affect *positive* human development (Lerner, 2006). Lerner argues that factors that are advantageous to development may vary from individual to individual, and that different combinations of factors in a person's environment (e.g., family, school) help to explain that variation. Lerner created the developmental systems model to explain the interconnectedness of these factors. In accord with Bronfenbrenner, Lerner rejected looking at development as a dichotomy between individual and environment, nature and nurture. Instead, Lerner proposed that "individual ↔ context" should be the unit of analysis when interpreting any human quality, as the effects of one cannot be distinguished from the other. Lerner further emphasized that all people have strengths and resources that they can utilize. Positive human development, he said,

could thus be achieved when the strengths of individuals and their contexts are aligned. For this reason he encouraged researchers to explore combinations of individual and ecological assets in order to identify the factors that promote healthy development because what may be advantageous to an individual at one time may not be advantageous again given a change of context.

One stage of life in which there are many opportunities to align individual and contextual strengths is the transition period between middle childhood and adolescence. Researchers have identified the ages of 9 to 13 as a period when a number of social and cognitive changes occur (Eccles & Roeser, 2009). Though later adolescence is often thought of as the time of change and turmoil (Arnett, 1999), it is during the emergent adolescent years that children develop the attitudes and skills that will carry them through this difficult period, and on through the rest of their lives (Collins, 1997). Erikson (1968) posited that the middle childhood years are a time of “industry versus inferiority,” and a critical period for ego development. More specifically, he believed that during the pre-pubescent years children develop a sense of themselves as competent or inferior, and therefore social feedback at this time is particularly significant. Another characteristic of this time period is that there are a greater number of factors that can influence a child than in early childhood. By the middle childhood years, children spend more time away from home, both in school in activities in the community (Schonert-Reichl, 2007). Consequently, there are more people in children’s lives during the middle years that can support or discourage their self-attributions (e.g., peers, teachers, coaches) and secondly, there are more activities to participate in that could enhance or detract from their sense of themselves. As such, middle childhood may be the optimal time to provide competence-building opportunities and supports.

Literature Review

Framed within the contexts of resiliency and positive youth development research, the current study examined the relationships between contextual and individual factors that contribute to children's resilience during middle childhood. The literature review begins with an overview of resilience research from its origins to present day. Next, an explanation of how the positive youth development movement has expanded on this work to create a framework that is specific to young people's resilience is presented. Following this overview, specific "assets" or factors that contribute positively to children's development are identified, considering the factors both from within the child and from the child's social context (family, school, and neighbourhood). Finally, models of how these factors combine to promote resilience in middle childhood are discussed.

Adaptive Development in Childhood and Adolescence

Overview of resilience. Resilience research began in the 1960's and 1970's when clinicians began to observe that some children grew up to be healthy, well-adjusted adults despite being exposed to extreme stress during childhood (i.e., experiencing traumatic events or growing up in a family where psychopathology was present; Garmezy, 1974; Anthony, 1974; Rutter, 1979). The first studies of resilience strived to identify personality characteristics that made certain individuals invulnerable to adversity (Anthony, 1974; Rutter, 1979). Since then, subsequent studies have suggested that resilience is a result of the combination of mutually influential individual attributes and systemic processes (e.g., Garmezy, Masten, & Tellegen, 1984; Luthar, 1991; Rutter, 1987; Masten, 2001; Werner & Smith, 1982, 1992). These studies and others since then have revealed three core concepts about resilience as it is understood today. First, resilience is not a quality that comes from within children; it is influenced by external

factors including children's families and relationships outside the family (Rutter, 1987; Werner & Smith, 1992; Masten, 2001). Second, resilience is not one-dimensional or stable. Children can be resilient in one domain and not another, and these outcomes can change over time (Luthar, 2006; Pianta & Walsh, 1998). Finally, resilience is not rare or extraordinary. Regular processes during children's development (e.g., cognitive, social development) are enough to promote resilience in all individuals (Masten, 2001). This section briefly summarizes this growth in the field of resilience.

As abovementioned, resiliency research began as the study of favourable inconsistencies among children from "high-risk" backgrounds (e.g., Garmezy, Masten, & Tellegen, 1984; Luthar, 1991). Therefore factors that have previously been identified as advantageous to children have predominantly come from studies of adversity. Resilience is often associated with "risk-factors" that increase the likelihood that adversity will be experienced, and "protective-factors" that reduce the impact of, or exposure to adversity (Rutter, 1993). "Promotive-factors," conversely, are resources that promote well-being regardless of the experience of adversity (Masten & Motti-Stefanidi, 2009; Wright & Masten, 2005). It is these promotive factors that are of primary interest in the current study. Many of the same factors considered to be protective (e.g., the presence of a caring adult) also can be promotive, depending on their role. Masten (2009) compared promotive factors to a child's immune system - this system is constantly operating to keep the child healthy, regardless of whether he or she has been exposed to harmful agents. Only after exposure to a foreign body (the adversity) do the protective factors step in, like the antibodies the body creates. Masten's analogy helps to illuminate the close relationship between promotive and protective factors - they ultimately serve the same function, it is more a matter of circumstance that determines the role a particular factor will play. The advantage of

investigating promotive factors among typically developing children is that it informs efforts to protect a broader range of children proactively. Recently there has been increased interest in applying resilience research to the general population, as it is being recognized that all children face stress, pressure, and unforeseen events regardless of their background (Goldstein & Brooks, 2006). For example, contrary to what is often assumed, some research even suggests that affluence can be disadvantageous for children (Luthar, 2003).

Overview of positive youth development. Out of the growing field of resilience research, a related discipline that studies adaptive development specifically in children and adolescents is the discipline identified as positive youth development (PYD). PYD approaches development from a strengths-based perspective, examining assets and resources within the child and community that foster children's existing potential (Benson, Scales, Hamilton, Sesma Jr., Hong, & Roehlkepartain, 2006; Damon, 2004). Sesma Jr., Mannes, and Scales (2006) describe PYD as an umbrella term that applies to an approach to resilience research that shares four characteristics: 1) a strengths-based approach, 2) multiple agents across multiple contexts, 3) a focus on relationships, and 4) facilitating positive development as an everyday, commonplace occurrence. The current study meets these criteria, and therefore can be said to share a PYD approach.

Two distinctions differentiate PYD from the resiliency field. First, as its name suggests, positive youth development focuses on young people, rather than resilience research that typically focuses on adults (Damon, 2004; Luthar, 2006). Second, unlike the resiliency model, the PYD framework focuses on people's strengths and future potential rather than their disadvantages (Damon, 2004). As Damon phrased it, the goal of research within this field is, "sustaining these positive strengths and building upon them, rather than on extinguishing young

people's maladaptive tendencies” (p. 15). Furthermore, resilience research typically has investigated positive adaptation from the perspective that it takes special circumstances for children to overcome adversity (though this is not Masten’s perspective; see Masten, 2001; Masten & Motti-Stefanidi, 2006; Wright & Masten, 2005). PYD research, conversely, comes from the perspective that all children have the potential for positive development, and that this potential is optimized when supports within children’s environments align with these children’s strengths (Damon, 2004; Zarrett et al., 2009).

One prominent group of researchers who have worked to identify these individual and ecological strengths that promote positive development is the team from the Search Institute in Minnesota. They developed a list of 40 “developmental assets” that they have found predict higher thriving in adolescence (thriving being a composite score of positive development including school success, social success, and success in overcoming adversity) and lower involvement in risky behaviour (Benson, 1996; Benson et al., 1998; Leffert, Benson, Scales, Sharma, Drake, & Blyth, 1998; Scales, Benson, Leffert, & Blyth, 2000; Theokas et al., 2005). For a complete list of these assets see www.search-institute.org/developmental-assets/lists. In accordance with Lerner’s (2006) individual ↔ context model, Benson et al. (1998) categorized these assets as “internal” (from within the individual) and “external” (from the context surrounding the individual). Theokas and Lerner (2006) refer to these categories as “individual” and “ecological” assets, respectively. In the current study, these assets are referred to as internal/individual or external/ecological.

To date, research on the interrelation of these assets has provided three general conclusions from which this study was conceptualized. First, there is no one pathway to a “resilient” or “successful” outcome; it is neither expected nor necessary that individuals will

possess every known developmental asset in order to succeed in life (Cook et al., 2002; Theokas & Lerner, 2006). It is more likely, as posited by developmental systems theory, that children will have unique individual and ecological strengths from which to draw upon (Lerner, 2006; Theokas & Lerner, 2006). That being said, the second general conclusion is that it is advantageous to have a greater number of assets (Cook et al., 2002; Theokas et al., 2005). For example, Theokas et al. found that adolescents who possessed a greater number individual assets (e.g., social conscience, risk avoidance, school engagement) and ecological assets (e.g., parent involvement, community connection, rules and boundaries) scored higher on their index of thriving than adolescents with a fewer number of these developmental assets. Finally, studies examining the impact of multiple concomitant assets have found that individual assets have greater influence over a child's experience of success than ecological assets (e.g., attending a good school), but that having a high number of assets in either the individual or ecological domain is beneficial, even if the number of assets in the opposite domain is low (Theokas et al., 2005).

To date, it is unclear whether specific patterns of individual and ecological factors better promote well-being in middle childhood or whether it is simply how many assets one possesses that matters. For example, studies of risk and resilience in adolescence have found that young people are more likely to experience undesirable outcomes if they are faced with multiple risks, for example health risks, poverty, and chronic stress (Gutman, Sameroff, & Cole, 2003; Masten & Wright, 1998; Rutter, 1987). Some studies suggest that multiple risks multiplicatively predict an individual's experience of adversity. For example, Goodyer (1990) found that when children experienced chronic stress (from their mother's distress and lack of coping resources) and experienced one or more recent stressful life events, this multiplied their risk of developing

chronic anxiety and/or depression beyond the additive effect of all three combined. Other studies, however, have not found this relation, and instead suggest that the specific combination of risks is less important than the number of risks children experience (e.g., Rutter, 1979; Sameroff, Seifer, Baldwin, & Baldwin, 1993). Studies of promotive factors in early adolescence have thus far supported an additive model, showing that although it is beneficial to have multiple assets, no one factor or combination of factors is especially advantageous (Cook et al., 2002; Theokas et al., 2005). It was an interest in the current study, therefore, to determine how multiple promotive assets (specifically, supportive adults in children's families, schools, and neighbourhoods) predicted resilience in middle childhood.

Finally, it is uncertain how multiple promotive factors contribute to the development of resilient qualities within the child. Although past studies (e.g., Benson et al., 1998; Cook et al., 2002; Rutter, 1979; Theokas et al., 2005) have provided a solid framework for understanding the effects of developmental systems, most studies of resilience and positive youth development have sought to investigate how these systems predict "success," as measured by academic, social, or psychological outcomes (e.g., Cook et al., 2002; Luthar, 1991; Theokas & Lerner, 2006). Few studies, if any, have examined what ecological factors contribute to the development of positive human qualities, such as optimism, self-efficacy, and interpersonal sensitivity. Furthermore, there is limited research on positive development among younger children entering into adolescence. As previously discussed, this time period may be particularly important for harnessing individual and ecological resources that will promote future healthy development (e.g., Collins, 1997; Eccles, 1999). Before reviewing specific promotive factors that have been identified in studies of children and youth, the following section first summarizes how previous studies have operationalized resilience.

Operationalizing Resilience

Observable outcomes associated with resilience. One of the challenges of measuring resiliency and positive development is setting criteria that identify a child or adult as “successful.” Resilience researchers suggest that simply average performance in the face of adversity constitutes success (e.g., Masten et al., 1995), whereas other developmental psychologists think that thriving in life (i.e., optimally functioning in any given context) is the ultimate goal (e.g., Scales et al., 2000; Theokas et al., 2005). Adaptive social and academic functioning when adversity is not present is typically referred to as “competence” (Masten & Coatsworth, 1998; Masten et al., 1999). To date, most positive development research has measured “success” as academic, social, or psychological competence, or a combination of these outcomes. This section reviews the consistencies and inconsistencies of this definition across the literature.

A major advancement in resiliency research over the past twenty-five years has been the rejection of equating the absence of negative outcomes with the presence of positive outcomes (e.g., Cowen, 1991; Garmezy et al., 1984; Luthar, 1991). Cowen, in particular, argued that research and program development should be based on investigating the factors that promote wellness, instead of focusing on how to repair damage. He proposed that four components were essential to understanding wellness: competence, resilience, social system modification, and empowerment. Since this call to action, there has been a proliferation of definitions and criteria for wellness or success (e.g., Benson et al., 1996; Keyes, 2003; Lerner et al., 2005). For example, Benson et al. (1996, 1998) created their list of developmental assets by identifying factors that contributed to three health outcomes: 1) the prevention of high-risk behaviours, 2) the enhancement of thriving outcomes, and 3) resiliency. Like Cowen, they identified empowerment,

social competence, and structural support in the community as factors that promoted these health outcomes. Keyes (2003) also challenged the deficit model of human development, proposing that health was comprised of emotional well-being (positive affect, happiness, life satisfaction), social well-being (the presence of warm, trusting relationships, empathy, intimacy), and psychological well-being (self-acceptance, purpose, mastery, autonomy, positive relations with others). Lerner et al. (2005) later revised Keyes' definition to relate specifically to children and adolescents within the framework of PYD. Lerner et al. operationalized PYD as a composite of "Five C's": Competence, Confidence, Connection, Character, and Caring/Compassion. They hypothesized that when these five characteristics are present, a sixth "C," Contribution, emerges. School performance, leadership, maintenance of physical health, delay of gratification, valuing diversity, and positive views of oneself have also been included as outcome measures in studies of child and adolescent well-being (Cook et al., 2002; Theokas et al., 2005).

Despite these different frameworks, most definitions of positive development have involved three of the following components: solid academic performance, positive attitudes and/or behaviour, and good overall health (e.g., Battistich et al., 1995; Cook et al., 2002; Lerner & Overton, 2008; Theokas et al., 2005). In the academic domain, "success" has been measured by academic achievement, but also has been measured by student's attitudes towards school, their own sense of competence, and academic confidence (Battistich et al., 1995; Lerner & Overton, 2008). Similarly, overall health has included physical health, but also mental health, such as emotional well-being and life satisfaction (Keyes, 2003). As Pianta and Walsh (1998) argue, it is critical to include these multiple dimensions of success as children and adolescents often demonstrate success in one area (e.g., physical health) without corresponding success in another (e.g., academic achievement). Like Bronfenbrenner (1979), Pianta and Walsh also warn

that developmental outcomes are not stable across time. People experience many highs and lows in a lifetime, therefore it is unwise to attribute a quality such as resiliency to an individual based on a single observation. They argued that wellness and resilience are multidimensional, and therefore it is important to maintain a holistic perspective of child development rather than focus specifically on one outcome of success.

Internal characteristics associated with resilience. Acknowledging the conclusions from these previous studies, the current study operationalized and assessed resilience as a multidimensional construct as well. Specifically, this study assessed resilience in terms of children's internal attributes and relationships with others. Throughout this study, these qualities are referred to as "resilience characteristics." Prior to explaining how contextual processes aid in children's development of these characteristics, this section reviews the personal attributes that have been found to be associated with resilience in previous research.

Resilient people are often thought to be intelligent, creative, organized, proactive, focused, mastery-oriented, and empathetic, as well as possessing good communication skills, an easy temperament, humour, and holding a positive attitude of themselves and the world (Garmezy et al., 1984; Luthar, 2006; Masten et al., 1999; Wang, 2009; Werner & Smith, 1992). Other researchers have suggested that resilient individuals possess a certain hardiness, or invulnerability to negative events (e.g., Ramanaiah, Sharpe, & Byravan, 1999). Still others, such as Luthar (1991), suggest resilience is not a matter of avoiding or deflecting negative life events, but rather coping adaptively when negative events do occur.

Although many personal attributes have been associated with resilience, numerous researchers argue that resilience and positive development are more about *process* than personality (Garmezy et al., 1984; Luthar, 1991; Masten, 2001; Olsson, Bond, Burns, Vella-

Brodrick, & Sawyer, 2003; Scales, Benson, & Mannes, 2006; Werner & Smith, 1992). Many of these studies, for example, have shown how the benefits of possessing certain qualities are dependent on context. Luthar (1991) found that although high intelligence was associated with positive academic and social outcomes among adolescents in times of low stress, it actually affected adolescents negatively in times of high stress. That is, highly intelligent adolescents (as determined via standardized tests) were more sensitive to their environments, so that when there was low stress they thrived, but when they experienced high stress their academic achievement matched that of adolescents who scored lower on this intelligence measure. She also found that mature ego development and internal locus of control both buffered against stress, but in different ways. Her distinctions were based on earlier work by Garmezy et al. (1984), who suggested there are at least two models for the way resilience factors and stress interact. In the *compensatory* model, advantageous personal attributes (such as mature ego development) are additive, and therefore if a child has enough of these attributes they may serve to counteract high stress. In the *protective/vulnerability* model, personal attributes either reduce or increase the effects of stress, leading some attributes (e.g., internal locus of control and better social skills) to boost immunity against stress and others (e.g., high intelligence) to intensify its impact. Thus Garmezy et al.'s and Luthar's studies showed that personal attributes affect competence differently depending on the situation (e.g., high or low stress). Therefore it is unreasonable to expect to identify individual characteristics that serve as protective factors across all situations and historical circumstances. Furthermore, these studies demonstrated how different attributes can protect against stress in different ways (counteracting or moderating), opening the door for further investigation into how to look at factors that promote resiliency.

