INVESTIGATING FACTOR STRUCTURE AND VALIDITY EVIDENCE OF A MEASURE ASSESSING STUDENTS’ PERCEPTIONS OF TEACHERS’ SOCIAL AND EMOTIONAL COMPETENCE

by

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Abstract

This study introduces the Students’ Perceptions of Teacher’s Social and Emotional Competence scale (TSEC) for early adolescents and presents psychometric findings regarding its reliability and validity. A sample of 360 students in 5th to 7th grade provided data on the TSEC and measures of empathy, well-being, school adjustment, as well as measures of their teacher’s emotional and personal support. Teachers provided data on students’ social and emotional competence and aggression, as well as quality of closeness and conflict in their relationship with each of their students. Results indicated that the TSEC had a unidimensional factor structure and high internal consistency. Scores on the TSEC differed by gender and grade-level, with girls reporting their teachers higher on the TSEC than boys and 5th grade students reporting their teachers higher on the TSEC than 6th grade students. The TSEC demonstrated evidence of convergent validity, providing support for this measure as a psychometrically sound instrument for use with this age group. This study provides insight into relations of students’ perceptions of teacher SEC to students’ social and academic outcomes, and the student-teacher relationship. Limitations and future directions are discussed with regard to the relevance of the TSEC for research and educational applications.
Preface

Chapter 2 and 3 are based on work conducted in the Vancouver School Board (VSB) by Dr. Kimberly A. Schonert-Reichl and research assistants, including myself. I was responsible for coordinating the data collection, preparing materials, collecting data, and entering and analyzing data.

UBC Research Ethics Board approval was obtained for this research. The Certificate Number of the Ethics Certificate obtained is H11-00391.
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Dedication

For Grandma.
Chapter 1: Introduction

It has long been recognized that the development of a child takes place in a nested and interactive set of contexts which includes, but is not limited to, family, school, community, and the wider culture (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998). Considering that children spend approximately one quarter of their waking hours in school, school contexts, in particular, can be considered one of the most proximal and potent contexts for influencing children’s development (Hamre & Pianta, 2010). Although the larger school context is important for students’ experiences, recent research indicates that it is students’ classroom-level experiences that appear to be most closely related to students’ social and academic outcomes (Hamre & Pianta, 2010; Nye, Konstantopoulos, & Hedges, 2004). Specifically, through teaching and social interactions, classrooms affect adolescents’ learning and development in very direct ways (Eccles & Roeser, 2010; Roeser, Urdan, & Stephens, 2009).

When it comes to the classroom environment, it is becoming increasingly clear that student-teacher relationships play a critical role in students’ social and academic success (e.g., Baker, 2006; Birch & Ladd, 1997; Brown, Jones, La Russo, & Aber, 2010; Eccles & Roeser, 2011; Hamre & Pianta, 2001, 2006). Many studies exist that have documented the importance of these relationships for student adjustment and academic success in school, both in young children (e.g., Birch & Ladd, 1997, Hamre & Pianta, 2006; Maldonado-Carreno & Drzal, 2011) and in adolescents (e.g., Roeser, Midgley, & Urdan, 1996; Wentzel, 1998, 2009). For example, in a study by Birch and Ladd (1997) that looked at student–teacher relationships in 206 kindergarten students and their teachers, they found that features of the student–teacher relationship (closeness, dependency, and conflict) were differentially related to aspects of school adjustment in the children. Specifically, high teacher ratings of closeness in the student–teacher
relationship were associated with greater academic performance, liking, and engagement in school, whereas higher teacher ratings of conflict were associated with diminished school liking and cooperative participation in the classroom. Indeed, current research suggests that positive student-teacher relationships are important in several ways. For instance, positive relationships between teachers and students can serve as a buffer for students’ behavioural problems, lead to positive relationships among students, and promote academic achievement (Hamre & Pianta, 2010; Ladd & Burgess, 2001; Milkie & Warner, 2011; Roeser, Eccles, & Sameroff, 2000). Moreover, students’ perceptions of positive student-teacher relationships have been found to be positively related to feelings of school belonging and positive school affect (i.e., “general valence of students’ emotional experience while in school,” (Roesser et al., 1996; p. 413). Relatively little research exists, however, that has specifically examined the social and emotional competence of the teacher, which may influence these student-teacher relationships, particularly from the perspective of early adolescent students (Jennings & Greenberg, 2009). This gap is addressed in the present study, the primary goal of which is to examine the validity of a new measure assessing early adolescents’ perspectives of their teachers’ SEC.

**Teacher Social and Emotional Competence (SEC)**

Until recently, the field of Social and Emotional Learning (SEL) has largely focused on social and emotional well-being of *students*, with significant attention on programs and interventions that can foster these outcomes within classrooms (e.g., Durlak et al., 2011). Over the past decade, emerging research has turned its attention to *teachers’* SEC in the classroom (e.g., Jennings & Greenberg, 2009; Jones et al., 2013; Roeser et al., 2000, 2009). As a result, there are varying definitions of teacher social and emotional competence in the literature, with many studies focusing on only one component, such as stress management (e.g., Brown et al.,
2010; Yoon, 2002) or instead, on outcomes/correlates of SEC, such as teacher support (e.g., Mashburn et al., 2008; Pianta, La Paro, Payne, Cox, & Bradley, 2002). Jones, Bouffard, and Weissboard (2013), however, have recently posited that teacher SEC involves a comprehensive set of processes, including several emotional processes (e.g., regulating emotions, empathy), social/interpersonal skills (e.g., understanding social cues), and cognitive processes (e.g., inhibiting impulses, managing stress) (Jones et al., 2013). Similarly, Jennings and Greenberg (2009) suggest that a teacher high in SEC is “a teacher who recognizes an individual student’s emotions, understands the cognitive appraisals that may be associated with these emotions, and how these cognitions and emotions motivate the student’s behavior, [and thus] can effectively respond to the student’s individual needs.” (p. 493). They emphasize that teachers high in SEC tend to demonstrate more effective classroom management, are more proactive, and use their emotions and support to promote enjoyment of learning and to guide student behaviours (Jennings & Greenberg, 2009). Thus, it is becoming more important to have valid and reliable assessments of teachers’ SEC to advance the understanding of the ways in which teachers play a role in their students’ social and emotional well-being and school success. Drawing from the definition of teacher SEC put forth by Jones et al. (2013), the primary aim of this study was to develop a valid and reliable tool for assessing teachers’ SEC which included the following dimensions: emotional processes, social/interpersonal skills, and cognitive processes.

**The Prosocial Classroom Model**

Burgeoning evidence suggests that teachers’ social and emotional competence is important for both students’ academic achievement and social and emotional well-being in the classroom (e.g., Jennings & Greenberg, 2009; Jones et al., 2013; Solomon, Battistich, Kim, & Watson, 1997). Jones et al. (2013) highlight that teacher SEC influences students in three ways:
(1) through the quality of student-teacher relationships, (2) through modeling social and emotional learning skills, and (3) through classroom organization and management. Jennings and Greenberg (2009) have put forth a model in which they posit that high levels of teachers’ SEC, in particular the dimensions of self-awareness and self-management, serve as protective factors in warding off teacher burnout which, in turn, may lead to enhanced student social and emotional well-being. This model is illustrated in Figure 1.

Figure 1. The Prosocial Classroom Model (Jennings & Greenberg, 2009)

Teachers’ ability to manage their emotions has been found to be critical for teaching and learning. Evidence suggests that teachers’ lack of emotion management skills is ranked as one of the primary reasons teachers become stressed and dissatisfied and subsequently leave the teaching profession (Darling-Hammond, 2001; Montgomery & Rupp, 2005). Conversely, teachers’ ability to appropriately regulate the intense emotions elicited within classrooms has been found to lead to less emotional exhaustion and more positive relationships with students (Sutton & Harper, 2009). Furthermore, teachers’ social/interpersonal skills have been shown to contribute to students’ performance in school (e.g., Connor, Son, Hindman, & Morrison, 2005;
Hamre & Pianta, 2005; Mashburn et al., 2008; Rimm-Kaufman, Early, & Cox, 2002). For example, Connor et al. (2005) found that grade one students who experienced warmer and more responsive teacher interactions, as rated by observers, also displayed stronger vocabulary skills and word identification skills, than students who had teachers who were more detached and intrusive. Moreover, in a study of 2,439 pre-Kindergarten (pre-K) students, Mashburn and colleagues (2008) found that observations of teacher emotional support (e.g., positive affect, teacher sensitivity) were significantly and positively related to teachers’ reports of students’ social competence and negatively related to teachers’ reports of student behavioural problems during preschool (pre-K). Despite the growing appreciation that teachers’ social and emotional competence is important for student-teacher relationships, few studies have looked at this, and even fewer have asked students about their perceptions of their teachers’ social and emotional competence in early adolescence (Hamre & Pianta, 2005; Mashburn et al., 2008).

**Students’ Perceptions of Teachers**

Students’ perspectives have seldom been addressed when it comes to evaluating their teachers’ social and emotional competence, despite some evidence that student perceptions are reliable and accurate indicators of teacher qualities (Bill & Melinda Gates Foundation, 2010). Students have first-hand access to their own experiences (Verhulst & van der Ende, 1992; Waters, Brown, & Fitzpatrick, 2003), and research has shown that students’ self-reports of their experiences, such as subjective well-being, are highly correlated with more objective measures of well-being, such as daily diaries, and family and friend observations and reports (Sandvik, Diener, & Seidllitz, 1993). Roeser et al. (1996) use the term *psychological environment* to suggest that how the student perceives his or her environment and their reaction to this environment is of great consequence for social and academic outcomes.
Studies examining teacher competencies frequently utilize teacher self-reports (Brown et al., 2010) or observations (Curby, Brock, & Hamre, 2013; Mashburn et al., 2008; Pianta et al., 2002; Solomon et al., 1997), particularly in studies investigating the influence of teacher competencies on classroom quality or student outcomes (Brown et al., 2010; Pianta et al., 2002). For example, the Classroom Assessment Scoring System (CLASS, Hamre & Pianta, 2010; Pianta, La Paro, & Hamre, 2007) is an observational tool commonly used to assess both social and instructional features of interactions between teachers and students (La Paro, Pianta, & Stuhlman, 2004; Pianta et al., 2007). It is based on the hypothesis that daily interactions of teachers and students are the primary mechanisms through which children learn (Hamre & Pianta, 2007). For example, the Emotional Support subscale of the CLASS is the subscale most related to teacher social and emotional competence, and consists of items tapping into Positive Climate (e.g., positive affect, relationships, interest in students’ lives), Negative Climate (e.g., punitive control, expressed negativity), Teacher Sensitivity (e.g., teacher responsiveness, acknowledgement of social cues), and Teachers’ Regard for Student Perspective (e.g., flexibility, teacher meets students’ developmental needs). In a study of 910 first grade children, that examined the effects of teacher support on children’s risk of school failure, Hamre and Pianta (2005) found that at-risk children who were in classrooms characterized by strong instructional and emotional support, as rated by the CLASS, had achievement scores and quality of student-teacher relationships comparable to their low-risk peers. Although tools like the CLASS are useful for assessing teacher competencies, observational measures can be intrusive and often challenging, expensive, and time consuming (Mashburn et al., 2008; McCroskey, 1984). For instance, Mashburn et al. (2008) conclude their study by suggesting the small magnitude of
effects they found may be partly due to the challenge of capturing evidence of instructional and social interactions between teachers and students.

In addition, studies have shown that students’ reports of perceived support are more consistently related to positive outcomes than observed support received (e.g., Kessler & McLeod, 1984; Stayrook, Corno, & Winne 1978). For instance, Stayrook et al. (1978) conducted an experiment in which they trained teachers on three different instructional styles (structuring, reacting, soliciting) and had them teach 6th grade students an ecology curriculum using one of the styles. They then assessed the students’ perceptions of these teacher behaviours, as well as made observations of the teacher behaviours in the classroom. The structuring dimension was comprised of the following teacher behaviours: outlining the lesson content, stating objectives, reviewing main ideas, indicating important points in a lesson; whereas the reacting dimension included: praising correct responses, providing reasons when a student response was judged to be correct, prompting by providing a hint when a student response was incorrect or incomplete. Finally, the soliciting dimension included using higher-order questions that require students to do more than simply recall information. The researchers found that 6th grade students’ perceptions of certain teacher classroom behaviours (structuring, reacting) mediated the relationship between observations of teachers’ behaviours and student achievement. These findings suggest that there is a need to assess students’ perspectives of their teachers’ behaviours and competencies, rather than relying solely on observations or teacher reports.

Focus on Teacher Instructional Competencies or Teacher Support

Unfortunately, similar to the larger field of teacher SEC, many of the extant studies that have examined students’ perceptions of their teacher competencies have focused on a narrow definition of teacher competencies. Several studies, in fact, have focused on students’
perceptions of outcomes/correlates of teacher SEC, such as teacher support or quality of student-teacher interactions (e.g., Bundick & Tirri, in press; Methany, McWhirter, & O’Neil, 2008; Reddy, Rhodes, & Mulhall, 2003; Stayrook et al., 1978). To date, few studies have focused on specific social and emotional competence of the teachers, which are considered important for these outcomes of support and positive relationships, as outlined by Jones et al. (2013) and Jennings and Greenberg (2009).

