Teachers’ Beliefs about Emotions in the Classroom: Relations to Teacher Characteristics and Implementation of a Social-Emotional Learning Program

by

Jennifer Lynn Hanson

B.A., Roosevelt University, 2008

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Abstract

The aim of this descriptive study was to examine teachers’ beliefs about emotions in the classroom and factors related to these beliefs, namely teacher background characteristics and the implementation of an emotion-focused social-emotional learning (SEL) program – the Roots of Empathy (ROE). Participants included 58 elementary school teachers from a Western Canadian city ($n = 40$) and the Isle of Man ($n = 18$) who hosted the ROE program or comprised the control group. Participants completed self-report measures assessing emotion beliefs (Bonds, Expressiveness, Instruction/Modeling, Protect, and Display/Control), background characteristics (grade level taught and years of teaching experience), and ROE program implementation (number of subject areas and frequency). Results indicated grade level taught (primary versus intermediate) and years of teaching experience were significantly related to some emotion beliefs dimensions. Instruction/Modeling beliefs were significantly higher for experienced teachers than novice teachers. Protect beliefs were significantly higher for primary grade teachers than intermediate grade teachers. Display/Control beliefs were significantly higher for intermediate grade teachers than primary grade teachers. Particular emotion beliefs were also significantly associated with teachers’ reports of ROE program implementation. Teachers’ Expressiveness beliefs were positively correlated with the frequency with which they implemented activities. Teachers’ Protect beliefs were negatively correlated with, and Display/Control beliefs were positively correlated with, the number of subject areas in and frequency with which implementation occurred. These findings support and extend research investigating teacher-related factors associated with implementation. Suggestions concerning the need for SEL training and support are made to enhance the effectiveness of emotion-focused SEL programs.
Preface

The data used in the present study was derived from research conducted in the Schonert-Reichl Child and Adolescent Development Laboratory (Department of Educational and Counselling Psychology, and Special Education, Faculty of Education) by Dr. Kimberly Schonert-Reichl and her graduate research assistants. The author of the present study was not involved in the data collection process of the research; however, the writing for the present study was completed primarily by the author. Approval from the UBC’s Behavioural Research Ethics Board was obtained (certificate number: B00-0617).
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Introduction

Over the past decade, the social and emotional well-being of children and adolescents has been a growing societal concern, with rates of bullying, depression, anxiety, and suicide on the rise (Hymel, Schonert-Reichl, & Miller, 2007). In fact, one-fifth of youth experience mental health issues problematic enough to warrant treatment (U.S. Public Health Service, 2000). Recent research suggests that validated preventive interventions, particularly in classroom settings, are cost-efficient and effective methods to address these issues before they surface (Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Greenberg, 2010). A growing number of schools have adopted this perspective and are requesting that teachers introduce evidence-based social-emotional learning (SEL) programs into their classrooms (Ransford, Greenberg, Domitrovich, Small, & Jacobson, 2009; Schonert-Reichl & Hymel, 2007).

The present research study investigated the beliefs that teachers hold about emotions and their personal role in promoting the emotional development of their students in the classroom setting (see Hyson & Lee, 1996). A primary objective of the present study was to examine teachers’ background characteristics and experiences in relation to their emotion beliefs. An additional objective was to assess whether teachers’ emotion beliefs are related to their implementation of an emotion-focused SEL program.

On the whole, research findings have indicated that SEL programs are effective at enhancing participating students’ social and emotional competencies (see Durlak et al. 2011), which are needed “to recognize and manage emotions, care about others, make good decisions, behave ethically and responsibly, develop positive relationships, and avoid negative behaviors” (Zins, Bloodworth, Weissberg, & Walberg, 2004, p. 4). However, in some instances the anticipated student outcomes are not achieved in host classrooms (Ransford et al., 2009). As
asserted by Jennings and Greenberg (2009), but not sufficiently researched, an important influence on students’ development of these competencies in schools is their teacher. Therefore, in considering the effectiveness of SEL programs, it is important to also consider the potentially influential role of the teachers hosting SEL programs (Beets, Flay, Vuchinich, Acock, Li, & Allred, 2008; Durlak & DuPre, 2008; Elbertson, Brackett, & Weissberg, 2010; Greenberg, 2004; Kress & Elias, 2006).

Researchers in recent years have declared it critical that future research concerned with classroom-based preventive intervention programs examine teacher-related factors in relation to their practices (Beets et al., 2008; Brackett, Reyes, Rivers, Elbertson, & Salovey, 2011a; Ransford et al., 2009; Rimm-Kaufman & Sawyer, 2004). Although minimal research has been conducted on this hypothesised link, some promising results have been found, for instance, between self-efficacy beliefs and the number of SEL program practices implemented (Ransford et al., 2009; Rimm-Kaufman & Sawyer, 2004) and teachers’ emotional competence and the climate of an SEL classroom (Brown, Jones, LaRusso, & Aber, 2010). Most relevant to the present study, Jaramillo’s (2006) research found promising links between the emotion beliefs that teachers hold and their SEL program implementation. Additional research in this area is needed to further examine impact teachers’ emotion beliefs may have in the classroom setting.

In the present study, the association between teachers’ emotion beliefs and particular background characteristics (i.e., grade level taught and years of teaching experience) was examined. Additionally, the relationship between teachers’ emotion beliefs and their implementation of an emotion-focused SEL program, called the Roots of Empathy (ROE). More specifically, the classroom teachers hosting the ROE program act as secondary implementers, who can choose to integrate the SEL program’s emotion-focused concepts into the general
academic curriculum, as opposed to delivering a structured lesson during a set block of time each week the way that trained instructors do¹. Thus, assessed in the present study were the amount of academic subject areas in which classroom teachers hosting the ROE program implemented program extension activities and the frequency with which they implemented these activities across the academic subject areas. Overall, there is a paucity of research examining the beliefs that teachers hold about both emotions and their emotion socialization practices in the classroom setting. With only a couple of exceptions found, this is especially the case at the elementary school level (see Bellas, 2009) and in the context of the implementation of SEL programs (Jaramillo, 2006). The present study aims to address several gaps in the knowledge on teachers’ emotion beliefs.

¹ It should be noted that the primary implementer of the structured ROE program curriculum are trained, certified instructors who deliver lessons once per week over a 27-week period.
Literature Review

This literature review is organized into three main sections. First, the nature of classroom context as an emotion-laden setting in which teachers naturally engage in emotion socialization practices will be reviewed. Second, explored are the emotion beliefs of (a) parents to consider their similarities with the emotion beliefs of teachers, and (b) teachers, including the background characteristics and emotion socialization practices found to be related to these beliefs. Finally, a brief review of the ROE program will be presented so as to establish a platform for investigating teachers’ emotion beliefs in relation to their implementation of SEL program activities.

Classrooms as Emotion-Laden Settings

Emotions are woven into the fabric of daily life in the classroom setting (Hargreaves, 2000). In fact, research has found that at the foundation of effective instruction and learning are such factors as teachers’ emotional competence (Brackett et al., 2011a; Neophytou, Koutsellini & Kyriakides, 2011) and students’ emotion regulation (Graziano, Reavis, Keane, & Calkins, 2007). The typical student spends approximately 15,000 hours in both elementary and secondary school classrooms (Burnett, 2002), continuously engaging in emotion-laden interactions with their peers and teachers (Hargreaves, 2000; Milkie & Warner, 2011). As noted by Brackett, Reyes, Rivers, Elberston, and Salovey (2011b), the quality of these interactions establishes the emotional climate of the classrooms.

A growing body of research indicates that teachers play a vital role in establishing the classroom emotional climate via the degree to which they “convey emotional warmth and acceptance as well as make themselves available regularly for personal communication” (Hamre & Pianta, 2006, p. 60). Throughout the day, whether conscious of it or not, teachers make clear to their students what place emotions have in the student-teacher relationship and in the
classroom in general. Through their natural interactions, teachers socialize their students’ emotions via the way they “respond, model, and reinforce children’s emotional behaviors and expressions” (Hyson & Molinaro, 2001, p. 113). That is, teachers implicitly or explicitly demonstrate the extent to which emotions should be reflected upon, regulated, and communicated (Hyson & Lee, 1996; Hyson & Molinaro, 2001). On one end of the spectrum, some teachers’ emotional style may involve willingly expressing their own emotions and guiding the emotion understanding and expression of their students; while on the other end of the spectrum, some teachers’ emotional style may involve remaining emotionally distant and ignoring or undermining their students’ emotional experiences (Hargreaves, 2000; Hyson & Molinaro, 2001; Leavitt & Power, 1989).

Teachers who provide emotional support to and interact more intimately with their students are sensitive to their students’ emotional needs, enabling the teachers to address these needs accordingly (Eccles & Roeser, 2009; Hargreaves, 2000). Evidence has suggested that students of emotionally sensitive and involved teachers show greater improvements in both their social competence (Wilcox-Herzog & Ward, 2004) and academic achievement (Hamre & Pianta, 2005). Similarly, Murray and Greenberg (2000) found that students who reported feeling that their teacher cared about their emotions, as compared to their peers who did not, exhibited less internalizing (e.g., anxiety, depression) and externalizing (e.g., aggression) problems. As noted by Hyson and Lee (1996), little is known about why emotion socialization practices among teachers differ, but it may be related to their beliefs about emotions and emotion socialization practices.
**Emotion Beliefs**

Based on a review of literature and research in the area, it was found that most existing research on the emotion beliefs of significant adults in the lives of children focuses on that of parents (Huemer, 2010; Hyson & Lee, 1996; Hyson & Molinaro, 2001). Although the present study is concerned primarily with teachers’ emotion beliefs, it is valuable to first reflect upon research findings with parents to consider any parallels between these two groups, as there is some evidence suggesting that parents and teachers, at least those instructing in early childhood settings, hold similar opinions (Dunsmore & Karn, 2001).

**Parents’ emotion beliefs.** Studies on the emotion beliefs of parents demonstrate promising links among adults’ emotion beliefs, emotion socialization practices, and children’s emotional competence. For instance, mothers’ emotion beliefs have been found to positively correlate with mothers’ (a) self-reported positive emotional expressiveness around their 4- to 6-year old children (Dunsmore & Karn, 2001); (b) amount of emotion language used during emotion socialization tasks (e.g., making up emotion-laden stories) with their preschool-aged children, as observed during naturalistic observations (Perez-Rivera, 2008); and (c) self-reported acceptance and coaching of their 6- to 8-year old children’s negative emotion expressions (Chan, 2012). Further, some of these studies also found that mothers’ positive emotion beliefs and emotion socialization practices enhanced their children’s emotion language knowledge (Dunsmore & Karn, 2001) and emotion understanding (Perez-Rivera, 2008). As previously noted, however, the emotion beliefs of teachers have been relatively unexplored by researchers. The present study will aim to address the topic of teachers’ emotion beliefs and several gaps in the knowledge about these beliefs.
**Teachers’ emotion beliefs.** As previously mentioned, teachers’ emotion beliefs refer to their beliefs about emotions in general and the importance of engaging their students in particular emotion socialization practices (Hyson & Lee, 1996). Hyson and Lee (1996) developed and tested one of the first known quantitative measures to assess the emotion beliefs of teachers, referred to in the present study as the Teachers’ Beliefs about Emotions (TBAE). Originally comprising their measure were 40 items falling into ten belief areas, which were primarily supported by emotional development theories and research on the emotion beliefs and emotion socialization practices of parents. These belief areas included: (1) Belief in Protecting Children from Strong Emotions, (2) Belief in Open Display of Children’s Feelings, (3) Belief in Adult Modeling of Appropriate Emotion Expression, (4) Belief that Children Should Learn “Display Rules” for Emotions, (5) Belief that Emotions Support Children’s Learning, (6) Belief that Adults Should Help Children Understand the Causes of Emotion, (7) Belief in Affectionate Bonds Between Adults and Children, (8) Belief that Adults Should Label and Talk about Emotions, (9) Belief that Adults Should Express Feelings Openly, and (10) Belief that Children Should Control Their Emotions. The sample on which Hyson and Lee tested the TBAE included 279 American early childhood teachers of students aged 4 to 6 years and 175 Korean early childhood teachers of students aged 5 to 6 years.

From their initial pilot of the TBAE for internal consistency, Hyson and Lee (1996) revised the measure to include 23 items comprising six emotion beliefs subscales. The six subscales included: (1) Bonds – beliefs concerning adult-child connections (4 items); (2) Expressiveness – beliefs in adults’ candid expression of emotions around children (4 items); (3) Instruction/Modeling – beliefs in using direct instruction and demonstration to help illustrate to children appropriate emotion expression (3 items); (4) Talk/Label – beliefs in helping children
identify and discuss their current emotion states (6 items); (5) Protect – beliefs in shielding children from upsetting emotions (3 items); (6) Display/Control – beliefs in children’s ability to regulate and exhibit emotions in a socially acceptable manner (3 items). It should be noted that even after this revision by Hyson and Lee (1996), internal consistencies across the six subscales were weak to moderate, ranging from .41 to .62. These alpha scores are discussed again in relation to the Cronbach’s alphas found with the present study’s sample, with the latter having stronger internal consistency for most of the TBAE subscales.

Overall, Hyson and Lee (1996) asserted that emotion belief systems are generally complex and found that these systems were not uniform across the teachers comprising their sample. In their research, Hyson and Lee (1996) viewed each belief cluster as independent, although they had evidence suggesting that culture may play an important role in influencing which belief clusters are endorsed. For instance, they found that the early childhood teachers in their sample from the United States of America, in contrast to those from Korea, were in strong agreement about the importance of both bonding physically and emotionally with their students and providing their students with direct instruction on ways to express their emotions appropriately (Hyson & Lee, 1996). Although examining cultural influences is beyond the scope of the present study, their findings support the value of examining other teacher-related factors in relation to emotion beliefs.

**Background characteristics related to emotion beliefs.** Pajares (1992) declared that beliefs are socially constructed via “enculturation, education, and schooling” (p. 316). To be accepted by and function well within a particular culture – be it an ethnic group or academic institution – its members typically adopt the convictions valued by the culture (Cole, 2010). Therefore, at the foundation of individuals’ views of and judgements about the world are existing
belief systems based on the culture with which the individual identifies (Pajares, 1992). It is important, then, to consider the relationship between teachers’ background characteristics and emotion beliefs.