Another common misconception about resilience is that it is rare. According to Masten (2001), resilience is an outcome of “ordinary” rather than extraordinary processes. Part of this misconception about resilience being uncommon comes from the way researchers have discussed it in the past. For example, Masten argued that many factors that are considered risks (e.g., poor social skills) have a counterpart that can be considered protective (e.g., good social skills). In her view, the course of ordinary human development offers the necessary opportunities for learning and emotional connection that one needs to function well in life: “Resilience does not come from rare and special qualities, but from the everyday magic of ordinary, normative human resources in the minds, brains, and bodies of children, in their families and relationships, and in their communities” (p. 235). There is no one special quality that resilient people possess. Rather, resiliency may be the outcome of a number of developmental processes working properly (i.e., neurological and cognitive development, attachment to caregivers, emotion and behaviour regulation, and motivation to learn). Therefore, a major way to promote adolescent well-being is to protect these systems, which of course, develop through individual ↔ context interactions.

Three areas of resilience that have been found to be of particular relevance during the middle childhood years are optimism, perceived competence, and perceived acceptance from peers and adults (Noam & Goldstein, 1998). Maintaining a positive outlook on life has long been associated with better coping with stress in adulthood as well as resilience in the face of adversity in childhood and adolescence (Masten et al., 1999; Scheier & Carver, 1992), and having a high sense of self-efficacy and mastery-oriented motivation has also predicted resilience in youth (Masten et al., 1999). For example, a child who has a goal and believes he or she is able to achieve it is more likely to succeed than a child without these beliefs. Furthermore, the ability to maintain strong social relationships is consistently cited as a developmental asset (e.g., Benson

et al., 1998; Masten et al., 1999; Werner & Smith, 1992). Being considerate, affectionate, and good-natured are qualities often associated with resilience, most likely because children with these attributes attract more positive attention from adults and peers and are better able to maintain positive relationships with others (Werner & Smith, 1992). A child who grows up feeling cared for and valued, consequently, has a better chance of adopting a positive outlook on life and of assuming higher expectations of what to expect from themselves and others. These expectations and attributes then influence the child's future relationships, which again inform the child's thoughts about him or herself and the world.

Taken together, these studies demonstrate that there are a number of important individual characteristics associated with resiliency. Because the focus of the current study was on resiliency in middle childhood, it was critical to measure dimensions of resilience that are specifically relevant to children's positive development at that time. For this reason, five resilience characteristics were considered in this study: optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults. Because past studies have also demonstrated that these characteristics do not develop independent of contextual systems (Garmezy et al., 1984; Luthar, 1991; Masten, 2001), it was the purpose of this study to explore how other characteristics within children, and systems within children's environments, influenced these resilience characteristics. Specifically, the current study explored how dimensions of children's psychology and behaviour, as well as resources within their families, schools, and neighbourhoods contributed to their resilience.

Predictors of Resilience

Child characteristics. As the aforementioned studies have demonstrated, certain characteristics of individuals such as a positive outlook and interpersonal skills are commonly

associated with resilience (e.g., Masten et al., 1999; Werner & Smith, 1992). The current study focused specifically on optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults as outcome measures due to their particular relevance during childhood and adolescence. Many other concurrent attributes may also contribute to children's resilience, however. Four such characteristics that were included in this study were self-concept, anxiety symptoms, depressive symptoms, and positive behaviour.

Self-concept (sometimes referred to as self-worth or self-esteem) refers to a person's beliefs about him or herself (Marsh, 1990). These beliefs can be positive or negative, indicating high or low self-worth, respectively. Werner (1993) observed that children in the Kauai Longitudinal Study (Werner & Smith, 1982) who were considered resilient were often not the top students in the class, but they were often admired by teachers and parents for using what strengths they did have. In the elementary school years these children involved themselves in extracurricular hobbies and interests that they were good at, and by the time they graduated high school these children exhibited a higher self-concept. That is, resilient children had some interest or talent that enabled them to feel good about themselves. Olsson et al. (2003) suggest that having a positive self-concept may be an underlying mechanism for a number of outcomes associated with resilience. That is, having a healthy sense of worth may be a precursor to self-efficacy, and other resilience characteristics. Having a positive self identity (comprised of personal power, self-esteem, sense of purpose, and a positive view of one's future) is a domain of internal assets identified by the Search Institute (Benson et al., 1998) and has frequently been included in studies of positive development (Cook et al., 2002; Theokas et al., 2005).

Psychological well-being is another underlying attribute that is often related to resilience. Unlike self-concept, however, the relation of the psychological well-being to resilience is less

clear. Luthar (1991), for example, found that children who demonstrated academic competence despite adversity reported higher depression and anxiety than competent children who had not faced adversity, she suggested perhaps as a result of chronic stress. Conversely, Masten et al. (1999) found that the psychological health of “resilient” children (high competence, high adversity) was indistinguishable from that of high competence, low adversity children and significantly better than that of low competence, high adversity children. Given that good mental health and a positive outlook are commonly cited as factors in pulling through illness or adversity (e.g., Scheier & Carver, 1982), it is possible that psychological well-being is an advantageous resource for not only children who have faced adversity, but children of all backgrounds.

Finally, positive behaviour within the classroom (i.e., paying attention in class, making planful decisions, avoiding distraction from classmates) is a frequently used measure of adjustment in childhood (Benson et al., 1998; Luthar & Latendresse, 2005; Theokas et al., 2005). For this reason, it was of interest to explore to what extent good behaviour predicts resilience characteristics, especially those characteristics related to interpersonal relationships. In the Kauai Longitudinal Study (Werner & Smith, 1982), Werner (1993) found that teachers reported that resilient children got along better with classmates and demonstrated better reasoning skills than non-resilient children. Other researchers (e.g., Parker & Asher, 1993; Rubin, Bukowski, & Parker, 2006; Wentzel, 1993, 2009) have also documented how children who are better behaved in class not only have better relationships with peers, but achieve higher grades. For this reason, it was also important to include children’s classroom behaviour as a predictor of resilience in middle-years children.

In sum, much remains unknown about how resilience operates and specifically, how characteristics of children such as psychological well-being, self-concept, and classroom behaviour relate to specific dimensions of resilience in childhood. Therefore, the current study investigated how these four child characteristics (depressive symptoms, anxiety symptoms, self-concept, and positive behaviour) related to the five resilience characteristics measured in this study (optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults), as well as how much these child characteristics contributed to these dimensions of resilience relative to the influence of ecological factors included in this study.

Ecological theories suggest there are almost limitless environmental factors that influence human development, from the quality of a child's daycare centre to the ideology of the culture children grow up in (e.g., Belsky, 1980; Bronfenbrenner, 1979; Ogbu, 1981; Rimm-Kauffman & Pianta, 2000), however the current study focused on children's perceptions of three domains of ecological influence: families, schools, and neighbourhoods. Ecological assets (i.e., factors that promote positive development) can also take many forms, for example assets can be human resources (strengths and abilities of people in one's life; Coleman, 1988), physical and institutional resources (e.g., for recreation, health, safety, entertainment), as well as the mutual engagement between parents, schools, community-members, and the accessibility of resources in the community (Theokas & Lerner, 2006). It was of primary interest in the current study to focus on the *human resources* within children's environments that enable them to do well, as well as identify ecological resources or assets that are particularly relevant to children during the middle childhood years.

Parenting assets. Parenting assets refer to practices of primary caregivers that have the potential to positively influence children's development. In previous studies of positive

development, these assets have included parenting styles, quality of the parent-child relationship, number of adults in the home, and household income (Cook et al., 2002; Masten & Motti-Stefanidi, 2009; Theokas & Lerner, 2006). For the purposes of the present study, three dimensions of parenting practices that were investigated were children's perceptions of their parents' supportiveness and parents' knowledge of their activities, as well as how often children ate dinner with a parent.

As the most salient of the ecological domains, parents are the primary source of influence over an individual's development (Bronfenbrenner, 1979). Although outside relationships may become more significant over the life course, relationships with parents are unique in that they selectively expose children to ideas and thus shape their learning, socialize them into gender and culture-specific roles, set moral and behavioural standards and expectations, and provide rewards and discipline (Clark, 1988). As well as helping shape individual characteristics and perspectives, the quality of relationships with primary caregivers has long been recognized as influential on a number of developmental outcomes, including the quality of the child's future relationships (e.g., Bowlby, 1969). There is evidence, for example, that children who experience sensitivity and responsiveness from a secure relationship with a parent develop stronger connections in the areas of the brain responsible for emotion-regulation and coping with stress (Schore, 2001). Children from securely attached relationships also exhibit fewer behavioural problems and more warmth and sociability towards peers, both as early as preschool (e.g., Cohn, 1990; Vondra, Shaw, Swearingen, Cohen, & Owens, 2001) and during the adolescent years (Schneider, Atkinson, & Tardif, 2001).

Olson (2000) proposed a circumplex model to describe how family relations influence children's social and emotional adjustment. In this model, he identified family cohesion,

adaptability, and communication as major systems that can potentially promote resilience in individuals. Olson defined family cohesion as the emotional bond that family members have towards each other. Families that are cohesive not only share emotional closeness, they also spend time together through shared activities, and one-on-one engagement. Emotional closeness, he said, is often fostered by members showing interest in each other's lives, and through being available when one is in need of support. Interestingly, Olson suggested that it is not the *most* cohesive family structure that is optimal for a child's development; the best environment is one that offers a balance between connection to family and the experience of autonomy. Families that are too close risk stifling children's opportunities for independence and identity development, yet families that are completely disengaged provide no emotional support or sense of security and thus risk leaving their children adrift and incapable of forming other close relationships. Numerous analyses have demonstrated how low family cohesion, for example, can negatively affect peer relationships, emotional health, and academic achievement (e.g., Blum & Rinehart, 1997; Clark & Ladd, 2000; Pianta & Walsh, 1998). Finally, adaptability must also be balanced between providing stability, yet offering some flexibility in roles and decision-making privileges as children grow. Good communication between parents and children was thought to facilitate both cohesion and adaptability.

In addition to emotional support, parental discipline has often been considered the complementary determinant of child and adolescent behaviour (e.g., Henry, Robinson, Neal, & Huey, 2006). Baumrind's (1968) three categories of parenting style, authoritarian (most controlling), authoritative, and passive (most permissive) have consistently been used to predict developmental outcomes. Similar to Olson's (2000) dimensions of family relations, generally researchers agree that the optimal parenting style is one that is balanced between domineering

and lenient (e.g., Baumrind, 1968; Henry et al., 2006). In terms of resilience, Wyman, Cowen, Work, and Parker (1991) found that positive, consistent discipline from parents prepared early adolescents to cope better under stress. In another study, Peterson and Hann (1999) found that punishment was associated with decreased social competence, moral development, and self-esteem, as well as increased likelihood of substance use and delinquency, while induction (using reasoning to guide behaviour) and parents' maintained awareness of their children's activities increased children's moral development and self-esteem. Other studies have also found positive relationships between parents' knowledge of their children's activities and children's psychological and physical well-being (Jacobson & Crockett, 2000; Markey, Ericksen, Markey, & Tinsley, 2001). Furthermore, parents who use staying informed as a discipline strategy reported enjoying their relationships with their adolescents more (Laird, Pettit, Dodge, & Bates, 2003). This supports other research that has found parent-adolescent conflict is not always a part of this time period. On the contrary, in many cases adolescents rely on their parents during this transitional phase (Offer & Schonert-Reichl, 1992; Steinberg, 2001).

Another family attribute that has commonly been used in resilience research is family meal frequency (Fulkerson et al., 2006; Luthar & Latendresse, 2005; Theokas & Lerner, 2006). Family dinners are an indicator of family cohesion and connectedness, which offer similar benefits to parental knowledge and emotional support (Fulkerson et al., 2006). For example, Resnick et al. (1997) showed that family connectedness predicted lower engagement in high-risk behaviours and lower emotional distress. Furthermore, Fulkerson et al. showed that not only was family meal frequency positively associated with the presence of other ecological assets (e.g., parental support, boundaries and expectations) but with individual assets such as social competence and a positive sense of identity.

The research presented so far shows how families can influence individual development, but it is important to reiterate that these influences are bi-directional. A child's temperament or attitude, for example, might influence what discipline practices the parent chooses to employ (Bronfenbrenner, 1979). Another consideration is how family practices influence, and are influenced by other ecological domains such as school and community. In terms of its relation to school, some researchers have said that family provides children with an informal education – the behaviours, skills, and attitudes learned at home are often applied in the school setting, affecting their academic achievement (Christenson, Rounds, & Gorney, 1992; Walberg, 1984). For example, Christenson et al. found that family involvement, discipline, and expectations were predictive of students' attitudes towards school. Again, these studies demonstrate that relationships between child characteristics, parenting practices, and children's experiences outside the home are closely intertwined (Bronfenbrenner, 1979; Lerner, 2006).

School assets. Children spend more time in schools than any other place outside their homes (Eccles, 2004; Eccles & Roeser, 2009). There, they are exposed to routines, structures, and interactions that help shape their identities. Two school characteristics that were specifically of interest in the current study were the perceived supportiveness of school adults (e.g., teachers, counsellors, coaches) and the degree to which the school environment promoted connectedness and belonging among its students.

Eccles (2004) suggested that children's stage of development affects their attitudes toward school and their adjustment. In particular, she argued that middle childhood/early adolescence is traditionally a very difficult time for students, especially if they have transitioned to middle-school. This cusp of adolescence has been marked by decreases in students' motivation, achievement, interest in school, self-esteem, optimism, and sense of belonging in

school (Anderman & Anderman, 1999; Eccles, 1999; Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991), as well as increases in test anxiety, truancy, and school dropout (Eccles, 1999; Wigfield & Eccles, 1989). What is perhaps more discouraging is that as children reach these older grades, teachers become less personal (Midgley, Feldlaufer, & Eccles, 1988) and are less likely to consider taking care of students' psychological needs as a part of their job responsibility (Roeser & Midgley, 1997). This situation is equally unfortunate because numerous studies have shown how supportive teacher-child relationships boost children's involvement in school and academic achievement, as well as improve children's behaviour and emotional adjustment (Birch & Ladd, 1997; Hamre & Pianta, 2005; Murray & Greenberg, 2006).

Research on teacher-student relationships has found that teachers who take on mentoring roles in students' lives improve student's social and academic outcomes (e.g., Hamre & Pianta, 2005; Murray & Greenberg, 2006; Wentzel, 1997). For example, the quality of children's relationships with teachers has been found to play a significant role in children's lives, predicting conduct problems and anxiety independently of students' relationship quality with their parents (Murray & Greenberg, 2006) and buffering against low school achievement in children from high-risk backgrounds (Hamre & Pianta, 2005). Wentzel also found that early adolescents who perceived their teachers as caring felt more motivated to attain academic and prosocial goals regardless of their motivation the previous school year, indicating that a single teacher can actually make a significant contribution to a young person's well-being.

Another aspect of school settings that has been argued to promote children's positive development is a caring school climate, or school connectedness. Deci and Ryan's (1985, 2000) self-determination theory posits that children's intrinsic motivation and well-being will be highest when their needs for autonomy, competence, and belonging are met. A lack of intrinsic

motivation in school has frequently been associated with higher school dropout rates, anxiety, and negative coping strategies in school (Ryan & Connell, 1989; Vallerand & Bissonnette, 1992). Deci and Ryan recognized that social context plays a large role in the extent to which people feel engaged and interested in what they are doing versus unmotivated or apathetic. They also suggested that although individual differences in self-determination do exist, it is the social environment that can optimize or obstruct individual thriving.

Battistich, Solomon, Watson, and Schaps (1997) documented their attempt to create an elementary school environment that met students' needs for autonomy, competence, and belonging and how it affected students' motivation, academic achievement, and prosocial behaviour. Battistich et al. theorized that one way to meet these needs was to promote a feeling of community within schools, as members of a community typically feel they are cared for, that their voices are meaningful, and that they are contributing to something that is of shared value. Some of the components of this effort (the Child Development Project; Battistich et al., 1997) included providing students with opportunities to collaborate with others and provide meaningful help to others in the classroom, reflect on their own and others' experiences in the classroom, develop social competencies, and to be able to make decisions about classroom norms and activities. They found that by increasing students' sense of community through this intervention, students exhibited increased social competence, empathy, commitment to democratic values, and self-esteem, as well as increased interest in school, intrinsic motivation for learning, achievement motivation, and improved reading comprehension.

Other research also has supported the protective effects of school connectedness. Baumeister and Leary (1995) conducted a literature review in which they found a sense of connectedness led individuals to perceive others more favourably and think of them more often,

and also made them more likely to experience happiness, contentment, and calm. Resnick et al. (1997) found that adolescents' sense of connectedness in school and family was also associated with lower rates of emotional distress, substance abuse, and suicidal ideation. These findings show that school connectedness not only reduces risk but promotes adaptive qualities. Consistent with these studies, researchers at the Search Institute identified a caring school climate as a protective factor on their list of ecological assets and found that it is a strong predictor particularly of school success (a component of thriving; Scales et al., 2000).

Neighbourhood assets. Neighbourhoods are another ecological domain where mentoring and a caring climate have the potential to promote children's well-being. Two neighbourhood characteristics that were included in the current study were the perceived supportiveness of neighbourhood adults, and the availability of safe places to hang out within the neighbourhood.

Research on mentoring outside of the school and family has demonstrated numerous positive outcomes for children (e.g., Dubois & Silverthorn, 2005; Rhodes, Grossman, & Resch, 2000). Rhodes et al. examined how relationships with parents and relationships with significant nonfamily adults predicted a number of academic outcomes. In a randomized control trial, Rhodes et al. assigned almost 1,000 Big Brothers, Big Sisters applicants (ages 11 to 18) to a treatment or control group and assessed their relationship with their parents and academic outcomes both before and after spending approximately twelve months with a mentor. By the end of the intervention, adolescents in the mentoring group felt more competent in school and skipped school less than those in the control group. Surprisingly, adolescents in the mentoring group also reported improved relationships with their parents, including better communication and trust with parents, and less alienation. The authors suggested that mentoring relationships may have given these adolescents a model of caring, supportive relationships with adults that

challenged their formerly held negative perceptions of themselves, and of their relationships with others.