As mentioned, students’ perceptions of teachers’ emotional support, or support as it pertains to particular domains within the classroom, have gained attention in recent research. In a longitudinal study of 2,585 early adolescent students followed from 6th to 8th grade, Reddy et al. (2003) assessed students’ perceptions of teacher support over time and examined the degree to which teacher support predicted changes in adolescents’ depressive symptoms and self-esteem over time. Questions assessing teacher support were drawn from the Teacher Support subscale of the Classroom Environment Scale (Trickett & Moos, 1973) and included such questions as “teachers take a personal interest in students.” Reddy and colleagues (2003) found that changes in students’ perceptions of teacher support over time reliably predicted changes in students’ well-being (i.e., depressive symptoms, self-esteem). That is, those students who perceived increasing support from teachers exhibited corresponding increases in self-esteem and decreases in depressive symptoms over time. Reddy et al. (2003) conclude by stating their “study underscores the role of teacher support in facilitating students’ adjustment to school” (p. 119), and that more research examining students’ perceptions of support from teachers in relation to different dimensions of student adjustment (e.g., psychological adjustment vs. school belonging and academic efficacy) is needed.
In a study assessing the psychometric properties of a Teacher Support scale, Methany et al. (2008), found that students’ scores on a measure that assessed perceived teacher support (i.e., perceptions of teachers’ investment, positive regard, expectations, and accessibility) were significantly and positively correlated with 9th and 10th grade students’ self-efficacy, career expectations, and confidence measures. Similarly, more recently Bundick and Tirri (in press) examined the extent to which 13 to 18 year old adolescents’ perceptions of teacher support predicted youth sense of purpose. In their study, adolescents answered questions that assessed the degree of support they perceived receiving from their teachers, specifically with regard to students’ sense of life purpose (e.g., “At least one teacher is interested in my #1 ranked purpose”). The adolescents also answered questions assessing youth purpose and indicators of positive youth development. In their study, purpose was defined as “a stable and generalized intention to accomplish something that is both meaningful to the self and of intended consequence to the world beyond the self” (Damon et al., 2003, p. 121, as cited in Bundick & Tirri, in press). Their findings revealed that students’ perceptions of teacher support for purpose were related to students’ sense of purpose. Interestingly, they also found that the relation between students’ perceptions of teacher support and students’ sense of purpose was partially mediated by students’ perceptions of teacher competencies. In this study, teacher competencies were related to students’ purpose and encompassed the ability of teachers to teach for: (a) the future, (b) understanding of consequences of ones’ actions, and (c) understanding the importance of one’s engagements. These findings provide support for the contention of looking at students’ perceptions of teacher competencies when investigating the influence of the student-teacher relationship on student outcomes.
**Early Adolescence**

Early adolescence is an important stage to investigate students’ perceptions of the student-teacher relationship because it is an age-period characterized by critical transitions (e.g., from elementary school to middle school) and significant social, biological, and cognitive changes (Eccles 1999; Eccles & Roeser, 2009; Oberle, Schonert-Reichl, & Thomson, 2010). During these years, due to many contextual changes such as increases in school size and transition from one full-time teacher to multiple subject-specific teachers, adolescents tend to experience a decline in perceived support from teachers (Eccles & Roeser, 2010; 2011; Reddy et al., 2003; Roeser et al., 2009). Adolescence is also a time marked by an increased need for belonging and feeling “heard” (Banister & Schreiber, 2001; Lind, 2007). Moreover, research has indicated that adolescents have better access to their own realities, which can differ from third-party perspectives (Verhulst & van der Ende, 1992; Waters et al., 2003). Therefore, self-report measures are important tools for learning about early adolescents’ relationships to teachers and the classroom context.

**The Current Study**

In light of the current limitations and suggestions, the purpose of this study was twofold. A first objective was to design and evaluate the factor structure and reliability of a self-report measure that assesses early adolescents’ perceptions of their teachers’ SEC (TSEC). This included investigating whether scores on the TSEC differed for gender or grade level. A second objective was to determine whether the TSEC showed evidence of convergent validity by (a) investigating the relation between scores on the TSEC and two other reliable measures of teacher support, Teacher Emotional Support and Teacher Personal Support, and (b) investigating the relation of the TSEC to measures assessing students’ self-reports of empathy, well-being, school
adjustment, as well as teachers’ ratings of the quality of each student-teacher relationship, and teachers’ ratings of students’ social and emotional competence and aggressive behaviours.

**Research Questions.** The following research questions were posed to address the two main objectives of this study:

**Objective 1:** Design and evaluate the factor structure and reliability of a self-report measure that assesses early adolescents’ perceptions of their teachers’ SEC.

1. When analyzed via an Exploratory Factor Analyses (EFA), do the six-items on the TSEC emerge as a single factor?

2. What are the psychometric properties of the TSEC with regard to item statistics, item distributions, intercorrelations among items, and internal consistency?

3. Is there consistency of responses across gender and grade level?

**Objective 2:** Determine whether the TSEC showed evidence of convergent validity.

4. What is the relationship of the TSEC to other measures of students’ perceptions of support from teachers?

5. What is the relationship of the TSEC to dimensions of student empathy, well-being, school adjustment, teachers’ ratings of student SEC and aggression, and teachers’ ratings of student-teacher relationship quality (i.e., closeness, conflict)?
Chapter 2: Method

A secondary data set was used for this study. The data were collected via an experimental evaluation of a classroom-based social and emotional learning (SEL) program and took place in an urban public school district in a large western Canadian city. Data were collected at three time points over the course of one school year. For the purposes of this study, however, only data from the pre-test (collected in October, 2011) were analyzed.

Participants

Teachers. The sample included 16 5th to 7th grade teachers (12 women, 4 men, $M = 42.5$ years, $SD = 11.3$; Range, 30.7 to 61.5 years) recruited from 15 elementary schools in a large urban public school district in western Canada. Teachers reported an average of 14 years of teaching experience (Range, 6 to 39 years). The majority of teachers reported European ethnicity (87.5%), and the remaining 12.5% reported Asian descent. More than half of the teachers (56%) reported their highest level of education as a post-baccalaureate diploma or a bachelor of education (B.Ed.), and the remaining (44%) teachers reported having a Master’s degree (M.A., M.Ed., M.Sc.).

Students. Participants included 378 5th to 7th grade students drawn from 16 classrooms. Students who reported reading English as “hard” or “very hard” ($n = 18$) were excluded from analysis resulting in the final sample of 360 students (50.8% female, $M = 11.4$ years, $SD = .77$; Range, 9.80 to 12.94 years). With regard to first language learned, 71% of the students reported English as their first language, 14% reported Cantonese, 2% reported Filipino, 9% reported one of several other languages (e.g., Hindi, Japanese, Korean), and 4% reported Other (e.g., Arabic, German). This range of languages in the sample is reflective of the cultural and ethnic diversity of the Western Canadian city in which this research took place. With regard to family
composition, 80% reported living with two parents (e.g., mother & father, mother & stepfather), 10% reported living with a single parent (e.g., mother, father), and 10% reported other combinations (e.g., grandparents, mother & mother’s boyfriend, mother, father & aunt). Of the children recruited for participation, 92% received parental consent and gave assent themselves.

**Procedure**

**Data collection.** Ethics approval to conduct the present study was obtained from the University of British Columbia’s Behavioural Research Ethics Board (BREB; for certificate number, see Preface). After receiving BREB approval, approval to conduct the research in the school district was obtained from the school board ethics committee. Following school board approval, 15 schools were contacted to request their participation in this study. Once teachers were recruited, the Principal Investigator or her research assistants visited the schools and explained the study to the students in child-friendly language, provided parental/guardian consent forms, and answered any questions the students had.

Teacher consent (See Appendix B), parent/guardian consent (see Appendix C), and student assent (see Appendix D) were obtained from all participants. These forms explained that the purpose of the study was to investigate the effectiveness of two intervention programs designed to enhance teacher and student social and emotional competencies. It was also explained that the study would involve completing a questionnaire at three time points throughout the school year (pre-test, mid-point, and post-test) and that all responses would be kept confidential and identities would be kept private in the report of the results. Classrooms were provided with a pizza party at the end of the year, and teachers were given a $25 gift card and provided with a half-day TOC (teacher-on-call) to cover their classes while they completed
their surveys. Pre-test data were obtained in October, mid-point data in February, and post-test in May/June. For this study, only data obtained at pre-test (October) were analyzed.

Measures

Measures for this study were comprised of both teacher and student reports. Student self-reports measures were used to assess empathy, well-being, and school adjustment. Teacher ratings were used to assess students’ social and emotional competence and aggression, as well as conflict and closeness in the student-teacher relationship. Finally, student ratings were used to assess perceptions of teacher Emotional Support and Personal Support, as well as teacher SEC (TSEC). The measures will be discussed in the following sections, in this order.

Student self-reports. Students completed a battery of self-report measures in the larger study (see Appendix E). For the purposes of the present study, only a subsample of the measures were included, each of these are discussed, in turn, below. Student demographics were obtained by asking the students to respond to questions about their age, gender, family composition, and first language learned (see Appendix E.1). Because of the large population of children in the school district for whom English was not their first language, we also asked children to rate the extent to which they had difficulty with reading English on a 4-point Likert-type scale ranging from 1 (Very hard) to 4 (Very Easy).

To examine students’ empathy, well-being, and school adjustment, students were assessed on a number of measures, each of which are discussed in turn. Students’ empathy was operationalized in the present study via assessments of two dimensions of empathy: empathic concern and perspective-taking. Well-being was operationalized in the present study via measures assessing both positive emotions and well-being (i.e., optimism, satisfaction with life, and positive affect), and psychological adjustment (i.e., anxious symptoms, depressive
symptoms). School adjustment was operationalized in the present study via measures of school self-concept and academic efficacy.

**Student self-reports of empathy: Empathic concern and Perspective-taking.** To assess students’ empathy, two subscales modified for children from the Interpersonal Reactivity Index (IRI; Davis, 1983; Oberle et al., 2010, see Appendix E.2) were included: Empathic Concern and Perspective-taking. The original IRI is a self-report measure comprising four subscales (Empathic Concern, Perspective-taking, Fantasy, Personal Distress), each of which addresses a separate dimension of empathy (Oberle et al., 2010). The seven-item Empathic Concern subscale assesses the tendency to feel concern for others (e.g., “I often feel sorry for people who don’t have the things I have”), whereas the seven-item Perspective-taking subscale assesses the tendency to consider things from others’ viewpoints (e.g., “Sometimes I try to understand my friends better by imagining how they think about things”). Participants responded to the items on a five-point Likert-type scale, ranging from 1 (Not at all like me) to 5 (Always like me). Total scores for each of the subscales were calculated by averaging the ratings, with higher scores representing higher levels of each dimension. Supportive evidence for the construct validity of these subscales of the IRI has been demonstrated in previous research (Davis, 1983) and evidence supporting the reliability of these subscales has been documented in studies of early adolescence (Schonert-Reichl, Smith, Zaidman-Zait, & Hertzman, 2012; Wentzel, Filisetti, & Looney, 2007). For the present study, internal consistency, as assessed via Cronbach’s alpha, was found to be satisfactory for the Empathic Concern subscale (alpha = .85) and for the Perspective-taking subscale (alpha = .78).

**Student self-reports of well-being: Optimism.** To examine optimism, students completed the Optimism subscale of the Resiliency Inventory (RI; Song, 2003; see Appendix E.5). The RI
was designed to assess six dimensions of resilience: Optimism, Self-efficacy, Relationships with Adults, Relationships with Peers, Interpersonal Sensitivity, and Emotional Control. For the purposes of this study, only the Optimism subscale was used. The Optimism subscale concerns a person’s positive perspective on the world and the future (e.g., “More good things than bad things will happen to me”) and consists of nine items, of which five are reverse scored. Students responded to the items in these subscales with a five-point Likert-like scale, ranging from 1 (Not at all like me) to 5 (Always like me). Ratings were then averaged with higher scores representing higher levels of optimism. Evidence for internal consistency, test–retest reliability and construct validity of this inventory have been documented (Song, 2003), and evidence supporting the reliability of the Optimism subscale has been found in studies of early adolescence (e.g., Oberle et al., 2010). For the present study, Cronbach’s alpha for the Optimism subscale was .76.

**Student self-reports of well-being: Life satisfaction.** Students’ life satisfaction was assessed using the Satisfaction With Life Scale for Children (SWLS-C; Gadermann, Schonert-Reichl, & Zumbo, 2010, see Appendix E.6), an adaptation of the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985). The SWLS-C consists of five items that assess global life satisfaction (i.e., “In most ways my life is close to the way I want it to be”). Students rated the five items on a five-point Likert-type scale ranging from 1 (Disagree a lot) to 5 (Agree a lot). Ratings were then averaged to produce a total score with higher scores indicating higher levels of life satisfaction. Evidence supporting the validity and reliability of the SWLS-C has been documented with samples of children in 4th to 7th grades (Gadermann et al., 2010; Gadermann, Guhn, & Zumbo, 2011). In the present study, Cronbach’s alpha for the SWLS-C was .83.
**Student self-reports of well-being: Positive affect.** To assess positive affect, students completed the Positive Affect subscale from the 30-item Positive and Negative Affect Schedule for Children (PANAS-C; Laurent et al., 1999, see Appendix E.7). This measure is similar to the original PANAS (PANAS; Watson, Clark, & Tellegen, 1988), but has been modified for children in grades 4 to 8 (Laurent et al., 1999). The positive affect subscale measures children’s general interest, engagement, and energy (i.e., “Interested,” “Calm,” and “Energetic”). Students rate how frequently they experienced a specific feeling state over the last few weeks, from 1 (Very slightly or not at all) to 5 (A lot). Scores are then averaged to create a total score in which higher scores indicate higher levels of positive affect. Evidence supporting the validity and reliability of the PANAS-C has been documented with samples of children in 4th to 8th grades (Laurent et al., 1999) and with clinical populations of children ages 7-14 (Hughes & Kendall, 2009). Internal consistency was found to be satisfactory in the present study (Cronbach’s alpha = .87).

**Student self-reports of well-being: Psychological adjustment.** Students’ psychological adjustment was examined using the Anxious Symptoms and Depressive Symptoms subscales from the *Seattle Personality Questionnaire for Young School-Aged Children* (Kusche, Greenberg, & Beilke, 1988; see Appendix E.4). The Anxious Symptoms subscale is composed of seven items (“Do you worry about what other kids might be saying about you”), and the Depressive Symptoms subscale consists of 11 items (“Do you feel unhappy a lot of the time”). Students respond to each statement on a four-point Likert-type scale ranging from 1 (Not at all) to 4 (Always). Ratings are then averaged for each subscale with higher scores representing higher levels of anxious symptoms and depressive symptoms, respectively. Evidence for the reliability and construct validity of this instrument is provided by Rains (2003) and Greenberg and Lengua.
(1995). Internal consistencies for the present study were as follow: Anxious Symptoms (Cronbach’s alpha = .83), Depressive Symptoms (Cronbach’s alpha = .78).

**Student self-reports of school adjustment: School self-concept.** School self-concept was assessed via the School Self-concept subscale of the *Self-Description Questionnaire* (SDQ; Marsh, 1988, see Appendix E.8). The School Self-concept subscale includes items such as “I am good at school subjects,” and consists of eight items that are rated on a five-point Likert-type scale ranging from 1 (*Never*) to 5 (*Always*). A total score is created by averaging ratings for each item with higher scores representing higher school self-concept. Evidence for the reliability and validity of this scale has been provided by Marsh (1988, 1990). Internal consistency was satisfactory in this study (Cronbach’s alpha = .87).