Existing research supports the notion that some teacher background characteristics may be related to the emotion beliefs that teachers hold. For instance, in Hyson & Lee’s (1996) study, with a sample of early childhood teacher, they found that education (i.e., less than a high school diploma, some college education, and a college degree) was related to particular dimensions of emotion beliefs. In particular, teachers with a degree in early childhood education, compared to teachers without, held higher Expressiveness and Display/Control beliefs (Hyson & Lee, 1996). Similarly, Jumper (2005) found that for her early childhood teacher sample, level of education, which ranged from a high school diploma to a graduate degree, was significantly and positively correlated with the developmental appropriateness of emotion beliefs. In the literature, developmental appropriateness refers to the extent to which beliefs are aligned with the social, emotional, and cognitive needs of children (Jumper, 2005), with children’s age being an important factor in determining the level of appropriateness (Lara-Cinisomo, Fuligni, Daugherty, Howes, & Karoly, 2009).

The relationship between years of experience teachers’ emotion belief was examined by Bellas (2009), Hyson and Lee (1996), and Jumper (2005). None of these studies found years of teaching experience to be a significantly related factor. It should be noted, however, that the participants in these studies were comprised of early childhood teachers, with the exception of Bellas (2009) who included first-grade teachers in her sample as well. With early childhood teachers comprising only a small sector of the teaching profession, this group’s teacher background characteristics may be a poor representation of the profession as a whole. For
instance, the annual attrition rates for early childhood teachers are significantly higher (25-50%) than those of public school teachers (<7%; see Barnett, 2003). Similarly, early childhood teachers are paid less than elementary school teachers on average (e.g., less than half the wage of kindergarten teachers; see Barnett, 2003), and dissatisfaction with wages has been found to be a main motivating factor for early childhood teachers leaving the profession (Torquati, Raikes, & Huddleston-Casas, 2007). Taken together, it is likely that, in general, the average years of teaching experience between early childhood teachers and elementary school teachers would be different.

Moreover, studies examining a variety of other beliefs held by teachers have found years of teaching experience to be an associated factor. For instance, in a study by Buchanan et al. (1990), it was found that years of teaching experience was positively and significantly related to the belief that adolescence is a difficult stage of life. This concurs with the Tschannen-Moran and Wolfolk Hoy (2007) finding that elementary, middle, and high school teachers with 0-3 years of experience reported lower self-efficacy beliefs (i.e., perceptions of their abilities to instruct students, manage students’ disruptive behaviors, and motivate students to learn), compared to those with teaching experience of 4 years plus. Therefore, years of teaching experience was included as a teacher background characteristic in the present study.

An additional teacher background characteristic of interest in the present study was the grade level grouping that teachers instruct at the elementary school level (i.e., primary and intermediate grades). Returning again to the issue of the lack of research studies on emotion beliefs that incorporate elementary school teachers into their samples, this is troublesome in relation to the particular grade level they teach for two main reasons. Firstly, elementary-age children achieve very different developmental milestones compared to children in early
childhood. For instance, children in late toddlerhood and early preschool (ages 2-3) are novices at recognizing the emotional expressions of others (Brackett & Rivers, 2008; Saarni, 2000; Saarni, Campos, Camras, & Witherington, 2006), whereas children in middle childhood (ages 7-10) can more accurately interpret the emotional expressions of others (Dunsmore, Her, Halberstadt, & Perez-Rivera, 2009) and can problem-solve about socially appropriate responses when reacting to these expressions (Brackett & Rivers, 2008; DeHart, Sroufe, & Cooper, 2004; Saarni et al., 2006). Therefore, given their students’ current level of development, teachers of different age groups may hold divergent beliefs about their role in promoting students’ emotional development and thus may engage their students in different emotion socialization practices.

Secondly, emotion socialization practices may be more greatly valued by the culture of early childhood institutions compared to elementary schools and, thus, teachers’ tolerance of emotion socialization practices may decrease as the grade level they teach increases (Ahn & Stifter, 2006). For instance, Ahn and Stifter (2006) examined the differences between toddler caregivers and preschool teachers concerning their emotion socialization practices with their students. The researchers found that preschool teachers are less likely to physically comfort and verbalize emotion with their students compared to toddler teachers. Moreover, in a study by Hargreaves (2000) the emotional climate of elementary and secondary classrooms was compared. It was found that elementary teachers were more willing to engage in emotional interactions with their students, while secondary teachers viewed emotions as distractions in the classroom-setting that thwart learning. However, it should be acknowledged that beliefs held about emotion socialization practices may be divergent from actual emotion socialization practices carried out in reality.
Taken together, the age of students that teachers instruct may be related to their emotion beliefs. Although teachers of elementary-school-age children comprise the sample of the present study completely, Saarni (2011) asserted that even across this span of time children make large gains in their social, emotional, and cognitive development. Therefore, the teacher background characteristic of grade level taught was considered in regards to teachers’ instruction of students in primary grades (K-3) or intermediate grades (4-7).

Overall, findings from the present study that involved an elementary school teacher sample will be a valuable addition to the scant knowledge base on this population’s emotion beliefs and related background characteristics. Although Hyson and Lee (1996) originally tested the TBAE with a sample comprised of early childhood teachers, the language used for the items is not specific to this population. Therefore, using the TBAE with teachers of elementary-age students is not a foreseeable issue. In spite of this, caution is advised as no known validation of the TBAE with an elementary school teacher sample has been performed.

Although examining teachers’ emotion beliefs in relation to students’ social-emotional competence is beyond the scope of the present study, research on these links will briefly be discussed herein. Two unpublished theses by Huemer (2010) and Jumper (2005) used the TBAE to examine the relationship between early childhood teachers’ emotion beliefs and students’ social-emotional competence. More specifically, Huemer (2010) found that teachers’ endorsement of the belief that their students are able to understand and manage their emotions significantly and positively correlated with all areas of students’ social-emotional competence (i.e., self-concept, self-regulation, social interpersonal skills, and language) as reported by their teachers. In addition, in the study by Jumper (2005) it was found that teachers’ emotion beliefs negatively correlated with their students’ internalizing (e.g., depression, anxiety) issues. It is
important to highlight these links to support the investigation of teachers’ emotion beliefs and their possible association with emotion socialization practices that may ultimately impact student outcomes.

**Emotion beliefs related to emotion socialization practices.** Theorists and researchers alike have acknowledged the role of beliefs in directly influencing, but not necessarily determining, behaviors (Ahn, 2005; Pajares, 1992). Regarding teachers in particular, research supports the notion that their beliefs about particular dimensions (e.g., pedagogical practices) are linked to their associated practices and student outcomes. Fang (1996) highlighted that a substantial body of empirical evidence has shown that teachers’ beliefs about literacy instruction and learning are related to their anticipation of their students’ acquisition of literacy skills, and the choices that teachers make when helping their students learn to read. Additionally, teachers’ beliefs about their competence to teach an academic subject have been found to correlate with students’ performance in those subjects (Goddard, Hoy, & Woolfolk-Hoy, 2000). That is, owing to the potential link to student outcomes, the need for research that examines teachers’ beliefs is evident.

A small handful of studies have examined the relationship between teachers’ emotion beliefs and emotion socialization practices. Ahn (2005) investigated these links with eight early childhood teachers, using classroom observations to assess their actual emotion socialization practices and semi-structured interviews based on the TBAE questionnaire items to assess their emotion beliefs. The author found that when teachers expressed their beliefs about their professional role, they considered it their responsibility to develop students’ understanding of emotion words, respond to students’ emotion expressions in an appropriate way, and act as a model for appropriate emotion expressions. However, similar to Hyson and Lee (1996),
variations between teachers’ emotion beliefs were found. For example, some teachers endorsed their own candid expression of emotions in front of their students, while others viewed it as inappropriate. Overall, Ahn found that the beliefs about the importance of particular emotion socialization practices that teachers said they endorsed were relatively consistent with their actual emotion socialization practices assessed through the classroom observations (e.g., comforting students physically, appropriately acknowledging students’ negative emotions without minimization). Therefore, Ahn’s study has provided some evidence that teachers’ emotion beliefs and emotion socialization practices are related. However, the small sample size of the study may compromise the generalizability of the findings.

Bellas (2009), in an unpublished dissertation, also examined the relationship between teachers’ emotion beliefs and their emotion socialization practices, namely the ways in which they responded to the negative emotion expressions of their students. In this study, the TBAE was used to establish the concurrent validity of a semi-structured interview assessing the emotion beliefs of 29 kindergarten and first-grade teachers. In addition, observational methods were used to examine teachers’ responses to their students’ emotion expressions.

Bellas (2009) found that the TBAE dimension of Emotional Bonds, which Hyson and Lee (1996) identified after their factor analysis, was significantly and positively correlated ($r = .55, p < .01$) with her emotion beliefs subscale of emotion-oriented socialization beliefs. This subscale referred to “the degree in which emotions are a primary focus in teachers' discussion of their own and their children's classroom experience during the interviews” (Bellas, 2009, p. 29). In other words, teachers who were more likely to speak about emotions when discussing classroom experiences were also more likely to endorse the belief that forging intimate relationships with their students is important (Bellas, 2009).
Concerning the results of the study, Bellas (2009) discovered that teachers endorsing emotion-oriented beliefs, as compared to those who endorsed other belief types, were more likely to respond emotionally to and less likely to minimize their students’ emotion expressions. Therefore, with the concurrent validity results in mind, it may be possible that teachers who endorse the belief that it is important to emotionally bond with their students might also be more likely to acknowledge the emotions that their students experience and exhibit.

Similar to Bellas (2009), Gosney (2006) performed a study as part of an unpublished thesis examining early childhood teachers’ beliefs about and responses to their students’ negative emotion expressions. Rather than using Hyson and Lee’s (1996) TBAE measure, Gosney developed a 17-item self-report measure (α = .76) to assess the extent to which 63 teacher participants’ emotion beliefs were developmentally appropriate. Moreover, another self-report measure was developed that asked teacher participants to identify the reactions they have to their students’ negative emotion expressions. Overall, Gosney found that less developmentally appropriate emotion beliefs predicted teachers’ self-reported negative reactions of using punitive practices, minimization of students’ emotions, and experiences of personal distress. However, more developmentally appropriate emotion beliefs did not predict the positive reactions of encouraging students to express negative emotions, helping the students become happier, and helping students problem-solve about the distressing situation.

Owing to the focus of Gosney’s (2006), the items on her emotion belief measure differed from those on the TBAE in that they primarily focused on teachers’ perceptions of children’s negative emotion expression and neglected to consider positive emotional behaviors, the bonds between the teacher and the students that are foundational for emotional development, or the use of the teachers’ own emotional competence during interactions with students. That is, Gosney
was primarily concerned with classroom management tactics rather than promoting students’ social-emotional competencies and fostering student-teacher relationships. This may be an explanation for the insignificant associations between teachers’ emotion beliefs and positive reactions. Owing to the context in which emotion beliefs were examined in the present study – in classrooms hosting a social-emotional learning program aimed at promoting such competencies and relationships – the use of the TBAE questionnaire (Hyson & Lee, 1996) seems more fitting. Although the aforementioned results are promising, it should again be highlighted that the samples for the studies by Ahn (2005), Bellas (2009), Gosney (2006) were entirely or partially comprised of teachers from early childhood settings.

It is worth noting that in the aforementioned studies no structured programming was in place to support teachers’ emotion socialization practices. Sung (2006) noted that teachers who aimed to support their students’ emotional development typically turned to books and workshops, with these being resources that the teachers needed to actively seek out on their own and have the motivation to use. That is, some teachers may have endorsed beliefs about the importance of engaging their students in particular practices and reacting to their students’ emotion expressions in particular ways, but may have been unsure of how to let those beliefs manifest in their behavior. Therefore, structured preventive intervention programs that focus on emotional development may act as a useful resource for teachers, enhancing their motivation and sense of efficacy to behave in emotionally supportive ways. The present study considers such a program, discussed in greater detail in the subsequent section, which may effectively address this weakness.
**Emotion-Focused Social-Emotional Learning Programs**

In the preceding sections, teachers’ emotions and emotion socialization practices have been considered in the context of the everyday, regular classroom-setting. Although it is important to reflect on these factors in such a context, it is also valuable to reflect on their function in classrooms in which preventive interventions (e.g., SEL programs) are being implemented. The use of preventive interventions to enhance children’s emotional competence – the ability “to recognize, understand, label, express and regulate emotions” (Brackett et al., 2009, p. 331) – is particularly critical (Izard, 2002). Izard (2002) lamented that a large number of preventive intervention programs target behavioral or relationship issues, but neglect to address the importance of emotions in human functioning.

Edelman (1992) declared, “Emotions may be considered the most complex of mental states or processes insofar as they mix with all other processes” (as cited in Sroufe, 1996, p. 176). Izard (2002) noted that emotion theorists have long argued that emotions, cognition, and behavior are inseparable, with emotions “form[ing] the basis for conscience and moral behavior through their role in empathy, sympathy, and caring” (p. 797). In fact, a growing body of research in the field of emotional development supports the notion that emotional competence and social functioning are linked. (Moriguchi et al. 2009; Hinnant & O’Brien, 2007; Lopes, Salovey, Côté, & Beers, 2005). For instance, findings from recent research by Moriguchi et al. (2009) on mirror neurons have shown that self-awareness of emotions is the underpinning for the SEL skill of perspective-taking – the ability to take the viewpoint of others. Research has also indicated that emotion regulation – the effortful reduction or maintenance of an emotional state (Hinnant & O’Brien, 2007) – is linked to both perspective-taking (Hinnant & O’Brien, 2007) and prosocial behavior (Lopes et al., 2005). Given the interrelated nature of these processes, it may...
be critical that preventive interventions are designed with the aim of enhancing emotional competence, so as to also foster desired social skills.

**The ROE program.** At present, there are only a few preventive intervention programs designed with emotions as a focus (Izard, 2002). One such evidence-based, classroom-based program is the ROE program. The ROE program will be explored in this section as it is the SEL program of interest for the present study.