Dubois and Silverthorn (2005), similarly, conducted a study investigating the impact of “natural mentors” in adolescents’ lives. Natural mentors are adults that already exist within an individual’s social network that provide advice, support, and encouragement – they are not matched by an agency. For this reason natural mentors may have inherent advantages over matched mentors, as they are often people who are involved in activities and contexts that youth are already interested in, making them more valued and more accessible to those individuals (Dubois & Silverthorn, 2005). In their study, Dubois and Silverthorn analyzed data from over 3,000 older adolescents (ages 18 to 26) from the American National Longitudinal Survey of Adolescent Health. Of this sample, approximately 73% of respondents reported having a natural mentor. Forty percent of these mentors were older siblings or extended family, whereas the other 60% were non-related adults. Of these significant nonfamily adults, 26% were teachers or guidance counsellors, and the remaining 33% were community members, including team coaches, religious leaders, employers, friends’ parents, coworkers, neighbours, and doctors or therapists (in decreasing order of prevalence). The authors found that individuals who were supported by a natural mentor were more likely to graduate high school, attend college, and work more than 10 hours a week, and were also less likely to be involved in gangs, violence, or risk-taking behaviour. These youth were also more likely to report higher levels of self-esteem and life satisfaction, as well as engage in more physical activity and use birth control more regularly. Similarly, Scales et al. (2006) found that children who were supported by a significant nonfamily adult (e.g., teacher, neighbour, or other adult) in grades 7-9 engaged in less risky behaviour and

experienced more thriving outcomes in grades 10-12, after controlling for their risk-taking/thriving in earlier grades.

The powerful influence of nonfamily adults also exemplifies how systems of influence change over time (Bronfenbrenner, 1979). Bronfenbrenner referred to these changes as “ecological transitions,” when significant shifts in roles or settings serve to change the individual’s behaviour and outlook (e.g., moving to a new school or neighbourhood, having a new sibling in the family, incorporating a new adult into one’s life, or later – graduating, switching jobs, having children, or retiring). Development is a fluid process, and Bronfenbrenner recognized that the microsystem (family, school, and neighbourhood settings where the child is an active participant) is extended and reshaped with every new experience.

In addition to the presence of nonfamily role models, community safety is another promotive asset that has been identified in the literature (e.g., Youngblade et al., 2006). Jencks and Mayer (1990) identified five models by which communities promote adolescents’ well-being. Among these are the suggestions that children and adolescents copy the problematic behaviours modelled by others in the community (contagion), that individuals are affected by community members competing for scarce resources (competition), that they are affected by comparing themselves to others (relative deprivation) and finally that institutional and human resources promote the safety of children and adolescents in the community (institutional resources and collective socialization). Included in the collective socialization model is the presence of adult role models, as well as adult supervision and monitoring, and structure and routines. This corresponds with an idea put forward by Sampson, Morenoff, and Earls (1999) who defined communities as places where there is safety, mutual trust, willingness to intervene for the common good, and supportive childrearing. In a review of neighbourhood factors and

child development, Leventhal and Brooks-Gunn (2000) proposed that relationships and social norms can serve a similar protective role to parental relationships. Like families, communities are protective to the degree to which they demonstrate discipline and cohesion, supervision and support. For example, in a cohesive neighbourhood, a friend's parent might offer to look after a child after school, or neighbours might intervene if they see two adolescents fighting. This hypothesis has been supported by numerous studies that have shown community social cohesion is associated with decreased problem behaviour, community violence, and adolescent depression (Aneshensel & Sucoff, 1996; Elliot et al., 1996; Sampson, Raudenbush, & Earls, 1997). Sampson et al. (1997) considered this phenomenon of collective efficacy (or social cohesion) to be a product of multiple contextual factors, including low residential mobility and high integration (regardless of racial or socioeconomic status), which in turn serve to increase neighbours' feelings of connectedness and empowerment.

Combined influence of child characteristics, parents, schools, and neighbourhoods.

As previously discussed, studies that have investigated the combined influence of assets, both within the child and external to the child, generally have found that individual factors such as child characteristics (e.g., self-esteem, learning engagement) tend to be stronger predictors of children's academic and social competence than ecological factors such as neighbourhood cohesion (Cook et al., 2002; Scales et al., 2000; Theokas & Lerner, 2006). These investigations have also shown, however, that possessing assets in any context (internal or external) is advantageous to youth and that each asset contributes uniquely to children's positive development (Cook et al., 2002; Theokas et al., 2005). A goal of the current study, therefore, was to expand on these past findings by exploring how individual and ecological assets collectively

contributed to children's *self-reported* resilience rather than inferring their resilience from observed social or academic competence.

Summary. As can be seen from this review, a number of human resources appear to encourage the healthy development of children, both directly and indirectly. Connectedness within families, schools, and communities seems to create the best environments for children to develop into well-rounded, healthy individuals. However, unlike past studies that have either identified protective and promotive factors or examined how these factors affect academic, social, or health outcomes, the current study was designed to identify what individual and contextual factors best promote resilience characteristics themselves. To use Masten's (2009) analogy, this study strived to identify what it is in children's environments that boost their social emotional "immune system." For example, is a supportive family the social emotional health equivalent of getting enough sleep? Is feeling connected at school comparable to eating the daily recommended intake of fruits and vegetables? This study was also unique in that it was designed with a resiliency model in mind. Often studies of child and adolescent health are based on national comprehensive surveys (e.g., Brooks-Gunn et al., 1993; Hull, Kilbourne, Reese, & Husaini, 2008; Resnick et al., 1997), whereas the advantage of designing a study specifically about positive development in middle childhood is that it allowed for the inclusion of questions and measures that otherwise might not have been included (e.g., the Resiliency Inventory; Noam & Goldstein, 1998; Song, 2003).

Another limitation of previous research is the underrepresentation of studies of promotive and protective factors in emerging adolescence. Middle childhood may be a particularly relevant time to address these concerns as it is a period when individuals are acquiring the skills and resources they need to cope with the changes they are about to face (Eccles, 1999). Increased

exposure to environments beyond the home may also denote a change in the salience and prevalence of different promotive factors. For example, Theokas et al. (2005) found that older adolescents (grades 9-12) reported having fewer individual and ecological assets than younger adolescents (grades 6-8). Gender differences were also found, such that girls reported a greater number of both individual and ecological assets than boys, but when looked at separately, boys reported having more ecological assets than individual assets, whereas girls reported having more individual assets.

Finally, the most important contribution of the current study is that it strives to identify factors that promote well-being among all children, not just among those “at-risk.” To date, most research on developmental assets has focused on children who have overcome adversity, leaving little understood about supporting children from average beginnings (Masten & Motti-Stefandi, 2009). Identifying promotive factors in middle childhood not only has the potential to benefit a broader range of children and youth, but it can also be preventative – equipping children from all contexts with the ability to overcome adversity if they should face it later in their lives. Furthermore, the advances in psychology remind us that well-being is not simply the absence of mental health issues or risk (e.g., Cowen, 1991; Keyes, 2003). Keyes (2002), for example, presented data from a 1995 survey showing that only seventeen percent of American adults met the definition of “flourishing” (i.e., feeling positive towards life and functioning well socially and psychologically). He argued that more attention should be given to the majority of adults, who neither flourish nor suffer at levels warranting professional help. Most adults in this study were either “moderately emotionally healthy” or “languishing” – that is, functioning day to day but not feeling much enjoyment in life. Keyes called the prevalence of this apathetic state of mind to be, “a silent, debilitating epidemic” (p. 293) and one necessitating immediate action.

Larson (2000) noted a similar trend among adolescents, reporting that the high rates of boredom, alienation, and disconnection from meaningful challenge were indicative of deficient positive development. Certainly it is not the goal of families, educators, and community members to raise children to “function well enough.” The overarching goal of the current study, therefore, was to identify individual and ecological factors that provide children with the tools to navigate through life in a healthy, fulfilling way.

Objectives and Hypotheses

This study aimed to address a gap in the literature regarding resilience in middle childhood by examining two related phenomena. Specifically, one objective was to determine how individual child characteristics, as well as parenting, school, and neighbourhood factors singularly and jointly predicted children’s resilience characteristics (optimism, self-efficacy, interpersonal sensitivity, relationships with peers, relationships with adults) in middle childhood, after taking into account demographic characteristics including age, gender, ESL status, and lone parent status. A second, related objective was to examine how the presence of multiple supportive adults in children’s lives predicted these resilience characteristics as well.

Because previous research (e.g., Theokas et al., 2005) has found that individual assets are better predictors of competence in early adolescents than ecological assets, it was predicted that child characteristics that have been previously associated with resiliency (i.e., psychological well-being, self-concept, positive behaviour) would account for a larger portion of the variance in children’s resilience characteristics than parenting, school, and neighbourhood factors. From a developmental systems perspective, Lerner (2006) has argued that the promotive and protective factors often attributed to the internal workings of the child are actually better explained by the relation between the individual and his or her context than attributes of the individual or context,

alone. Therefore it was also expected that assets within children's families, schools, and neighbourhoods would uniquely predict resilience in middle childhood, beyond the influence of children's individual characteristics.

The second objective of this study was to explore how supportive relationships with adults contribute to children's resilience characteristics during middle childhood. Based on research by Cook et al. (2002), it was hypothesized that children's perceptions of support from multiple adults would contribute to children's resilience additively rather than multiplicatively. The support of significant adults is a well documented ecological asset in childhood and adolescence (e.g., Benson et al., 1998; Clark & Ladd, 2000; Dubois & Silverthorn, 2005; Hamre & Pianta, 2005; Luthar, 2003; Murray & Greenberg, 2006; Scales et al., 2006). For example, many studies have demonstrated that a positive relationship with least one significant adult can promote better adjustment in adolescence than being without an important adult (Luthar, 2003; Werner, 1995). Furthermore, Buote (2007) found that stress-resilient children reported having a larger number of supportive adults in their lives than children who were not resilient under stress. It remains unclear, however, how the combination of supportive adults in different contexts predicts resiliency. Cook et al. (2002) examined how multiple social and institutional resources within different contexts of adolescents' lives (i.e., families, schools, peers, and neighbourhoods) jointly predicted academic and social success among grade 7 and 8 students. They found that resources within each context (e.g., having a supportive parent at home and living in a cohesive neighbourhood) each added some extra advantage to the child incrementally, but no combinations of assets proved especially favourable. Alternatively, the support of significant adults could be multiplicative or synergistic, meaning that two or three significant adults together would exponentially increase likelihood of children's resilience characteristics above and beyond

the effect of these assets additively. In this case, having the support of a parent and the positive attention of a teacher at school would be uniquely advantageous compared to other pairings of assets. Research with risk factors has found evidence for both models of collective influence (e.g., Goodyer, 1990; Rutter, 1979). However, based on Cook et al.'s findings it was expected that multiple ecological assets from different areas of a child's life (specifically, supportive adults within the family, school, and neighbourhood) would contribute additively to children's resiliency.

Method

The current study is part of a larger investigation examining children's social and emotional well-being during the middle childhood years. The larger investigation was initiated and funded by the United Way of the Lower Mainland (www.uwlm.ca) in order to obtain data on the psychological and social lives of school-aged children both inside and outside of school, with a particular focus on how children spend their after-school time. Therefore, the current study is a secondary use of data from the larger study.

Sample and Participant Selection

Participants were 1,250 children (598 girls, 652 boys) from 23 elementary schools across 7 school districts in urban and suburban areas of British Columbia. Children ages 9 to 13 ($M = 11.72$, $SD = 1.00$), were enrolled in grades 4 through 7. A key objective of this study was to obtain information from a representative sample of children. To achieve this, a stratified random sampling procedure was utilized. After gaining approval from the University Behavioural Research Ethics Board to conduct the study, consent was obtained from each of the 7 school district boards. Next, schools within each district were divided into low, medium, or high vulnerability as indicated by the vulnerability index created by Janus and Offord (2007). Kershaw, Irwin, Trafford, and Hertzman (2005) reported that this measure of vulnerability has correlated highly with socioeconomic status (.43), therefore it was likely that this stratification method would result in obtaining a diverse sample of family, school, and neighbourhood characteristics. From this stratified list, schools from neighbourhoods at each level of vulnerability were randomly selected and contacted to participate in the study. The number of schools selected from each district was proportionate to the number of students in each district,

resulting in a representatively diverse sample of the population of the area. In all, 23 schools (58 classrooms) gave their permission to be included.

From there, research assistants and the Principal Investigator visited each classroom to explain the study to the students in age appropriate language and answered questions students had. Students were also given consent forms that were to be signed by their parents or guardians. The consent forms explained to parents that the purpose of this study was to gain a better understanding of 9-13 year-old children's well-being in and outside of school. Consent forms were translated into 5 languages (Chinese, Spanish, Vietnamese, Punjabi, and Korean) to ensure each parent/guardian could give their informed consent. Of the participating classrooms, twenty-four students were not eligible to participate in the study due to low English comprehension or severe communication or behaviour challenges which would have prevented them from responding meaningfully on the questionnaire. Out of a total possible 1,440 eligible students, 1,379 (96%) returned their consent forms. Of the consent forms returned, 91% of parents consented for their child to participate in the study, resulting in a sample of 1,266 participants. The final participation rate was calculated by dividing the number of students with parental permission by the total number of eligible students in the sample. In the end, 88% of students eligible for participation received parental consent to participate in the study. One hundred per cent of these students gave their own assent to participate. Specific to the current study, 16 cases were excluded from the final sample, resulting in a total of 1,250 participants. These 16 cases were excluded because the 16 participants had only completed the measures on after-school time and had not completed measures relevant to the current study.

As seen in Table 1, 37% of children in the final sample did not speak English as a first language. Children most commonly reported speaking Chinese, Punjabi, Korean, and

Vietnamese, but in total children spoke over 25 different first languages. Lone parent status was calculated as living in a home with only one parent or caregiver (mom, dad, stepmom, stepdad, or half the time with mom, half the time with dad). Lone parenting did not include parent/stepparent combinations or foster parents. Twenty-six percent of children in this sample met these criteria for living with a single parent (see Table 1).

Table 1

Distribution of Child Demographics

Demographics	N	Valid Percent
Age		
<i>M</i> = 11.72 (1.00)	1,250	
Gender		
Boys	652	52.2%
Girls	598	47.8%
First language learned		
English	791	63.3%
Not English (ESL)	459	36.7%
Parent status		
Lives with two parents	824	65.7%
Lives ½ with mom, ½ with dad	110	8.8%
Lives with lone parent	316	25.5%
Grade level		
Grade 4	94	7.5%
Grade 5	267	21.4%
Grade 6	421	33.7%
Grade 7	468	37.4%

Procedure

Children were asked to complete the self-report questionnaires in their regular classrooms during one or two class periods. During these periods, the classroom teacher remained present, while two trained research assistants guided the class in completing the survey. In order to avoid stigmatizing anyone for poor reading ability, the questions were read aloud so that all students would be able to follow. The research assistants also monitored children as they worked,

ensuring there was no talking or sharing of responses. Research assistants also observed the class to ensure children were not answering randomly or circling two answers for one question. The questionnaire itself asked children about their thoughts and feelings about themselves, their family, their school, and neighbourhood. These questions were approved by the Behavioural Research Ethics Board. As a thank you to participating classes, all children in these classes received a pizza party, regardless of their individual participation or non-participation. Finally, teachers completed the T-CRS for each of their student participants. Teachers were given a \$100 honorarium for their participation. Teachers from 57 out of 58 classrooms participated.

Measures

Child Demographics. Children were asked on the survey to indicate their birthdate, gender, and their first language learned. Children were also asked to report the adults with whom they lived from the following categories: mom, dad, stepmom, stepdad, grandparents, and foster parents, to “½ the time with mom, ½ the time with dad” and “other adults” including aunts, uncles, and parents’ boyfriends/girlfriends.

Child Characteristics. *Psychological well-being.* Children’s psychological well-being was assessed using the Seattle Personality Questionnaire (SPQ; Kusche, Greenberg, & Beilke, 1988). The SPQ measures three constructs: Depressive Symptomatology, Anxiety Symptomatology, and Somatization, though only the Depressive Symptoms subscale (11 items) and Anxiety Symptoms subscales (7 items) were used in this study. This measure was designed to assess general internalizing personality characteristics in children and has been found to be a reliable and valid measure of children’s depressive and anxiety symptoms (Murray & Greenberg, 2000). Children were asked to rate how true statements were for them, on a scale from 1 (not at all) to 4 (always). Items on the Depressive Symptoms subscale include, “Do you feel unhappy a

lot of the time?” and “Do you feel that most things are not much fun?” Anxiety Symptoms items include, “Are you afraid to try new things?” and “Do you worry what other kids might be saying about you?” Higher scores indicated more frequent depressive or anxiety symptoms. The internal consistency of the Depressive Symptoms and Anxiety Symptoms subscales among normative samples has previously been documented as .74 and .68, respectively (Rains, 2003). Alphas for both subscales in the current sample were .85.

General self-concept. General self-concept refers to a person’s beliefs about themselves, including their self-worth. To measure this construct, Marsh’s General Self-concept subscale of the Marsh Self Description Questionnaire (SDQ; Marsh, 1990) was used. The scale is comprised of 8 items including, “In general, I like being the way I am” and “I do a lot of important things.” Children rated how true each statement was for them from 1 (never) to 5 (always), with higher scores indicating a more positive self-concept. Marsh (1990) found the internal consistency of this scale to be .83. Cronbach’s alpha for this scale in the current study was .87.