**Student self-reports of school adjustment: Academic efficacy.** Academic efficacy was assessed using the Academic Goals Questionnaire (AGQ, Roeser et al., 1996; see Appendix E.8). The AGQ is a six-item scale that taps into students’ beliefs that they can master the materials and skills taught in school if they exert enough effort (e.g., “I can do even the hardest school work if I try”). Items were assessed on a five-point Likert-type scale ranging from 1 (*Not at all like me*) to 5 (*Always like me*). A total score is created by averaging ratings for each item with higher scores representing higher academic efficacy. Evidence for the reliability and validity of this construct has been demonstrated by previous research (Roeser et al., 1996). Internal consistency was satisfactory in the present study (Cronbach’s alpha = .90).

**Teacher-reports.** Teachers completed a questionnaire designed to obtain demographic information (e.g., gender, age, ethnic background, educational background/highest education, years of teaching; see Appendix F). In addition, teachers completed measures assessing students’ social and emotional competencies and problem behaviours. Finally, to assess teacher-student
relationships, teachers completed a measure assessing closeness and conflict in their relationship with each of their students. Each of these measures is described, in turn, below.

**Teacher report of student: Social and emotional competence.** Assessment of students’ social and emotional competence was obtained via the Social and Emotional Competence subscales of the Teachers' Rating Scale of Social Competence (TRSC; Kam & Greenberg, 1998; see Appendix G) questionnaire. The TRSC is a 31-item scale consisting of four subscales that assess: Aggressive Behaviours, Oppositional Behaviour/Dysregulation, Attention and Concentration, and Social and Emotional Competence. For the purpose of this study, only the social and emotional competence and the aggressive behaviours subscales were used. The Social and Emotional Competence subscale is comprised of seven items that tap into aspects of prosocial behaviours, such as cooperation and helping (e.g., “Provides help, shares materials, and acts cooperatively with others”). Teachers rated each item on a six-point Likert-type scale ranging from 0 (Almost never) to 6 (Almost always), as follows: “Compared to other (boys/girls) at this grade level, how often does/is [Child’s Name] (e.g., listens carefully to others)?” Total scores were created by averaging ratings for each item with higher scores indicating higher levels of students’ social and emotional competence. Evidence for the construct validity of the Social and Emotional Competence subscale has been demonstrated in previous research (Schonert-Reichl & Lawlor, 2010). Internal consistency of the Social and Emotional Competence subscale for the present study was high (Cronbach’s alpha = .94).

**Teacher report of student: Aggressive behaviours.** Assessment of students’ aggressive behaviours were obtained via the Aggression subscale of the Teachers' Rating Scale of Social Competence (TRSC; Kam & Greenberg 1998; see Appendix G) questionnaire described above. The Aggression subscale is comprised of five items that assess aggressive behaviours (e.g.,
“Harms others”). Teachers rated each item on a six-point Likert-type scale ranging from 0 (Almost never) to 6 (Almost always), as follows: “Compared to other (boys/girls) at this grade level, how often does/is [Child’s Name] (i.e. teases classmates)” Total scores for aggressive behaviours were created by averaging ratings for each item with higher scores indicating higher levels of aggressive behaviours. Evidence for the construct validity of the Aggression subscale has been demonstrated in previous research (Schonert-Reichl & Lawlor, 2010). Internal consistency of the Aggression subscale for the present study was satisfactory (Cronbach’s alpha = .87).

**Teacher report of student: Closeness and conflict in the student-teacher relationship.**

To assess teachers’ relationship with each of their students, teachers completed the Student-Teacher Relationship Scale (STRS; Pianta, 2001; Koomen, Verschueren, van Schooten, Jak, & Pianta, 2012, see Appendix G). The STRS is comprised of three subscales: Closeness, Conflict, and Dependency. The significance of dependency in childhood and adolescence has not yet been established, and the subscale has shown low reliability in previous studies (Pianta, 2001) therefore, for the purposes of the present study, only the Closeness and Conflict subscales were used. The 12-item Conflict subscale assesses the extent to which the teacher perceives conflict in the student-teacher relationship (e.g., “This child and I always seem to be struggling with each other”) whereas the Closeness subscale assesses the amount of closeness felt by the teacher within the student-teacher relationship (e.g., “I share an affectionate, warm relationship with this child”). Teachers rated each student on the extent to which they agreed with each statement using a five-point Likert-type scale from 1 (Definitely does not apply) to 5 (Definitely applies). Continuous closeness and conflict scores were created for each student by averaging item scores for each subscale with higher scores representing higher levels of each dimension. Supportive
evidence for the construct validity of these subscales of the STRS has been demonstrated in previous research (Koomen et al., 2012). Internal consistency, as assessed via Cronbach’s alpha was .80 for the Closeness subscale and .89 for the Conflict subscale.

**Student reports of teacher.** As part of their self-report questionnaire, students also completed measures assessing their perceptions of emotional and personal support from their teachers. Both of these measures are described below. For these measures, see Appendix H.

**Student reports of teacher: Emotional Support.** Students’ reports of teachers’ emotional support were assessed via the Teacher Emotional Support subscale of the modified Classroom Life scale (Patrick, Ryan, & Kaplan, 2007, see Appendix H.1). The Teacher Emotional Support subscale is comprised of four items that assess students’ perceptions of teachers’ emotional support (e.g., “My teacher tries to help students who are sad or upset in class”). Students rated each item on a five-point Likert-type scale ranging from 1 (Not at all true) to 5 (Very true). Total scores for teacher emotional support were created by averaging ratings for each item with higher scores indicating higher levels of teacher emotional support. Evidence for the construct validity of this subscale has been demonstrated in previous research (Patrick et al., 2007). In the present study, internal consistency of the Teacher Emotional Support subscale was satisfactory (Cronbach’s alpha = .85).

**Student reports of teacher: Teacher Personal Support.** Students reported on their teachers’ personal support via two modified items from the Teacher Personal Support subscale of the Classroom Life Scale (Ghaith, 2002, see Appendix H.2), “My teacher really cares about me” and “My teacher likes me as much as she likes other students.” These items assess the extent to which the student believes his/her teacher cares about and likes learners as individuals. Students rated each item on a five-point Likert-type scale ranging from 1 (Never) to 5 (Always). Total
scores for Teacher Personal Support were created by averaging ratings for each item with higher scores indicating higher quality of students’ perceptions of personal support from their teacher. Evidence for the construct validity of these items has been demonstrated in previous research (Ghaith, 2002). For the present study, internal consistency of these items was satisfactory (Spearman-Brown = .76). We conducted Spearman-Brown reliability estimate as it is indicated as a more appropriate analyses for two-item scales (Eisinga, te Grontenhuis, & Pelzer, 2013).

The Measurement of student’s perceptions of teacher SEC: TSEC scale construction. Six student self-report items were pilot-tested, to tap into students’ perceptions of their teacher’s SEC (see Table 1). As posited by Jones et al. (2013), teacher SEC is comprised of many emotional, processes, and cognitive processes including, but not limited to, an ability to recognize and regulate emotions, show empathy, read social cues, and manage stress. Therefore, each item of the TSEC assesses one of the following three components of teacher SEC: Emotional (i.e., “My teacher seems really happy this year,” “My teacher seems to enjoy teaching our class”), social/interpersonal (i.e., “My teacher understands when we need extra help learning class material,” “My teacher cares about whether or not students understand what is being taught,” and “My teacher notices when students are sad or upset in class”), and cognitive (i.e., reverse scored, “My teacher seems really stressed this year”). These items also reflect the four dimensions of the Teacher Emotional Support subscale of the CLASS, an observation instrument designed to assess classroom quality. More specifically, the Teacher Emotional Support subscale assess classroom quality on 4 dimensions: Positive Climate (i.e., Positive Affect), Negative Climate (i.e., Negative affect), Teacher Sensitivity (i.e., Responsiveness), and Regard for Student Perspective (i.e., Flexibility and student focus).
A factor analysis (outlined in the Results section) of the items of the TSEC was conducted to determine factor loadings of items. On the TSEC scale, students were asked to respond on a five-point Likert-type scale, which ranged from 1 (Not at all true) to 5 (Very true). The total scale score can therefore range from 6 to 30. Item 2 is a reverse scored item. The six items of this scale are considered to have face validity, (i.e., “the test bears a common-sense relationship to the measurement objective”, p.204, Mosier, 1947). This is the first study to investigate the factor structure and internal reliability of these items together as a scale. The reliability of the TSEC will be discussed in the Results section.

Table 1

*Student’s Perceptions of Teacher Social and Emotional Competence (TSEC)*

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at all true</th>
<th>A little true</th>
<th>Somewhat true</th>
<th>Pretty much true</th>
<th>Very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher seems really happy this year.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. My teacher seems really stressed this year.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. My teacher understands when we need extra help learning class material.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. My teacher cares about whether or not students understand what is being taught.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. My teacher seems to enjoy teaching our class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. My teacher notices when students are sad or upset in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Chapter 3: Results

A series of analyses was conducted to address the primary objective of this study, which was to evaluate a new measure of students’ perceptions of teachers’ social and emotional competence (TSEC) for use with early adolescents. Accordingly, the results are organized into two sections. The first section addresses the first three research questions presented in the Introduction, with regard to the factor structure and reliability of the TSEC. Specifically, when analyzed via an Exploratory Factor Analyses (EFA), do the six-items on the TSEC emerge as a single factor? Second, what are the psychometric properties of the TSEC with regard to item statistics, item distributions, intercorrelations among items, and internal consistency? Third, is there consistency of responses across grade level and gender? The second section of the results reports analyses addressing the final two research questions, regarding the convergent validity of the TSEC. That is, what is the relationship of the TSEC to other measures of students’ perceptions of support from teachers, and what is the relationship of the TSEC to dimensions of student empathy, well-being, school adjustment, teachers’ ratings of student SEC and aggression, and teachers’ ratings of student-teacher relationship quality (i.e., closeness, conflict)?

Factor Structure and Reliability of the TSEC

Exploratory factor analysis. As described earlier, six items were included in the TSEC, each of which captured an important aspect of teacher SEC as defined by Jones et al. (2013): emotional processes (e.g., “My teacher seems really happy this year”), social/interpersonal skills (e.g., “My teacher understands when we need extra help learning class material”), and cognitive processes (e.g., “My teacher seems really stressed this year.”) (see Table 1). We examined the TSEC using EFA because the factor structure of this scale had not been identified in previous research (Hayton, Allen, & Scarpello, 2004).
The factor loadings for the six items of the TSEC are presented in Table 2. EFA analyses indicated the first eigenvalue was 3.0 and accounted for 49% of the variance and the second eigenvalue was 1.0 and accounted for 17% of the variance. The fact that there was only one eigenvalue larger than 1 and a large ratio between the first and second eigenvalue indicates that the scale is unidimensional. A parallel analysis (Hayton et al., 2004) also identified 1 factor (the second random factor had an eigenvalue of 1.1, which is larger than the second eigenvalue of 1.0 in our dataset). The rationale underlying parallel analysis is that actual eigenvalues from real data that are less than or equal to the parallel average random eigenvalues are considered due to sampling error, therefore only those factors corresponding to eigenvalues greater than the ones derived from parallel analysis should be retained (Hayton et al., 2004). Furthermore, all items of the TSEC had factor loadings > .4 on the first factor, which is the factor loading cutoff commonly used to identify items to include in a scale (e.g., Pedhazur & Schmelkin, 1991). These results taken together suggest that the 6 items together tap into one latent construct. Further examination of the factor loadings for each item indicated that item 1 (“My teacher seems really happy this year”) and item 5 (“My teacher seems to enjoy teaching our class”) had the highest factor loadings (.82 and .73 respectively), with item 3 (“My teacher understands when we need extra help learning class material”), 4 (“My teacher cares about whether or not students understand what is being taught”), and 6 (“My teacher notices when students are sad or upset”) having slightly lower loadings (.62, .55, and .62 respectively). The reverse scored item (“My teacher seems really stressed this year”) had the lowest loading at .40. However, this lower loading is in accord with what is expected when an item is reverse scored (Field, 2005). In addition to meeting the cutoff point for inclusion in a scale, theoretically, it was important to retain this item in order to account for the component of teacher stress within a measure of
teacher SEC. The pattern of loadings in our data suggests that items tapping into emotional, social/interpersonal, and cognitive processes are all related to the latent structure, with the emotional processes being the most related.

Table 2

Factor Loadings of the Items of the TSEC Scale

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher seems really happy this year.</td>
<td>.82</td>
</tr>
<tr>
<td>2. My teacher seems really stressed this year.</td>
<td>.40</td>
</tr>
<tr>
<td>3. My teacher understands when we need extra help learning class material.</td>
<td>.62</td>
</tr>
<tr>
<td>4. My teacher cares about whether or not students understand what is being taught.</td>
<td>.55</td>
</tr>
<tr>
<td>5. My teacher seems to enjoy teaching our class.</td>
<td>.73</td>
</tr>
<tr>
<td>6. My teacher notices when students are sad or upset in class.</td>
<td>.62</td>
</tr>
</tbody>
</table>

**Item statistics and distributions.** To examine whether this population of early adolescents exhibited variability on the TSEC, we examined the means and standard deviations for each item on the scale as well as item distributions (see Table 3). As can be seen, all items were negatively skewed, indicating that most students perceived their teachers as having higher SEC. In addition, three items showed negative kurtosis and three items showed positive kurtosis. According to Miles and Shevlin’s (2004), values of skewness and kurtosis below the absolute value of 1 can be considered acceptable. Items one, three, and six showed skewness smaller than 1, and with the exception of the reversed scored item 4 (“My teacher seems really stressed this
year”), all items showed smaller kurtosis than 1, and all exceptions were close to the criterion. Taken together, these results indicate there was satisfactory variability and distributions of items reported on the TSEC.