The underlying program theory of the ROE program is that promoting participating students’ emotional competence will enhance their abilities to (a) understand the emotions of, care about, and help others, and (b) avoid physically, socially, or emotionally harming others (Gordon, 2000). Findings from recent evaluations of the ROE program support its effectiveness at achieving these desired student outcomes. Students who participated in ROE, as compared to students who did not participate, were less aggressive, more prosocial, had better social-emotional competence, and felt a greater sense of self-sufficiency and support in their classrooms (Schonert-Reichl, Smith, Zaidman-Zait, & Hertzman, 2012). Santos, Chartier, Whalen, Chateau, and Boyd (2011) also found long-term improvements, primarily in reductions of students’ aggressive behaviors.

At the center of the curriculum are visits by the ROE family – a father or mother and his/her baby who reside in the local community. The interactions between the visiting parent and baby and the baby’s gradual emotional, social, and physical development are rich resources to draw upon for the curriculum. The ROE lessons were developed so as to progress with the baby’s natural development over the course of the year and are tailored to four age groups (Kindergarten, Grades 1-3, Grades 4-6, and Grades 7-8). Observing and interacting with the
ROE family allows the participating students to actively explore such topics in the curriculum as empathy and perspective-taking (Schonert-Reichl et al., 2012).

More specifically, the program curriculum is comprised of nine themes. These themes include: Meeting the Baby; Crying; Caring and Planning; Emotions; Sleep; Safety; Communicating; Who Am I?; and Goodbye and Good Wishes. Each theme is addressed during three visits: a pre-family visit, family visit, and post-family visit. During the pre-family visit, participating students are guided through a particular theme, reflect on how it connects to the ROE baby and family, and participate in such activities as making predictions about the baby’s development and generating questions to ask during the family visit. During the family visit, participating students observe the parent-child interactions and the baby’s development, are guided to reflect on particular aspects of these observations, and interact with the ROE baby and family. Finally, during the post-family visit, participating students engage in a debriefing session about the family visit and in activities, such as storybook readings and art projects for the baby, that generate additional connections to the theme.

Overall, the sequenced ROE lessons are designed with the aim of steadily developing participating students’ awareness and understanding of their own and others’ emotions, perspective-taking skills, understanding of human relationships, ability to control aggressive behavior, engagement in prosocial behaviors, and knowledge of infant development and effective parenting practices (Schonert-Reichl & Hymel, 2007; Schonert-Reichl et al., 2012). As noted by Durlak et al. (2011) the sequenced structure of SEL programs increases the likelihood that participating students would master the SEL skills the programs aim to enhance.

A trained, certified ROE instructor facilitates the ROE program curriculum and thus is the primary implementer of the program. However, the classroom teacher is encouraged to
support the ROE curriculum by delivering ROE-lesson-based extension activities that he/she integrates into the existing academic curriculum (e.g., language arts lessons; Gordon, 2000). The use of the extension activities and accompanying materials help reinforce the valued concepts promoted by the ROE program (Gordon, 2000).

It should be noted that although ROE instructors are trained to deliver the ROE program curriculum and receive on-going mentoring, this is not the case for the classroom teachers. Prior to the commencement of the ROE program, the ROE instructor meets with the teacher hosting the ROE program. An agreement is made between the instructor and teacher that (a) they will both meet before each visit to discuss the theme that will be addressed and the ways in which the teacher can be involved during the lesson and (b) the teacher will be present for all of the ROE lessons and that visits will be rescheduled if he/she will be absent. The instructor provides the teacher with several ROE materials, including a booklet and video about the program, a sample newsletter that informs parents about the program, information about the ROE family visiting their classroom, and the ROE curriculum manual. The manual includes an outline of the goals and activities of the nine themes, the lesson plans for each theme’s three visits, and references to supporting materials. Although teachers are not required to implement ROE extension activities in the general academic curriculum between visits, it is encouraged (Gordon, 2000). In particular, the curriculum manual (Gordon, 2000) asserted the important role of the teacher in reinforcing the valued concepts promoted by the ROE program:

The power of ROE lies in the classroom teacher’s ability to integrate the learnings from the ROE classes into the regular classroom work. Teacher extensions are as unique as the teachers themselves and ROE welcomes any extensions the teacher creates with the students. (p. 13, bold removed)
In a meta-analysis of universal classroom-based SEL programs, Durlak et al. (2011) made a distinction between programs implemented by school personnel versus non-school personnel, and found that the former program type produced more positive student outcomes. However, in Durlak et al.’s analyses of the format of delivery, they did not consider situations in which teachers act as “secondary implementers” who extend the SEL program curriculum into the daily academic curriculum. Therefore, it is possible that when teachers are involved in the implementation process in some capacity, their involvement contributes to enhancing students’ social-emotional learning skills. It is beneficial then to consider teachers’ SEL program implementation, and the teacher-related factors that might be associated with this implementation, regardless of whether they are primary implementers or not.

**Teachers’ Emotion Beliefs and Social-Emotional Learning Program Implementation**

Given the above-mentioned importance of emotion interventions, the importance of evaluating the implementation of these programs should be stressed. Dane and Schneider (1998) asserted that when assessing the effectiveness of a preventive intervention program at achieving desired outcomes, it is critical to also examine the role of program implementation fidelity (i.e., the quality and dosage of program activities implemented as intended by the program developer; Ransford et al., 2009). Brackett et al. (2011a) asserted that “[t]eacher beliefs are key indicators of their perceptions and judgments, which, in turn, affect their teaching practices” (p. 2). Therefore, it is beneficial to consider teachers’ beliefs in relation to program implementation fidelity, namely emotion beliefs.

In the research literature on preventive intervention programs, several teacher-related factors, which could be classified as beliefs, have been identified as potentially being related to program implementation fidelity. Some of these factors include teachers’ self-efficacy beliefs
(Durlak & DuPre, 2008), commitment to attending to students’ well-being, and opinions about their professional role (Bosworth, Gingiss, Potthoff, Roberts-Gray, 1999). In the research literature on SEL programs in particular, there is some evidence that teachers’ beliefs are associated with their program practices. For instance, Ransford et al. (2009) conducted a quantitative research study examining the relationship between teacher-related factors and their implementation of an evidence-based SEL program called Promoting Alternative Thinking Strategies (PATHS; Greenberg & Kusché, 1998). The sample was comprised of 133 teachers instructing grades K-5, and all had received training on the PATHS program to some extent. Teacher participants completed a series of self-report measures on teacher burnout, self-efficacy beliefs (i.e., perceptions of their abilities to instruct students and manage students’ behaviors), and perceptions of PATHS curriculum support (i.e., the extent to which school leaders supported the program, the effectiveness of program training, and the quality of support provided by the program coordinator). Ransford et al. also assessed, via self-reports, the dosage and quality of teachers’ implementation of PATHS’ main lessons and optional supplemental activities. The central findings of the study indicated that teachers who felt greater levels of burnout or held lower self-efficacy beliefs implemented fewer PATHS lessons. Another telling finding was that teachers who reported feeling both higher levels of burnout and lower school leader support implemented the lowest quality lessons and the fewest supplemental lessons compared to teachers with all other characteristic combinations. Moreover, teachers holding lower self-efficacy beliefs and perceiving lower school leader support generalized the PATHS concepts within the general academic subject areas less than teachers with higher beliefs in these areas.

Similarly, Rimm-Kaufman and Sawyer (2004) examined several teacher-related factors in relation to teachers’ delivery of an SEL program curriculum (i.e., Responsive Classroom [RC]
approach) using correlational and regression analyses. The sample was comprised of 69 teachers instructing grades K-3, derived from three schools using the RC approach and three schools without the approach. All RC teachers received training related to the RC approach. The teacher-related factors assessed included (a) teachers’ perceptions of teaching (i.e., their job satisfaction and level of burnout), (b) self-efficacy beliefs (i.e., perceptions of their abilities to instruct students, manage students’ behaviors, foster a positive school climate, and influence decisions made at the school level), and (c) teachers’ beliefs about the importance of their practices in relation to classroom management and the prioritization of particular teaching practices (e.g., reflecting on interpersonal interactions with students). All data were teacher-reported and most data were collected via questionnaires, except teachers’ beliefs were assessed via a card-sorting task. RC approach implementation dosage was also teacher-reported, with teachers responding to each item by choosing one of two practices (one being a non-RC approach practice and the other being an RC approach practice) that best resembled the practice they typically use in their classroom. A number of noteworthy findings emerged from this study, such as that teachers with higher self-efficacy beliefs reported greater use of RC practices. Moreover, teachers who held beliefs that more closely resembled RC exemplars, in general, implemented more RC practices, compared to control group teachers and intervention group teachers whose beliefs were less similar to RC exemplars.

Finally, in a cluster RCT study, Brown et al. (2010) assessed teacher-related factors that may be associated with the climate of classrooms in which the 4Rs (Reading, Writing, Respect, and Resolution) program was being implemented. The sample was comprised of 82 teachers instructing grade 3, derived from nine schools delivering the 4Rs program (n = 37) and nine schools comprising the control group (n =45). Teacher participants completed a series of self-
report measures assessing (a) school climate, (b) their perception of their own emotional competence (i.e., emotion recognition, emotion understanding, and emotion regulation), (c) their beliefs regarding the importance of SEL in school, (d) their classroom management tactics, and (e) their levels of burnout. Classroom observations by research team members were conducted to evaluate classroom climate. There are several noteworthy findings from this study; for instance, teachers’ self-reported emotional competence was positively associated with the observer-ratings of classroom climate. That is, teachers’ emotional competence was related to their abilities to establish a supportive and well-managed classroom environment. Surprisingly, when controlling for teachers’ emotional competence, observer-ratings of classroom climate were higher on average in 4Rs program classrooms compared to control group classrooms. This finding indicates that regardless of the teachers’ level of emotional competence, the 4Rs program was associated with more supportive classroom environments. In general, this finding may indicate that the effectiveness of well-designed SEL programs is not as greatly impacted by teacher-related factors. However, in Brown et al.’s study it may be possible that the 4Rs program was well supported by school leaders, given the school-wide implementation of the program; linking this reasoning to Ransford et al.’s (2009) findings of the importance of school leader support, intervention group teachers may have implemented higher quality lessons. Taken together, it appears that the studies by Ransford et al. (2009), Rimm-Kaufman & Sawyer, (2004) and Brown all neglect to examine the beliefs that teachers hold that are directly related to a fundamental tenet of many SEL programs, particularly those with emotion-focused content: emotional competence is not comprised of a set of innate abilities, but skills that can be taught (Gordon, 2000; Kress & Elias, 2006). As noted by Kress and Elias (2006), “Teachers who believe that social and emotional skills are part of a students’ immutable genetic makeup will be unlikely to
show support for a program” (p. 600). Therefore, examining the beliefs that teachers hold about (a) their students’ emotional development and (b) their personal role in socializing their students’ emotional development may be critical for better understanding the implementation fidelity of emotion-focused SEL programs.

SEL programs with a focus on developing students’ emotional competence call teachers to engage their students in emotion socialization practices – acknowledging their students’ emotions and helping their students better understand, appropriately express, and deal with these emotions. Therefore, teachers’ emotion beliefs may be associated with differences in the amount of SEL program activities that they implement. Most relevant to the present study, there is some empirical evidence that teachers’ emotion beliefs are related to the amount of SEL program activities delivered (Jaramillo, 2006). More specifically, Jaramillo (2006) found that early childhood teachers who believed that they should not express candid, positive and negative valence emotions in the classroom implemented fewer SEL program activities overall, compared to those who endorsed the Expressiveness beliefs. Jaramillo speculated that in order for teachers to comfortably engage in emotion-laden activities, they must be willing to be emotionally expressive.

Overall, the findings of the present study will add to the knowledge base on teachers’ emotion beliefs and implementation fidelity, namely implementation dosage, of emotion-focused SEL programs. Adding to this knowledge base might shed light on the mechanisms that help the effectiveness of such SEL programs. A growing body of research literature demonstrates that SEL program implementation fidelity positively correlates with desired student outcomes (Dane & Schneider, 1998; Durlak & DuPre, 2008; Durlak et al., 2011). Therefore, gaining a better understanding of teachers’ emotion beliefs and how these relate to the implementation of an SEL
program might improve the effectiveness of emotion-focused SEL programs and thus enhance the emotional competence of participating students.

**Purpose**

The purpose of this study is to investigate (a) the relationship between teacher background characteristics and teachers’ emotion beliefs and (b) the relationship between teachers’ emotion beliefs and implementation dosage of an emotion-focused SEL program. Minimal research has been conducted examining the links between these factors. Thus, findings from this study can make a significant contribution to improving SEL program development, training, and implementation.

**Research Questions**

In the present research study, two main research questions were addressed:

1) Are teachers’ background characteristics (i.e., elementary grade level taught and years of teaching experience) associated with their emotion beliefs?

2) Are teachers’ emotion beliefs related to both the amount of subject areas in which they implement ROE extension activities and the frequency of their implementation across all subject areas?
Method

The present study used two secondary data sets that were merged. This data was collected during both a randomized controlled trial (RCT) and a quasi-experimental design study of the ROE program. The former evaluation took place in an urban public school district serving approximately 55,000 students in a large Western Canadian city. The latter evaluation was conducted on the Isle of Man, which has approximately 35 primary schools.