Teacher-rated positive behaviour. Children’s positive behaviour in class was assessed using the Teacher-Child Rating Scale (T-CRS; Hightower et al., 1986). Following a procedure used by Luthar and Latendresse (2005), a single score was derived for each student by subtracting their total observed undesirable behavior from their total observed desirable behaviour. To compute the composite score, first a Total Problem Behaviour score was calculated by taking the mean of two subscales: Acting Out and Learning Problems. A Total Adjustment score was then calculated by taking the mean of the other two subscales: Frustration Tolerance and Task Orientation. As per Luthar and Latendresse’s concerns, the Shy-Anxious and Assertive Social Skills subscales were excluded from the computation because of their ambivalence as inherently “desirable” or “undesirable” traits. Once the two subscales were

calculated, the Total Problem Behaviour score was subtracted from the Total Adjustment score to provide one score of good behavior (higher scores indicating more desirable behaviour). Hightower et al. (1986) reported Cronbach's alpha ranging from .85 to .95 for each of the subscales in the T-CRS. In the current study, Cronbach's alpha of the 21-item scale used to comprise this final composite score was .97.

Parenting measures. *Parent support.* Children's perceived sense of support from their parents was measured using the 6-item parent supportiveness subscale from the California Healthy Kids Survey (2005), (e.g., "At home, there is a parent/caregiver or another adult who listens to me when I have something to say"). Children were asked to respond to each statement from 1 (not at all true) to 5 (very much true). Higher scores indicated higher parent supportiveness. Previously, Cronbach's alpha among a sample of grade 7 students was reported to be .77 (Constantine & Benard, 2001). Cronbach's alpha for this measure in the current study was .81.

Parent knowledge. The parent knowledge scale measured children's perceptions of how much their parents knew about their lives. It was assessed using the 6-item "Keeping Tabs" questionnaire from the NICHD Study of Early Childcare and Youth Development (Form FLV08G6), (e.g., "How much does a parent or another adult in your home know about who you spend your time with?") The scale ranges from 1 (doesn't know at all) to 4 (knows everything). Higher scores indicated children thought their parents were well informed about their life. Cronbach's alpha of this scale has previously been found to be .75 (NICHD, 2002). Cronbach's alpha in the current study was .80.

Dinner with an adult family member. Dinner with family was assessed using a single question. Children were asked to select how often they ate dinner with an adult family member,

from either 1 (never), 2 (1 or 2 days a week), 3 (3 or 4 days a week), or 4 (5 or more days a week). This is a valid item that has been used frequently in other studies of developmental assets (e.g., Fulkerson et al., 2006; Theokas & Lerner, 2006). Higher scores indicated a higher frequency of dinners with an adult family member.

School measures. *School adult support.* The extent to which children felt supported by adults at their school was assessed using the 6-item school adult supportiveness subscale from the California Healthy Kids Survey (2005). Sample items include, “At my school, there is a teacher or another adult who really cares about me,” and “...who believes I will be a success.” The scale ranges from 1 (not at all true) to 4 (very much true). Higher scores indicated a higher sense of support from adults at their school. Cronbach’s alpha for this scale has previously been found to be .83 (Constantine & Benard, 2001). Cronbach’s alpha in the current study was .83.

School connectedness. Children’s sense of school connectedness was assessed using a 14-item scale developed by the Developmental Studies Center (DSC; Battistich et al., 1995). Rated on a 5-point scale from 1 (disagree a lot) to 5 (agree a lot), children were asked how much they agreed with statements such as, “When I’m having a problem, some other student will help me” and “I feel I can talk to the teacher in this school about things that are bothering me.” Higher scores indicated a greater sense of belonging and connectedness to others at school. Battistich et al. (1995) found the internal consistency of this scale to be .91. Cronbach’s alpha in the current sample was .88.

Neighbourhood measures. *Neighbourhood adult support.* The extent to which children felt supported by adults in their neighbourhood was assessed using the 7-item neighbourhood adult supportiveness subscale from the California Healthy Kids Survey (2005). Ranging from 1 (not at all true) to 4 (very much true), these questions include, “In my neighbourhood (NOT from

your school or family), there is an adult whom I trust” and, “...who really cares about me.”

Higher scores indicated a greater sense of support from neighbourhood adults. Cronbach’s alpha for this scale has previously been found to be .85 (Constantine & Benard, 2001). Cronbach’s alpha for this scale in the current study was .93.

Neighbourhood safe places. Neighbourhood safety was appraised using one item, “Are there safe places in your neighbourhood to hang out with friends, like parks or community centres?” (George & Chaskin, 2004). Children could respond “Yes” (coded as “1”), “No,” or “Don’t know” (both coded as “0”). A score of “1” indicated that children had a safe place to socialize within their neighbourhoods.

Outcome Measures. To assess children’s potential for resilience and positive development, participants completed the 44-item Resiliency Inventory (RI), first created by Noam and Goldstein (1998) and later modified by Song (2003). The RI was developed specifically as a measure of youth resilience – tapping dimensions of resilience (optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults) that are particularly relevant to children and adolescents (Noam & Goldstein). Song later demonstrated that this measure is cross-culturally relevant, reporting good psychometric properties within a sample of grade 8 Korean children. For the present study, a sixth subscale of this measure, Emotion Control, was excluded from analyses due to its poor reliability ($\alpha = .49$). For each subscale, children responded to a series of statements by rating how true each statement was for them, from 1 (not at all like me) to 5 (always like me). Constructs and psychometric properties for each of the five subscales follow.

Optimism. The Optimism subscale assessed the degree to which children held a positive perspective of the world and the future. This scale consists of 9 items, 5 of which are reverse-

scored. Sample items included, “More good things than bad things will happen to me,” “Even if there are bad things, I’m able to see the good things about me and my life,” and “I think that things will get worse in the future” (reverse-scored). Higher scores indicated higher optimism. Song (2003) found the internal consistency of this scale to be .81. Cronbach’s alpha for the current sample was .79.

Self-efficacy. The Self-efficacy subscale measured children’s confidence in themselves and in their ability to handle situations effectively. This subscale consists of 8 items, none of which are reverse-scored (e.g., “If the way that I am doing something isn’t working I try to think of different ways to do it” and “I will get good grades in school”). Higher scores indicated a greater sense of self-efficacy. Song (2003) found the internal consistency for this subscale to be .77. Cronbach’s alpha in the current sample was .72.

Interpersonal sensitivity. The Interpersonal Sensitivity subscale assessed children’s motivation to help people and their consideration of others. Seven items (1 reverse-scored) include statements such as, “I apologize when I accidentally hurt someone’s feelings,” “I like to help people with their problems,” and “I stick to what I want and don’t pay attention to others” (reverse-scored). Higher scores indicated a higher sensitivity to others’ needs. Song (2003) reported an alpha of .65 for this subscale. In the current study Cronbach’s alpha was .73.

Relationships with peers. The Relationships with Peers subscale measured children’s ease of making and maintaining friendships with same-age peers. This subscale of the Resiliency Inventory is comprised of 7 items (none reverse-scored) including, “I make friends easily,” and “I have fun with my friends.” Internal consistency for this measure in Song’s (2003) study was .81. Cronbach’s alpha in the current study was .84.

Relationships with adults. Relationships with Adults was the fifth and final subscale to be used from the Resiliency Inventory. This subscale measured children's confidence in adults' availability and dependability. This subscale has 8 items (1 reverse-scored), including, "There is at least one adult I can talk to about my problems," "I trust adults," and "Adults usually ignore me" (reverse-scored). Song (2003) found the internal consistency of this scale to be .74. Cronbach's alpha in the current sample was .80.

Results

Results are presented in three sections, preliminary analyses, correlational analyses, and hierarchical regression analyses for each of the five outcome measures (optimism, self-efficacy, interpersonal sensitivity, relationships with peers, relationships with adults).

Preliminary Analyses

Prior to all analyses, statistical tests were run to ensure the variables met the assumptions of normality, linearity, multicollinearity, and homoscedasticity. All variables met the assumption of normality except that dinner with an adult family member and the availability of safe places in one's neighbourhood were both negatively skewed. Because of the large sample size, however, it is unlikely that these distributions had any effect on the statistical results, but it was something I considered in my interpretations. Some outliers were also present in this sample, but none of the outliers exceeded a Cook's distance value of 1, indicating that they did not unjustifiably affect the results in any of the regression models (Tabachnick & Fidell, 2007). Missing data (ranging from 0 to 60 data points on each scale) were excluded pairwise from the regression analyses, based on a procedure suggested by Pallant (2007).

To test for multicollinearity, zero-order correlations were first observed among the variables. Pallant (2007) suggests that correlations over .70 should be reconsidered as they risk sharing too much of the variance in the dependent variable. Among the correlations in this sample, only the relationship between self-efficacy and general self-concept exceeded this threshold, at .73. However, the collinearity diagnostics calculated during regression analyses (tolerance and variance inflation factor) were within the acceptable range for meeting the assumption of multicollinearity and therefore did not necessitate removing this variable (Pallant, 2007). Means and standard deviations for all variables are presented in Table 2. To control for

the potential Type I error due to the large number of tests conducted, a significance level of $p < .01$ was used in all analyses.

Table 2

Variable Constructs and Measures

Measure	Items	Scale	Reliability	<i>M</i>	<i>SD</i>
Optimism	9	1-5	.79	3.65	.73
Self-efficacy	8	1-5	.72	3.62	.62
Interpersonal sensitivity	7	1-5	.73	3.56	.65
Relationships with peers	7	1-5	.84	4.19	.70
Relationships with adults	8	1-5	.80	3.71	.76
Depressive symptoms	11	1-4	.85	1.97	.61
Anxiety symptoms	7	1-4	.85	2.24	.70
General self-concept	8	1-5	.87	3.85	.67
Teacher-rated behaviour (composite)	1	(-4)-(+4)	.97	1.87	1.69
Parent support	6	1-4	.81	3.48	.54
Parent knowledge	6	1-4	.80	3.22	.59
Dinner with adult family member	1	1-4	-	3.64	.70
School adult support	6	1-4	.80	3.16	.61
School connectedness	14	1-5	.88	3.56	.70
Neighbourhood adult support	7	1-4	.93	2.76	.92
Neighbourhood safe places	1	1 or 0	-	.79	.41

Correlational Analyses

Correlational analyses were also conducted to determine the order in which to enter the variables of interest. Following the ecological theory proposed by Bronfenbrenner (1979) and supported by the literature, experiences that are most salient to the individual should have the greatest impact on any outcome (e.g., everyday experiences versus less frequent experiences). However, analyses were also run to see how well the present data fit this theory. From the zero-order correlations presented in Table 3, general self concept (a child characteristic) had the largest (positive) correlations with the five resilience characteristics (optimism, self-efficacy, interpersonal sensitivity, relationships with peers, relationships with adults) of any of the independent variables (r 's $> .48$; Pallant, 2007). Depressive symptoms and anxiety symptoms

(negatively related) and teacher-rated behaviour (positively related) were also frequently significantly correlated. Of the ecological variables, parent support and parent knowledge were two of the largest correlates of all five resilience characteristics (r 's ranging from .22 to .54), followed by school connectedness, and the supportiveness of school and neighbourhood adults (all positively related and statistically significant). The number of nights eating dinner with an adult family member and availability of safe places in one's neighbourhood were also significantly positively related to most resilience characteristics (see Table 3). However, in all cases these variables had smaller correlations with the five resilience characteristics (r 's ranging from .05 (*ns*) to .33).

Table 3

Zero-order Correlations of Independent and Dependent Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Optimism	-	.56**	.43**	.37**	.51**	-.60**	-.32**	.60**	.26**	.44*	.36**	.20**	.37**	.41**	.25**	.09**
2. Self-efficacy	.56**	-	.62**	.43**	.58**	-.29**	-.19**	.73**	.21**	.46**	.42**	.13**	.44**	.37**	.31**	.08**
3. Interpersonal sensitivity	.43**	.62**	-	.37**	.53**	-.19**	-.01	.57**	.22**	.35**	.35**	.12**	.40**	.45**	.28**	.05
4. Relationships with peers	.37**	.43**	.37**	-	.35**	-.30**	-.24**	.48**	.11**	.34**	.22**	.06*	.34**	.31**	.30**	.05
5. Relationships with adults	.51**	.58**	.53**	.35**	-	-.32**	-.05	.53**	.16**	.54**	.51**	.19**	.47**	.43**	.33**	.09**
6. Depressive symptoms	-.60**	-.29**	-.19**	-.30**	-.32**	-	.49**	-.38**	-.19**	-.29**	-.27**	-.22**	-.21**	-.26**	-.12**	-.10**
7. Anxiety symptoms	-.32**	-.19**	-.01	-.24**	-.05	.49**	-	-.18**	.04	-.10**	-.07*	-.10**	-.06*	-.08**	-.06	-.08**
8. General self-concept	.60**	.73**	.57**	.48**	.53**	-.38**	-.18**	-	.28**	.47**	.43**	.18**	.48**	.41**	.31**	.12**
9. Teacher-rated behaviour	.26**	.21**	.22**	.09*	.16**	-.19**	.04	.27**	-	.16**	.18**	.16**	.16**	.19**	-.03	.04
10. Parent support	.44**	.46**	.35**	.34**	.54**	-.29**	-.10**	.47**	.16**	-	.50**	.20**	.48**	.31**	.37**	.09**
11. Parent knowledge	.36**	.42**	.35**	.22**	.51**	-.27**	-.07*	.43**	.18**	.50**	-	.22**	.36**	.32**	.23**	.10**
12. Dinner with adult family member	.20**	.13**	.12**	.06*	.19**	-.22**	-.10**	.18**	.16**	.20**	.22**	-	.12**	.15**	.07*	.09**
13. School adult support	.37**	.44**	.40**	.34**	.47**	-.21**	-.06*	.48**	.16**	.48**	.36**	.12**	-	.44**	.36**	.07*
14. School connectedness	.41**	.37**	.45**	.31**	.43**	-.26**	-.08**	.41**	.19**	.31**	.32**	.15**	.44**	-	.25**	.06*
15. Neighbourhood adult support	.25**	.31**	.28**	.30**	.33**	-.12**	-.06	.31**	-.03	.37**	.23**	.07*	.36**	.25**	-	.16**
16. Neighbourhood safe places	.09**	.08**	.05	.05	.09**	-.10**	-.08**	.12**	.03	.09**	.10**	.09**	.07*	.06*	.16**	-

* $p < .01$, ** $p < .001$.

Based on these analyses and the literature, variables were entered into the model from most salient to least salient influence, meaning child characteristics, followed by perceived family, school, and neighbourhood qualities. Teachers' ratings of children's positive behaviour were included in the child characteristics block because in the current study, as in previous research (Benson et al., 1998; Theokas et al., 2005), behaviour was considered to be an individual asset as opposed to an ecological asset. The model was run separately for each of the five outcome measures (optimism, self-efficacy, interpersonal sensitivity, relationships with peers, relationships with adults). Figure 1 maps the structure of the regression models.

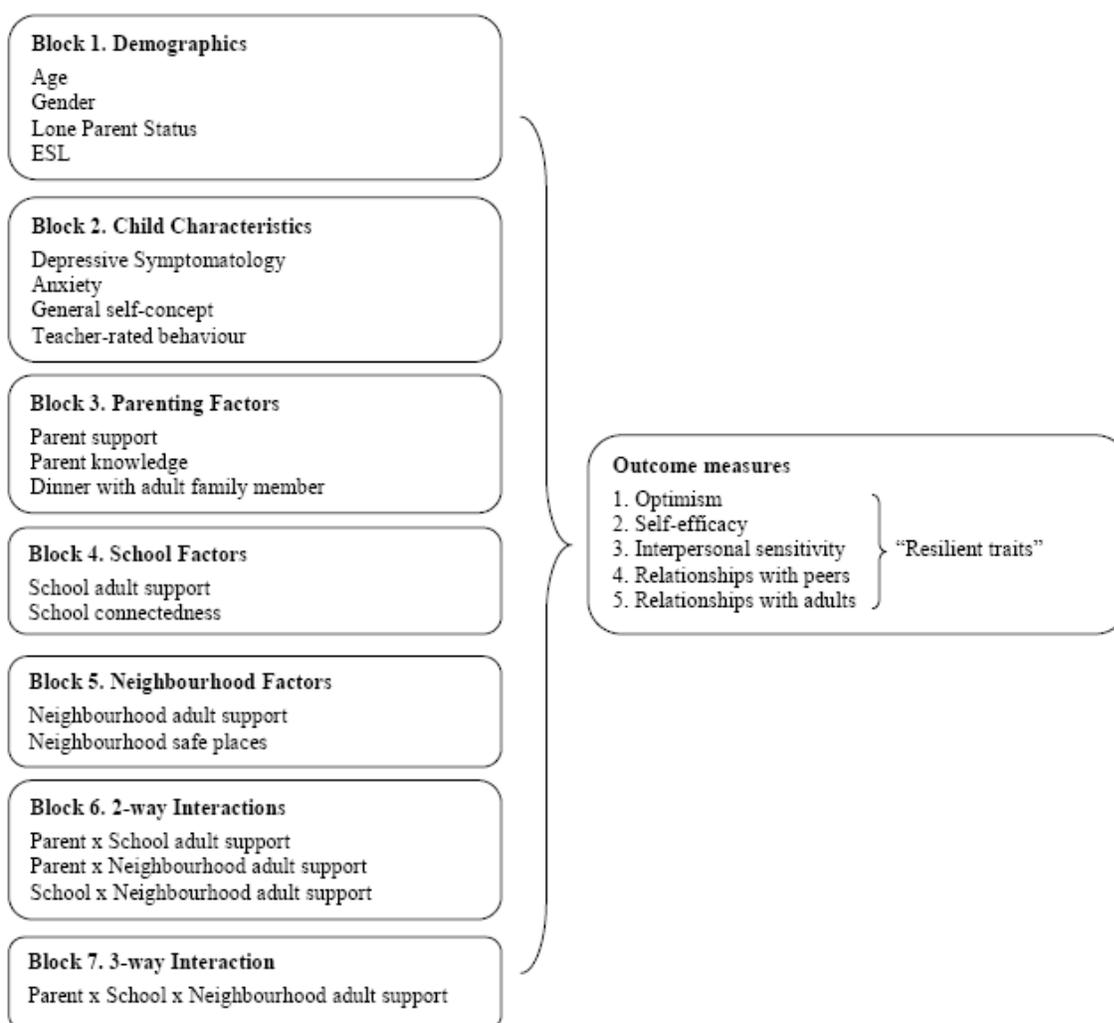


Figure 1. Design of hierarchical regression models.