Table 3

Item Response Percentages, Skewness, and Kurtosis of the TSEC

<table>
<thead>
<tr>
<th>Item</th>
<th>M</th>
<th>SD</th>
<th>Not at all true (%)</th>
<th>A little true (%)</th>
<th>Somewhat true (%)</th>
<th>Pretty much true (%)</th>
<th>Very true (%)</th>
<th>Skewness(^a)</th>
<th>Kurtosis(^b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>3.87</td>
<td>1.01</td>
<td>2.0</td>
<td>9.0</td>
<td>20.5</td>
<td>37.9</td>
<td>30.6</td>
<td>-0.70</td>
<td>-0.12</td>
</tr>
<tr>
<td>Item 2</td>
<td>4.08</td>
<td>0.93</td>
<td>2.8</td>
<td>4.5</td>
<td>12.1</td>
<td>45.2</td>
<td>35.4</td>
<td>-1.22</td>
<td>1.56</td>
</tr>
<tr>
<td>Item 3</td>
<td>3.88</td>
<td>1.01</td>
<td>1.1</td>
<td>9.2</td>
<td>23.2</td>
<td>33.6</td>
<td>32.8</td>
<td>-0.56</td>
<td>-0.50</td>
</tr>
<tr>
<td>Item 4</td>
<td>4.08</td>
<td>1.03</td>
<td>2.8</td>
<td>4.7</td>
<td>17.8</td>
<td>31.2</td>
<td>43.5</td>
<td>-1.05</td>
<td>0.62</td>
</tr>
<tr>
<td>Item 5</td>
<td>4.20</td>
<td>0.99</td>
<td>2.0</td>
<td>5.6</td>
<td>12.6</td>
<td>30.8</td>
<td>49.0</td>
<td>-1.23</td>
<td>0.99</td>
</tr>
<tr>
<td>Item 6</td>
<td>3.88</td>
<td>1.06</td>
<td>2.2</td>
<td>10.6</td>
<td>18.2</td>
<td>35.2</td>
<td>33.8</td>
<td>-0.73</td>
<td>-0.25</td>
</tr>
</tbody>
</table>

\(^a\)Standard error of Skewness = .13. \(^b\)Standard error of Kurtosis = .26

Intercorrelations among items of the TSEC. In addition, we investigated the inter-item correlations of the TSEC. As shown in Table 4, the magnitude of the correlations among the items on TSEC ranged between .26 and .68, with the exception of the reverse scored item (“My teacher seems really stressed this year”). These findings indicate that items on the TSEC are moderately to highly related to each other (Cohen, 1992). Item 2 shows the lowest correlations with other items (.10 and .15), however, this can be expected from a reverse scored item, due to the respondents not understanding the question or response options (Field, 2005).
Reliability. Internal consistency of the TSEC, as assessed via Cronbach’s alpha, was .79 for the full sample \( (N = 360) \). Analyses of internal consistency by gender indicated that Cronbach’s alpha for girls was .76 \( (n = 182) \) and .80 for boys \( (n = 177) \). The alphas for each grade level were as follows: Fifth grade = .64 \( (n = 72) \), sixth grade = .74 \( (n = 181) \), and seventh grade = .78 \( (n = 106) \). In addition, we calculated the corrected item-total correlations of the TSEC and also the alphas if each item was deleted (see Table 5). As can be seen, the corrected item-total correlations ranged between .34 and .70 and the alphas if item deleted ranged between .72 and .80. This indicates that in the present sample all items related highly to the corrected total scale and that deleting any of the items would only slightly decrease the reliability of the full scale, with the exception of the reverse scored, which would only increase the reliability by .01. Taken together, these findings indicate satisfactory internal consistency for the TSEC.

Table 4

*Intercorrelations Among Items on the TSEC*

<table>
<thead>
<tr>
<th></th>
<th>Item 1</th>
<th>Item 2</th>
<th>Item 3</th>
<th>Item 4</th>
<th>Item 5</th>
<th>Item 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 2</td>
<td>.40</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 3</td>
<td>.47</td>
<td>.15</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 4</td>
<td>.37</td>
<td>.10</td>
<td>.49</td>
<td>–</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item 5</td>
<td>.68</td>
<td>.37</td>
<td>.38</td>
<td>.37</td>
<td>–</td>
<td></td>
</tr>
<tr>
<td>Item 6</td>
<td>.47</td>
<td>.26</td>
<td>.43</td>
<td>.39</td>
<td>.40</td>
<td>–</td>
</tr>
</tbody>
</table>
Table 5

*Corrected Item Total Correlations and Alpha if Item Deleted on the TSEC*

<table>
<thead>
<tr>
<th>Corrected item-total correlation</th>
<th>Cronbach alpha if item deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 1</td>
<td>.70</td>
</tr>
<tr>
<td>Item 2</td>
<td>.34</td>
</tr>
<tr>
<td>Item 3</td>
<td>.55</td>
</tr>
<tr>
<td>Item 4</td>
<td>.48</td>
</tr>
<tr>
<td>Item 5</td>
<td>.63</td>
</tr>
<tr>
<td>Item 6</td>
<td>.55</td>
</tr>
</tbody>
</table>

**Gender and grade differences.** To examine gender and grade differences on the TSEC, we performed a 2 (gender) X 3 (grade) analysis of variance (ANOVA). Analyses revealed a significant main effect for gender, $F(1, 353) = 4.48, p = .032, \eta^2 = .012$ a significant main effect for grade, $F(2, 353) = 8.07, p = .000, \eta^2 = .043$, and a non-significant gender X grade interaction, $F(2, 353) = .557, p = .573$. With regard to gender, girls had significantly higher ratings on the TSEC ($M = 4.13, SE = .05$) than boys ($M = 3.97, SE = .06$). With regard to grade differences, post-hoc (Tukey) analyses indicated that grade five students rated their teachers significantly higher on the TSEC ($M = 4.26, SE = .08$) than did the grade 6 students ($M = 3.87, SE = .05$). Analyses revealed no significant differences between grade 5 students and grade 7 students ($M = 4.02, SE = .07$), or between and grade 6 students and grade 7 students. Cohen (1988) suggests that small, medium, and large effect sizes are those with $\eta^2 = .0099$, .0588, and .1379 respectively. Effect sizes in this study indicated small effects for gender and approaching medium effects for grade-level.
Summary of factor and reliability analyses. Results of the factor analysis and reliability tests indicated satisfactory factor structure, distributions of item responses, and reliability for the TSEC. For this study, the TSEC had factor loadings ranging between .40 and .83, inter-correlations ranging between .26 and .68, and an overall Cronbach’s alpha of .79. These results offer preliminary evidence for the psychometric soundness of the TSEC when used with a population of early adolescents in grades 5 to 7.

Validity Evidence for the TSEC

In an attempt to provide rigorous validity evidence, a series of validity analyses were conducted (Cronbach & Meehl, 1955; Hubley & Zumbo, 2011) to answer the following questions: (1) what is the relationship of the TSEC to other measures of students’ perceptions of support from teachers, and (2) what is the relationship of TSEC to student empathy, well-being, school adjustment, student-teacher relationship quality (closeness, conflict), and teacher-rated SEC and aggression.

Convergent validity: Relations of the TSEC to indicators of teacher support, student social and academic outcomes, and student-teacher relationship quality. Students’ scores on the TSEC were positively and significantly related to both students’ ratings of teacher emotional support and teacher personal support (see Table 6), providing convergent evidence of the TSEC. In addition, Table 7 displays the correlations between the TSEC and measures of student empathy, well-being, school adjustment, teachers’ ratings of SEC and aggression, and teachers’ ratings of student-teacher relationship quality. Students’ scores on the TSEC were positively and significantly related to measures of empathy (i.e., empathic concern and perspective-taking), well-being (i.e., optimism, satisfaction with life, positive affect), and school adjustment (i.e., academic efficacy and school self-concept). Students’ scores on the TSEC were found to be
significantly and negatively related to depressive symptoms. The TSEC was not statistically
significantly correlated to anxious symptoms.

Students’ scores on the TSEC were positively and significantly related to teachers’
ratings of student social and emotional competence and negatively related to teachers’ ratings of
student aggressive behaviours. Students’ scores on the TSEC were also positively and
significantly related to teachers’ ratings of closeness in the student-teacher relationship and
negatively related to conflict in the relationship. To summarize, in accord with findings from
previous research (e.g., Mashburn et al., 2008; Milkie & Warner, 2011; Reddy et al., 2003)
results of the present investigation reveal that the TSEC is related to a battery of both positive
and negative indicators of student social and emotional competencies and school adjustment in
the expected directions.

Additional analyses were conducted to determine the convergence of TSEC with teacher-level
self-reports of SEC (i.e., teacher stress, efficacy). Results are presented in Appendix A.
Table 6.

*Correlations of the TSEC with Teacher Emotion Support and Teacher Personal Support*

*Measures*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
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</thead>
<tbody>
<tr>
<td>1. TSEC</td>
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<tr>
<td>2. Teacher Emotional Support</td>
<td>.79**</td>
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<tr>
<td>3. Teacher Personal Support</td>
<td>.63**</td>
<td>.69**</td>
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</table>

** **p < 0.01.

**Summary of validity evidence.** The pattern of results described in this section supports the convergent validity of the TSEC, consistent with our theory and hypotheses. As seen in Tables 6 and 7 there is support for validity for the TSEC, showing correlations with measures of student SEC (both student reports and teacher reports). Specific findings will be discussed in the discussion section.²

²Investigation of interclass correlations (ICC = .28) and eta-squared suggests there is high variability between classrooms on the TSEC, beyond the variation found at the individual level.
Table 7  
Correlations of TSEC with Student Self-report and Teacher-reports of Student Outcomes

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<th>Measure</th>
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<td>4. Optimism</td>
<td>.29**</td>
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<td>5. Satisfaction with Life</td>
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<td>.19**</td>
<td>.24**</td>
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<td>6. Positive Affect</td>
<td>.24**</td>
<td>.32**</td>
<td>.32**</td>
<td>.47**</td>
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<td>8. Depression</td>
<td>-.16**</td>
<td>-.07</td>
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<td>9. School Self Concept</td>
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<td>.33**</td>
<td>.38**</td>
<td>.45**</td>
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<td>10. Academic Efficacy</td>
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<td>.34**</td>
<td>.38**</td>
<td>.49**</td>
<td>.45**</td>
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<td>11. SEC</td>
<td>.16**</td>
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<td>12. Aggression</td>
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<td>-.18**</td>
<td>-.16**</td>
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<td>13. Closeness</td>
<td>.19**</td>
<td>.21**</td>
<td>.08</td>
<td>.14*</td>
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<td>.62**</td>
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</table>

* p < 0.05. ** p < 0.01.
Chapter 4: Discussion

With a growing research and educational interest in the social and emotional competencies of teachers that influence teaching and learning (Jennings & Greenberg, 2009; Jones & Bouffard, 2012; Jones et al., 2013), there is a need to create and validate measures that assess students’ perceptions of their teachers’ SEC that are suitable for use with typical students in regular classrooms. In the present study, we created and evaluated a measure designed specifically to assess early adolescents’ perceptions of their teachers’ SEC – the TSEC. The pattern of results obtained in this study offers preliminary evidence for the reliability and validity of the TSEC when used with a population of early adolescents in 5th to 7th grade. In the following sections, the results will be discussed in light of recent research on teachers’ social and emotional competence and positive adolescent development. This will be followed by a discussion of the strengths and limitations of this research, and suggested future directions.

First, EFA and reliability analyses indicated that the TSEC has a unidimensional factor structure and shows high internal consistency. Satisfactory variability and item distributions of the TSEC were also demonstrated, with negative skewness indicating that students tended to rate their teachers favourably on TSEC. Factor loadings of the six items were found to be highest for items assessing teachers’ emotional processes (e.g., “My teacher seems really happy this year”, “My teacher seems to enjoy teaching our class”). Loadings were only slightly lower for the three items that tapped into social/interpersonal skills and the item that assessed cognitive processes (teacher stress) was found to have the lowest factor loading. These findings suggest that the three components outlined by Jones et al. (2013) seem to be important to an overall construct of teacher SEC. These results align with Jennings and Greenberg’s (2009) model in which positive emotions, such as joy and excitement, and social/interpersonal skills, such as recognizing and
understanding social cues and emotions, are important aspects of teacher SEC, which, if fostered can lead to greater resilience and ability to cope in the classroom. For example, research by Brackett, Palomera, Mojsa-Kaja, Reyes, and Salovey, (2010) on the relationship of teachers’ emotion regulation to job satisfaction and burnout, demonstrated that positive affect was significantly and positively related to job satisfaction, and negatively related to negative affect and burnout. Similarly, in a cluster randomized controlled trial of 82 3rd grade teachers and their classrooms, Brown et al. (2010) investigated whether teacher social-emotional functioning (perceived emotional ability and burnout) forecasted differences in the quality of their classrooms, as measured by the CLASS. They found that teachers’ emotional abilities at the beginning of the year, which included the ability to perceive emotions of self and others and regulate their own emotions, was significantly related to observed classroom quality at the end of the school year.

The low factor loading of the stress-related item is not unexpected, as (a) it is the only item in the TSEC assessing a stress component and (b) it is a reverse scored item, both of which tend to reduce Cronbach’s alpha (Field, 2005). It is important to note that removing item 2 from the scale would only increase the Cronbach’s alpha from .79 to .80, however, researchers may want to examine the ways in which students perceive stress in their teachers and identify items that more specifically examine dimensions of teacher stress and burnout. Considering the plethora of evidence suggesting a relation of teacher stress and burnout to classroom climate (e.g., Brackett et al., 2010; Darr & Johns, 2008; Milkie & Warner, 2011), it would be important for future research to further investigate the relationship of teacher SEC to teacher stress. For instance, emotional stress and poor emotion management consistently rank as the primary reasons teachers experience burnout and subsequently leave the teaching profession (Darling-
Hammond, 2001; Montgomery & Rupp, 2005). Teachers are faced with ever increasing demands, with stress being a natural component of their jobs (Jennings & Greenberg, 2009), and researchers have shown that if this stress is not managed it may not only lead to burnout of teachers, but can also be insidious and contagious to the students (Brackett et al., 2010; Milkie & Warner, 2011; Wethington, 2000). In their study of over 16,000 grade one students, their parents and their teachers, Milkie and Warner (2011) demonstrated support for the notion that passive exposure of teacher stress can manifest in students’ own emotional and behaviours problems. Specifically, a lack of a positive classroom climate (i.e., lack of material resources and respect from colleagues), a contributor to teacher frustration and burnout, was associated with an increase in learning, interpersonal, internalizing, and externalizing problems in students. This study, however, did not include direct measures of teacher stress, burnout, or competencies, therefore the processes by which these stressors filter down to the students cannot be conclusively determined. In future studies, researchers may want to include measures of students’ perceptions of teacher SEC, which includes emotional, social, and cognitive processes (e.g., the TSEC), in order to gain insight into the mechanisms of the relations of teacher stress to student problems in the classroom.

This previous research, and our finding of high reliability of the emotional processes and social/interpersonal items, and satisfactory reliability of the stress item, support our inclusion of them in the TSEC. Future research would benefit from further investigating the role of students’ perceptions of teachers’ emotional processes, social/interpersonal skills, and cognitive processes (stress) in the classroom. For example, studies have shown that social and emotional program such as Mindfulness Training (MT) show positive effects on occupational stress and burnout of
teachers (Roeser et al., 2013). Future research could include students’ perceptions of teacher stress to further evaluate the effectiveness of these programs on both teachers and students.