Participants

Teachers. The sample for the RCT study included 38 teachers, who were randomly assigned to either host the ROE program \((n = 19); 53\%\) instructing primary grades and \(47\%\) instructing intermediate grades\) or serve as controls by delivering standard academic instruction \((n = 19); 53\%\) instructing primary grades and \(47\%\) instructing intermediate grades\). Teachers were recruited from 16 schools in a large urban school district in Western Canada. The sample for the quasi-experimental design study included 20 teachers instructing primary grades, who were assigned to either host the ROE program \((n = 10)\) or serve as controls \((n = 10)\). Teachers were recruited from 18 schools spread across the Isle of Man; this meant that approximately half of the primary schools on the Isle of Man were studied to some extent. As can be seen in Table 1, the data reported by the Isle of Man and Canadian teachers instructing primary grades are comparable across the demographic variables. Therefore, merging the data of these two particular groups for the present study was deemed acceptable.
Table 1
Demographics of the Teacher Participant Sample Split by Study, Program Status, and Grade Level Taught

<table>
<thead>
<tr>
<th>Teacher Demographic</th>
<th>Isle of Man, Grade K-3 Teachers (n = 20)</th>
<th>Canadian, Grade K-3 Teachers (n = 20)</th>
<th>Canadian, Grade 4-7 Teachers (n = 18)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intervention group (n = 10)</td>
<td>Control group (n = 10)</td>
<td>Intervention group (n = 10)</td>
</tr>
<tr>
<td>Gender:</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Female</td>
<td>10</td>
<td>100%</td>
<td>9</td>
</tr>
<tr>
<td>Male</td>
<td>0</td>
<td>0%</td>
<td>1</td>
</tr>
<tr>
<td>Ethnicity:</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Western European</td>
<td>9</td>
<td>90%</td>
<td>9</td>
</tr>
<tr>
<td>Asian (e.g., Chinese, Japanese, Vietnamese, Korean)</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>South Asian (e.g., Indo-Canadian, East Indian, Pakistani)</td>
<td>0</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>10%</td>
<td>1</td>
</tr>
<tr>
<td>Level of education:</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Undergraduate-level degree (Teaching degree/Post baccalaureate diploma)</td>
<td>10</td>
<td>100%</td>
<td>9</td>
</tr>
<tr>
<td>Graduate-level degree (M.A., M.Ed., Ph.D.)</td>
<td>0</td>
<td>0%</td>
<td>1</td>
</tr>
<tr>
<td>Years of teaching experience:</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>0-5 years</td>
<td>3</td>
<td>30%</td>
<td>3</td>
</tr>
<tr>
<td>6-10 years</td>
<td>3</td>
<td>30%</td>
<td>2</td>
</tr>
<tr>
<td>11+ years</td>
<td>4</td>
<td>40%</td>
<td>5</td>
</tr>
<tr>
<td>SEL-related training:</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>50%</td>
<td>4</td>
</tr>
<tr>
<td>Yes</td>
<td>5</td>
<td>50%</td>
<td>6</td>
</tr>
</tbody>
</table>

Note. N = 58
Table 2 presents descriptive statistics for the final sample of the present study ($N = 58$). Overall, the sample was predominantly comprised of teachers who were females and identified themselves as being of Western European descent. Regarding the teacher background characteristics of the sample, most teachers were instructing primary grades and had over 11 years of teaching experience. All teachers had a minimum of a teaching degree/Post Baccalaureate diploma; for most teachers, this was their highest degree earned. Slightly over half of the teacher participants reported participating in SEL-related training. It should be noted that the questionnaire did not inquire about the age of the teacher participants. Details regarding the teacher background characteristic items that teacher participants responded to are provided in the Measures subsection.
Table 2  
Demographics of the Teacher Participant Sample

<table>
<thead>
<tr>
<th>Teacher Demographic</th>
<th>Intervention group (n = 29)</th>
<th>Control group (n = 29)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Grade level taught:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary grades (K-3)</td>
<td>20</td>
<td>69%</td>
</tr>
<tr>
<td>Intermediate grades (4-7)</td>
<td>9</td>
<td>31%</td>
</tr>
<tr>
<td>Gender:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>25</td>
<td>86.2%</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>13.8%</td>
</tr>
<tr>
<td>Ethnicity:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western European</td>
<td>24</td>
<td>82.8%</td>
</tr>
<tr>
<td>Asian (e.g., Chinese, Japanese,</td>
<td>1</td>
<td>3.4%</td>
</tr>
<tr>
<td>Vietnamese, Korean)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Asian (e.g., Indo-Canadian,</td>
<td>1</td>
<td>3.4%</td>
</tr>
<tr>
<td>East Indian, Pakistani)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>10.3%</td>
</tr>
<tr>
<td>Level of education:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate-level degree</td>
<td>25</td>
<td>86.2%</td>
</tr>
<tr>
<td>(Teaching degree/Post baccalaureate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>diploma)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate-level degree</td>
<td>4</td>
<td>13.8%</td>
</tr>
<tr>
<td>(M.A., M.Ed., Ph.D.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of teaching experience:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-5 years</td>
<td>8</td>
<td>27.6%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>9</td>
<td>31%</td>
</tr>
<tr>
<td>11+ years</td>
<td>12</td>
<td>41.4%</td>
</tr>
<tr>
<td>SEL-related training:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>13</td>
<td>44.8%</td>
</tr>
<tr>
<td>Yes</td>
<td>16</td>
<td>55.2%</td>
</tr>
</tbody>
</table>

Note. N = 58

Procedure

Data collection. To conduct the RCT study, ethics approval was obtained from both the University of British Columbia’s Behavioural Research Ethics Board and the school board’s ethics committee. To conduct the quasi-experimental study, ethics approval was obtained from the Research Ethics Committee at King’s College, London. Support from the Department of Education and the Children’s Centre was also sought to conduct research on the island.
Following school board approval for the RCT study, the principals of schools who had indicated a plan to implement the ROE program in at least one of their classrooms were contacted and asked to invite their teachers (e.g., via the school newsletter, a staff meeting) to participate in the study. It was explained that teachers had a 50% chance of receiving the ROE program. Once teachers were recruited, the Principal Investigator or her graduate research assistants visited the participating classrooms to explain the study in basic language and answer questions about the study.

Regarding the quasi-experimental study, school representatives were invited to attend a meeting at which the research team explained the study’s rationale and schools were divided into two groups – the ROE program intervention group and the control group. Once groups were assigned, teachers were put into direct contact with members of the research team to have any of their study-related questions answered. Teachers were also sent packages containing information about and the measures they were to complete for the study.

For both studies, teacher consent was obtained (see Appendix A for the RCT study and Appendix B for the quasi-experimental study), as well as parent consent and student assent; although data from the latter two groups was not considered in the present study. The consent forms explained that the purpose of the study was to examine the effectiveness of a classroom-based, preventive intervention program designed to enhance children’s social and emotional understanding. Also explained were that the study procedures would involve completing a series of questionnaires at two time points (pre-test and post-test) and that all of their responses would be kept confidential and their identities would be kept private in the report of the results. It was also explained that all participants were to be assigned a code to replace their name on all
questionnaires, and that all of their information would be securely placed in a locked cabinet in the Principal Investigator’s research office.

Pre-test data collection occurred in October (2003 for the RCT study, 2009 for the quasi-experimental study), a few weeks before the ROE program implementation commenced. Post-test data collection occurred in June (2004 for the RCT study, 2010 for the quasi-experimental study), a few weeks after program implementation concluded. For the present study, all data analyzed were collected via measures completed by participants at both pre-test and post-test. Teachers completed their measures on their own time at pre-test and post-test. For participating in the RCT study, classrooms were given vouchers to host an end-of-the-year pizza party for all students regardless of consent status, and all teachers received a $150.00 honorarium. For the quasi-experimental study, teachers were given a £25 honorarium.

Program implementation. The ROE program was implemented in the experimental-group classrooms over the course of the school year, beginning in late fall and ending in late spring. In each of these classrooms, all 27 lessons were facilitated by a trained and certified ROE instructor, with the ROE family having been involved in 9 of those lessons. Classroom teachers could support the ROE curriculum by integrating ROE extension activities into the academic curriculum, which was examined in the present study. Information on how the implementation of extension activities by the teachers was calculated for the present study is outlined in the subsequent section.

Measures

Teacher measures. Teacher participants completed several self-report measures. Of importance to the present study, all teacher participants completed (a) a teacher questionnaire that included questions aimed at obtaining background/demographic information and (b) a
questionnaire examining emotion beliefs at pre-test. ROE teachers also completed a measure assessing the extent to which the ROE program extension activities were implemented with fidelity.

**Teacher questionnaire.** A self-report measure called the “Teacher Questionnaire” was completed by all ROE teachers at pre-test (Appendix C for RCT study; Appendix D for quasi-experimental study) and at post-test (Appendix E for RCT study; Appendix F for quasi-experimental study), and also by all control-group teachers at pre-test (Appendix G for RCT study; Appendix H for quasi-experimental study). The questionnaire examined both groups’ background characteristics (e.g., “Grade currently teaching”, “How many years of teaching experience have you had?”).

For the ROE teachers in both studies, the post-test Teacher Questionnaire inquired about the extent to which they delivered ROE extension activities across the general academic curriculum. In the present study, implementation was operationalized in the following manner: a) the number of subject areas in which the teacher implemented the ROE extension activities, and (b) the overall frequency with which the teacher implemented the ROE extension activities across all subject areas. Teacher participants were provided a list of subject areas and asked to indicate by ticking “yes” or “no” whether they implemented extension activities in each subject area. For the RCT study, the list included Language Arts, Math, Science, Social Studies, Art, Personal Planning and Other. For the quasi-experimental study, the list included English, Mathematics, Science, History & Geography, Art & Design, and Other. In order to merge the two data sets, the RCT study data provided for the Personal Planning subject area were re-coded as part of the “Other” subject area. Therefore, there were six subject areas in total for the merged data set.
If teacher participants indicated that they implemented ROE extension activities in a particular subject area by ticking “yes,” they were prompted to indicate the frequency with which they delivered extension activities in that subject area. In the RCT study, teacher participants were given tick boxes to indicate the frequency (i.e., Never, Once or twice, Monthly, Weekly, Daily). In the quasi-experimental study, teacher participants were provided a field to write in the frequency of implementation. When merging the two data sets, the latter study’s qualitative data were re-coded to fit within the former study’s quantitative options (i.e., string data stating “every day” was re-coded as the numeric value assigned to the Daily option).

Each intervention group teacher participant received two scores – one for the number of subject areas in which he/she implemented the ROE extension activities, and one for the overall frequency with which he/she implemented the ROE extension activities across all subject areas. Concerning the former, the total score ranged from 0 (no subject areas) to 6 (all subject areas). Regarding the latter, the frequency scores for each subject area (0 = Never, 1 = Once or twice, 2 = Monthly, 3 = Weekly, 4 = Daily) were totalled across all six subject areas. Thus, the total score that each teacher received ranged from 0 (never for no subject areas) to 24 (daily for all subject areas).

Also examined in the preliminary analyses was the degree to which teachers had implemented ROE program extension activities in relation to the context in which they were instructing. As can be seen in Table 3, context was a noticeably related factor – for both the number of subject areas in which activities were implemented and the frequency of their implementation across subject areas, the means of teachers in Canada (whether instructing primary or intermediate grades) were considerably larger than those of the primary grade teachers on the Isle of Man. This finding might be related to the recent emphasis given to social
responsibility (e.g., ethical and democratic behavior, peaceful problem-solving) in British Columbia’s schools (British Columbia Ministry of Education, 2001). In 2000, the British Columbia Ministry of Education developed voluntary performance standards that established social responsibility as one of the four areas in which schools should support and assess student outcomes, with the other three areas being concerned with academic pursuits (British Columbia Ministry of Education, 2001; Hymel et al., 2007; Schonert-Reichl & Hymel, 2007). The student outcomes fostered by the ROE program align well with these performance standards of social responsibility; thus teachers in Canada, as compared to those on the Isle of Man, may have been more comfortable with or more readily recognized the value of implementing ROE program extension activities.

Table 3  
Means, Standard Deviations, Minimum and Maximum Values of ROE Program Implementation by Study, Grade Level Taught, and Program Status

<table>
<thead>
<tr>
<th>Implementation</th>
<th>Isle of Man, Grade K-3 Teachers (n = 8)</th>
<th>Canadian, Grade K-3 Teachers (n = 10)</th>
<th>Canadian, Grade 4-7 Teachers (n = 8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of subject areas Frequency</td>
<td>.63 .92 0 2</td>
<td>3.80 1.81 0 6</td>
<td>3.25 2.60 0 6</td>
</tr>
<tr>
<td>Frequency</td>
<td>1.50 2.33 0 6</td>
<td>7.50 5.15 0 16</td>
<td>6.57 6.65 0 17</td>
</tr>
</tbody>
</table>

Note. *n = 7 for Frequency due to missing data. For number of subject areas, there was a maximum of 6 subject areas in which activities could be implemented. For frequency, the maximum score was 24 – teachers received a score for each subject area ranging from 0 (None) to 4 (Daily) and then these scores were totalled across the 6 subject areas.

**Teachers’ beliefs about emotions.** To assess emotion beliefs, all teacher participants completed the 23-item self-report TBAE (Hyson & Lee, 1996; see Appendix I) questionnaire discussed in the literature review. As previously noted, the TBAE was designed to assess teachers’ beliefs about emotions and their personal role in promoting the emotional development of their students in the classroom setting. As previously noted, although the original measure was designed to be completed by early childhood teachers, the language used by Hyson and Lee
(1996) was suitable for elementary school teachers and thus no items were modified for the RCT and quasi-experimental studies. However, the rating scale was modified from the original 6-point Likert scale (Hyson & Lee, 1996) to a 5-point scale, still ranging from “Strongly Disagree” to “Strongly Agree.” Using this scale, teacher participants responded to each emotion statement, indicating the extent to which they agreed with the given item. To reiterate, Hyson and Lee found that items comprised the following six subscales: (1) Bonds (4 items; $\alpha = .62$); (2) Expressiveness (4 items; $\alpha = .46$); (3) Instruction/Modeling (4 items; $\alpha = .43$); (4) Talk/Label (6 items; $\alpha = .53$); (5) Protect (3 items; $\alpha = .41$); (6) Display/Control (3 items; $\alpha = .59$). As can be seen, the Cronbach’s alphas found by Hyson and Lee were weak to moderate.