Hierarchical Regression Analyses

A series of hierarchical multiple regressions were used to assess the manner in which child characteristics and parenting, school, and neighbourhood factors predicted five dimensions of resiliency: optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults, after controlling for demographic characteristics. It was also of interest to examine the ways in which adult supportiveness across multiple contexts (i.e., home, school, and neighbourhood) predicted children's resiliency. To test this, four interaction terms were created from the parent support, school adult support, and neighbourhood adult support composite scores: Parent x School Support, Parent x Neighbourhood Support, School Support x Neighbourhood Support, and Parent x School Support x Neighbourhood Support. Results for each regression analysis are presented in Tables 4 through 8.

Table 4

Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Optimism

	Block 1			Block 2			Block 3			Block 4			Block 5		
	B	SE	β												
Block 1. Demographics	4.09	.26		3.28	.24		2.69	.26		2.34	.27		2.35	.27	
Age	-.05	.02	-.07	-.03	.02	-.04	-.03	.02	-.04	-.02	.02	-.02	-.01	.02	-.02
Gender ¹	.16	.04	.11**	.08	.03	.05	.08	.03	.06*	.07	.03	.04	.06	.03	.04
Lone parent ²	-.12	.05	-.07	.02	.03	.01	.01	.03	.01	.02	.03	.01	.02	.03	.01
ESL ³	-.05	.04	-.03	-.04	.03	-.02	-.01	.03	-.01	-.02	.03	-.02	-.02	.03	-.01
Block 2. Child characteristics															
Depressive symptoms				-.49	.03	-.41**	-.46	.03	-.38**	-.45	.03	-.37**	-.45	.03	-.37**
Anxiety symptoms				-.06	.03	-.06	-.07	.03	-.07*	-.07	.02	-.07*	-.07	.02	-.07*
General self-concept				.44	.03	.40**	.37	.03	.34**	.34	.03	.31**	.33	.03	.31**
Teacher-rated behaviour				.03	.01	.07*	.03	.01	.06*	.03	.01	.06*	.03	.01	.06*
Block 3. Parenting															
Parent support							.18	.03	.14**	.16	.04	.12**	.15	.04	.11**
Parent knowledge							.02	.03	.01	<.01	.03	<.01	.01	.03	<.01
Dinner with adult family member							.01	.02	.01	.01	.02	.01	.01	.02	.01
Block 4. School															
School adult support										.02	.03	.02	.02	.03	.01
School connectedness										.12	.03	.12**	.12	.03	.12**
Block 5. Neighbourhood															
Neigh. adult support													.02	.02	.03
Neigh. safe places													-.02	.04	-.01
Block 6. 2-way Interactions															
Parent x School adult support															
Parent x Neigh. adult support															
School x Neigh. adult support															
Block 7. 3-way Interaction															
Parent x School x Neigh. support															

* $p < .01$, ** $p < .001$.¹Gender was coded such that 1 = boy and 2 = girl.²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

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Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Optimism

	Block 6			Block 7			Total	
	B	SE	β	B	SE	β	R ²	ΔR^2
Block 1. Demographics	2.67	.48		3.76	1.06		.02	.02**
Age	-.02	.02	-.02	-.01	.02	-.02		
Gender ¹	.06	.03	.04	.06	.03	.04		
Lone parent ²	.02	.03	.01	.02	.03	.01		
ESL ³	-.02	.03	-.01	-.02	.03	-.01		
Block 2. Child characteristics							.53	.51**
Depressive symptoms	-.45	.03	-.37**	-.45	.03	-.37**		
Anxiety symptoms	-.07	.03	-.07*	-.07	.03	-.07*		
General self-concept	.33	.03	.31**	.34	.03	.31**		
Teacher-rated behaviour	.03	.01	.06*	.03	.01	.06*		
Block 3. Parenting							.55	.02**
Parent support	-.02	.14	-.01	-.35	.32	-.26		
Parent knowledge	<.01	.03	<.01	<.01	.03	<.01		
Dinner with adult family member	.01	.02	.01	.01	.02	.01		
Block 4. School							.56	.01**
School adult support	-.06	.15	-.05	-.44	.36	-.37		
School connectedness	.12	.03	.12**	.12	.03	.12**		
Block 5. Neighbourhood							.56	<.01
Neigh. adult support	.08	.12	.10	-.44	.46	-.55		
Neigh. safe places	-.02	.04	-.01	-.02	.04	-.01		
Block 6. 2-way Interactions							.56	<.01
Parent x School adult support	.05	.04	.21	.16	.11	.69		
Parent x Neigh. adult support	.01	.04	.06	.16	.14	.88		
School x Neigh. adult support	-.03	.03	-.17	.14	.15	.74		
Block 7. 3-way Interaction							.56	<.01
Parent x School x Neigh. support				-.05	.04	-1.10		

* $p < .01$, ** $p < .001$.

¹Gender was coded such that 1 = boy and 2 = girl.

²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.

³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

Table 5

Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Self-efficacy

	Block 1			Block 2			Block 3			Block 4			Block 5		
	B	SE	β												
Block 1. Demographics	4.45	.22		1.52	.20		0.90	.22		0.74	.23		0.74	.23	
Age	-.08	.02	-.12**	-.03	.01	-.05	-.02	.01	-.03	-.01	.01	-.02	-.01	.01	-.02
Gender ¹	.06	.04	.05	-.04	.03	-.03	-.03	.03	-.03	-.04	.03	-.03	-.05	.03	-.04
Lone parent ²	-.06	.04	-.05	.05	.03	.03	.04	.03	.03	.04	.03	.03	.04	.03	.03
ESL ³	.01	.04	.01	.03	.03	.02	.05	.03	.04	.05	.03	.04	.06	.03	.04
Block 2. Child characteristics															
Depressive symptoms				.02	.03	.02	.05	.03	.05	.06	.03	.06	.06	.03	.06
Anxiety symptoms				-.06	.02	-.07*	-.07	.02	-.08**	-.08	.02	-.09**	-.08	.02	-.08**
General self-concept				.66	.02	.71**	.58	.02	.63**	.56	.02	.60**	.55	.02	.59**
Teacher-rated behaviour				.01	.01	.03	.01	.01	.03	.01	.01	.02	.01	.01	.03
Block 3. Parenting															
Parent support							.16	.03	.14**	.13	.03	.11**	.12	.03	.10**
Parent knowledge							.09	.03	.09**	.08	.03	.08*	.08	.03	.08*
Dinner with adult family member							-.03	.02	-.03	-.03	.02	-.03	-.03	.02	-.03
Block 4. School															
School adult support										.06	.03	.06	.05	.03	.05
School connectedness										.04	.02	.05	.04	.02	.04
Block 5. Neighbourhood															
Neigh. adult support													.04	.02	.06*
Neigh. safe places													.01	.03	.01
Block 6. 2-way Interactions															
Parent x School adult support															
Parent x Neigh. adult support															
School x Neigh. adult support															
Block 7. 3-way Interaction															
Parent x School x Neigh. support															

* $p < .01$, ** $p < .001$.

¹Gender was coded such that 1 = boy and 2 = girl.

²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.

³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

(Continued next page)

Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Self-efficacy

	Block 6			Block 7			Total	
	B	SE	β	B	SE	β	R ²	ΔR^2
Block 1. Demographics	1.84	.40		3.42	.88		.02	.02**
Age	-.01	.01	-.02	-.01	.01	-.02		
Gender ¹	-.06	.03	-.04	-.07	.03	-.05		
Lone parent ²	.04	.03	.03	.04	.03	.03		
ESL ³	.06	.03	.05	.05	.03	.04		
Block 2. Child characteristics							.53	.51**
Depressive symptoms	.05	.03	.05	.05	.03	.05		
Anxiety symptoms	-.07	.02	-.08*	-.07	.02	-.08*		
General self-concept	.55	.02	.60**	.56	.02	.60**		
Teacher-rated behaviour	.01	.01	.03	.01	.01	.03		
Block 3. Parenting							.56	.03**
Parent support	-.26	.12	-.22	-.74	.27	-.64*		
Parent knowledge	.08	.03	.07*	.08	.03	.07*		
Dinner with adult family member	-.03	.02	-.03	-.03	.02	-.03		
Block 4. School							.56	.01*
School adult support	-.30	.13	-.30	-.85	.30	-.84*		
School connectedness	.04	.02	.04	.04	.02	.04		
Block 5. Neighbourhood							.57	<.01
Neigh. adult support	.07	.10	.10	-.69	.39	-1.01		
Neigh. safe places	.02	.03	.01	.02	.03	.01		
Block 6. 2-way Interactions							.57	.01*
Parent x School adult support	.12	.04	.61*	.28	.09	1.43*		
Parent x Neigh. adult support	.01	.03	.08	.23	.11	1.47		
School x Neigh. adult support	-.02	.03	-.13	.23	.13	1.43		
Block 7. 3-way Interaction							.57	<.01
Parent x School x Neigh. support				-.07	.04	-1.88		

* $p < .01$, ** $p < .001$.

¹Gender was coded such that 1 = boy and 2 = girl.

²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.

³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

Table 6

Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Interpersonal Sensitivity

	Block 1			Block 2			Block 3			Block 4			Block 5		
	B	SE	β												
Block 1. Demographics	4.17	.23		1.66	.24		1.11	.27		0.53	.27		0.53	.27	
Age	-.09	.02	-.14**	-.05	.02	-.08*	-.04	.02	-.06	-.02	.02	-.03	-.02	.02	-.03
Gender ¹	.32	.04	.25**	.22	.03	.17**	.22	.03	.17**	.19	.03	.15**	.19	.03	.14**
Lone parent ²	-.05	.04	-.04	.04	.04	.03	.04	.04	.03	.04	.03	.03	.04	.03	.03
ESL ³	<-.01	.04	<-.01	.01	.03	.01	.02	.03	.01	-.01	.03	<-.01	<-.01	.03	<-.01
Block 2. Child characteristics															
Depressive symptoms				-.01	.03	-.01	.01	.03	.01	.04	.03	.04	.04	.03	.04
Anxiety symptoms				.06	.03	.07	.05	.03	.06	.05	.03	.05	.05	.03	.05
General self-concept				.52	.03	.54**	.46	.03	.48**	.40	.03	.41**	.39	.03	.40**
Teacher-rated behaviour				.01	.01	.03	.01	.01	.02	.01	.01	.01	.01	.01	.02
Block 3. Parenting															
Parent support							.09	.04	.07	.04	.04	.03	.03	.04	.02
Parent knowledge							.10	.03	.09*	.08	.03	.07	.08	.03	.07
Dinner with adult family member							<-.01	.02	<-.01	-.01	.02	-.01	-.01	.02	-.01
Block 4. School															
School adult support										.05	.03	.05	.04	.03	.04
School connectedness										.20	.03	.22**	.20	.03	.21**
Block 5. Neighbourhood															
Neigh. adult support													.04	.02	.05*
Neigh. safe places													<.01	.04	<.01
Block 6. 2-way Interactions															
Parent x School adult support															
Parent x Neigh. adult support															
School x Neigh. adult support															
Block 7. 3-way Interaction															
Parent x School x Neigh. support															

* $p < .01$, ** $p < .001$.¹Gender was coded such that 1 = boy and 2 = girl.²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

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Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Interpersonal Sensitivity

	Block 6			Block 7			Total	
	B	SE	β	B	SE	β	R ²	Δ R ²
Block 1. Demographics	1.75	.48		2.41	1.06		.09	.09**
Age	-.02	.02	-.03	-.02	.02	-.03		
Gender ¹	.18	.03	.14**	.18	.03	.14**		
Lone parent ²	.04	.03	.03	.04	.03	.03		
ESL ³	.01	.03	.01	.01	.03	.01		
Block 2. Child characteristics							.37	.28**
Depressive symptoms	.04	.03	.03	.03	.03	.03		
Anxiety symptoms	.06	.03	.06	.06	.03	.06		
General self-concept	.39	.03	.41**	.40	.03	.41**		
Teacher-rated behaviour	.01	.01	.02	.01	.01	.02		
Block 3. Parenting							.38	.01**
Parent support	-.43	.14	-.36*	-.63	.32	-.52		
Parent knowledge	.07	.03	.06*	.07	.03	.06		
Dinner with adult family member	-.01	.02	-.01	-.01	.02	-.01		
Block 4. School							.42	.04**
School adult support	-.28	.15	-.26	-.50	.36	-.48		
School connectedness	.20	.03	.21**	.20	.03	.21**		
Block 5. Neighbourhood							.43	<.01
Neigh. adult support	.03	.12	.05	-.28	.47	-.40		
Neigh. safe places	.01	.04	.01	.01	.04	.01		
Block 6. 2-way Interactions							.43	.01
Parent x School adult support	.13	.04	.62**	.19	.11	.94		
Parent x Neigh. adult support	.04	.04	.23	.13	.14	.78		
School x Neigh. adult support	-.04	.03	-.24	.07	.16	.38		
Block 7. 3-way Interaction							.43	<.01
Parent x School x Neigh. support				-.03	.04	-.75		

* $p < .01$, ** $p < .001$.

¹Gender was coded such that 1 = boy and 2 = girl.

²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.

³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

Table 7

Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Relationships with Peers

	Block 1			Block 2			Block 3			Block 4			Block 5		
	B	SE	β												
Block 1. Demographics	4.03	.25		2.41	.28		2.23	.32		1.84	.32		1.85	.32	
Age	.01	.02	.01	.04	.02	.06	.04	.02	.06	.05	.02	.07*	.05	.02	.08*
Gender ¹	.08	.04	.06	.05	.04	.03	.05	.04	.04	.03	.04	.02	.02	.04	.01
Lone parent ²	-.09	.05	-.06	-.01	.04	-.01	-.03	.04	-.02	-.02	.04	-.02	-.03	.04	-.02
ESL ³	-.12	.04	-.08*	-.10	.04	-.06	-.07	.04	-.05	-.08	.04	-.06	-.06	.04	-.04
Block 2. Child characteristics															
Depressive symptoms				-.10	.04	-.08*	-.09	.04	-.07	-.07	.04	-.06	-.07	.04	-.06
Anxiety symptoms				-.12	.03	-.12**	-.12	.03	-.12**	-.13	.03	-.13**	-.13	.03	-.13**
General self-concept				.46	.03	.44**	.41	.03	.40**	.36	.03	.34**	.34	.03	.33**
Teacher-rated behaviour				-.02	.01	-.05	-.02	.01	-.05	-.02	.01	-.05	-.02	.01	-.04
Block 3. Parenting															
Parent support							.19	.04	.14**	.14	.04	.11*	.11	.04	.08*
Parent knowledge							-.03	.04	-.03	-.05	.04	-.04	-.05	.04	-.04
Dinner with adult family member							-.06	.03	-.06	-.06	.03	-.06	-.06	.03	-.06
Block 4. School															
School adult support										.08	.04	.07	.06	.04	.05
School connectedness										.12	.03	.12**	.11	.03	.11**
Block 5. Neighbourhood															
Neigh. adult support													.10	.02	.12**
Neigh. safe places													-.03	.04	.02
Block 6. 2-way Interactions															
Parent x School adult support															
Parent x Neigh. adult support															
School x Neigh. adult support															
Block 7. 3-way Interaction															
Parent x School x Neigh. support															

* $p < .01$, ** $p < .001$.

¹Gender was coded such that 1 = boy and 2 = girl.

²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.

³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

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Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Relationships with Peers

	Block 6			Block 7			Total	
	B	SE	β	B	SE	β	R ²	Δ R ²
Block 1. Demographics	1.50	.57		1.14	1.25		.01	.01*
Age	.06	.02	.08*	.06	.02	.08		
Gender ¹	.02	.04	.02	.03	.04	.02		
Lone parent ²	-.03	.04	-.02	-.03	.04	-.02		
ESL ³	-.06	.04	-.04	-.05	.04	-.04		
Block 2. Child characteristics							.27	.26**
Depressive symptoms	-.07	.04	-.06	-.07	.04	-.06		
Anxiety symptoms	-.13	.03	-.13**	-.13	.03	-.13**		
General self-concept	.34	.03	.33**	.34	.03	.33**		
Teacher-rated behaviour	-.02	.01	-.04	-.01	.01	-.04		
Block 3. Parenting							.29	.02**
Parent support	.09	.17	.07	.20	.38	.15		
Parent knowledge	-.05	.04	-.04	-.05	.04	-.04		
Dinner with adult family member	-.06	.03	-.06	-.06	.03	-.06		
Block 4. School							.30	.02**
School adult support	.34	.18	.30	.47	.43	.41		
School connectedness	.11	.03	.11**	.11	.03	.11**		
Block 5. Neighbourhood							.32	.01**
Neigh. adult support	.06	.15	.08	.23	.55	.30		
Neigh. safe places	-.03	.04	-.02	-.03	.04	-.02		
Block 6. 2-way Interactions							.32	<.01
Parent x School adult support	-.04	.05	-.19	-.08	.13	-.36		
Parent x Neigh. adult support	.06	.04	.32	.01	.16	.04		
School x Neigh. adult support	-.05	.04	-.28	-.11	.18	-.60		
Block 7. 3-way Interaction							.32	<.01
Parent x School x Neigh. support				.02	.05	.38		

* $p < .01$, ** $p < .001$.

¹Gender was coded such that 1 = boy and 2 = girl.

²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.