The group differences found on the TSEC, with regard to gender and grade differences, suggests that this measure discriminates between groups expected to differ. Main effects for gender and grade level were found for responses on the TSEC, with female students reporting significantly higher scores for their teachers on the TSEC than did males students. Additionally, grade five students reported significantly higher scores for their teachers on the TSEC than did the grade six students. There were no significant differences in TSEC ratings between grade 7 students and grade 5 or 6 students. These findings may be due in part to adolescent girls being more attuned or responsive to the interpersonal cues of their teachers (DeBold, Brown, Wessen, & Brookins, 1999). This main effect for gender is in accord with previous studies that have found that female adolescents tend to perceive more support from their teachers than male students (Hughes et al., 2001; Reddy et al., 2003), or seek help more often from their teachers than male students (Schonert-Reichl & Muller, 1996).

With regard to grade differences, this period between grades 5 to 7 is marked by significant change across cognitive, social, and biological areas of functioning (Eccles, 1999). For instance, as school size increases and students transition from one full-time teacher, to several part-time teachers, student-teacher relationship closeness tends to decline. As a result of having large and transient classrooms, teachers often feel the need to take on more of an authoritarian and disciplinary role; relying on more controlling and less socially and emotionally competent interaction strategies (Eccles, 1999; Eccles & Roeser, 2010). Researchers have found that students experience a decline in perceived support from teachers as they progress through school, in part due to the changes mentioned (Reddy et al., 2003; Roeser et al., 1996). It is
important to note, however, that the school district participating in the present study did not have a middle school system, therefore, the early adolescents were not experiencing transitions between schools. As a result, we cannot determine whether our findings would be replicated in a study that included these school transitions typical of this age period.

As mentioned, this study provided preliminary evidence for the convergent validity of the TSEC. A critical consideration when it comes to validation, as stated by Hubley and Zumbo (2011) is:

What we validate are the inferences, interpretations, actions, or decisions that we make based on a test score. Thus, validity is about the degree to which our inferences are appropriate, meaningful, and useful given the individual or sample we are dealing with and the context in which we are working. (p. 228)

Therefore, to examine the validity of the inferences of the TSEC, a series of correlational analyses were conducted. In terms of missing data, participants had to have responded to at least 80% of the items of a scale, and then the average was taken. Treatment of missing data for the correlations then was pairwise deletion. Findings revealed evidence for the convergent validity of the TSEC. In terms of convergent validity, the TSEC was found to be significantly and positively related to measures of closely related constructs, namely students’ reports of Teacher Emotional Support and Teacher Personal Support. Further evidence for convergent validity comes from our results which indicate that the TSEC demonstrated significant correlations in the expected directions to other relevant student outcome measures. Specifically, students who rated their teachers as high on TSEC also tended to report higher levels of empathy (empathic concern, perspective-taking), well-being (optimism, positive affect, and satisfaction with life), and academic motivation (school self-concept and academic efficacy). In contrast, students who rated
their teachers higher on the TSEC tended to report lower levels of depressive symptoms for themselves. One possible explanation for these relations may be that teachers’ emotional abilities (or lack thereof) can transfer to students (Milkie & Warner, 2011; Wethington, 2000) and affect their SEC, well-being (Jennings & Greenberg, 2009), stress (Milkie & Warner, 2011; Wethington, 2000) and academic motivation (Wentzel, Baker, & Russel, 2012). Jennings and Greenberg (2009) suggest in their model that the mechanisms through which this transfer could occur is through (a) teacher-student relationships, (b) classroom management, and (c) SEL program implementation. For example, in a study of 464 5th and 6th grade students, Wentzel and colleagues (2012) investigated the mediating role of teacher emotional caring in the relationship of early adolescent students’ perceptions of teachers’ and peers’ goals to students’ own academic and social goals. They found that perceptions of teacher caring (e.g., “My teacher really cares about me”) were related to students’ social (“How often do you try to share what you’ve learned with your classmates?”) and academic (“How often do you try to learn something new in this class, even if you don’t have to?”) goal pursuit, as measured by the Social Goals Questionnaire. Additionally, they found that students’ perceptions of teacher caring partially mediated the relationship of students’ perceptions of teachers’ goals to students own academic and social goals, providing further support for the inclusion of students’ perceptions of teacher SEC in future investigations.

Interpretations of our data are limited however, due to the correlational design of the study, thus alternative explanations are also possible. For instance, in the present study, empathy was operationalized by a measure tapping into both the affective (empathic concern) and cognitive (perspective-taking) components considered to comprise the overall construct (Schonert-Reichl, 2011). Perspective-taking refers to the ability to label and understand others’
emotions, therefore, students who report higher empathy may also be more attuned to their
teachers’ emotions, leading them to rate their teachers higher on TSEC.

In addition, optimism refers to a tendency towards generalized favorable expectancies for
the future (Carver, Scheier, & Segerstrom 2012), therefore students high in optimism may be
positively biased in how they evaluate their teachers’ SEC. Finally, the positive relationship
found between the TSEC and school adjustment could be a result of students with higher school
adjustment viewing their teachers more favourably. For example, Roeser et al. (1996) found that
academic self-efficacy was related to students’ perceptions of a school-task goal structure (e.g., a
goal structure that is focused on individual task mastery as opposed to social comparison).
Therefore, it is possible that students with higher academic self-efficacy also perceive a more
autonomous and supportive classroom environment, which includes the teacher.

Of particular note in this study is the finding that students’ perceptions of teacher SEC
were not statistically significantly related to students’ reports of anxious symptoms, but were
negatively related to students’ reports of depressive symptoms. The finding that depressive
symptoms are negatively related to the TSEC is expected from previous research suggesting that
classroom features, such as greater respect from colleagues towards teacher (which in turn
diminishes teacher stress), are related to fewer internalizing problems (e.g., anxiety, sadness) in
first grade students (Milkie & Warner, 2011). In contrast, Murray and Greenberg (2000) found
that students who rated themselves as having low affiliation with teachers also showed more
anxiety and depression. The finding that anxious symptoms were not statistically related to the
TSEC was surprising, considering previous research has found a connection between student-
teacher relationship quality (or lack thereof) and mental health issues in students (Jennings &
Greenberg, 2009; Murray & Greenberg, 2000). In particular, Jennings and Greenberg (2009)
suggest that “burned-out teachers and the learning environments they create can have harmful
effects on students, especially those who are at risk of mental health problems” (p. 492).
However, in the study by Milkie and Warner (2011), the Social Skills Rating System (Gresham
& Elliott, 1990, as cited in Milkie & Warner, 2011) uses reports from teachers to assess the
presence of anxiety in students, whereas in the current study, the *Seattle Personality
Questionnaire for Young School-Aged Children* (Kusche et al., 1988) was used, which is a self-
report measure, for students to report their own levels of anxious symptoms. Moreover, direct
assessments of teachers’ competencies were not included in the above study. This difference in
informants and methods may partially account for the differences found in literature compared to
the current study on the relation between TSEC and anxious symptoms. For example,
internalizing disorders are often difficult to observe (Kashdan & Herbert, 2001), and teachers
may underreport the presence of these symptoms in their classrooms, especially if they are
reporting themselves as capable of dealing with such issues. In addition, in the above study, (a)
students were younger (grade one) than in the present study, and (b) findings differed by gender
and ethnicity, suggesting there is a more complicated relationship between student-teacher
relationships and internalizing behaviours, possibly related to age, gender, and ethnicity.
Interestingly, in a study that investigated the relation between children’s early behavioral style
(social boldness and wariness) and their behavior in kindergarten, Rimm-Kaufman et al. (2002)
found no significant relationship between observations of teachers’ sensitivity and child behavior
for socially wary (i.e., anxious) children, highlighting a similarly non-significant relationship
between anxious symptoms and teacher competencies.

Uncovering these processes is relevant for education because internalizing symptoms,
which include anxious and depressive thoughts and feelings, have been associated with poorer
academic functioning and executive functions (Blair & Diamond, 2008; Kusche et al., 1993). In addition, adolescents who report higher levels of anxiety and depression behaviours tend to display fewer positive interpersonal behaviors, have less of a prosocial orientation and experience more peer rejection (Bohlin, Bengstgard, & Andersson, 2000; Wentzel & McNamara, 1999). Emerging evidence suggests the classroom is an increasingly important place for prevention and intervention (e.g., Hymel, Schonert-Reichl, & Miller, 2007), therefore future research should include an investigation of the role of teacher SEC, and student-teacher relationships, in students’ well-being, specifically the presence of anxious and depressive symptoms.

Students’ scores on the TSEC were found to be positively correlated with teachers’ reports of students’ social and emotional competence, and negatively correlated with teachers’ reports of student aggression. These findings reflect the findings in Mashburn et al.’s (2008) study of preschool children in which observations of teacher emotional support were significantly and positively related to teachers’ ratings of student SEC (e.g., ‘well-liked by classmates’) and negatively related to teachers’ ratings of problem behaviours (e.g., “disruptive in class”), as rated via the Teacher – Child Rating Scale (Hightower et al., 1986). Although this previous research adds support to our findings, in Mashburn’s (2008) study, problem behaviours encompassed more than aggressive behaviours (e.g., “anxious,” “difficulty following directions”), therefore direct comparisons are limited.

In the present study, early adolescents’ ratings on the TSEC were positively and significantly related to their teachers’ reports of closeness in the student-teacher relationship and negatively related to their teachers’ reports of conflict in the teacher-student relationship. This is in accord with previous research suggesting a positive relationship between teachers’ emotional
abilities and support and quality of student-teacher relationships (e.g., Hamre & Pianta, 2005; Jennings & Greenberg, 2009). For example, Hamre and Pianta (2005) found that at-risk children who were in classrooms characterized by strong emotional support (e.g., positive climate, teacher sensitivity), as rated by the CLASS, had achievement scores and quality of student-teacher relationships comparable to their low-risk peers. These findings indicated a convergence of students’ perceptions of the features of the student-teacher relationship and teacher’s perceptions of these relationships. Specifically, both students and teachers seem to be recognizing when a relationship is working or is not.

The majority of the correlations with the TSEC were moderate in magnitude, ranging from .24 to .38, with the exception of Depressive Symptoms, Teacher rated SEC and Aggression, and Closeness in the student-teacher relationship, which ranged from -.14 to .19. The magnitude of correlations between student-rated scales and the TSEC (another student-rated scale) were larger than correlations between teacher-rated scales and the TSEC, which is expected, due to common method variance in cross-sectional designs (Lindell & Whitney, 2001).

Although directional causality cannot be determined due to the cross-sectional nature of this study, these findings add support to the contention that future research should further investigate the relation between students’ perceptions of teacher competencies and student social, emotional, and academic outcomes. First, correlations between TSEC and measures of teacher emotional and personal support provide evidence of convergent validity. Second, the correlations of TSEC to students’ reports of empathy, well-being, school adjustment, and teachers’ reports of student SEC and aggression, and teachers’ reports of student-teacher relationship quality, provide supportive, preliminary evidence for convergent validity of the TSEC scale. However, because validation needs to be an ongoing process (Hubley & Zumbo,
1996), further validation research is needed. For example, future research could provide evidence for concurrent validity of the TSEC by comparing it to measures such as the CLASS, which has components that align closely with the items of the TSEC: the CLASS’s positive climate dimension vs. emotional processes items of the TSEC, the CLASS teacher sensitivity vs. social/interpersonal items, and the CLASS negative climate resembling the stress item.

Strengths and Contributions

There are three main strengths of the current study. The first strength is the large diverse sample of 360 students, which includes a diversity of languages, family composition, and a balanced representation of gender. Second, is the multi-informant design, which involves the use of both student and teacher-report measures of student SEC and well-being, as well as students’ ratings of teacher SEC (TSEC) and support, and teachers’ ratings of closeness and conflict in the teacher-student relationship. Relying solely on self-reports may result in under-reporting or over-reporting depending on the nature of the measure. For example, self-perceptions, consistency seeking, self-enhancements, and social desirability may lead participants to respond based on how they think they should respond, or how they want others to perceive them (Montag et al., 2007; Paulhus & Vazire, 2007). These multiple perspectives are particularly important in early adolescent classrooms as adolescent self-reports have been shown to both differ from teacher or parent ratings of the same constructs (Verhulst & van der Ende, 1992; Waters et al, 2003) and be an accurate predictor of actual teacher qualities (Bill & Melinda Gates Foundation, 2010; Bundick & Tirri, in press). Therefore it is important for future research to include multiple perspectives to continue to gain a more accurate and comprehensive picture of the constructs of interest and the relationships within adolescent classrooms. The third strength is the high
participation rate (92%) of the recruited students. This high participation rate ensures a reduction of bias and increase of generalizability.

This study also provides significant contributions to our understanding of the relation of teachers’ SEC to various aspects of student well-being and positive adjustment. First, this study proposed and provided psychometric evidence for a new scale to be used to assess students’ perceptions of teacher SEC. This study has provided preliminary evidence for the psychometric soundness and reliability of this scale for use with a population of early adolescent students. The addition of the TSEC to researchers’ battery of assessments has the potential to help advance our understanding of the role of students’ perceptions of teacher SEC in positive adolescent social and academic development. Second, this study provides support for the importance of assessing students’ perspectives of their teachers’ social and emotional competence. Students’ perceptions have been shown to be reliable indicators of teacher qualities (Bill & Melinda Gates Foundation, 2010; Bundick & Tirri, in press) and students’ perceptions of teacher support have been found to be more consistently related to positive outcomes than observed support provided (Kessler & McLeod, 1984). The current study provides empirical support for the TSEC, a new measure that taps into students’ perceptions, to be used with populations of early adolescents. These findings support the contention that students are indispensable informants of their own experiences and therefore future research should include both observational data—such as the CLASS, as well as students’ perceptions, to see how students’ perceptions of teachers’ SEC are similar or different from observations and to see how each type of data relates to student outcomes. There is a paucity of research on student perceptions of teacher qualities, let alone the accuracy of such perceptions, therefore research is needed to investigate the significance of students’ perceptions of teacher SEC.
Limitations and Future Directions

Despite the strengths of our study, our findings are limited as our data is cross-sectional and correlational, therefore, the relationships indicated in this study, although significant, cannot be interpreted causally. Longitudinal, experimental, and intervention studies are required to infer more information about the relationships between TSEC and the battery of outcomes presented in this study. Furthermore, although this study did include multi-raters (teacher and student reports), future studies would benefit from including additional methods such as teachers’ ratings of their own SEC, observational, and peer-rated measures. For example, measuring both teachers’ reports of their own SEC and students’ perceptions of their teachers’ SEC, and the relations of both measures to student outcomes, may provide insight into the relative importance of each perspective when it comes to assessing students’ well-being in the classroom or how the two reports may affect one another. For example, in a recent study Phillippo and Stone (2013) found that teachers’ beliefs around role breadth (whether a teacher’s role definition includes student support), were related to students’ perceptions of teacher support (e.g., “My teachers care about me,” “My teachers listen to what I have to say,” “My teachers praise my efforts when I work hard”). This suggests that teachers’ beliefs and perceptions and students’ perceptions may influence each other, possibly in a bidirectional way, therefore future research is needed that includes both perspectives within a single study, to tease this apart.