Using the pre-test scores of the present study’s sample, the internal reliability of each subscale of the TBAE questionnaire was calculated. Table 4 presents the alpha scores across the six subscales for the present study’s sample and the emotion beliefs items comprising each subscale. Overall, the Cronbach’s alphas were low to moderate, ranging from .45 (Talk/Label) to .79 (Display/Control). It was decided that subscales with alphas falling below .50 would not be included in this study’s analyses. Therefore, the Talk/Label subscale was discarded, while all other subscales (i.e., Bonds, Expressiveness, Instruction/Modeling, Protect, and Display/Control) were retained. The alphas of the retained subscales were close to or above the alpha of .60 – the suggested alpha cut-off by Nunnally (1978).
<table>
<thead>
<tr>
<th>Emotion beliefs subscale</th>
<th>Emotion beliefs items</th>
</tr>
</thead>
</table>
| Bonds (4 items; α = .60) | People are better teachers if they aren’t emotionally involved with the children. *(R)*  
It’s good to hug and touch children affectionately throughout the day.  
In my classroom, I avoid being physically affectionate or “huggy” with the children. *(R)*  
Children need to feel emotionally close to their teachers. |
| Expressiveness (4 items; α = .54) | It’s good for a teacher to let children know when she is feeling angry.  
Teachers should “let their feelings out” in the classroom.  
When I am upset with the children’s behavior, I try hard not to show it. *(R)*  
I constantly show the children how much I love them. |
| Instruction/Modeling (3 items; α = .66) | When a child is angry because another child won’t share a toy, I often tell the child exactly what words she could use to express her feelings.  
Teachers should avoid showing children how to express their feelings. *(R)*  
I think it’s better for children to figure out how to express their feelings on their own, instead of having the teacher show them how. *(R)* |
| Talk/Label (6 items; α = .45) | When one of my children is upset about something, I usually try to put into words how he or she is feeling.  
I often label the children’s feelings for them, such as “You seem worried about our trip to the swimming pool.”  
When children are upset or angry about something, it’s not the best time to talk about their feelings. *(R)*  
I believe that some teachers spend too much time talking to children about their feelings. *(R)*  
I spend a lot of time talking to children about why they feel the way they do.  
Children in my class are too young for me to discuss the causes of their feelings with them. *(R)* |
To examine whether merging the data reported by the Isle of Man and Canadian teachers instructing primary grades regarding their emotion beliefs was acceptable, preliminary analyses were performed (see Table 5). Results indicate that most of the emotion beliefs dimensions of the primary grade teachers on the Isle of Man, compared to the primary grade teachers in Canada, were fairly comparable. More specifically, the Isle of Man primary grade teachers’ mean scores on the Bonds, Expressiveness, Instruction/Modeling, and Protect beliefs fell within one standard deviation range of the Canadian primary grade teachers’ mean scores on the same dimensions, and vice versa. However, as can also be seen in Table 5, the means and standard deviations of each group for the Display/Control beliefs had no overlap with that of the other group’s score on this dimension. On average, the primary grade teachers in Canada reported more strongly agreeing that their students are capable of regulating and expressing their emotions in socially acceptable ways. The difference in the means for this particular dimension may be related to the cultural context in which these two teacher groups are instructing. Nevertheless, given the similarities between these teacher groups overall and the interest in increasing the statistical

<table>
<thead>
<tr>
<th>Emotion beliefs subscale</th>
<th>Emotion beliefs items</th>
</tr>
</thead>
</table>
| Protect                  | Teachers should not read children stories that might make them sad or worried.  
                              Children should be taken to funerals and other family events, even if they might feel sad or upset as a result. (R)  
                              If a class pet died, I would not tell the children because they might become too upset. |
| (3 items; $\alpha = .55$) |                       |
| Display/Control          | Children the age of those I teach are really not ready to control the way they express their feelings. (R)  
                              Children in my class are really too young to display their feelings in “socially acceptable” ways. (R)  
                              As a teacher, it’s important for me to teach children socially acceptable ways of expressing their feelings. |
| (3 items; $\alpha = .79$) |                       |

*Note. R = reverse scoring.*
power of this study’s analyses by having a larger sample size, the data from the primary grade teachers on the Isle of Man and in Canada were merged.

Table 5
*Means and Standard Deviations of Emotion Beliefs by Study, Grade Level Taught, and Program Status*

<table>
<thead>
<tr>
<th>Emotion Beliefs</th>
<th>Isle of Man, Grade K-3 Teachers (n = 20)</th>
<th>Canadian, Grade K-3 Teachers (n = 20*)</th>
<th>Canadian, Grade 4-7 Teachers (n = 18)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Bonds</td>
<td>3.45</td>
<td>.59</td>
<td>3.91</td>
</tr>
<tr>
<td>Expressiveness</td>
<td>3.35</td>
<td>.59</td>
<td>3.54</td>
</tr>
<tr>
<td></td>
<td>3.40</td>
<td>.72</td>
<td>3.98</td>
</tr>
<tr>
<td>Protect</td>
<td>2.28</td>
<td>.54</td>
<td>2.00</td>
</tr>
<tr>
<td>Display/Control</td>
<td>3.97</td>
<td>.42</td>
<td>4.68</td>
</tr>
</tbody>
</table>

*Note. N = 58. *n = 19 for the Protect and Display/Control beliefs, due to missing data.*

**Analytic Strategy**

For the present study, all data were analyzed using the Statistical Package for Social Sciences (SPSS, 19.0). Alphas for the statistical significance of procedures were set at .05.

Reliabilities of the TBAE subscales, descriptive statistics, and correlation coefficients assessing relationships among variables were computed. The analyses performed to address the study’s primary questions are described here.

To reiterate, the first research question was: “Are teachers’ background characteristics (i.e., elementary grade level taught and years of teaching experience) associated with their emotion beliefs?” To examine this question, preliminary correlational analyses were performed to investigate the relationships among the noted variables.

Upon obtaining the results of the correlational analyses and to further investigate the effects of particular teacher background characteristics on emotion beliefs, a series of two-way 2 (grade level taught: primary grades, intermediate grades) x 3 (years of teaching experience: 0-5 years, 6-10 years, 11+ years) analyses of variance (ANOVA) were conducted. The steps of
ANOVA analyses described by Pallant (2007) were followed, which involve entering a
dependent variable (i.e., composite score on a TBAE subscale) and the fixed factors (i.e., teacher
background characteristic variables) into the model to examine both main and interaction effects.
When a statistically significant difference was found with a fixed factor that had more than two
levels, a post-hoc Tukey’s HSD test was conducted to identify which means were significantly
different from one another (Pallant, 2007). To examine effect sizes for the ANOVA analyses, eta
squared were calculated using Brown’s (2008) formula ($\frac{SS_{effect}}{SS_T}$) and were interpreted
according to Cohen’s (1988) effect size index – small effect size = .01; medium effect size = .06;
and large effect size = .14.

In the present study, separate ANOVA analyses were conducted for each TBAE subscale.
Huberty and Morris (1989) acknowledged that when multiple outcome variables are of interest,
some statisticians suggest conducting a MANOVA prior to performing multiple ANOVAs to
help decrease the probability of committing a Type I error. However, Huberty and Morris argued
that the results of a MANOVA, versus those of multiple ANOVAs, answer different research
questions and thus suggested using both or only the latter depending on the purpose of the
research. If the researcher is not “seeking any linear composite of the outcome variables; an
underlying construct is of no concern” (Huberty & Morris, 1989, p. 303), then performing
multiple ANOVAs alone is appropriate.

The term “teacher emotion beliefs” has been used throughout this paper, which seems to
allude to a singular construct; however, although Hyson and Lee (1996) speculated that the
combination of these different dimensions of emotion beliefs (e.g., Bonds, Expressiveness) held
by teachers may be related to the particular cultural group with which they belonged, they
perceived each of the different types of emotion beliefs as conceptually independent. Moreover,
because little research has been conducted on teachers’ emotion beliefs in general, the present study does approach the results of analyses in a descriptive manner.

Again, the second research question of the present study was: “Are teachers’ emotion beliefs related to both the amount of subject areas in which they implement ROE extension activities and the frequency of their implementation across all subject areas?” Correlational analyses were performed to investigate this question. In these analyses, the TBAE subscales considered in the present study were examined in relation to (a) the number of subject areas in which the teacher implemented the ROE extension activities (Y/N), and (b) the overall frequency with which the teacher implemented the ROE extension activities across all subject areas. To calculate effect sizes for the significant correlations found in these analyses, each correlation coefficient was squared and interpreted (Hoyt, Leierer, & Millington, 2006).

**Treatment of Missing Data**

Data collected from five teacher participants (n = 2 from the RCT study, n = 3 from the quasi-experimental study) were not analyzed. Four of the five teacher participants replaced the original teachers whose classrooms were assigned to the experimental or control group. One participant from the quasi-experimental study did not return her pre-test questionnaires. Therefore, the pre-test data on the emotion beliefs and background characteristics of these five participants were not gathered and thus were not available to be compared to their post-test ROE implementation data.

Moreover, some participants did not complete a few items regarding their emotion beliefs, and program implementation. In those instances, the appropriate fields were left blank in the data set. By default, SPSS excluded the missing values from any analyses.
Results

The primary purpose of the present study was to investigate whether teachers’ background characteristics are associated with their emotion beliefs and whether teachers’ emotion beliefs are related to their implementation of ROE extension activities. The findings of the present study are outlined in three sections. In the first section, preliminary analyses are reported that include the profiles of the participating teachers’ beliefs about emotions. In the second section, results of a series of ANOVAs involving particular teacher background characteristics and emotion beliefs are presented. In the third section, descriptive information regarding the implementation of the ROE program extension activities, involving the number of subject areas in which activities were delivered and the frequency of delivery across all subject areas, are presented. Moreover, results of correlational analyses involving teachers’ emotion beliefs and extension activity implementation are reported.

Profiles of Teachers’ Beliefs about Emotions

Presented in Table 6 are the means, standard deviations, and ranges of teachers’ emotion beliefs. As can be seen from teachers’ mean scores, on average teachers reported (a) moderately agreeing with the belief that it is important to express their positive and negative emotions in front of their students (Expressiveness), (b) disagreeing with the belief that it is important to shield children from strong emotions (Protect) and (c) agreeing that their students are capable of regulating and expressing their emotions in socially acceptable ways (Display/Control). On average teachers also indicated that they moderately agreed with the beliefs about the extent to which it is important to affectionately bond with their students (Bonds) and explicitly instruct their students on how to appropriately express emotions (Instruction/Modeling). However, as can
be seen from the standard deviations and ranges between the minimum and maximum values, there was more variability in teachers’ responses regarding these two belief areas.

Table 6

<table>
<thead>
<tr>
<th>Emotion beliefs</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonds (N = 58)</td>
<td>3.68</td>
<td>.60</td>
<td>2.25</td>
<td>5.00</td>
</tr>
<tr>
<td>Expressiveness (N = 58)</td>
<td>3.45</td>
<td>.53</td>
<td>2.25</td>
<td>5.00</td>
</tr>
<tr>
<td>Instruction/Modeling (N = 58)</td>
<td>3.77</td>
<td>.75</td>
<td>2.33</td>
<td>5.00</td>
</tr>
<tr>
<td>Protect (N = 57)</td>
<td>2.02</td>
<td>.48</td>
<td>1.00</td>
<td>3.33</td>
</tr>
<tr>
<td>Display/Control (N = 57)</td>
<td>4.44</td>
<td>.56</td>
<td>3.00</td>
<td>5.00</td>
</tr>
</tbody>
</table>

Note. The variation in sample size is due to missing emotion beliefs data. The response scale for each emotion belief item ranged from 1 “Strongly disagree” to 5 “Strongly agree.” Each teacher’s composite score for each subscale was the average of their responses to the items comprising the given subscale.

Are Teacher Background Characteristics and Emotion Beliefs Related?

Prior to conducting ANOVA analyses to examine differences in teachers’ emotion beliefs in relation to their background characteristics, an analytic examination of assumptions was completed (Cohen, Cohen, West, & Aiken, 2002). A Shapiro-Wilk Test of Normality was used, with results indicating that the standardized residuals for each TBAE subscale were normally distributed. Q-Q plots and histograms were also generated to examine normality, with both appearing to be normal. Levene’s Test of Equality of Error Variances was used to examine whether the variances of the data were homogenous. The results of this test indicated that the assumption of homogeneity of variances was met (p > .05).

A series of ANOVAs were conducted that examined differences in the five emotion beliefs in relation to their background characteristics. More specifically, one ANOVA for each dimension of emotion beliefs was performed, with five analyses in total. Teachers were grouped according to the two background characteristics of interest – grade level taught with two levels (primary grades, intermediate grades) and years of teaching experience with three levels (0-5 years, 6-10 years, 11+ years). Differences between these groups on the emotion beliefs of Bonds,
Expressiveness, Instruction/Modeling, Protect, Display/Control were assessed. Results of these analyses indicated that there were no interaction effects and thus none are reported below. Therefore, the main effects are discussed, with the significance level at .05.

Table 7 presents the results of the five ANOVA analyses. As can be seen for teachers’ Bonds beliefs, the main effect of both grade level taught and years of experience was non-significant. Similarly, for teachers’ Expressiveness beliefs, the main effect of both background characteristics was non-significant.

Regarding teachers’ Instruction/Modeling belief, the main effect of grade level taught was non-significant (see Table 7). However, the ANOVA yielded a main effect for years of teaching experience. Post-hoc Tukey HSD tests were conducted, with results indicating that the average Instruction/Modeling beliefs of teachers with either 6-10 years ($M = 4.14, SD = .58$) or 11+ years ($M = 3.89, SD = .75$) of teaching experience were significantly higher than of teachers with 0-5 years ($M = 3.31, SD = .69$) of teaching experience. Regarding effect size as determined by eta-square, 1% of the between-subject variance in Instruction/Modeling beliefs was explained by years of teaching experience (Cohen, 1988).

Concerning teachers’ Protect beliefs, the overall comparison for grade level taught revealed significant differences (see Table 7). On average, Protect beliefs were significantly higher for teachers instructing primary grades ($M = 2.15, SD = .48$) than for teachers instructing intermediate grades ($M = 1.76, SD = .39$). In regards to effect size, grade level taught explained 1% of the between-subject variance in Protect beliefs. The main effect of years of teaching experience was non-significant.

Pertaining to teachers’ Display/Control belief, the main effect of grade level taught was statistically significant (see Table 7). On average, Display/Control beliefs were significantly
higher for teachers instructing intermediate grades \((M = 4.73, SD = .44)\) than for teachers instructing primary grades \((M = 4.29, SD = .57)\). Grade level taught explained 0% of the between-subject variance in Display/Control beliefs. The comparisons for years of teaching experience were non-significant.

Table 7
Results of ANOVAs for Emotion Beliefs by Grade Level Taught and Years of Experience

<table>
<thead>
<tr>
<th>Emotion Beliefs</th>
<th>Grade level taught (primary; intermediate)</th>
<th>Years of experience (0-5 years, 6-10 years, 11+ years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(SS)</td>
<td>(df)</td>
</tr>
<tr>
<td>1. Bonds ((N = 58))</td>
<td>.01</td>
<td>1</td>
</tr>
<tr>
<td>2. Expressiveness ((N = 58))</td>
<td>.04</td>
<td>1</td>
</tr>
<tr>
<td>3. Inst./Modeling ((N = 58))</td>
<td>.33</td>
<td>1</td>
</tr>
<tr>
<td>4. Protect ((N = 57))</td>
<td>1.47</td>
<td>1</td>
</tr>
<tr>
<td>5. Display/Control ((N = 57))</td>
<td>2.23</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. The variation in sample size among the ANOVAs is due to missing emotion beliefs data. For grade level taught, primary grades = grades K-3, intermediate grades = grades 4-7. Inst./Modeling = Instruction/Modeling. 