³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

Table 8

Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Relationships with Adults

	Block 1			Block 2			Block 3			Block 4			Block 5		
	B	SE	β												
Block 1. Demographics	4.60	.27		2.41	.30		0.35	.30		-0.20	.30		-0.20	.30	
Age	-.09	.02	-.12**	-.05	.02	-.06*	-.01	.02	-.02	<.01	.02	<.01	.01	.02	.01
Gender ¹	.14	.04	.09*	.02	.04	.02	.03	.04	.02	<.01	.03	<.01	-.01	.03	<.01
Lone parent ²	-.11	.05	-.07	-.01	.04	<.01	-.01	.04	-.01	-.01	.04	<.01	-.01	.04	-.01
ESL ³	-.04	.05	-.02	-.02	.04	-.01	.03	.04	.02	.01	.03	.01	.03	.03	.02
Block 2. Child characteristics															
Depressive symptoms				-.26	.04	-.21**	-.16	.04	-.13**	-.14	.03	-.11**	-.14	.03	-.11**
Anxiety symptoms				.14	.03	.13**	.11	.03	.11**	.11	.03	.10**	.11	.03	.10**
General self-concept				.53	.03	.47**	.31	.03	.28**	.24	.03	.21**	.23	.03	.20**
Teacher-rated behaviour				-.01	.01	-.02	-.02	.01	-.04	-.02	.01	-.05	-.02	.01	-.04
Block 3. Parenting															
Parent support							.39	.04	.28**	.32	.04	.23**	.30	.04	.21**
Parent knowledge							.29	.03	.22**	.26	.03	.21**	.26	.03	.21**
Dinner with adult family member							.02	.03	.02	.02	.02	.02	.02	.02	.02
Block 4. School															
School adult support										.13	.03	.12**	.12	.03	.10**
School connectedness										.16	.03	.15**	.16	.03	.15**
Block 5. Neighbourhood															
Neigh. adult support													.06	.02	.07*
Neigh. safe places													<.01	.04	<.01
Block 6. 2-way Interactions															
Parent x School adult support															
Parent x Neigh. adult support															
School x Neigh. adult support															
Block 7. 3-way Interaction															
Parent x School x Neigh. support															

* $p < .01$, ** $p < .001$.¹Gender was coded such that 1 = boy and 2 = girl.²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language.

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Table 8 cont'd

Hierarchical Regression Examining the Influence of Individual and Ecological Factors on Relationships with Adults

	Block 6			Block 7			Total	
	B	SE	β	B	SE	β	R ²	ΔR^2
Block 1. Demographics	-.74	.53		.44	1.18		.03	.03**
Age	.01	.02	.01	.01	.02	.01		
Gender ¹	<.01	.03	<.01	-.01	.03	-.01		
Lone parent ²	-.01	.04	-.01	-.01	.04	-.01		
ESL ³	.03	.03	.02	.02	.04	.02		
Block 2. Child Characteristics							.32	.29**
Depressive symptoms	-.14	.03	-.11**	-.14	.03	-.11**		
Anxiety symptoms	.11	.03	.10**	.11	.03	.10**		
General self-concept	.22	.03	.20**	.22	.03	.20**		
Teacher-rated behaviour	-.02	.01	-.03	-.02	.01	-.04		
Block 3. Parenting							.45	.13**
Parent support	.32	.16	.23	-.03	.36	-.02		
Parent knowledge	.27	.03	.21**	.27	.03	.21**		
Dinner with adult family member	.02	.02	.01	.02	.02	.01		
Block 4. School							.48	.03**
School adult support	.29	.17	.23	-.12	.40	-.10		
School connectedness	.16	.03	.14**	.16	.03	.14**		
Block 5. Neighbourhood							.48	<.01
Neigh. adult support	.27	.14	.33	-.29	.52	-.35		
Neigh. safe places	<.01	.04	<.01	<.01	.04	<.01		
Block 6. 2-way Interactions							.49	<.01
Parent x School adult support	<.01	.05	-.02	.12	.12	.49		
Parent x Neigh. adult support	-.01	.04	-.04	.16	.15	.81		
School x Neigh. adult support	-.06	.03	-.29	.13	.17	.66		
Block 7. 3-way Interaction							.49	<.01
Parent x School x Neigh. support				-.05	.05	-1.14		

* $p < .01$, ** $p < .001$.¹Gender was coded such that 1 = boy and 2 = girl.²Lone parent status was coded such that 0 = not raised by a lone parent and 1 = raised by a lone parent.³ESL was coded such that 0 = does not speak English as a second language and 1 = does speak English as a second language

Optimism. The first hierarchical regression analysis examined the extent to which different individual and ecological variables predicted the resilience characteristic of optimism. Unstandardized regression coefficients (B) and standard errors (SE), as well as standardized regression coefficients (β), R^2 , and change in R^2 (ΔR^2) are presented in Table 4. Demographic variables entered in Block 1 explained 2% of the variance in optimism, $F(4, 1158) = 7.24, p < .001$. Of the demographic variables, only gender was significant indicating that girls reported higher optimism than boys. Child characteristics (general self-concept, depressive symptoms, anxiety symptoms, teacher-rated behaviour) entered in Block 2 explained an additional 51% of the variance, $F(4, 1154) = 312.31, p < .001$. Depressive symptoms, general self-concept, and teacher-rated behaviour were significant. Depressive symptoms were negatively related to optimism, whereas self-concept and positive behaviour were positively related. After accounting for these individual differences, parenting variables entered in Block 3 explained an additional 2% of children's optimism, $F(3, 1151) = 12.81, p < .001$. Although parenting practices as a block significantly contributed to the overall model, the only variable that was statistically significant was perceived parent support. School variables entered in Block 4 explained an additional 1% of the variance, $F(2, 1149) = 15.10, p < .001$. Only school connectedness (positively related) was significant. Finally, neighbourhood factors that were entered in Block 5 explained less than 1% of additional variance in optimism which was not significant, $F(2, 1147) = 0.77, p > .01$. Neither of the two variables in the block, neighbourhood adult support or neighbourhood safe places, were significant. In Block 6, the 2-way interactions between Parent x School, Parent x Neighbourhood, and School x Neighbourhood adult support did not significantly explain any additional variance, $F(3, 1144) = .64, p > .01$. Finally, in Block 7, the 3 way interaction between Parent x School x Neighbourhood adult support was entered did not explain any additional

variance, $F(1, 1143) = 1.34, p > .01$. Overall, the entire model accounted for a total of 56% of the variance in children's optimism, $F(19, 1143) = 76.60, p < .001$.

Self-efficacy. The second hierarchical regression analysis examined the extent to which different individual and ecological variables predicted the resilience characteristic of self-efficacy. B 's, SE 's, betas, R^2 , and ΔR^2 are presented in Table 5. Demographics in Block 1 explained 2% of the variance in self-efficacy, $F(4, 1158) = 6.00, p < .001$. However, only age was significant, indicating that older children reported lower self-efficacy than younger children. Child characteristics in Block 2 explained 52% of the variance, $F(4, 1154) = 318.35, p < .001$. Only general self-concept (positively related) and anxiety symptoms (negatively related) were significant. Parenting practices as a whole in Block 3 accounted for slightly more of the variance (3%) than it had in the optimism model, $F(3, 1151) = 21.98, p < .001$. Both parent support and parent knowledge were significant, positive predictors of self-efficacy. Dinner with an adult family member was not significant. In Block 4, school variables as a whole explained 1% of the variance, $F(2, 1149) = 6.56, p < .01$. However, neither school connectedness nor school adult support were significant. Finally, the additional variance explained by neighbourhood in Block 5 was not statistically significant, $F(2, 1147) = 3.88, p > .01$. Neighbourhood adult support, however, was a significant predictor. Overall, the model explained 57% of the variance in children's self-efficacy, $F(19, 1143) = 80.92, p < .001$.

Unique to the self-efficacy dimension of resilience, a significant 2-way interaction was found between Parent x School Support on children's self-efficacy, $\beta = .57, p < .001$. As shown in Figure 2, having low support from adults at home (-1/2 SD below the mean) and low support from adults at school resulted in the lowest self-efficacy among children. That is, children who felt little adult support both at home and at school were less confident in themselves and less

confident in their abilities to handle different situations. Perceiving an average amount of support from school adults improved self-efficacy scores somewhat, as did perceiving higher amount of school adult support (+1/2 SD above the mean). As shown in Figure 2, however, even having an average amount of support at home magnified the effects of school adult support. The difference between low, average, and high school support became more exaggerated in the presence of high parent support. This interaction suggests a synergistic effect between parent and school adult support in predicting higher self-confidence and self-competence in children.

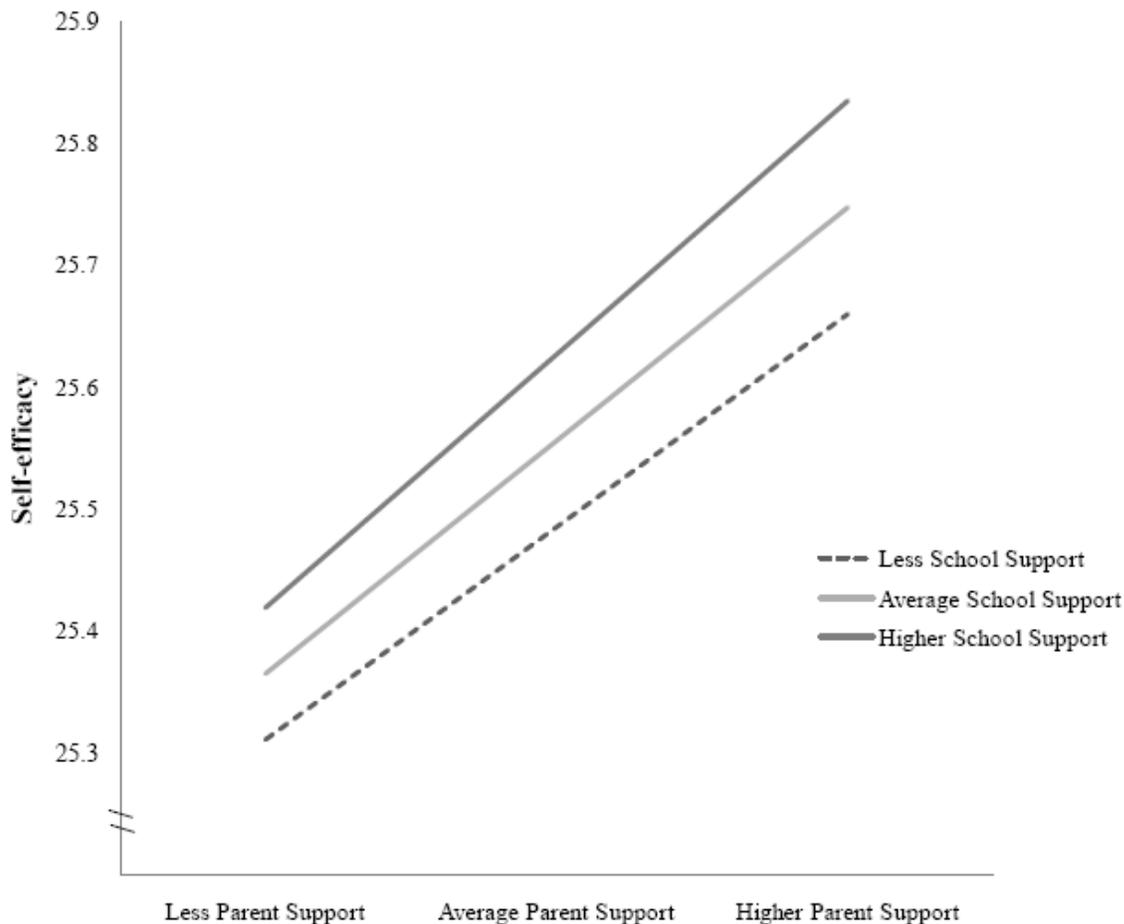


Figure 2. Multiplicative effect of supportive adults at home and at school on children's self-efficacy.

Interpersonal sensitivity. The third hierarchical regression analysis examined the extent to which different individual and ecological variables predicted the resilience characteristic of interpersonal sensitivity. B's, SE's, betas, R^2 , and ΔR^2 are presented in Table 6. On this dimension of resilience, demographic characteristics accounted for much more of the variance (9%) than with optimism or self-efficacy, $F(4, 1158) = 26.74, p < .001$. Age and gender were significant predictors indicating that girls reported higher interpersonal sensitivity than boys, and younger children reported higher interpersonal sensitivity than older children. In Block 2, child characteristics accounted for 28% of the variance, $F(4, 1154) = 128.86, p < .001$. Only general self-concept (positively related) was significant. Parenting variables in Block 3 explained 1% of the variance in interpersonal sensitivity, $F(3, 1151) = 8.21, p < .001$. None of the parenting variables were significant, however. School variables in Block 4 had a greater influence over interpersonal sensitivity than any of the other resilience characteristics, explaining 4% of the variance, $F(2, 1149) = 41.96, p < .001$. School connectedness was the only significant variable in the block; school adult support was not significant. Neighbourhood factors in Block 5 did not significantly add to the model, $F(2, 1147) = 2.07, p > .01$, although neighbourhood adult support was significant. The inclusion of the 2-way interaction terms in Block 6 added significantly to the model, $F(3, 1144) = 3.81, p = .01$, indicating a significant interaction between Parent x School adults. However, this interaction was no longer significant once the 3-way interaction term was included in Block 7. The inclusion of the 3-way interaction term in Block 7 did not explain any additional variance in interpersonal sensitivity, $F(1, 1143) = .49, p > .01$. Overall, the hierarchical regression model explained 43% of the variance in interpersonal sensitivity, $F(19, 1143) = 45.50, p < .001$.

Relationships with peers. The fourth hierarchical regression analysis examined the extent to which different individual and ecological variables predicted the resilience characteristic of relationships with peers. B's, SE's, betas, R^2 , and ΔR^2 are presented in Table 7. In Block 1 demographics accounted for 1% of the variance, $F(4, 1158) = 3.91, p < .01$. ESL was the only significant variable, indicating that children who had learned English as a second language had more difficulty making and maintaining friendships. Child characteristics in Block 2 explained 26% of the variance, $F(4, 1154) = 101.26, p < .001$. Depressive symptoms and anxiety symptoms significantly negatively predicted friendship formation and quality, yet general self-concept was significantly positively related. Parenting in Block 3 explained an additional 2% of relationships with peers, $F(3, 1151) = 8.48, p < .001$. Only parent support was significant. School variables in Block 4 explained an additional 2% of the variance, $F(2, 1149) = 15.02, p < .001$. Only school connectedness was significant in this block. Finally, neighbourhood variables explained an additional 1% of the variance in relationships with peers after parent and school factors were accounted for, $F(2, 1147) = 9.38, p < .001$. Neighbourhood adult support was the only significant variable in this block. The 2-way interactions in Block 6 did not significantly explain any additional variance, $F(3, 1144) = 1.28, p > .01$. The 3-way interaction included in Block 7 also did not significantly explain any additional variance, $F(1, 1143) = 0.10, p > .01$. In all, the regression model explained 32% of the variance in relationships with peers, $F(19, 1143) = 27.95, p < .001$. Though the model was statistically significant, it did not explain this particular dimension of resilience as well as it had the other resilience characteristics.

Relationships with adults. The final hierarchical regression analysis examined the extent to which different individual and ecological variables predicted the resilience characteristic of relationships with adults. B's, SE's, betas, R^2 , and ΔR^2 are presented in Table 8.

Demographics in Block 1 accounted for 3% of the variance, $F(4, 1158) = 8.23, p < .001$. Age and gender were significant, suggesting that girls reported better relationships with adults than boys, while older children reported less trusting relationships with adults. Child characteristics in Block 2 explained 29% of the variance, $F(4, 1154) = 122.55, p < .001$. All of the child characteristics in Block 2 were significant except teacher-rated behaviour. Depressive symptoms were significantly negatively related to adult relationships, while anxiety symptoms and general self-concept were both positively related to children's perceptions of adults. Parenting in Block 3 accounted for more variance in relationships with adults (13%) than it had in any other resilience characteristic, $F(3, 1151) = 91.45, p < .001$. Both parent support and parent knowledge were significant, however dinner with an adult family member was not. The inclusion of school variables in Block 4 explained an additional 3% of the variance in relationships with adults, $F(2, 1149) = 34.95, p < .001$. Both school connectedness and the school adult support were significant predictors. Neighbourhood variables in Block 5 contributed less than 1% to the model, which was not a statistically significant change in explained variance, $F(2, 1147) = 4.08, p > .01$. Neighbourhood adult support, however, was a significant predictor. The 2-way interactions entered in Block 6 did not significantly explain any additional variance, $F(3, 1144) = 1.67, p > .01$. The 3-way interaction in Block 7 also did not significantly explain additional variance in relationships with adults, $F(1, 1143) = 1.25, p > .01$. Overall, the regression model explained 49% of the variance in relationships with adults, $F(19, 1143) = 57.11, p < .001$.

Summary of Findings

Correlational analyses revealed that general self-concept, parent support, parent knowledge, school adult support, and school connectedness had the highest correlations with children's optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and

relationships with adults. Once these variables were entered into hierarchical regression models, however, the influence of these variables changed. As hypothesized, individual factors (i.e., child characteristics) accounted for more of the variance in resilience characteristics than ecological factors (parenting, school, and neighbourhood variables). There were some instances, however, when ecological variables (parenting and school assets) still accounted for a relatively large amount of the variance in particular resilience characteristics, namely among relationships with adults and interpersonal sensitivity, respectively. Table 9 summarizes the findings from all five hierarchical regression analyses regarding the relative contribution of each of the individual and ecological factors after controlling for age, gender, ESL, and lone parent status. Demographic characteristics generally did not significantly predict these resilience characteristics. The two exceptions were that girls reported higher interpersonal sensitivity than boys, and older children reported better relationships with peers than younger children.