Important to note: We ran post-hoc correlations with teacher-level variables and found significant relationships between scores on the TSEC and variables such as Teacher Efficacy (see Appendix A). However, due to the small N at the teacher level, we did not have statistical power to detect small or medium effects with Hierarchical Linear Modeling (HLM) in order to test these relationships while accounting for the nested structure of our data. Future research
should investigate these relationships with a larger number of teachers, to explore whether students’ perceptions of teacher SEC are associated with teachers’ perceptions of their own SEC.

Finally, although some generalizability of our findings is possible because we used a relatively large and diverse sample of early adolescents residing in Canada, these results may not be generalizable to other contexts. For example, 71% of students reported English as their first language learned, which is representative for Western Canada, but possibly not in the U.S. or other countries. Moreover, we did not collect information on other markers of diversity such as ethnicity, school size, SES, and gender and ethnicity of the teacher. This study also did not include a population that transitioned through middle school or high school (i.e., all students were in elementary school). Therefore, it would be important to replicate these findings in additional populations, to ensure the reliability of this scale.

The current study provides a contribution towards investigations relating teacher SEC to student SEC and well-being and provides some insight to inform future directions. For instance, in a recent study, Curby et al. (2013) examined the relationship of within-day consistency of emotional support by teachers, as rated by the CLASS, to academic and social outcomes of preschool children. In their study, consistency refers to “the degree to which a teacher’s interactions are rated as offering the same level of quality in emotional support throughout a day of pre-K” (p. 294). They found that when children were in classrooms characterized by high emotional support consistency, they had better social and academic outcomes in both the preschool year and the following kindergarten year, controlling for mean levels of emotional support. Future research should consider including measures of students’ perceptions of teacher social and emotional competence consistency in combination with measures of mean levels of SEC, to further investigate the mechanisms underlying these relationships.
Notwithstanding these limitations, our findings offer important insight into the role students’ perceptions, in particular the role students’ perceptions of their teachers’ SEC, play in positive adolescent development. Specifically, this study adds to the dearth of literature on the effects of teachers’ SEC on student-teacher relationships and the classroom environment, and in turn students’ social, emotional, and academic outcomes. The TSEC fills a substantial gap in the toolbox of social and emotional assessments currently available for this purpose. It is one of only a few assessments that tap into students’ perceptions of teacher SEC, and it is the only scale to our knowledge that captures a broad definition of teacher SEC, beyond a singular component (e.g., burnout, support). Provided that future validation research supports our psychometric findings, the TSEC can be used to complement other measures assessing teacher competencies and classroom climate, such as teacher-reports and observations. It can then be utilized in research to expand upon our knowledge of the role of teacher SEC in student-teacher relationships and student social and academic development, and for applied purposes such as in evaluations of social and emotional program interventions.
References


http://dx.doi.org/10.1111/j.1532-7795.2010.00725.x


http://dx.doi.org/10.1037//0022-0663.90.2.202


doi.org/10.1016/S0882-6145(00)17010-9

Appendices

Appendix A: Correlation table for relations among the TSEC and Self-reported Teacher Well-being measures

Table A1

*Correlations Among the TSEC and Self-reported Teacher Well-being*

<table>
<thead>
<tr>
<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. TSEC</td>
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<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>2. Satisfaction with life&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.12&lt;sup&gt;*&lt;/sup&gt;</td>
<td>–</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3. Efficacy for Handling Students’ Mental Health Needs&lt;sup&gt;b&lt;/sup&gt;</td>
<td>-.03</td>
<td>.59&lt;sup&gt;**&lt;/sup&gt;</td>
<td>–</td>
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<tr>
<td>4. Efficacy&lt;sup&gt;c&lt;/sup&gt;</td>
<td>.27&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.46&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.26&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>5. Psychological distress&lt;sup&gt;d&lt;/sup&gt;</td>
<td>.01</td>
<td>-.62&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-.50&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-.45&lt;sup&gt;**&lt;/sup&gt;</td>
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<td>6. Burnout: Emotional Exhaustion&lt;sup&gt;e&lt;/sup&gt;</td>
<td>-.03</td>
<td>-.66&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-.35&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-.48&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.61&lt;sup&gt;*&lt;/sup&gt;</td>
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<tr>
<td>7. Burnout: Depersonalization&lt;sup&gt;f&lt;/sup&gt;</td>
<td>-.02</td>
<td>-.73&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-.50&lt;sup&gt;**&lt;/sup&gt;</td>
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<td>.78&lt;sup&gt;**&lt;/sup&gt;</td>
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<tr>
<td>8. Burnout: Personal Accomplishment&lt;sup&gt;g&lt;/sup&gt;</td>
<td>.25&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.46&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.39&lt;sup&gt;**&lt;/sup&gt;</td>
<td>.53&lt;sup&gt;**&lt;/sup&gt;</td>
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<td>-.18&lt;sup&gt;**&lt;/sup&gt;</td>
<td>-.34&lt;sup&gt;**&lt;/sup&gt;</td>
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</tr>
</tbody>
</table>

*Note.* <sup>a</sup> = Satisfaction with Life for Children scale; <sup>b</sup> = Job Satisfaction scale; <sup>d</sup> = Kessler Psychological Distress scale; <sup>e, f, g</sup> = Occupational Stress scale

* *<sup>p</sup> < 0.05. **<sup>p</sup> < 0.01.
Appendix B: Teacher Consent Form

University of British Columbia
Department of Pediatrics
British Columbia Children's and
Women’s Health Center

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

Teacher Consent Form

"Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being Cognitive Control, and Stress Reactivity"

Principal Investigator: Dr. Dr. Kimberly Schonert-Reichl, Associate Professor, Department of Education, UBC

Co-Investigators: [Redacted]

This study is being organized by educators at the Coquitlam School Board and Dr. Kimberly A. Schonert-Reichl (Faculty of Education, University of British Columbia), Dr. Tim Oberlander (Department of Pediatrics, Children’s and Women’s Health Centre), Dr. Adele Diamond (Developmental Cognitive Neuroscience, UBC), and Ms. Eva Oberle (Faculty of Education, University of British Columbia). It is hoped that the results of this study will help parents and educators better understand children’s emotional and social development and therefore be better equipped to improve education for all. Listed below are several aspects of this project that you need to know.
Purpose: The purpose of this study is to evaluate the effectiveness of the “MindUp” program – an educational program for children, designed to promote children’s psychological social responsibility, well-being, and academic success, and the SMART (Stress Management and Relaxation Techniques) program – an intervention program for teachers, designed to improve teachers’ ability to deal with stress and enhance their well-being and satisfaction as a teacher.

The MindUp program consists of teaching a series of simple techniques designed to enhance self awareness, focused attention, problem solving abilities, stress reduction, conflict resolution, and prosocial behaviours in children (such as, sharing, helping, and cooperating). MindUp is being taught in several schools throughout the Vancouver School District as part of the District’s goal to promote students’ social and emotional learning and social responsibility. Some of the children who participate in the research study will receive the MindUp program in their classroom while other children in the study will not receive the program (comparison group). Teachers who do not receive training in the MindUp program initially, and whose classroom is thus part of the comparison group will receive all MindUp materials after the study has been completed and may implement the program then if they wish.

The SMART-program is a program for teachers, and it consists of a series of afternoon and weekend workshops. You may or may not (comparison group) participate in SMART throughout the duration of this research project. Those teachers who are part of the comparison group and do not take part in SMART throughout the research study will be given a CD with guided mindfulness practices by John Kabat-Zinn after the study has been completed. After the study has been completed, teacher will also receive a gift certificate as a small honorarium for participating in the study, and we will organize a pizza party in your classroom, providing pizza for all children (including those who do not receive consent for participation). Note that if you are assigned to a condition involving SMART and/or MindUp, we will carry any cost for you for participating in those programs and the material involved.
Please note that this study is conducted as a randomized control trial, which means that teachers will be randomly assigned to either receiving MindUp only, SMART and MindUp, SMART only, or no intervention for the duration of this research project. Assigning teachers randomly to one of those conditions, and not letting them choose which condition they would like to be part of is important to obtain valid data from this study that allows us to answer our research questions.

Procedure: If you agree to participate, we will work closely with you to schedule study sessions during your class’s regular school day. We would first schedule a time with you to come in and hand out parental permission slips to students in your class. We would then visit your classroom for nine separate sessions: three sessions will take place in October 2011 on three consecutive days in a week, three sessions will take place in January 2012, and three sessions will take place in the end of the school year. At all three times (October, January, end of the school year) the three classroom visits will involve the same data collection done by graduate research assistants as described in the following section:

1. On the first visit (ca. 50-60 minutes) we will ask participating students to fill out some questionnaires that ask about their background, feelings about themselves, their peers, and school (these are described in more detail below). Participating students will complete one set of questionnaires in the next couple of weeks and another set of questionnaires at near the end of the school year. Research assistants will be there to explain the directions and make sure students understand the instructions; each question will be read out loud by a researcher assistant and a second research assistant will be in the class to help with any specific question a student may have during the questionnaire. The first questionnaire asks about background, such as age, gender, family composition, and language spoken at home. Another set of questionnaires asks about students’ feelings about themselves, their classroom, and their positive social behaviours. The third set of questionnaires asks students to provide ratings of their classmates’ positive classroom behaviours, and the last questionnaire asks for information on their feelings about school. Both prior to and upon completion of the questionnaire portion of the study, it is explained to participants that their answers are only their own and should be kept private from others. Further, the purpose of the peer nomination task is explained: the peer nomination task gives the researchers the students' opinion of the class composition to help us learn more about classroom dynamics. Children who do not participate in this research will be given an activity to do that is related to their regular classroom instruction. Please note: Students who are not participating in the research study will have their names removed from the peer nomination task in the questionnaire.

2. On day 2, we want to learn about the daily pattern of substances found in children’s saliva. To learn about this, we will ask participating children to give us a saliva (spit) samples 3 times during one day (this takes ca. 5 minutes each time): when students first come to school, before
lunch, and right before dismissal. In a brief “diary”, children will indicate before the saliva collection a) what time they woke up in the morning, b) when was their last meal, and c) whether they have taken any medication on the day of cortisol collection. Note: All saliva samples will be destroyed after we have done our testing.

3. On **day 3**, we want to learn about the development of children’s self-control, rule learning, and memory and see how these “cognitive control” behaviours: 1) might change as a result of participation in the ME program, and 2) are associated with children’s psychological well-being and academic success. To learn about this, we will be giving children **games to play and problems to solve on the computer (ca. 15 minutes per child)**. Specifically, students will be asked to respond to pictures using various rules that we will explain to them. During the course of the game, the rules might change. Before each game we will explain the rules and go over them, giving students an opportunity to practice. In games where the rules change, we will explain that and explain what they will change to. We will do our very best to make sure that students understand how to play a game before we start. We never rush or criticize anyone, and try to keep each student engaged so that he or she performs well. Most children enjoy the individual attention. The computer session will be done individually with each participating student and takes about 15 minutes to complete.

In addition, we will ask teachers to complete two to three different measures as part of this study (depending on the condition you will be assigned to in this study):

a) If you are implementing the MindUp program, we ask you to complete a weekly implementation diary in which you note what activities you completed in a given week, and to what extend you implemented the activities in the curriculum. Completing the diary will take no longer than 2-5 minutes per week.

b) In addition, ALL teachers will be asked to complete a brief questionnaire at the pretest (fall 2011), mid-point (January 2012), and posttest (June 2012). This survey includes questions about teachers’ demographic background, mindful attention, and beliefs about social and emotional learning. Completing this survey will take approximately 20 minutes at each time point.

c) Furthermore, ALL teachers will be asked to complete a brief survey for each child, rating children’s behaviors in the classroom and student-teacher relationship. This survey will take approximately 10 minutes per child.

**What will teachers be asked to do by this study?**

- Collect permission slips from the children
- Provide class lists to
- Co-ordinate with times that are convenient to distribute the permission slips
- Co-ordinate with times for study session appointments
- Complete a brief survey assessing various dimensions of each child’s social behaviours in the classroom. You will be asked to complete this checklist twice – once during the next month and again in May. Each checklist will take approximately 5-10 minutes to complete per child.
- Indicate if/when would be appropriate to have a pizza lunch
- Complete the MindUp implementation diary (weekly ca. 2 minutes) if you are implementing MindUp
- Complete a survey about experiences during SMART if you are participating in the SMART program
- Written consent to participate in this study will be requested from participating teachers.
Risks: For the questionnaire portion of this study, it is important for you to know that it is not a test and there are no right or wrong answers – we are not in any sense “testing” the children. We are only interested in finding out children’s opinions and feelings. It is hoped that the results of this study will help teachers and parents better understand the way that students think and improve education for all. For the portion of this research in which we collect students’ saliva (spit), you should know that helping with this project will not hurt your students or make them sick. The dental rolls used to collect saliva will taste like paper. There are no known risks or side effects of the cortisol collection to children’s development. There are no known risks for completing the teacher surveys. Teachers’ participation in this project is voluntary. At any given time, teachers can decide to withdraw from participating in the study.

Confidentiality: Any information resulting from this research study will be kept strictly confidential. All documents will be identified only by code number and kept in a secured information system and locked filing cabinet. The identity of the participants in this study (both teachers and students) will be entirely confidential. No information that discloses your or your students’ identities will be released or published without specific consent to the disclosure. Neither you nor your students will be identified by name in any reports of the completed study.

Copies of the relevant data, which identify the participants only by code number, may be published in scientific journals, but no participant will be identified by name. However, research records identifying participants may be inspected in the presence of the Investigator or his or her designate by representatives of the UBC Research Ethics Board for the purpose of monitoring the research.

Who can I talk to if I have any questions?

If you have any questions at any time during this project, you may contact [redacted] or [redacted]. Furthermore, you may contact the Research Subject Information Line in the UBC Office of Research Services.