*\(p < .05\)

Overall, the results of the ANOVA analyses revealed several significant main effects for teacher background characteristics and teachers’ Instruction/Modeling, Protect, and Display/Control beliefs. Additional tables are provided that present intercorrelations among teacher background characteristics and (a) scores on the TBAE questionnaire subscales (see Appendix J) and (b) scores on the individual items of the TBAE questionnaire (see Appendix K). Supplementary tables are also provided that present frequencies of teachers’ responses to the individual items comprising the TBAE questionnaire, sorted by grade level taught (see Appendix L) and years of teaching experience (see Appendix M).
Are Teachers’ Emotion Beliefs and Implementation of ROE Extension Activities Related?

In regards to teachers’ ROE extension activity implementation as examined by teacher-reports, the average number of subject areas in which activities were implemented was 2.65 (SD = 2.30; Range = 0 to 6 subject areas) and the average proportion of implementation of ROE extension activities across all subject areas was 22.17% (SD = 21.02%; Range = 0% to 70.83%). Across the intervention group teachers, the number of subject areas in which implementation occurred ranged from zero to six, with six being the maximum number of subject areas. Of the 26 intervention group teachers, 18 teachers (69.2%) extended the program in at least one subject area and 4 teachers (15.38%) implemented extension activities in all six subject areas.

Table 8 presents the results of correlational analyses examining the relationship between teachers’ emotion beliefs and their implementation of ROE extension activities in the general classroom curriculum. The analyses revealed some noteworthy results, with significant differences in the amount and frequency of ROE extension activity implementation in association with particular emotion beliefs held. Specifically, teachers’ Expressiveness beliefs were significantly and positively correlated with the frequency with which they implemented the ROE extension activities across all subject areas. It was found that the variance-accounted-for effect size, which was calculated by squaring the correlation coefficient (Hoyt et al., 2006), was 23%. Additionally, teachers’ Protect beliefs were significantly and negatively correlated with both the total number of subject areas in which and frequency with which they implemented the ROE extension activities. The effect sizes were 27% and 20%, respectively. Finally, teachers’ Display/Control beliefs were significantly and positively correlated with both the total number of subject areas in which they extended the ROE activities and the frequency of their implementation of ROE extension activities. The effect sizes were 41% and 21%, respectively.
As can be seen in Table 8, there were also several sizeable, albeit non-significant, correlations.

More specifically, teachers’ Bonds beliefs were positively correlated with the frequency of their implementation of ROE extension activities, with the effect size being 4%. Also, teachers’ Expressiveness beliefs were positively correlated with the total number of subject areas in which extension activities were implemented, with the effect size being 9%. Interestingly, it was found that teachers’ Instruction/Modeling beliefs were negatively correlated with the frequency of their implementation of the extension activities, with the effect size being 6%. These findings are explored in the Discussion section. An additional table can be found in Appendix N, which presents intercorrelations for emotion beliefs and implementation of extension activities in each subject area.

Table 8
Intercorrelations for Emotion Beliefs and Implementation of ROE Extension Activities

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotion beliefs:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Bonds (N = 29)</td>
<td></td>
<td>.35**</td>
<td>.09</td>
<td>-.09</td>
<td>.09</td>
<td>.03</td>
<td>.20</td>
</tr>
<tr>
<td>(2) Expressiveness (N = 29)</td>
<td></td>
<td></td>
<td>-.07</td>
<td>.04</td>
<td>.37**</td>
<td>.30</td>
<td>.48*</td>
</tr>
<tr>
<td>(3) Instruction/Modeling (N = 29)</td>
<td></td>
<td></td>
<td></td>
<td>.03</td>
<td>.19</td>
<td>-.03</td>
<td>-.25</td>
</tr>
<tr>
<td>(4) Protect (N = 29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.44**</td>
<td>-.52**</td>
<td>-.45*</td>
</tr>
<tr>
<td>(5) Display/Control (N = 29)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.64**</td>
<td>.46*</td>
</tr>
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<td>Extension activity implementation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Number of subject areas (N = 26)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.91**</td>
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<tr>
<td>(7) Frequency (N = 25)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>3.68</td>
<td>3.44</td>
<td>3.72</td>
<td>2.00</td>
<td>4.49</td>
<td>2.65</td>
<td>5.32</td>
</tr>
<tr>
<td>SD</td>
<td>.57</td>
<td>.62</td>
<td>.73</td>
<td>.45</td>
<td>.57</td>
<td>2.30</td>
<td>5.47</td>
</tr>
</tbody>
</table>

Note. The variation in sample size is due to missing data. For the number of subject areas in which extension activities were implemented, there were six subject areas in total: Language Arts, Math, Science, Social Studies, Art, and Other. For Frequency of implementation across all subject areas, the scores for all six subject areas (0 = Never, 1 = Once or twice, 2 = Monthly, 3 = Weekly, 4 = Daily) were totalled.

*p < .05, **p < .01
Discussion

As raised by preventive intervention researchers in recent years, it is critical that future research investigate teacher-related factors (Beets et al., 2008; Brackett et al., 2011a; Greenberg, 2004; Ransford et al., 2009; Rimm-Kaufman & Sawyer, 2004) that might impact SEL program implementation fidelity and thus program effectiveness (Beets et al., 2008; Durlak & DuPre, 2008; Elbertson et al., 2010; Greenberg, 2004; Kress & Elias, 2006). The findings of the present study support existing theoretical and empirical evidence that the beliefs that teachers hold about both emotions and their personal role in supporting their students’ emotional development are associated with (a) teacher background characteristics (Hyson & Lee, 1996; Jumper, 2005) and (b) differences in their emotion socialization practices (Ahn, 2005; Bellas, 2009; Gosney, 2006; Hyson & Lee, 1996), namely their implementation of emotion-focused SEL programs (Jaramillo, 2006). The present study is one of the first to investigate these relationships, particularly with a sample of elementary school teachers. To examine these relationships, the data previously outlined relating to the ROE program implementation was used.

Teachers’ Emotion Beliefs and Background Characteristics

Addressing the first research question of the present study, the results of the ANOVA analyses indicated that both of the teacher background characteristics of interest – grade level taught and years of teaching experience – were related to some of the dimensions of emotion beliefs. The first finding demonstrated that, on average, experienced teachers (6-10 and 11+ years of experience), compared to novice teachers (0-5 years of experience), had significantly higher Instruction/Modeling beliefs (i.e., the importance of explicitly guiding students to express emotions in socially acceptable ways). These results are related to extant research indicating that teachers’ years of experience are related to their self-efficacy beliefs about managing the
disruptive behaviors of their students (Tschannen-Moran & Woolfolk Hoy, 2007). That is, less experienced teachers may be insecure about or wary of showing their students how to appropriately deal with strong emotions that can influence their behaviors (e.g., talking about their anger rather than hitting a fellow student who will not share a toy; Hyson & Lee, 1996). Tschannen-Moran and Woolfolk Hoy (2007) noted in their study that novice teachers either acquire strategies over time that help them feel efficacious or they leave the profession altogether, with nearly half leaving in the first five years. Their findings might help explain the present study’s finding that teachers with over six years of teaching experience had higher Instruction/Modeling beliefs. In research on teachers’ emotion beliefs, years of teaching experience was not found to be a significantly related factor. Although, it should be reiterated that the sample of these studies were either partially (Bellas, 2009) or fully comprised of early childhood teachers (Hyson & Lee, Jumper, 2005).

Another set of findings of the present study was that the age of the students being taught was related to the emotion beliefs that their teachers held, which speaks to the teachers’ perceptions of their students’ developmental readiness to deal with emotions. In particular, primary grade teachers, compared to intermediate grade teachers, had significantly higher Protect beliefs. That is, on average, primary grade teachers more strongly agreed that children should not be exposed to situations that would elicit feelings of sadness or worry (Hyson & Lee, 1996). Additionally, the present study found that intermediate grade teachers, compared to primary grade teachers, had significantly higher Display/Control beliefs. That is, on average, intermediate grade teachers more strongly agreed that their students are developmentally ready to regulate and be taught how to express their emotions in socially acceptable ways. Taken together, these findings may indicate that primary grade teachers were less confident in their students’ abilities
to cope with and regulate strong emotions and thus felt less prepared to meet the emotional needs of their younger students.

In general, the Protect and Display/Control beliefs in relation to the grade level taught seem relatively fitting for the markers of children’s emotional development outlined by Saarni (2011). According to Saarni, children in early elementary school (ages 5-7) are beginning to develop the ability to display emotions that are divergent from what they are feeling inside and use the primary coping strategy of seeking the support of significant adults (e.g., teachers) when overwhelmed by strong emotions. Concerning children in middle childhood (ages 7-10), Saarni explained that they have a greater understanding of social norms related to emotion expression, can utilize emotions as a tool when engaging in interpersonal interactions, and use the coping strategies of problem-solving or distancing depending on their level of control over the situation. Regardless of how developmentally appropriate these emotion beliefs might seem, it is worth considering whether teachers’ emotion beliefs are related to the amount of emotion socialization practices in which they engage their students, which may ultimately influence the enhancement of their students’ emotional competence. These links will be explored in the subsequent section.

Concerning the effect sizes for the significant main effects reported in the Results section, years of teaching experience explained 1% of the variance in Instruction/Modeling beliefs. Additionally, grade level taught explained 1% of the variance in Protect beliefs, and 0% of the variance in Display/Control beliefs. According to Cohen (1988), an effect size of 0% indicates a non-significant effect and 1% indicates a small effect. However, Trusty, Thompson, and Petrocelli (2004) cautioned researchers not to interpret such effect sizes as an indication that the significant relationships among the variables are not important. They noted that whether the findings are comparable to the findings of other similar studies may be of greater importance.
(Trusty et al., 2004). At this stage, however, minimal research has been conducted using an elementary school sample to explore similar links, with the exception of Bellas (2009). As previously noted, Bellas did not find teachers’ years of teaching experience to be related to their emotion beliefs. However, it should be reiterated that her sample was not solely comprised of elementary school teachers (first grade), but also early childhood teachers, indicating that the two samples are quite different. Thus, given the lack of similar studies, the implications of the unsatisfactory effect sizes for the present study are indeterminate.

It should be noted that in addition to years of teaching experience, the teacher background characteristics most frequently examined in relation to and found to be positively correlated with teachers’ emotion beliefs are (a) level of education (Bellas, 2009; Hyson & Lee, 1996; Jumper, 2005) and (b) professional development training (Bellas, 2009; Hyson & Lee, 1996). Although data were collected from teachers regarding these two characteristics, given a couple of concerns these were not included in the present study’s analyses. Regarding level of education, the education systems in the Western Canadian province and on the Isle of Man were not identical. Canadian pre-service teachers earn a generalist degree and then complete a one year full-time professional degree. One route for the Isle of Man pre-service teachers is similar in that they can earn a degree in a subject of interest and then complete a one year full-time Postgraduate Graduate Certificate in Education (PGCE). However, according to one university at which Isle of Man pre-service teachers can complete their PGCE, one-third of the PGCE coursework is at the Master’s degree level (University of Exeter, n.d.); this is not the case for the Canadian pre-service teachers’ professional degree. Therefore, given the differences in the two education systems, level of education was not examined in relation to teachers’ emotion beliefs.
Regarding professional development, teachers were asked whether they had received any SEL-related training. Teachers responded to this question by answering “yes” or “no”, and a field was provided in which teachers could describe the coursework or workshop they attended. Not all teachers elaborated on the nature of the training and for those who did elaborate it would have been difficult to quantify their data for the purposes of performing correlational or ANOVA analyses. For instance, it was not always made clear if a conflict resolution workshop involved a one-hour video or a one-week training course led by a qualified and trained instructor. Because the knowledge about emotional development and emotion socialization practices gained from taking special coursework or workshops could have been vastly different across SEL-trained teachers, this background characteristic was not examined. It was decided that the primary teachers from Canada and from the Isle of Man would not be examined separately as the cell sizes would have been rather small.

**Teachers’ Emotion Beliefs and Implementation of ROE Extension Activities**

Addressing the second research question of the present study, the results of the correlational analyses demonstrated that some emotion beliefs that teachers hold were related to their implementation dosage of the emotion-focused SEL program. These results support the notion that SEL program implementation does not occur in a vacuum or under idyllic circumstances – a variety of factors, such as emotion beliefs, can influence the implementer’s perceptions of the importance of the program and their motivation and sense of efficacy to implement the program activities (see Durlak & DuPre, 2008; Greenberg, 2004). A central finding of the present study was that teachers with higher Expressiveness beliefs (i.e., the importance of candidly expressing their emotions around their students) were more likely to implement the ROE extension activities with greater frequency across all subject areas,
compared to those with lower Expressiveness beliefs. As noted previously, Expressiveness beliefs accounted for 23% of the variance in the frequency of implementation, which could be considered a moderate effect. Moreover, a strong although statistically insignificant correlation indicated that teachers’ with higher Expressiveness beliefs implemented the extension activities in more subject areas, compared to those with lower Expressiveness beliefs. With Expressiveness beliefs accounting for 9% of the variance in the number of subject areas in which extension activities were implemented, it can be considered a small effect. Existing research supports the importance of teachers’ Expressiveness beliefs in the context of SEL program implementation. Specifically, Jaramillo (2006) found that early childhood teachers with lower Expressiveness beliefs implemented fewer SEL program activities in contrast to teachers with higher Expressiveness beliefs. Findings from both studies suggest that teachers with higher Expressiveness beliefs are more willing or motivated to engage with their students in purposive, emotion-laden interactions.