Table 9

Summary of Significant Predictors from All Five Hierarchical Regression Analyses

	Optimism	Self-efficacy	Interpersonal Sensitivity	Relationships with Peers	Relationships with Adults
Child Characteristics	Depression (-) Anxiety (-) Self-concept (+) Pos. behaviour (+)	Anxiety (-) Self-concept (+)	Self-concept (+)	Anxiety (-) Self-concept (+)	Depression (-) Anxiety (+) Self-concept (+)
Parenting Assets	Parent support (+)	Parent support (+) Parent know. (+)		Parent support (+)	Parent support (+) Parent know. (+)
School Assets	School connectedness (+)		School connectedness (+)	School connectedness (+)	School adult (+) School connectedness (+)
Neighbourhood Assets		Neigh. adult (+)		Neigh. adult (+)	Neigh. adult (+)

(+) Indicates a significant positive predictor

(-) Indicates a significant negative predictor

Discussion

This study investigated the individual characteristics and ecological factors that predict resiliency during middle childhood. In conceptualizing and designing the research study, we drew from a developmental systems perspective that “recognizes that human development is a bidirectional, individual ↔ context relational process” in which “there are multiple levels of organization within the individual (e.g., genes, motivation, and cognitive abilities) that influence one’s development course,” and “different levels of organization within the social ecology (e.g., families, schools, and neighborhoods) that contribute to development” (Theokas & Lerner, 2006, p. 61). Accordingly, we examined the manner in which different ecological contexts or niches – that is school, family, and neighbourhood – singularly and jointly influenced five dimensions of resilience, namely optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults. Also examined was the manner in which different adult relationships predicted resiliency in middle childhood.

In Luthar’s (2006) review of resilience research across the past five decades, her take-home message was this: “Resilience rests, fundamentally, on relationships” (p. 780). The National Scientific Council on the Developing Child (2004) arrived at the following conclusion as well:

Stated simply, relationships are the “active ingredients” of the environment’s influence on healthy human development. They incorporate the qualities that best promote competence and well-being – individualized responsiveness, mutual action-and-interaction, and an emotional connection to another human being, be it a parent, peer, grandparent, aunt, uncle, neighbour, teacher, coach, or any other person who has an important impact on the child’s early development. (p. 1)

Results from the current study support these same conclusions. Although children's self-concept and psychological well-being accounted for the largest differences in predicting children's resiliency, parents, school adults, and neighbourhood adults each explained additional differences in children's resilient characteristics - optimism, self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults. The developmental systems model (Lerner, 2006) reminds us that characteristics of individuals are fundamentally related to influences in the environment, therefore it is fallible to attribute a child characteristic such as self-concept as an outcome of solely the child's inner workings, as opposed to the result of the child's interaction with his or her context. In other words, the child's characteristics both influence and are influenced by outside contexts.

Overall, results from this investigation supported the hypothesis that individual assets (i.e., concurrent child characteristics – depression, anxiety, self-concept, and positive behaviour) would have greater influence over children's resilience characteristics than ecological assets (parent, school, and neighbourhood influences), after taking into account children's demographic characteristics (age, gender, ESL, and lone parent status). Interestingly, lone parent status was not a significant predictor of children's resilience in this study, indicating that children from single-parent homes were as likely to possess resilience characteristics as children from dual-parent homes. The second hypothesis of this study was also largely supported, in that supportive adults in children's lives contributed additively to children's resiliency in all cases except self-efficacy. In all, the results suggested four major conclusions about resilience and positive development in middle childhood:

1. Psychological well-being and self-concept matter. These psychological attributes were consistently significant predictors of resilience in children. Having a positive self-concept

predicted all five resilience characteristics. Children's anxiety symptoms significantly predicted all but one resilience characteristic (interpersonal sensitivity), and depressive symptoms predicted children's optimism and relationships with adults.

2. Parents matter. Parenting qualities significantly and positively predicted four out of five resilience characteristics (optimism, self-efficacy, relationships with peers, and relationships with adults) even after accounting for child demographics and child characteristics.

3. Children's wider social contexts matter. Beyond the influence of demographics, child characteristics, and parenting factors, school factors significantly predicted children's optimism, interpersonal sensitivity, relationships with peers, and relationships with adults, and neighbourhood factors significantly predicted children's self-efficacy, relationships with peers, and relationships with adults.

4. The more supportive adults children had in their lives, the better. Children reported higher resilience characteristics when they had a greater number of supportive adults in their lives. In the case of children's self-efficacy, the combination of a supportive parent and supportive school adult multiplicatively predicted this dimension of resilience.

The following sections discuss results from this study as they relate to the two objectives of this study which were twofold: 1) To determine how individual child characteristics, as well as family, school, and neighbourhood characteristics predict children's resilience characteristics, and 2) To examine how the presence of multiple supportive adults in children's lives predicted these resilience characteristics.

1) How Do Individual and Ecological Assets Combine to Promote Resilience in Middle Childhood?

The significance of psychological well-being and self-concept. As hypothesized, resources within the individual were more strongly related to children's resilience characteristics than resources external to the child. This corroborates findings from Theokas et al. (2005) who likewise found internal assets such as social conscience, personal values, and school engagement predicted thriving (e.g., school success, helping others, overcoming adversity) better than family, school, and neighbourhood assets. As would be expected, depression was moderately negatively correlated with self-efficacy, interpersonal sensitivity, relationships with peers, and relationships with adults. Interestingly, depression was very highly correlated with optimism ($r = -.60$). Once the four child characteristics were entered into the regression model, however, depression symptoms appeared less significant than anxiety symptoms in predicting resilience characteristics. Tabachnick and Fidell (2007) caution that regression is highly sensitive to the combination of variables included in the model, and that a variable can appear less important if it is one of many variables assessing the same aspect of the dependent variable. Therefore the patterns of significant predictors herein explained must be interpreted with some caution.

In the regression model, higher anxiety symptoms predicted lower optimism, self-efficacy, and relationships with peers, but also predicted higher ratings of relationships with adults. This was especially surprising given that anxiety was not significantly correlated with relationships with adults in the zero-order correlation matrix. One explanation for this finding is that including both depression and anxiety in the regression model isolated the unique effects of each of these psychological characteristics. Depression and anxiety are highly correlated (in the current study $r = .49$). Thus, *controlling for* depression, anxiety may be positively related to

relationships with adults. This would categorize depression as a “suppressor variable” (Cohen, Cohen, West, & Aiken, 2003), meaning that it suppresses the relationship between anxiety and relationships with adults by adding irrelevant variance, but when the shared variance between anxiety and depression is controlled for, a different relationship between anxiety and relationships with adults is revealed. The positive relationship between anxiety symptoms and relationships with adults could be because children who are anxious form closer relationships with adults than peers, perhaps due to an increased need for safety or support. This speculation is consistent with literature that has found socially withdrawn, anxious children have closer, more dependent relationships with teachers (Ladd & Burgess, 1999) and is consistent with finding from the current study that high anxiety was significantly negatively related to relationships with peers. More research is needed to clarify this issue.

Finally, having a positive self-concept was the only factor among any of the individual or ecological predictors that was significantly related to all five resilience characteristics in middle-years children. As Olsson et al. (2003) suggested, self-concept (or self-worth) may be an underlying mechanism through which children are able to exhibit a number of resilient qualities. For example, in the context of a minor adversity (e.g., failing a test) or severe adversity (e.g., losing a parent) children who believe they are important and worth just as much as anyone else may be better able to uphold an optimistic disposition, express higher self-efficacy, maintain a sensitivity to others, and experience more supportive, satisfying relationships with peers and adults. The results of this study certainly support this hypothesis. Future research should attempt to understand the causal mechanisms through which these attributes relate.

The significance of parents. After accounting for differences in children's psychological well-being, behaviour, and self-concept, parenting practices (i.e., perceived parent support, parent knowledge, and dinner with a family adult) significantly predicted every resilience characteristic, though parenting predicted the least amount of variance in children's interpersonal sensitivity (1%). What makes primary caregivers influential is likely a combination of both the amount of time children have spent with their parents as they have grown, and the unique role they play in children's lives (e.g., Bowlby, 1969; Bronfenbrenner, 1979; Clark, 1998). Decades of research have shown how parents socialize their children to fit cultural and gender-specific norms (Clark, 1998), shape their emotional security and interpersonal skills (Bowlby, 1969; Vondra et al., 2001), and influence their confidence to succeed (Olsson, 2003). It is particularly informative, however, that parents continue to exert such great influence over their children at this transitional stage in their development. Middle childhood is a key transitional point when children are beginning to take on the qualities of adolescents; it is distinct from earlier childhood years when children spend the majority of their time at home (Larson & Richards, 1991). For example, Larson and Richards found that by grade 5, children spent less than half of their waking out-of-school hours with family. The significance of parental adults in middle childhood therefore supports Offer and Schonert-Reichl (1992) and Steinberg's (2001) work that finds children continue to rely on their parents as a source of support during transitional periods such as adolescence.

Of the three family factors analyzed, only parent supportiveness and parent knowledge were consistent significant positive predictors of children's resilient characteristics. The only discrepancies were that parents' knowledge about their children's friends and activities did not significantly predict children's optimism or the quality of their relationships with peers, and

parent supportiveness did not significantly predict children's sensitivity towards others. Dinner with an adult family member did not significantly predict any resilience characteristics at the $p < .01$ level. All statistically significant relationships were in the expected direction, indicating that children's perceptions that parents care for them and are watching out for them were associated with increased optimism, self-efficacy, sensitivity towards others, and positive attitudes towards relationships with peers and relationships with adults. Consistent with the literature (e.g., Wyman et al., 1991; Jacobson & Crockett, 2000), it appears that a balance of support and discipline provides a secure, stable base from which children can dream, build confidence, and develop healthy relationships with others.

The significance of wider social contexts. *School assets.* By the grade school years, children spend at least six hours per day in school. There, they are immersed among teachers, staff, and other students who create the structure and atmosphere of the environment. As expected, school factors were significantly related to resilient characteristics in the middle childhood years. Both the supportiveness of school adults and perceived school connectedness were statistically significant correlates of optimism, self-efficacy, and the social dimensions of resilience. In the regression model, school continued to predict every resilience characteristic even after accounting for child characteristics and family attributes. School as a whole appeared to have the most influence over children's interpersonal sensitivity, uniquely explaining 4% of this characteristic in children. Although this number may not seem large, Cook et al. (2002) also found that a composite measure of school quality including the school climate, teachers' expectations of students, parent involvement in the school, and average teacher training level accounted for only 6% of adolescents' overall success. Therefore the current results are in accord

with results of past studies of contextual assets and positive development and re-emphasize the importance of the school environment in middle childhood (Eccles, 2004).

When further examining specific school dimensions within this block that predicted resilience, it was found that the supportiveness of school adults (e.g., teachers, school coaches, counsellors) was no longer a significant predictor of children's optimism, self-efficacy, interpersonal sensitivity, or relationships with peers after controlling for child and family characteristics. It may be that school adult support offers the same benefits as parent support in these cases, and that the variance in these outcomes was simply accounted for by parent supportiveness in the previous level of the hierarchical regression model.

School connectedness, conversely, was a consistent significant predictor of four of five children's resilience qualities (optimism, interpersonal sensitivity, relationships with peers, and relationships with adults). One explanation for why school connectedness continued to predict resilience characteristics and school adult support did not is that the school connectedness measure assessed how children felt about their school environment as a whole, including their fellow classmates in addition to their teachers and staff. The role of peers in early adolescence is a vast topic and was intentionally excluded from this study to maintain a focus on adults. However, these results suggest that perceived support from peers may uniquely contribute to children's positive development as well and that this is a topic worth exploring in detail in future research.

Overall, the significant contribution of school variables to children's resilience characteristics, particularly interpersonal sensitivity, relationships with peers, and relationships with adults, is consistent with past literature that has found that a caring school climate increases students' social competence (Battistich et al., 1997). Battistich et al. specifically showed that

creating a school environment where children felt they belonged and where their opinions were meaningful was critical to fostering positive academic and social development. These kinds of experiences help to inform children of how important they are, and also inform them of how they can expect to be treated in life as well as how they should treat others. Because middle childhood is the time when children are forming their identities (Erikson, 1968), it is critical that schools promote these messages of worth, belonging, and caring.

Neighbourhood assets. Neighbourhood factors as a whole generally did not predict as much of the variance in children's resilience characteristics compared to school or parenting factors. Neighbourhood adult support was the only variable to significantly predict three of five resilience characteristics: self-efficacy, and relationships with peers, and relationships with adults. Although neighbourhood accounted for the least amount of variance in these resilience characteristics, it is meaningful that this factor still uniquely predicted part of children's resilience after controlling for child characteristics, parenting factors, and school factors. Tabachnick and Fidell (2007) warn that a variable (or set of variables) will appear dramatically less important when assigned lower ranking in a hierarchical model because most of the variance in the outcome will have already been accounted for by preceding variables. This certainly may have been the case in the current study, especially because supportive adults in schools and neighbourhoods may serve similar functions in children's lives at this age (Dubois & Silverthorn, 2005; Scales et al., 2006).

Relationships with peers was the one construct that was most influenced by neighbourhood factors. This could be because children became familiar with adults in the neighbourhood from activities with other children (e.g., community sports, dance classes, hanging out at the YMCA). It could also be that being friends with other children introduced

children to new adults (i.e., friends' parents) who cared about them and watched out for them. This phenomenon is reminiscent of Sampson et al.'s (1997) model of collective efficacy where adults within a community share the responsibility of supervising neighbourhood children.

The other variable within the neighbourhood block, neighbourhood safe places, was not statistically significant in any measures of resilient characteristics. A possible reason for this result is that there was a restricted range of variance on this measure to begin with, as nearly 80% of the sample knew of a safe place in their neighbourhood. Therefore the fact that this was not a significant predictor could have been due to characteristics of this sample, as the children in this study would not be considered "high-risk." It could be that basic needs such as safety only become relevant under very dire circumstances. As Masten and Motti-Stefanidi (2009) asserted, more research is needed to clarify the distinctions between "protective" and "promotive" factors in children and youth.

2) How Do Multiple Supportive Adults Contribute to Children's Development?

For optimism, interpersonal sensitivity, relationships with peers, and relationships with adults, results supported an additive model of influence such that the presence of multiple supportive adults each added some benefit to the child incrementally. The empowering implication from these results was that within every context of children's environments, efforts to support children made a difference. Parent support was a major predictor of children's positive development at this age, however the supportiveness of the school environment also contributed greatly to children's development even after controlling for these effects. Neighbourhood adult support also frequently added to children's resilience. These results largely corroborate past research with early adolescents that had found developmental assets contribute to developmental outcomes additively (e.g., Cook et al., 2002; Theokas et al., 2005). These results also provide

support for the positive youth development framework (Lerner, 2006) that asserts different children will have different individual and ecological strengths. This study shows that although it is better to have a greater number of ecological assets, there is no one asset that is necessary in order to develop adaptive qualities in childhood – feeling supported or connected within any context of one’s environment is beneficial.

The one dimension of resilience that was better explained by a multiplicative model than additive model was children’s self-efficacy. In this case, being supported by adults at home and at school was exponentially related to children’s sense of competence and confidence in themselves. Before further explaining this interaction, it is important to clarify the dimension of self-efficacy that was measured in this study. Self-efficacy, or a person’s beliefs in his or her abilities, is a domain-specific construct (Bandura, 1977). That is, one can have high self-efficacy in one area (e.g., academic achievement) but low self-efficacy in another (e.g., emotional regulation; Bandura, 1977; Bandura, Caprara, Barbaranelli, Gerbino, & Pastorelli, 2003). The self-efficacy scale used in the current study was said to measure children’s beliefs in their “ability to deal with situations or things effectively” (Song, 2003, p. 31). In other words, this scale measured children’s problem-solving ability. Although this scale had acceptable internal consistency (Pallant, 2007) both in the current study and in Song’s investigation, some items on this scale did not appear to address children’s self-efficacy solely within the domain of problem-solving skills. Instead, some items appeared to measure children’s beliefs in their ability to make good choices, get good grades, and do “things” well. Two items even seemed more related to self-concept, “I am just as important as anyone else,” and “I am proud for defending what I believe in.” For this reason, it may be more appropriate to interpret “self-efficacy” in the current

study as children's general confidence in themselves and in their abilities rather than what is traditionally meant by self-efficacy, which is confidence in a domain-specific ability.

That being said, the significant 2-way interaction in this study showed that the effect of school adult support on children's self-efficacy (or general confidence in their ability) was moderated by levels of parent support. That is, having a high amount of support from a school adult was marginally better than having little or average school support when parent support was low, but when parent support was high, the effect of having high support from an adult at school was significantly more advantageous. Perhaps receiving positive attention from a teacher is only meaningful to children when they feel their parents believe in them too, or when they feel their parents believe specifically in the importance of their schoolwork. It is also possible that children find the mixed messages they receive from parents and school adults confusing. This is consistent with theory posited by Bronfenbrenner (1979), who suggests that children's development is optimized when they experience consistency across different settings. What was clear from this analysis was that children's self-efficacy was highest when they had high support from both parents and school adults. This finding elucidates the capacity of multiple adults working together to promote positive development in children.

Strengths and Limitations

This study had many strengths, one of which was its specific design as a study of resilience. As previously mentioned, this design allowed for the inclusion of measures that would isolate and identify personal strengths within individuals and explain how context relates to these specific traits. Another strength of this study was the use of a stratified random sampling procedure which, in turn, resulted in a representational and generalizable sample of middle-years children. The participation rate of children was also high relative to other similar studies (88%;

cf. Cook et al., 2002; Scales et al., 2006; Theokas & Lerner, 2006) contributing to not only a representative sample, but a large sample size ($N = 1,250$) that provided statistical power for the analyses. A third strength of this study was that it involved multiple informants. Not only were children's self-reports gathered, but children's regular classroom teachers provided an assessment of children's typical behaviour in school. This consideration was especially important on the behaviour dimension, as studies have shown that children's estimations of their behaviour often do not reflect what their teachers observe (Gresham, Lane, MacMillan, Bocian, & Ward, 2000). Finally, multiple researchers (e.g., Cook et al., 2002; Luthar, 2006; Pianta & Walsh, 1998) have demonstrated how children can be resilient in one domain and not another. This study took this into consideration, measuring not one, but five different dimensions of resilience (outlook on life, perceived self-efficacy, sensitivity to others needs, and attitudes towards peers and adults). Although Luthar et al. (2001) noted that the inconsistency in the operationalization of resilience can limit the ability to relate different studies within the field, they also asserted that variability in methodology is sometimes necessary in order to broaden the understanding of resilience.