We would appreciate it if you could indicate on the slip provided on the attached page whether or not you would like to participate. Would you kindly sign and date the attached slip where indicated? Thank you very much for considering this request.

Sincerely,

Kimberly Schonert-Reichl
Principal Investigator

Co-Investigators

TEACHER CONSENT FORM
Study Title: "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity"

Principal Investigator: Dr. Kimberly Schonert-Reichl, Associate Professor, Department of Educational and Counselling Psychology and Special Education, University of British Columbia, Vancouver, B.C.

KEEP THIS PORTION FOR YOUR RECORDS

I understand that my participation in the above study is entirely voluntary, and that I or students in my class may refuse to participate, or I or my students are free to withdraw from the study at any time without any consequences. I have received a copy of this consent form for my own records. I consent to my participation in this study and in signing this document.

I have read and understand the attached letter regarding the study entitled "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity" I have also kept copies of both the letter describing the study and this permission slip.

_______ Yes, I agree to participating in this project.

_______ No, I do not agree to participate.

__________________________  ___________________________  __________________
Teacher’s Signature                  Printed Name                   Date

__________________________  ___________________________
School Name

DETACH AND RETURN TO PROJECT COORDINATOR

I understand that my participation in the above study is entirely voluntary, and that I or students in my class may refuse to participate, or I or my students are free to withdraw from the study at any time without any consequences. I have received a copy of this consent form for my own records. I consent to my participation in this study and in signing this document.

I have read and understand the attached letter regarding the study "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity" I have also kept copies of both the letter describing the study and this permission slip.
______ Yes, I agree to participating in this project.
______ No, I do not agree to participate.

<table>
<thead>
<tr>
<th>Teacher’s Signature</th>
<th>Printed Name</th>
<th>Date</th>
</tr>
</thead>
</table>

_School Name_
Appendix C: Parent Consent Form

April 21st, 2011

Dear Parent/Guardian:

We are writing to request permission for your child to participate in a research project that we are conducting at your child’s elementary school entitled "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity." This study is being organized by educators at the Vancouver School Board and Dr. Kimberly A. Schonert-Reichl (Faculty of Education, University of British Columbia), Ms. Eva Oberle (Faculty of Education, University of British Columbia), Dr. Adele Diamond (Developmental Cognitive Neuroscience, University of British Columbia), and Dr. Tim Oberlander (Department of Pediatrics, Children’s and Women’s Health Centre). Listed below are several aspects of this project that you need to know.

**Purpose:** The purpose of this study is to evaluate the effectiveness of the “MindUp” program – an educational program for children, designed to promote children’s psychological social responsibility, well-being, and academic success, as well as the SMART (Stress Management and Relaxation
Techniques) program – a training program for teachers, designed to improve teachers ability to deal with stress and enhance their well-being and job satisfaction.

The MindUp program consists of teaching a series of simple techniques designed to enhance self awareness, focused attention, problem solving abilities, stress reduction, conflict resolution, and prosocial behaviours in children (such as, sharing, helping, and cooperating). MindUp is being taught in several schools throughout the Vancouver School District as part of the District’s goal to promote students’ social and emotional learning and social responsibility. Some of the children who participate in the research study will receive the MindUp program in their classroom while other children in the study will not receive the program (comparison group).

The SMART-program is a program for teachers, and it consists of a series of afternoon and weekend workshops. Your child’s teacher may or may not participate in SMART throughout the duration of this research project depending on whether or not they are in the comparison group.

Our research project is concerned with developing an understanding of whether or not the MindUp program for children and the SMART program for teachers have an effect on children’s development of a positive self-regard, healthy adjustment, self control, and success in school. We are also interested in learning more about the relationship between the physical body and the psychological mind; to do so, we will be looking at a stress hormone, cortisol, which is secreted into the body, and examine its relation to social emotional measures. We are also interested in understanding the development of children’s self control, rule learning, and memory and examining whether or not these dimensions can be enhanced as a result of participation in the MindUp program.

**Procedure:** If you and your child agree to participate, we will work closely with classroom teachers to schedule the research sessions during your child’s regular school day. We will visit your child’s classroom for 3 separate sessions in the next few weeks, 3 sessions in January 2012, and 3 sessions near the end of the school year.
1. In the first of these sessions we will ask participating students to fill out some questionnaires that ask about their background, feelings about themselves, their peers, and school (described in more detail below). Participating students will complete one set of questionnaires in the next couple of weeks and another set of questionnaires at near the end of the school year. For each session, it will take about 50 minutes to complete the questionnaires. We will be there to explain the directions and make sure your child understands the instructions – as well, all of the survey questions will be read out loud to students. The first questionnaire asks about background, such as age, gender, family composition, and language spoken at home. Another set of questionnaires asks about students’ feelings about themselves, their classroom, and their positive social behaviours. The third set of questionnaires asks students to provide ratings of their classmates’ positive classroom behaviours, and the last questionnaire asks for information on their feelings about school. In addition to obtaining information directly from participating students, your child’s teacher is being asked to complete a checklist that tells us about your child’s social behaviours in the classroom. Children who do not participate in this research will be given an activity to do that is related to their regular classroom instruction.

2. In the second of the three sessions (one in the next couple of weeks and the other at the end of the year), we want to learn about the daily pattern of substances found in children’s saliva — the stress hormone cortisol. To learn about this, we will ask your child to give us a saliva (spit) sample 3 times over the duration of one typical school day: when he/she first comes to school, at lunch time, and before dismissal (approximately 5 minutes for each collection). Saliva will be collected with a neutral tasting cotton swab; there are no harms to the saliva collection. Your child’s saliva samples will be destroyed after we have done our testing. In a brief “diary”, children will indicate before the saliva collection a) what time they woke up in the morning, b) when was their last meal, and c) whether they have taken any medication on the day of cortisol collection.

3. In the final session (one in the next couple of weeks and the other near the end of the school year), we want to learn about the development of children’s self-control, rule learning, and memory and see how these “cognitive control” behaviours: 1) might change as a result of participation in the ME program, and 2) are associated with children’s psychological well-being and academic success. To learn about this, we will be giving children games to play and problems to solve on the computer. Specifically, your child will be asked to respond to pictures using various rules that we will explain to them. During the course of the game, the rules might change. Before each game we will explain the rules and go over them with your child, giving your child practice. In games where the rules change, we will explain that and explain what they will change to. We will do our very best to make sure that your child understands how to play a game before we start. We never rush or criticize anyone, and try to keep each child engaged so that he or she performs well. Most children enjoy the individual attention. The computer session will be done individually with each participating student and takes about 15 minutes to complete.

If you chose not to have your child participate, the researchers will collaborate with your child’s classroom teacher to arrange an alternative activity for students who do not participate in the study. Activities can range from working on current assignments, or completing a fun sheet (word search, crossword puzzle) that the researchers provide. Please note that agreeing/declining for your child to participate in this study applies only to the research portion of this project. This means that if you decline your child’s participation, she or he will not participate in any of the research activities involved in this study (i.e., the questionnaire, the saliva collection, and the computer tasks). However, your child’s classroom teacher may still implement the MindUP program, and the classroom teacher may still be receiving the SMART-in-Education program. MindUP is a classroom-based social and emotional promotion program, and teachers who decide that this program be implemented in their classroom do not exclude individual children. Similarly, SMART-in-Education is a program for
teachers, and your child’s teacher’s participation in SMART-in-Education is not affected by parental consent.

**Risks:** For the questionnaire portion of this study, it is important for you to know that it is not a test and there are no right or wrong answers – we are not in any sense “testing” the children. We are only interested in finding out children’s opinions and feelings. It is hoped that the results of this study will help teachers and parents better understand the way that students think and improve education for all. For the portion of this research in which we collect your child’s saliva (spit), you should know that helping with this project will not hurt your child or make him/her sick. The dental rolls used to collect saliva will taste like paper. There are no known risks or side effects in collecting saliva or administering the computer tasks to the child’s development.

**Confidentiality:** Any information resulting from this research study will be kept strictly confidential. All documents will be identified only by code number and kept in a secured information system and locked filing cabinet. The identity of the participants in this study (both teachers and students) will be entirely confidential. No information that discloses your child’s identity will be released or published without specific consent to the disclosure. Your child’s identity will not be identified by name in any reports of the completed study.

Copies of the relevant data, which identify the participants only by code number, may be published in scientific journals, but no participant will be identified by name. However, research records identifying participants may be inspected in the presence of the Investigator or his or her designate by representatives of the UBC Research Ethics Board for the purpose of monitoring the research.

**Contacts:** If you would like more information and have any questions and/or concerns at any time regarding this study, please call [Contact Information]. If you have any concerns now or later about your child’s treatment or rights as a research subject, you may contact the Research Subject’s Information Line in the UBC Office of Research Services.

We would appreciate it if you could indicate on the slip provided on the attached page whether or not your son/daughter has your permission to participate. Would you kindly sign and date the attached slip where indicated. We would appreciate it if your son/daughter could return the bottom portion of the slip to school tomorrow.

Thank you very much for considering this request.

Sincerely,

[Signature]

Principal Investigator

Associate Professor

Department of Educational and Counselling Psychology,

and Special Education, UBC

**Co-Investigators**

[Signature]

[Signature]

[Signature]
PARENT CONSENT FORM

Study Title: "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity”

Principal Investigator: Dr. Kimberly Schonert-Reichl, Associate Professor, Department of Educational and Counselling Psychology and Special Education

University of British Columbia, Vancouver, B.C.

KEEP THIS PORTION FOR YOUR RECORDS

I understand that my child’s participation in the above study is entirely voluntary, and that I or my child may refuse to participate, or I or my child is free to withdraw from the study at any time without any consequences. I have received a copy of this consent form for my own records. I consent to my child’s participation in this study and in signing this document I am, in no way, waiving the legal rights of myself or my child.

I have read and understand the attached letter regarding the study entitled "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity”

I have also kept copies of both the letter describing the study and this permission slip.

PLEASE CHECK ONE

_______ YES, I agree to my son/daughter participating in this project.

_______ NO, my son/daughter does not have my permission to participate.

_________________________________________________________

Parent’s Signature                       Printed Name                       Date

_________________________________________________________

Son or Daughter’s Name

75
I understand that my child’s participation in the above study is entirely voluntary, and that I or my child may refuse to participate, or I or my child is free to withdraw from the study at any time without any consequences. I have received a copy of this consent form for my own records. I consent to my child’s participation in this study and in signing this document I am, in no way, waiving the legal rights of myself or my child.

I have read and understand the attached letter regarding the study entitled "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity.” I have also kept copies of both the letter describing the study and this permission slip.

PLEASE CHECK ONE

________ YES, I agree to my son/daughter participating in this project.

________ NO, my son/daughter does not have my permission to participate.

_________________________  __________________________  ____________
Parent’s Signature           Printed Name                 Date

_____________________________
Son or Daughter’s Name
Appendix D: Child Assent Form

"Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity"

You are invited to participate in a research project that we are conducting at your elementary school entitled "Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity.” This study is being organized by educators in the Vancouver School District and Dr. Kimberly A. Schonert-Reichl (Faculty of Education, University of British Columbia), Dr. Adele Diamond (Developmental Cognitive Neuroscience, University of British Columbia), Dr. Tim Oberlander (Department of Pediatrics, Children’s and Women’s Health Centre) and Ms. Eva Oberle (Faculty of Education, University of British Columbia). Listed below are several aspects of this project that you need to know.

Why are we doing this project?
The purpose of this study is to evaluate the effectiveness of the “MindUp” program – an educational program for children designed to promote children’s psychological well-being and academic success, and the SMART (Stress Management and Relaxation Techniques) program – a training program for teachers...
designed to reduce stress and increase well-being. The MindUp program consists of teaching a series of simple techniques designed to enhance self awareness, focused attention, problem solving abilities, goal setting, stress reduction, conflict resolution and prosocial behaviors in children. It is being taught in several schools throughout the Vancouver School District as part of the District’s goal to promote students’ social responsibility. Some of the children who participate in the research study will receive the MindUp program in their classroom while other children in the study will not receive such a program (comparison classrooms). The SMART-program is a program for teachers, and it consists of a series of afternoon and weekend workshops. Your teacher may or may not (comparison group) participate in SMART throughout the duration of this research project.

Our project is concerned with developing an understanding of whether or not the MindUp program for children and the SMART program for teachers effect children’s development of a positive self-regard, healthy adjustment, and success in school. Also, we are interested in learning more about the relationship between the physical body and the psychological mind; to do so, we will be looking at a stress hormone, cortisol, which is secreted into the body, as well as psychosocial and cognitive test measures. We are inviting all of the children in your class to participate in our project.

What will happen during this project?

If you decide to participate in this project, we will visit your classroom for 3 separate sessions during the next week, 3 sessions in January, and 3 sessions at the end of the school year in June 2012.

1. In the first session we will ask you to fill out some questionnaires that ask you about your background, your feeling about yourself, your peers, and school. You will complete one set of questionnaires in the next couple of weeks, one set in January 2012, and another set of questionnaires at near the end of the school year. For each session, it will take you about 50-60 minutes to complete the questionnaires. We will be there to explain the directions and make sure you understand the instructions. The first questionnaire asks about your background, such as age, gender, family composition, and language spoken at home. Another set of questionnaires asks you about your feelings about yourself, your classroom, and your positive social behaviours. The third set of questionnaires asks you to provide ratings of your classmates’ positive classroom
behaviours, and the last questionnaire asks for information on your feelings about school. In addition to obtaining information directly from you, your teacher is being asked to complete a checklist that tells us about your social behaviors in the classroom.

2. In the second of the three sessions, we want to learn about the daily pattern of substances found in your saliva – the stress hormone cortisol. To learn about this, we will ask you to give us a saliva (spit) sample 3 times over the duration of one typical school day: when you first come to school, at lunch time, and before dismissal (approximately 5 minutes for each collection). Your saliva samples will be destroyed after we have done our testing. In a brief “diary”, we will ask you to indicate before the saliva collection a) what time you woke up in the morning, b) when was your last meal, and c) whether you have taken any medication on the day of saliva collection.

3. In the third session, we would like to learn about your cognitive control abilities (e.g., how well you can remember things). We will invite you to participate in two short (in total about 15 minutes) computer games where you are asked to remember the game’s rules and to play the game. We will be assisting you during the computer game, explain the rules to you and help you practice the game first. We never rush or criticize anyone, and try to help you so that you do well.