Similarly, a strong but statistically insignificant correlation indicated that teachers’ with higher Bonds beliefs implemented the ROE extension activities with greater frequency across all subject areas, compared to teachers with lower Bonds beliefs. That is, teachers’ beliefs about the importance of emotional and physical closeness in the student-teacher relationship were related to the regularity of their implementation. Bonds beliefs accounted for 4% of the variance in the frequency of implementation, which can be considered a small effect. Overall, these findings highlight the need for SEL-related training and on-going classroom support to enhance the emotional competence of teachers (Brown et al., 2010), particularly their skills to (a) appropriately express rather than suppress their feelings and (b) respond positively to their own and their students’ emotions.
In opposition to what might be expected, a strong but statistically insignificant correlation indicated that teachers’ with higher Instruction/Modeling beliefs implemented the ROE extension activities with less frequency across all subject areas, compared to teachers with lower Instruction/Modeling beliefs. Moreover, Instruction/Modeling beliefs accounted for 6% of the variance in the frequency of implementation, which is considered a small effect. Overall, these findings suggest that teachers who consider it important to explicitly teach students how to express their emotions in socially acceptable manners, might feel more confident in their efforts and thus may consider it less necessary to engage their students in these practices with great frequency. Nevertheless, it is also possible that this finding has highlighted an interesting mismatch between teachers’ emotion beliefs and their actual emotion socialization practices.

Another significant finding of the present study’s correlational analyses was that teachers with higher Protect beliefs reported implementing the ROE extension activities in fewer subject areas and with less frequency across the subject areas. Protect beliefs accounted for 27% of the variance in the number of subject areas in which extension activities were implemented and 20% of the frequency of implementation, which can be considered fairly moderate effects. Additionally, teachers with higher Display/Control beliefs reported implementing the ROE extension activities within more subject areas and with greater frequency across the subject areas. Display/Control beliefs accounted for 41% of the variance in the number of subject areas in which extension activities were implemented, which can be considered a moderate to strong effect; Display/Control beliefs also accounted for 21% of the frequency of implementation, which can be considered a moderate effect. It is worth noting that the Protect and Display/Control beliefs were significantly and negatively correlated (see Table 8). Together these findings indicate that teachers’ perceptions of their students’ developmental readiness to
cope with and/or regulate their emotions are related to the extent to which these teachers engage their students in the emotion-focused ROE program extension activities. Despite the fact that the ROE program is tailored to the developmental level of the participating students, the aforementioned findings might indicate that some teachers consider the emotion-focused activities to be too emotionally evocative – that strong emotions may be elicited, which the students will not be able to either cope with or regulate well. Such reasoning builds on Durlak and DuPre’s (2008) review of research literature on factors that influence the fidelity of preventive intervention programs. The authors highlighted that program implementation fidelity is related to implementer-related factors, such as deeming the program necessary or appropriate (e.g., whether they consider their students developmentally ready or in need of emotional competence promotion). Taken together, it appears that not all teachers may deem emotion-focused SEL programs to be appropriate to them and thus may be less willing to implement the program activities.

The aforementioned findings also provide insight into teachers’ perceptions of their own abilities, their responsibility, or the need to engage their students in emotion socialization practices and how these perceptions are manifested in their related practices. Another implementer-related factor related to implementation fidelity is having a sense of self-efficacy (e.g., feeling capable of supporting and enhancing students’ emotional development and adequately implementing the activities; Durlak & DuPre, 2008). Note that examining teachers’ attitudes toward the ROE program in particular was beyond the scope of the present study. However, the aforementioned findings, which link teachers’ beliefs about emotion socialization practices and their reported SEL practices via emotion-focused extension activities, are valuable. In particular, these findings can inform the knowledge that teachers are given about children’s
emotional development, and the SEL-related training and support that they are provided. More will be said in the Implications for Practice section about the suggestions based on the present study’s findings.

**Limitations and Future Directions**

Before speaking to the limitations of the present study, a number of strengths should be reiterated. In particular, this is one of the first studies to investigate the emotion beliefs of elementary school teachers, with the exception of Bellas (2009) who included first-grade teachers in her sample. Additionally, this is the first known study to investigate the emotion beliefs of intermediate grade teachers who instruct students in middle childhood (grades 4-7). Furthermore, the present study is one of the only known studies to examine teachers’ emotion beliefs relative to the implementation of an SEL program, with the exception of Jaramillo (2006) who did so with a sample of early childhood teachers. However, the lack of prior research studies on the links among elementary school teachers’ background characteristics, emotion beliefs, and SEL program implementation is also a limitation. That is, the present study had limited empirical evidence to support its investigation. The descriptive approach taken in the present study thus was appropriate and the findings will add to the knowledge base of teachers’ emotion beliefs and related factors.

A few limitations of the present study, which may have impacted the findings and conclusions that can be drawn, should be noted. The first limitation is the study’s sample size, with 58 teachers in total ($n = 29$ intervention group teachers; $n = 29$ control group teachers). Performing a study with a sample of this size may have reduced the generalizability of the findings to the larger elementary school teacher population. Similarly, the sample size may have been an issue regarding statistical analysis methods performed in the study. For the ANOVA
analyses, the lack of interaction effects found may be a result of the small sample size. For the grouping variable of years of teaching experience, the cell size for the intermediate grade teachers with 0-5 years of experience ($n = 4$) was smaller than the recommended number of 7 observations (VanVoorhis & Morgan, 2007). Likewise, some correlations were previously discussed that were not statistically significant but were sizeable (±.20 and above), which may also be related to the small sample size. Therefore, it is suggested that future research consider these links with a larger sample.

Another potential limitation of this study is the homogenous nature of the sample regarding gender and ethnicity, which may impact the generalizability of the findings to other populations. As previously noted, teachers in the sample were primarily female and of Western European descent. However, it should be noted that these skewed demographics are fairly representative of the teaching profession in Western countries. Despite the homogeneity regarding the sample’s ethnic makeup, there is a possibility that differences existed between the Canadian and British cultures from which the samples were recruited. These differences were not controlled for and, thus, merging the data of the primary grade teachers from these cultures could have tempered some of the findings. As was found by Hyson and Lee (1996), early childhood teachers’ emotion beliefs differed depending on their cultural group. Hyson and Lee’s study, however, compared a Western and an Eastern culture, whose acceptance of emotion socialization practices might be more vastly different than any difference between the two Western cultures (Western Canada and the Isle of Man) compared in the present study. It is suggested that future research include an ethnically diverse sample and consider cultural differences in relation to emotion beliefs.
An additional limitation of the study is with the TBAE (Hyson & Lee, 1996) questionnaire. Specifically, the internal consistencies of the questionnaire’s subscales were weak to moderate. Therefore, it is highly suggested that a content validation be performed to examine the suitability of the items that comprise the TBAE questionnaire. It is important to reiterate, however, that the subscale with an alpha below .50 (i.e., Talk/Label) was not included in the data analyses. Thus the Cronbach’s alphas of subscales used for the data analyses ranged from .54 to .79. Moreover, the Cronbach’s alphas found in the present study, overall, exceeded those found in Hyson & Lee’s (1996) study. Moreover, across the TBAE items the framing of the statements is not consistent – some items call for teachers to answer from a global standpoint (e.g., “Teachers should avoid showing children how to express their feelings” [italics added]) and others from a personal perspective (e.g., “When a child is angry because another child won’t share a toy, I often tell the child exactly what words she could use to express her feelings” [italics added]). Therefore, a given teacher’s scores on each subscale of the TBAE contain both their beliefs about their own emotion socialization practices and their perceptions of social norms related to such practices, which could be divergent (Ajzen & Fishbein, 1980).

Regarding the implementation fidelity of the emotion-focused SEL program activities assessed in the present study, it should be reiterated that only the dosage and not the quality of implementation was considered. That is, it is possible that some teachers implemented extension activities in a large number of subject areas and with great frequency, but the quality of the extension activities they delivered could have been poor and vice versa. Moreover, the present study did not examine the use of SEL-related practices beyond the ROE program. Some teachers may have engaged their students in other emotion socialization practices that were not related to the ROE program. Therefore, knowledge of the amount and frequency of teachers’
implementation of ROE extension activities alone may not offer a comprehensive picture of the student-teacher interactions that could enhance students’ social-emotional competencies. It is suggested that future research consider the dosage and quality of implementation, as well as the use of other SEL-related practices.

The self-reported data is another limitation of the present study in that some teachers’ representations of their emotion beliefs or implementation of ROE extension activities may have been biased. In particular, given the nature of this study, there is a possibility that some teachers exaggerated the degree to which they (a) endorsed particular emotion socialization practices that seemed appropriate to support and (b) implemented program activities across and within particular subject areas. Although it is fairly unavoidable to use self-reports alone to gather data on teachers’ emotion beliefs, it is suggested that future studies consider using multiple informants to report on teachers’ SEL program implementation fidelity.

As previously noted, the teacher participants in the present study were “secondary implementers” of the emotion-focused SEL program of interest. Although this did not impede the investigation of the relationship between teachers’ emotion beliefs and implementation of an emotion-focused SEL program, it is suggested that future research compare teachers acting as the program’s secondary implementers versus primary implementers. Moreover, research conducted that involves teachers as the primary implementers of emotion-focused SEL programs would be valuable regarding the investigation of the associations between SEL training and emotion beliefs, namely training related to the specific emotion-focused SEL program being implemented. Again, in the present study, teacher participants did not receive ROE-program-specific training.
It is suggested that researchers who are examining teachers’ emotion beliefs related to the implementation of emotion-focused SEL program activities also consider the role of teachers’ attitudes toward the SEL program (Beets et al., 2008). Although this question was examined in the teacher questionnaire, it was beyond the scope of the present study to include it in any analyses. It has been suggested that teachers’ emotion beliefs are associated with their attitudes toward a given SEL program (Brackett et al., 2011a; Kress & Elias, 2006). Similarly, it would be worth investigating the concurrent validity between teachers’ emotion beliefs and self-efficacy beliefs about their implementation of an emotion-focused SEL program. Based on the theory of reasoned action postulated by Fischbein and Ajzen (1975; Ajzen & Fishbein, 1980), such beliefs and attitudes may influence teachers’ direct or indirect practices related to the emotion-focused SEL program (e.g., their dosage and quality of implementation) or their implicit conveyance to the students of the value they see in the program’s principles, practices, or desired outcomes. Therefore, it would be of value for future research to examine whether teachers consider the emotion-focused SEL program practices to be (a) congruent with their own objectives, (b) socially acceptable, (c) feasible, and (d) likely resulting in achieving desired student outcomes (Gueldner, 2007).

It is also suggested that future research studies examine whether teachers’ emotion beliefs change after the experience of hosting an emotion-focused SEL program. Such an examination might shed light onto the centrality of emotion beliefs to one’s identity (Pajares, 1992; Raths, 2001; Wilcox-Herzog & Ward, 2004). This knowledge would thus provide information as to the likelihood that belief systems could be shifted via participation in meaningful experiences (Cabello & Burnstein, 1995; Pajares, 1992) and encounters with effective practices (Guskey, 1986).
Given the empirical evidence that teachers’ emotion beliefs are positively correlated with students’ emotional development in natural classroom settings (Huemer, 2010; Jumper, 2005), it is suggested that researchers investigate similar relationships in the context of a classroom in which an emotion-focused SEL program is being implemented. More specifically, it would be worthwhile to consider the influence of teachers’ emotion beliefs on the outcomes that emotion-focused SEL programs aim to enhance (e.g., awareness of one’s own and others’ emotions, emotion regulation, perspective-taking, empathy). As Ransford et al. (2009) advised, “The most effective way to establish the validity of any source of implementation data is to include student outcomes and examine associations between these and the implementation ratings” (p. 528). This investigation is further supported by research demonstrating that program fidelity (quality and dosage of program delivery) and student outcomes are positively correlated (Dane & Schneider, 1998; Durlak & DuPre, 2008). Given the findings of the present study that particular emotion beliefs held by teachers were related to their implementation dosage of the ROE program, teachers’ emotion beliefs may be indirectly related to the outcomes of students participating in classroom-based, emotion-focused SEL programs. Future research in this area is critical given that no known studies have investigated these links.

**Implications for Practice**

The findings of the present study, which indicate that teachers’ emotion beliefs are associated with particular teacher background characteristics and implementation dosage of an emotion-focused SEL program, will be valuable for teacher educators and SEL program developers. Firstly, these findings can guide the type of information provided to teachers regarding the emotional development of children and their role in socializing students’ emotional development. This is particularly so for those preparing to teach or currently teaching primary
grades, given the findings of the present study that primary grade teachers had higher Protect beliefs and lower Display/Control beliefs compared to intermediate grade teachers. As previously discussed, higher Protect beliefs and lower Display/Control beliefs were also associated with SEL program implementation in fewer subject areas and with less frequency across subject areas. It is suggested that the means through which information should be imparted to teachers to enhance their understanding about emotional development are (a) during pre-service teacher training and (b) during in-service professional development training.

However, it should be cautioned that facts alone, no matter how compelling, are likely not enough to shape teachers’ belief systems (Guskey, 1986). In the research literature on partisan psychology in political beliefs, it has been found that people will deny facts that are contradictory to their pre-existing beliefs in order to avoid cognitive dissonance (Vedantam, 2012). In other words, emotions tend to trump facts (Vedantam, 2012). However, as noted by Vedantam (2012), recent unpublished research has demonstrated that boosting a person’s general self-confidence helps that person become more receptive to facts that misalign with their pre-existing beliefs. This finding seems to speak to self-efficacy beliefs – if a person believes that his or her locus of control is not internal, he or she may be more likely to be dependent on familiar perceptions and approaches to reality, because doing so makes life feel more manageable; but if a person has a high internal locus of control (e.g., feels efficacious and confident), they can feel more willing and able to engage in new ideas or practices (Vedantam, 2012). In the context of enhancing particular dimensions of teachers’ emotion beliefs and increasing teachers’ use of emotion socialization practices, there is a definite need to involve teachers in meaningful experiences that will (a) elucidate the importance of promoting their students’ emotional development and (b) help the teachers feel efficacious.
One suggested method is placing teacher candidates in classrooms in which emotion-focused SEL programs are already being implemented for their student teaching practicum. Doing so will provide teacher candidates with the opportunity to witness classroom teachers model effective emotion socialization practices (see Guskey, 1986), be supported by the classroom teachers while engaging students in such practices, and see the effects of such practices on students’ emotional development. Another suggested method is providing in-service teachers with on-going SEL coaching. Given the present study’s findings of the association between years of teaching experience and the extent to which Instruction/Modeling beliefs were endorsed, this training and support may be particularly important for teachers during their early years of teaching. The proposed methods are useful mastery experiences that can build teachers’ sense of self-efficacy and motivation (Tschannen-Moran & Woolfolk Hoy, 2001) to engage their students in emotion socialization practices.