Although these considerations added to the study's strength, this study also had its limitations. One primary limitation of this study is that it is a correlational study, therefore the direction of relations between variables cannot be determined. It cannot be said, for example, that support from parents caused children to be more optimistic, though these two factors were related. A second limitation of this study is that because it was cross-sectional, the results offer no insight as to whether the characteristics that comprise resiliency during middle childhood are sustained throughout the life course. There exists some evidence that some of the resilient characteristics examined in the present study sustain into adulthood. For instance, other studies

have found that optimism is relatively stable across time (Scheier & Carver, 1992). People with optimistic dispositions continue to reinforce their positive outlook because they typically take more action in solving problems. That is, they are more likely to take action because they expect that their actions will lead to success, and because they take action they are more likely to be successful in solving the problem (Scheier & Carver, 1992). More research is needed, however, to determine whether advantageous characteristics that are present in middle childhood such as optimism, self-efficacy, interpersonal skills, attitudes towards friends, and attitudes towards adults, are stable into adulthood.

This leads to another caveat of this study which is that it is age-specific. These findings can only be applied to middle childhood, because what is relevant to an individual at that age is not the same as what is relevant later. Bronfenbrenner (1979) argued that it is these changes in what is relevant, or “ecological transitions,” that propel development. As context changes (e.g., entering high school, moving on to post-secondary or working, starting a family), so does the individual. What is important and influential to that individual is constantly changing, therefore the relative impact of parents, school, and neighbourhood will likely change as well.

Finally, due to its scope, this study also excluded a number of ecological factors known to predict resilience and well-being. Although families, schools, and neighbourhoods are significant contextual factors in a child’s life, this study did not take into account the role of peers, socioeconomic status, culture, religion, media, or ideology, to name a few. Certainly, the more of these factors that are accounted for in a model of children’s development, the more accurate it is. One particularly important factor that was not accounted for in the current study was collective activity – that is, the degree to which developmental systems (family, school, and neighbourhood) overlap. For example, this study did not measure how often parents and teachers

collaborated to facilitate their child's education, how active parents were in their communities, or how active communities were in developing their schools. Bronfenbrenner (1979) contended that the most advantageous environments for children were those in which a high degree of connectivity between systems was present. When important people in children's lives are connected, it promotes mutual trust, positive orientation, and goal consensus between settings and maximizes the potential for individual development (Bronfenbrenner, 1979). It is likely that this consensus and supportive involvement across settings optimized the development of resilience characteristics in the current sample of children. It might also explain why children's self-efficacy was exponentially higher when their parents and school adults supported them. More research is needed that specifically examines the variations and frequencies of collective activities that promote resiliency in childhood.

Implications and Future Directions

Masten (2009) recently reflected on her own and others' work in the field of resilience, saying, "The ultimate goal of this work was practical: to inform efforts to promote positive development in young people" (p.1). The current study aimed to uphold this goal as well, but expand on it by identifying social processes that promote resilience and positive development in *all* children and youth. Considerable gains have been made in this field over the past decade, most notably, it is now understood that resilience is not an innate or stable quality unique to extraordinary individuals (Masten, 2001; Pianta & Walsh, 1998). The results of the current study support this assertion, showing that the resilience characteristics individuals possess are significantly related to the supportiveness of their families, schools, and neighbourhoods. The implication of this research is that it removes the onus of resilience from children alone. Instead this study supports the literature contending that resilience and positive development are driven

by interactions of individuals and their contexts (Bronfenbrenner, 1979; Lerner, 2006). Furthermore, the current study showed that individual efforts to improve circumstances for children are effective – home, school, and neighbourhood adults all uniquely contributed to children's development of adaptive qualities. This evidence shakes the assumption that everyday interactions with children are insignificant, and, one hopes, empowers individuals who work and live with children to make the most out of their time together. Furthermore, it implies that the best interventions for promoting resilience in childhood are multi-faceted, addressing multiple environments where children spend time.

From here, the key will be putting theory into practice. Two mechanisms by which to do this are boosting assets in children's environments, and strengthening existing relationships within children's environments (Masten, 2009). Boosting resources includes involving children in activities that build their confidence and provide opportunities for them to develop stronger relationships with friends and adults (e.g., dance, soccer, drama, tutoring, mentoring). Strengthening existing relationships includes increasing communication and collaboration between parents, teachers, and community members. Past studies have already demonstrated how positive practices in one domain of a child's life can help inform other positive experiences, for example through parenting and mentoring from a nonfamily adult (Christenson et al., 1992; Hamre & Pianta, 2005; Rhodes et al., 2000; Scales et al., 2006).

Finally, perhaps the most practical setting in which these mechanisms can be applied is within children's schools. Eccles (2004) documented how the late elementary/middle school years are particularly difficult for children, and are when children's optimism, interest in school, and self-esteem begin to decline. Therefore it is essential that pre-service and in-service teacher education programs emphasize the importance of supportive teacher-child relationships not only

in the younger childhood or later adolescent years, but during this emergent-adolescent time period as well. By focusing on building relationships in addition to teaching the academic curriculum, findings from the current study indicate it is more likely that children will adopt a positive view of themselves and their futures, thus not only improving their school experience (Battistich et al., 1997; Eccles, 2004; Wentzel, 1997) but experience of life in general (Keyes, 2002, 2003).

As Bronfenbrenner (1979) contended, the best situations for children are those in which there is consensus and consistency in the positive messages they receive across different settings. For now, at least there is some consensus among developmental psychologists to broaden the scope of resiliency research to include children from all different backgrounds and to focus on children's strengths instead of their vulnerabilities (Damon, 2004; Lerner, 2006; Wright & Masten, 2005). One strength during childhood and emerging adolescence that is currently the focus of attention in the PYD field is self-regulation (Lerner, Von Eye, Lerner, Lewin-Bizan, & Bowers, 2010). Identifying the ways in which relationships and activity-involvement can help boost children's ability to shape their *own* development is therefore the next goal for future research. In sum, findings from the current study suggest that resilience may in fact be more ordinary and more accessible than once believed. Therefore future research should continue to investigate the practices and processes that enable all children to flourish.

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Appendix A1. Parent Consent Form

January, 2006

**Department of Educational and Counselling
Psychology, and Special Education**

Dear Parent/Guardian:

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

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 Children in Canada 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 fifteen 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 relationships with peers, parents and other adults and their classroom. Completion of these questionnaires will take approximately one and a half class periods. 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 [REDACTED] or e-mail her at [REDACTED]. 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
Email: kimberly.schonert-reichl@ubc.ca

Denise Buote, Doctoral Candidate

Project Coordinator

PARENT CONSENT FORM: STUDENT PARTICIPATION

Study Title:

"What do kids do when they are not in school? The experiences of children in Canada 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 children in Canada 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 Children in Canada 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 _____

Appendix A2. Teacher Consent Form

January, 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 ten 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. 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 ten 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 [REDACTED] or e-mail her at: [REDACTED]. 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.

Sincerely,

Kim Schonert-Reichl, Ph.D.
Principal Investigator
Associate Professor
University of British Columbia

Denise Buote, Doctoral Candidate
Project Coordinator
University of British Columbia

(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 _____

Date _____

Appendix A3. Child Assent Form

March, 2006

**Department of Educational and Counselling
Psychology, and Special Education**

Faculty of Education
2125 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: _____

Appendix B2. Children's Questionnaire: Predictor Measures

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.

ANXIETY SYMPTOMS SUBSCALE					
	Not at all	A little bit	Sometimes	Always	Don't Know
1. Do you feel afraid a lot of the time?	1	2	3	4	Don't Know
2. Do you worry about what other kids might be saying about you?	1	2	3	4	Don't Know
3. Are you afraid to try new things?	1	2	3	4	Don't Know
4. Do you worry a lot that other people might not like you?	1	2	3	4	Don't Know
5. Would it be hard for you to ask kids you didn't know to join them in a game?	1	2	3	4	Don't Know
6. Do you worry about what other people think of you?	1	2	3	4	Don't Know
7. Do you worry about being teased?	1	2	3	4	Don't Know

Predictor Measures Cont'd

DEPRESSIVE SYMPTOMS SUBSCALE					
	Not at all	A little bit	Sometimes	Always	Don't Know
1. Do you feel unhappy a lot of the time?	1	2	3	4	Don't Know
2. Do you feel like crying a lot of the time?	1	2	3	4	Don't Know
3. Do you feel upset about things?	1	2	3	4	Don't Know
4. Do you have trouble paying attention in class?	1	2	3	4	Don't Know
5. Do you feel that you do things wrong a lot?	1	2	3	4	Don't Know
6. Do you feel that most things are not much fun?	1	2	3	4	Don't Know
7. Do you feel sorry for yourself?	1	2	3	4	Don't Know
8. Do you have trouble falling or staying asleep?	1	2	3	4	Don't Know
9. Do you feel tired a lot of the time?	1	2	3	4	Don't Know
10. Do you often feel like not eating even though it is meal time?	1	2	3	4	Don't Know
11. Do you want to be by yourself a lot?	1	2	3	4	Don't Know

Predictor Measures Cont'd

GENERAL SELF-CONCEPT					
Thoughts About Me	Never	Hardly Ever	Sometimes	Often	Always
1. I do lots of important things.	1	2	3	4	5
2. In general, I like being the way I am.	1	2	3	4	5
3. Overall, I have a lot to be proud of.	1	2	3	4	5
4. I can do things as well as most other people.	1	2	3	4	5
5. Other people think that I am a good person.	1	2	3	4	5
6. A lot of things about me are good.	1	2	3	4	5
7. I'm as good as most other people.	1	2	3	4	5
8. When I do something, I do it well.	1	2	3	4	5

Predictor Measures Cont'd

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

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

DINNER WITH ADULT FAMILY MEMBER				
	Never	1 or 2 days a week	3 or 4 days a week	5 or more days a week
1. How many times a week do you usually eat dinner with an adult member of your family?	1	2	3	4

Predictor Measures Cont'd

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

SCHOOL CONNECTEDNESS					
	Disagree a Lot	Disagree a Little	Don't Agree or Disagree	Agree a Little	Agree a Lot
1. When I'm having a problem, some other student will help me.	1	2	3	4	5
2. Students at this school really care about each other.	1	2	3	4	5
3. Students at this school are willing to go out of their way to help someone.	1	2	3	4	5
4. Teachers and students treat each other with respect in this school.	1	2	3	4	5
5. People care about each other in this school.	1	2	3	4	5
6. Students at this school work together to solve problems.	1	2	3	4	5
7. Students in this school don't seem to like each other very well.	1	2	3	4	5
8. Students in this school are just looking out for themselves.	1	2	3	4	5
9. Students in this school treat each other with respect.	1	2	3	4	5
10. My school is like a family.	1	2	3	4	5
11. The students in this school don't really care about each other.	1	2	3	4	5
12. I feel that I can talk to the teacher in this school about things that are bothering me.	1	2	3	4	5
13. Teachers and students in this school don't seem to like each other.	1	2	3	4	5
14. Students in this school help each other, even if they are not friends.	1	2	3	4	5

Predictor Measures Cont'd

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

NEIGHBOURHOOD SAFE PLACES			
Which of the following activities and services are in your neighborhood?	YES	NO	DON'T KNOW
1. Are there safe places in your neighborhood to hang out with friends, like parks or community centres?	1	2	Don't know

Appendix B3. Children's Questionnaire: Resiliency Inventory

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!!

RESILIENCY INVENTORY					
More About Me . . .	Not at All Like Me	A Little Bit Like Me	Kind of Like Me	A Lot Like Me	Always Like Me
Optimism Subscale					
1. I have more bad times than good times. (R)	1	2	3	4	5
2. More good things than bad things will happen to me.	1	2	3	4	5
3. I start most days thinking I will have a bad day. (R)	1	2	3	4	5
4. Even if there are bad things, I'm able to see the good things about me and my life.	1	2	3	4	5
5. I'm bored by most things in life. (R)	1	2	3	4	5
6. I think that things will get worse in the future. (R)	1	2	3	4	5
7. I feel good about school life.	1	2	3	4	5
8. I think that I am a lucky person.	1	2	3	4	5
9. When something bad happens to me, I think that it will last long. (R)	1	2	3	4	5
Self-efficacy Subscale					
1. I am proud for defending what I believe in.	1	2	3	4	5
2. 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.	1	2	3	4	5
3. I try to look at a situation in different ways to understand it from different points of view.	1	2	3	4	5
4. If the way that I am doing something isn't working I try to think of different ways to do it.	1	2	3	4	5
5. I am just as important as anyone else.	1	2	3	4	5
6. I am happy with the choices that I have made in my life.	1	2	3	4	5
7. There are lots of things that I am good at.	1	2	3	4	5
8. I will get good grades in school.	1	2	3	4	5

More About Me . . .	Not at all Like Me	A Little bit Like Me	Kind of Like Me	A Lot Like Me	Always Like Me
Interpersonal Sensitivity Subscale					
1. If I don't like something about someone else, I try to say it in a nice way so they don't get hurt.	1	2	3	4	5
2. I apologize when I accidentally hurt someone's feelings.	1	2	3	4	5
3. I like to help people with their problems.	1	2	3	4	5
4. I stick to what I want and don't pay attention to others. (R)	1	2	3	4	5
5. People say that I understand them very well.	1	2	3	4	5
6. I am a good listener.	1	2	3	4	5
7. I try to speak from another person's perspective.	1	2	3	4	5
Relationships with Peers Subscale					
1. I make friends easily.	1	2	3	4	5
2. I like being around friends.	1	2	3	4	5
3. I have fun with my friends.	1	2	3	4	5
4. I have many friends.	1	2	3	4	5
5. I have a friend I can trust.	1	2	3	4	5
6. I am popular among friends.	1	2	3	4	5
7. I get along well with my friends.	1	2	3	4	5
Relationships with Adults Subscale					
1. There is at least one adult I can talk to about my problems.	1	2	3	4	5
2. I trust adults.	1	2	3	4	5
3. There are adults I look up to and admire.	1	2	3	4	5
4. Adults usually ignore me. (R)	1	2	3	4	5
5. I have adults other than my parents whose advice I listen to and who are important to me.	1	2	3	4	5
6. I discuss my problems with adults.	1	2	3	4	5
7. I listen to adults.	1	2	3	4	5

Appendix C. Teacher Questionnaire

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

TOTAL PROBLEM BEHAVIOURS		Not a Problem	Mild Problem	Moderate Problem	Serious Problem	Very Serious Problem
Acting Out Behaviour						
1	Disruptive in class	1	2	3	4	5
2	Fidgety, difficult sitting still	1	2	3	4	5
3	Disturbs others while they are working	1	2	3	4	5
4	Constantly seeks attention	1	2	3	4	5
5	Overly aggressive to peers (fights)	1	2	3	4	5
6	Defiant, obstinate, stubborn	1	2	3	4	5
Learning Behaviour Problems						
7	Underachieving (not working up to ability)	1	2	3	4	5
8	Poor work habits	1	2	3	4	5
9	Poor concentration, limited attention span	1	2	3	4	5
10	Difficulty following directions	1	2	3	4	5
11	Poorly motivated to achieve	1	2	3	4	5
12	Learning academic subjects	1	2	3	4	5

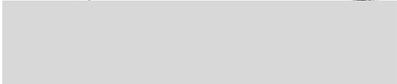
TOTAL ADJUSTMENT		Not at All	A little	Moderately Well	Well	Very Well
Frustration Tolerance						
1	Accepts things not going his/her way	1	2	3	4	5
2	Accepts imposed limits	1	2	3	4	5
3	Tolerates frustration	1	2	3	4	5
4	Copes well with failure	1	2	3	4	5
Task Orientation						
5	Completes work	1	2	3	4	5
6	Well organized	1	2	3	4	5
7	Functions well even with distractions	1	2	3	4	5
8	Works well without adult support	1	2	3	4	5
9	A self-starter	1	2	3	4	5

Appendix D. UBC Behavioural Research Ethics Board Approval



The University of British Columbia
Office of Research Services and Administration
Behavioural Research Ethics Board

Certificate of Approval

PRINCIPAL INVESTIGATOR Schonert-Reichl, K.A.	DEPARTMENT Educ & Couns Psych & Spec Educ	NUMBER B05-0921
INSTITUTION(S) WHERE RESEARCH WILL BE CARRIED OUT Elementry School ,		
CO-INVESTIGATORS: Buote, Denise, Counselling Psychology; Jaramillo, Angela, Educational Studies		
SPONSORING AGENCIES United Way of the Lower Mainland		
TITLE: What Do Kids Do When They Are Not In School? The Experiences of Canadian Children during Out-of-School Time		
APPROVAL DATE DEC 15 2005	TERM (YEARS) 1	DOCUMENTS INCLUDED IN THIS APPROVAL: Nov. 14, 2005, Consent forms / Assent form / Questionnaires / Sept. 12, 2005, Contact letter / Cover letter
CERTIFICATION: The protocol describing the above-named project has been reviewed by the Committee and the procedures were found to be acceptable on ethical grounds for research involving human subjects.  <i>Approved on behalf of the Behavioural Research Ethics Board</i> by one of the following: Dr. Peter Suedfeld, Chair, Dr. Susan Rowley, Associate Chair		
This Certificate of Approval is valid for the above term provided there is no change in the experimental procedures		