In addition to obtaining information directly from you, your teacher is being asked to complete a checklist that tells us about your social behaviors in the classroom. Information relating to school achievement (marks) and school attendance will be collected from students’ school records and from the BC Ministry of Education (Foundation Skills Assessment).

If you or your parents choose not to have you participate in the study, the researchers will collaborate with your teacher to arrange an alternative activity for you to do such as a worksheet or other assignment.

**Can anything bad happen to me?**
For the questionnaire portion of this study, it is important for you to know that it is not a test and there are no right or wrong answers – just your answers. We are only interested in finding out your opinions and feelings. We think that if we are to learn more about children your age we have to come to the children and ask them in person. So, you can help teach us how children think and feel. We hope that the results of this study will help teachers and parents better understand the way that students think and improve education for all. For the portion of this research in which we collect your saliva (spit), you should know that helping with this project will not hurt you or make you sick. The dental rolls used to collect saliva will taste like paper.

**Who will know that I am taking part?**
We will not show your name to anyone. We will use a secret code on all the information (including the questionnaires) that you give to us. When we write a report of this project, we will not use your name or initials.

**Who can I talk to if I have any questions?**
If you have any questions at any time during this project, you may ask the researcher who will be with you. Your mother or father can also contact us with your question.
If you have any questions about this project or about the way you are feeling after the project, you should phone Dr. Kimberly Schonert-Reichl at or Ms. Eva Oberle.
If you are worried about how you were treated during the project, you should contact the Research Subject’s Information Line at the UBC Office of Research Services.
My Assent to:

"Effectiveness of Mindfulness Education Programs on Children's Social-Emotional Competence, Psychological Well-Being, Cognitive Control, and Stress Reactivity."

I am taking part in this project because I want to.

If I want to stop being in this project, it is okay and no one will get angry. I just need to tell my teacher or the research person that I do not want to do it anymore.

I have had enough time to read this form, to ask questions about this project and to talk to my parents/guardians. All my questions have been answered and I have received a copy of this form to keep.

__________________________________________________________
Your Printed Name           Your Signature          Date
Appendix E: Student Self-report measures

Measures included in this Appendix:

E.1. Student demographic and background questionnaire
E.2. Empathy and Perspective-taking subscales from Interpersonal Reactivity Index
E.3. School Self-Concept subscale (8 items) of the Self-Description Questionnaire (Marsh, 1988)
E.4. Anxious Symptoms and Depressive Symptoms subscales from the Seattle Personality Questionnaire for Young School-Aged Children (Kusche et al., 1988)
E.5. Optimism subscale of the Resiliency Inventory (Song, 2003)
E.7. Positive Affect subscale from the 30-item Positive and Negative Affect Schedule for Children (Laurent et al., 1999)
E.8. Academic Goals Questionnaire (Roeser, Midgley, & Urdan, 1996)
Please tell us a little bit about yourself

1. **Are you a boy or a girl?** *(Circle One)*
   - Boy
   - Girl

2. **What grade are you in this year?** *(Circle One)*
   - 4
   - 5
   - 6
   - 7

3. **What is your birth date?**
   - **Month**
   - **Day**
   - **Year**

4. **Which of these adults do you live with most of the time?** *(Check all adults you live with.)*
   - □ Mother
   - □ Grandmother
   - □ Part time with each parent
   - □ Father
   - □ Grandfather
   - □ Foster parent(s) or caregiver(s)
   - □ Stepfather
   - □ Second mother
   - □ Stepmother
   - □ Second father
   - □ Other adults (write in the space below, for example, aunt, uncle, mom's boyfriend or girlfriend, dad’s boyfriend or girlfriend): ________________________________

5. **How many brothers or sisters do you have?** ______

6. **What is the first language you learned at home?** *(You can check more than one if you need to.)*
   - □ English
   - □ Hindi
   - □ Punjabi
   - □ Cantonese
   - □ Japanese
   - □ Spanish
   - □ Filipino/Tagalog
   - □ Korean
   - □ Vietnamese
7. Which language(s) do you speak at home? (You can check more than one if you need to.)

- □ English
- □ Hindi
- □ Punjabi
- □ Cantonese
- □ Japanese
- □ Spanish
- □ Filipino/Tagalog
- □ Korean
- □ Vietnamese
- □ French
- □ Mandarin
- □ Other _____________________

8. Which language do you prefer to speak? ______________________

9. How difficult is it for you to read in English?

- □ Very hard
- □ Hard
- □ Easy
- □ Very easy

10. Have you ever had a mindfulness program or activity?

- □ Yes
- □ No
- □ Don’t know

If Yes, please write in the grade you had it
Sub-Appendix E.2. Empathy and Perspective-taking subscales from Interpersonal Reactivity Index (Davis, 1983)

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at all like me</th>
<th>A little bit like me</th>
<th>Kind of like me</th>
<th>A lot like me</th>
<th>Always like me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I often feel sorry for people who don’t have the things I have.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. It’s easy for me to understand why other people do the things they do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Sometimes I feel very sorry for other people when they are having problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. When I see someone being picked on, I feel kind of sorry for them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Sometimes I try to understand my friends better by imagining how they think about things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Even when I’m mad at someone, I try to understand how they feel.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I often feel sorry for other children who are sad or in trouble.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I try to understand how other kids feel before I decide what to say to them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. When I see someone being treated</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
mean, it bothers me.

10. Even when I know I’m right I listen to what other people think. 
1  2  3  4  5

11. I often have strong feelings about things that happen around me. 
1  2  3  4  5

12. Before I say anything bad about anyone, I try to imagine how I would feel if I were that person. 
1  2  3  4  5

13. I am a person who cares about the feelings of others. 
1  2  3  4  5

14. There are different ways to think about a problem and I try to look at all of them. 
1  2  3  4  5
Sub-Appendix E.3. Optimism subscale of the Resiliency Inventory (Song, 2003)

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at all like me</th>
<th>A little bit like me</th>
<th>Kind of like me</th>
<th>A lot like me</th>
<th>Always like me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I have more bad times than good. (reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. More good things than bad things will happen to me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I start most days thinking I’ll have a bad day. (reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Even if there are bad things, I’m able to see the good things about me and my life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I’m bored by most things in life. (reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I think things will get worse in the future.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I am optimistic about school life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I think that I am a lucky one.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. When something bad happens to me, I think that it will last long. (reverse scored)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Disagree a Lot</th>
<th>Disagree a Little</th>
<th>Don’t Agree or Disagree</th>
<th>Agree a Little</th>
<th>Agree a Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. In most ways my life is close to the way I would want it to be.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. The things in my life are excellent.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I am happy with life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. So far I have gotten the important things I want in life.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. If I could live my life over, I would have it the same way.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Sub-Appendix E.5. Positive Affect subscale from the 30-item Positive and Negative Affect Schedule for Children (Laurent et al., 1999)

<table>
<thead>
<tr>
<th>How much you have felt this way</th>
<th>Very slightly</th>
<th>A little bit</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>A lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>DURING THE PAST FEW WEEKS?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>or not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Excited</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. Happy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Strong</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Energetic</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. Cheerful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Active</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Proud</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. Joyful</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. Delighted</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. Lively</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
Sub-Appendix E.7. Anxious Symptoms and Depressive Symptoms subscales from the *Seattle Personality Questionnaire for Young School-Aged Children* (Kusche et al., 1988)

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Somewhat</th>
<th>Always</th>
</tr>
</thead>
</table>

### Anxious Symptoms subscale

1. Do you feel afraid a lot of the time?  
   1. 2. 3. 4.

2. Do you worry about what other kids might be saying about you?  
   1. 2. 3. 4.

3. Are you afraid to try new things?  
   1. 2. 3. 4.

4. Do you worry a lot that other people might not like you?  
   1. 2. 3. 4.

5. Would it be hard for you to ask kids you didn’t know to join them in a game?  
   1. 2. 3. 4.

6. Do you worry about what other people think of you?  
   1. 2. 3. 4.

7. Do you worry about being teased?  
   1. 2. 3. 4.

### Depressive Symptoms subscale

8. Do you feel unhappy a lot of the time?  
   1. 2. 3. 4.

9. Do you feel like crying a lot of the time?  
   1. 2. 3. 4.

10. Do you feel upset about things?  
    1. 2. 3. 4.

11. Do you have trouble paying attention in class?  
    1. 2. 3. 4.

12. Do you feel that you do things wrong a lot?  
    1. 2. 3. 4.

13. Do you feel that most things are not much fun?  
    1. 2. 3. 4.
14. Do you feel sorry for yourself? 1 2 3 4
15. Do you have trouble falling or staying asleep? 1 2 3 4
16. Do you feel tired a lot of the time? 1 2 3 4
17. Do you often feel like not eating even though it is mealtime? 1 2 3 4
18. Do you want to be by yourself a lot? 1 2 3 4
Sub-Appendix E. 8. School Self-Concept subscale of the *Self-Description Questionnaire* (Marsh, 1988)

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Never</th>
<th>Hardly Ever</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am good at school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I enjoy doing work in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I get good marks in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I learn things quickly in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I am interested in all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I look forward to all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. Work in all school subjects is easy for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I like all school subjects.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at all like me</th>
<th>A little bit like me</th>
<th>Kind of like me</th>
<th>A lot like me</th>
<th>Always like me</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I’m certain I can learn the</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>skills taught in school this year.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I can do even the hardest</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>school work if I try.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. If I have enough time, I can</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>do a good job on all my school work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I can do almost all the work in</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>school if I don’t give up.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Even if the work in school is</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>hard, I can learn it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I’m certain I can figure out</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>how to do the most difficult</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>school work.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F: Teacher Self-report Demographic Questionnaire

**Background Questionnaire**
**TEACHER**

Demographic Information

1. **What is your birthdate?**
   - Day
   - Month
   - Year

2. **What is your gender?**
   - F
   - M

3. **What is your ethnic background?**
   (please describe)
   - European (Italian, French, German, Austrian, English, etc.)
   - Asian (Chinese, Japanese, Vietnamese, Korean, etc.)
   - Arab/West Asian (Armenian, Egyptian, Persian, Iranian, Lebanese, Moroccan)
   - South Asian (East Indian, Pakistani, etc.)
   - Hispanic
   - African Canadian
   - Aboriginal
   - Other: ____________________

Professional Background
1. How many years have you worked as a school teacher?

2. What is your highest level of education?

- Some undergraduate coursework
- Bachelor Degree (other than B.Ed.)
- B.Ed.
- Post Baccalaureate Diploma
- Graduate Degree (M.A., M.Ed., M.Sc.)
- Doctorate (Ph.D., Ed.D.)
- Other (please describe): ____________________
Appendix G: Teacher ratings of Student

Measures included in this Appendix:

G.1. Social and Emotional Competence subscale of the Teachers' Rating Scale of Social Competence scale (Kam & Greenberg, 1998)

G.2. Aggression subscale of the Teachers' Rating Scale of Social Competence scale (Kam & Greenberg, 1998)

G.3. Closeness and Conflict subscales of the Student-Teacher Relationship Scale (Pianta, 2001; Koomen, Verschueren, van Schooten, Jak, & Pianta, 2012)
Sub-Appendix G. 1. Social and Emotional Competence (SEC) subscale of the Teachers' Rating Scale of Social Competence scale (Kam & Greenberg, 1998)

Instructions: Compared to other (boys/girls) at this grade level, how often does/is this student . . .

<table>
<thead>
<tr>
<th></th>
<th>Almost</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very</th>
<th>Almost</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEC subscale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Takes others property</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2. Yells at others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3. Fights</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4. Teases classmates</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5. Harms others</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Aggression subscale

<table>
<thead>
<tr>
<th></th>
<th>Almost</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very</th>
<th>Almost</th>
</tr>
</thead>
<tbody>
<tr>
<td>6. Feel at ease to talk to you</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7. Shows empathy and compassion for other’s feelings</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>8. Provides help, shares materials, and acts cooperatively with others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>9. Takes turns, plays fair, and follows the rules of the game.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>10. Listens carefully to others.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>11. Initiate interactions and joins in with others in a positive manner.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>12. Recognizes and label his/her feelings and those of others appropriately.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>
Sub-Appendix G. 2. Closeness and Conflict subscales of the Student-Teacher Relationship Scale  
(Pianta, 2001; Koomen, Verschueren, van Schooten, Jak, & Pianta, 2012)

<table>
<thead>
<tr>
<th>Closeness subscale</th>
<th>Definitely does not apply</th>
<th>Does not really apply</th>
<th>Neutral, not sure</th>
<th>Applies somewhat</th>
<th>Definitely applies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I share an affectionate, warm relationship with this child.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. If upset, this child will seek comfort from me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. This child values his/her relationship with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. When I praise this child, he/she beams with pride.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. This child spontaneously shares information about himself/herself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. This child tries to please me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. It is easy to be in tune with what this child is feeling.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. This child openly shares his/her feelings and experiences with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. My interactions with this child make me feel effective and confident.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
**Conflict subscale**

1. This child and I always seem to be struggling with each other.

2. This child easily becomes angry with me.

3. This child feels that I treat him/her unfairly.

4. This child sees me as a source of punishment and criticism.

5. This child remains angry or is resistant after being disciplined.

6. When this child is misbehaving, he/she responds well to my look or tone of voice.

7. Dealing with this child drains my energy.

8. When this child is in a bad mood, I know we’re in for a long and difficult day.

9. This child’s feelings toward me can be unpredictable or can change suddenly.

10. Despite my best efforts, I’m uncomfortable with how this child and I get along.
Appendix H. Students Reports of Teacher

Measures included in this Appendix:

H.1. Teacher Emotional Support subscale of the modified Classroom Life scale (Patrick, Ryan, & Kaplan, 2007)

H.2. Two modified items from the Teacher Personal Support subscale of the Classroom Life Scale (Ghaith, 2002)
Sub-Appendix H.1. Teacher Emotional Support subscale of the modified Classroom Life scale
(Patrick, Ryan, & Kaplan, 2007)

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Not at all true</th>
<th>A little true</th>
<th>Somewhat true</th>
<th>Pretty much true</th>
<th>Very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My teacher shows respect for student’s opinions.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. My teacher understands students and how they feel about things.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. Students can count on this teacher for help when they need it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. My teacher tries to help students who are sad or upset in class.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Sub-Appendix H.2. Two modified items from the Teacher Personal Support subscale of the Classroom Life Scale (Ghaith, 2002)

<table>
<thead>
<tr>
<th>How true is each statement for you?</th>
<th>Never</th>
<th>Almost</th>
<th>Sometimes</th>
<th>Almost</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. My teacher really cares about me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. My teacher likes me as much as she likes other students</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>