The central implication of the findings from the present study is that teachers’ emotion beliefs should be taken into account when teachers are involved in implementing an emotion-focused SEL program. Teachers’ emotion beliefs may provide insight into particular dimensions of their social-emotional competence (e.g., emotion understanding, emotion regulation skills). For instance, if a teacher believes in and thus engages in suppressing his/her feelings, then he/she would have great difficulty helping children discuss and exhibit their own feelings during emotion-focused SEL program activities. Therefore, promoting the social-emotional competence of teachers may be beneficial for the effectiveness of emotion-focused SEL programs (see Brown et al., 2010). Taken together, it is suggested that teacher educators and emotion-focused SEL program developers design their courses and workshops in such a way that teachers’ emotion beliefs are addressed and social-emotional competence is enhanced. This will better
prepare teachers to effectively implement emotion socialization practices (e.g., emotion-focused SEL program activities) that will ultimately enhance their students’ emotional development.
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Appendix A

RCT Teacher Consent Form
You and your students have been selected to be participants in a research project that I am conducting at your school entitled "Promoting Empathy in Children." This study is a partnership between administrators and staff at the VSB and myself (Dr. Kim Schonert-Reichl at UBC) to evaluate the “Roots of Empathy” curriculum now being implemented in several Vancouver elementary classrooms. Teachers who participate will receive a copy of the results of the study along with some suggestions and guidelines for facilitating empathy in intermediate grade students. Listed below are several aspects of this project that you need to know.

**Purpose:** The purpose of this study is to examine the effectiveness of an educational intervention designed to promote empathy in children. All of the children in your class are being asked to participate. 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. This project is being funded by a grant from the University of British Columbia’s Human Early Learning Partnership (HELP) – a pioneering interdisciplinary research partnership that is directing a world-leading contribution to new understandings and approaches
to early child development. HELP is directed by Dr. Clyde Hertzman at UBC and involves faculty members and graduate students from British Columbia’s four major universities who work on research that results in the creation of new knowledge that has direct relevance to communities and schools.

**Study Procedures:** Students who participate in this study will be asked to fill out several questionnaire. Children in the primary grades will be given questionnaires in small groups in a room in the school and intermediate grade children will be administered questionnaires in their classroom. Note that we will read out loud all questionnaires to students. Completion of these questionnaires will take approximately 30-45 minutes in the next couple of weeks and at the end of the school year (primary grade children will have one session and intermediate grade children will have two sessions). The first questionnaire asks about students’ backgrounds, such as age, gender, family composition, and language spoken at home. Another set of questionnaires asks children to report on how much they take the perspectives of others, their understanding of their emotions, and their friendships. The third set of questionnaires asks children to provide ratings of classmates’ social behaviors and their feelings about school, and the last questionnaire asks for information on knowledge of infants and positive parenting. In our project, we are not, in any sense “testing” the children. There are no right or wrong answers – we simply want to know how children understand themselves and emotions. We have found that children genuinely enjoy the questionnaires, and are eager and happy to participate. Some of the children who participate in the study will be in classrooms receiving a program designed to specifically promote empathy while other children in the study will be in regular classrooms.
In addition to obtaining information from children, classroom teachers are being asked to complete a brief checklist assessing various dimensions of each child’s social behaviors in the classroom. You will be asked to complete this checklist twice – once during the next month and again at the end of the school year. Each checklist will take approximately 5-10 minutes to complete per child. A TOC will be provided to cover your classroom while you complete the questionnaires (we will arrange this with you in the near future). As well, you will receive a $150.00 honorarium as a token of appreciation for your help with our research.

Confidentiality: All of your answers will be completely confidential and will not be available to teachers, parents, or other school personnel. No specific child or teacher will be referred to by name or identified in any way in the report of the results. Questionnaires will be coded and kept in a locked file cabinet in the Dr. Kim Schonert-Reichl’s office.

Contact: If you have any questions, please do not hesitate to contact us (information below). If you have any concerns about your treatment as a research participant, you may contact the Research Subject Information Line in the UBC Office of Research Services at ______________.

Participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time, even after signing this consent form. Refusing to participate or withdrawal will not jeopardize your job or professional standing in any way.

Sincerely,

Dr. Kimberly Schonert-Reichl

Associate Professor
TEACHER CONSENT FORM

Study Title: "Promoting Empathy in Children"

Researcher: Kimberly A. Schonert-Reichl, Ph.D.

Associate Professor, Department of Educational and Counselling Psychology and Special Education, University of British Columbia

(KEEP THIS PORTION FOR YOUR RECORDS)

I have read and understand the attached letter regarding the study entitled "Promoting Empathy in Children"

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

_____ Yes, I will participate.

_____ No, I will not participate.

Signature__________________________________________

Please Print________________________________________

Date________________________________

----------------------------------------------------------------------------------------------------

I have read and understand the attached letter regarding the study entitled "Promoting Empathy in Young Children" I have also kept copies of both the letter describing the study and this permission slip.

_____ Yes, I will participate.

_____ No, I will not participate.

Signature__________________________________________

Please Print________________________________________
Appendix B

Quasi-experimental Study Teacher Consent Form
Dear Participating Teacher,

You have been selected to be a participant in a research study entitled “Promoting Empathy in Children” that is taking place in several primary schools on the Isle of Man. This research study is concerned with evaluating the effectiveness of a program designed to promote empathy in children (the “Roots of Empathy” program) and hence lead to an understanding of the relation between children’s social and emotional development and their school success. Listed below are several aspects of this project that we would like you to know.

What is the Purpose of the Study?

The purpose of this study is to examine the effectiveness of an educational intervention designed to promote social and emotional understanding in children. All of the children in your class are being invited to participate. It is important to note that this project is a research partnership developed among Dr. Kim Schonert-Reichl at the University of British Columbia (UBC) in Canada, the Children’s Centre on the Isle of Man, and the Roots of Empathy organization in Toronto, Canada. The project was designed to address issues related to optimizing social and emotional development and academic success during the primary school years.

What are the study procedures?
Classroom teachers are being asked to complete a brief checklist on children’s classroom social behaviours. Some of the children who participate in the study will be in classrooms receiving the “Roots of Empathy” (ROE) program designed to promote empathy while other children in the study will be in “comparison” classrooms not receiving the program. Information relating to school achievement will be collected from students’ school records. Participating teachers will also be asked to complete a set of questionnaires on their own background and their perspectives on the social and emotional development of children.

We are seeking your support in participating in the evaluation research and would like you to invite you to participate in this experimental study of the ROE program. This is the first study of its kind on the ROE Program on the Isle of Man and you can be of great assistance in helping people throughout the world learn about the effectiveness of the ROE program. Before providing details on the study, we would first like to take a moment to explain to you why an experimental study is an important next step for us to take in the evaluation of ROE.

Experimental studies are those studies in which there is an experimental group (i.e., a group of children who receive a specific program) and a comparison group (i.e., a group of students who do not receive the program). Experimental studies are the most rigorous way for determining whether a program, such as the ROE, causes changes in children’s social and emotional well-being and school success. That is, it is only through comparing children who receive the ROE program (experimental classrooms) to children who do not receive the ROE program (comparison classrooms) can we determine whether or not the program caused changes in children’s social and emotional competence. In order to have empirical – research data on the ROE program – we must conduct research which has both ROE and Comparison classrooms AND we must have teachers complete questionnaires both at pretest (before the ROE program
begins) and at posttest (after the ROE program has ended). At this point we have very promising experimental support for the ROE program from our research conducted in Canada.

Nevertheless, these previous studies are limited because we can not be certain if these results can hold for children outside of Canada – specifically, the children on the Isle of Man.

**What data are collected?**

The questionnaire that teachers will be asked to complete for each child asks questions about five areas of development: 1) prosocial behaviours – such as helping, sharing, and cooperating; 2) aggressive behaviours; 3) emotional health and maturity; 4) peer relationships; and 5) social and emotional competence. In addition, participating teachers will be asked to complete a set of questionnaires about themselves: (1) their background-such as gender, race/ethnicity, and education; (2) their beliefs about emotions; and (3) their perspectives on the social and emotional development of children.

**How is the study done?**

Children’s teachers will fill out the questionnaire for each student in their class; there is no questioning of or direct involvement of the students. Teachers will also be asked to complete a set of questionnaires about themselves. All questionnaires are then sent to UBC for data entry, secure storage, and analysis.

**Confidentiality:**

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

**Contact:**

If you have any questions, please do not hesitate to contact Dr. Schonert-Reichl by sending a message to the following email address: _____________. If you have any concerns about your treatment as a research participant, you may contact the Research Subject Information Line in the UBC Office of Research Services at _____________. Participation in this study is entirely voluntary and you may refuse to participate or withdraw from the study at any time, even after signing this consent form. Refusing to participate or withdrawal will not jeopardize your job or professional standing in any way.

We would appreciate it if you could indicate on the slip provided on the attached page whether or not we have your permission to participate. Thank you very much for considering this request.

Sincerely,

Kimberly A. Schonert-Reichl, Ph.D.

Associate Professor

University of British Columbia
ROOTS OF EMPATHY – ISLE OF MAN RESEARCH STUDY 2009

TEACHER CONSENT FORM

(KEEP THIS PORTION FOR YOUR RECORDS)

Study Title: "Promoting Empathy in Children"

Principal Investigator: Kimberly A. Schonert-Reichl, Ph.D.

Associate Professor, Department of Educational and Counselling Psychology, and Special Education

University of British Columbia

Contact Information:

I have read and understand the attached letter regarding the study entitled "Promoting Empathy in Children." I have also kept copies of both the letter describing the study and this permission slip.

☐ Yes, I will participate.

☐ No, I will not participate.

Signature:

Please Print: ____________________________ Date: ____________________________
ROE – ISLE OF MAN RESEARCH STUDY 2009-TEACHER CONSENT FORM

I have read and understand the attached letter regarding the study entitled "Promoting Empathy in Children." I have also kept copies of both the letter describing the study and this permission slip.

☐ Yes, I will participate.

☐ No, I will not participate.

Signature: ____________________________________________

Please Print: ___________________________ Date: ________________
Appendix C

Teacher Questionnaire

(RCT Intervention Group Teachers, Pre-test)

Scales include: Background Characteristics
Dear Participating Teacher,

Thank you very much for participating in this evaluation. The information that you provide on this form will contribute greatly to our understanding of how children develop and how teaching contexts contribute to this development. There are two sections to this questionnaire. The first section will provide us with some information about your background and the second section asks about your beliefs about social emotional learning.

Thank you again for your participation.

ROE Evaluation Team

SECTION A: Background Information

1. What is your teaching assignment in your Roots of Empathy classroom (e.g., 5 full days a week, 3 half days only)?

2. Are you?  □ Male  □ Female

3. What is your ethnic/cultural heritage? (check all that apply to you.)

□ African/Caribbean
☐ Asian (Chinese, Japanese, Vietnamese, Korean, etc.)
☐ Arab/West Asian (Armenian, Egyptian, Persian, Iranian, Lebanese, Moroccan)
☐ European (Italian, French, German, Austrian, English, etc.)
☐ First Nations (Native, Indian, Aboriginal)
☐ South Asian (Indo-Canadian, East Indian, Pakistani, etc.)
☐ Other (please describe): _________________________

4. What is your highest level of education? (check one)
   ☐ Some Undergraduate Coursework
   ☐ Bachelor Degree, (other than a B.Ed.)
   ☐ B.Ed. or P.D.P.
   ☐ Post Baccalaureate Diploma
   ☐ Graduate Degree (MA/M.Ed/M.Sc.)
   ☐ Doctorate
   ☐ Other (please describe): _________________________

5. How many years of teaching experience have you had? ________________ Years

6. Have you taken any special coursework/workshops in social and emotional development that applies to your current teaching position?
   No____
   Yes_____ If yes, please describe
   ____________________________________________________________________

7. Do you know how you were selected to have a Roots of Empathy program in your classroom?
   No_____
Yes. If yes, please describe

_____________________________________________
Appendix D

Teacher Questionnaire

(Quasi-experimental Study Intervention Group Teachers, Pre-test)

Scales include: Background Characteristics
Dear Participating Teacher,

Thank you very much for participating in this research study. The information that you provide on this form will contribute greatly to our understanding of how children develop and how teaching contexts contribute to this development. There are two sections to this questionnaire. The first section will provide us with some information about your background and the second section asks about your beliefs about social emotional learning.

Thank you again for your participation, UBC Evaluation Team

SECTION A: Background Information

1. Are you? □ Male □ Female

2. What is your ethnic/cultural heritage? For example: Western European-White (Italian, French, German, Austrian, English, etc.), Black British, Asian (Chinese, Japanese,
Vietnamese, Korean, etc.), Arab/West Asian (Armenian, Egyptian, Persian, Iranian, Lebanese, Moroccan, etc), Aboriginal, South Asian (East Indian, Pakistani, etc.) (Please describe in the space provided below)

3. What is your highest level of education? (Please describe in the space provided below)

4. How many years... (Please answer the following questions)

<table>
<thead>
<tr>
<th>Years</th>
<th>First</th>
<th>1-2</th>
<th>3-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How many years of experience have you had in teaching?

How many years have you been teaching at this school?

How many years have you been teaching in primary grades?

5. Have you taken any special coursework/workshops in social and emotional development that applies to your current teaching position?
☐ No

☐ Yes. If yes, please describe in the space provided below

[Empty space for description]
Appendix E

Teacher Questionnaire

(RCT Intervention Group Teachers, Post-test)

Scales include: ROE Extension-Activity Implementation Fidelity
Name: __________________________ School: __________________________________

Gender: _____Male _____Female Grade Currently Teaching:____________________

Dear Participating Teacher;

Thank you again for participating in this study. Your contributions are greatly appreciated.

Please complete the entire questionnaire. If you have any questions, please call Veronica Smith at ______________

1. Classroom ROE Extension Activities

☐ Please check this box, if you have not extended the ROE curriculum in any way in your general classroom curriculum and move on to question #5.

If you extended the ROE curriculum, please consider the following subject areas, determine if you offered any ROE related activities in that area, and estimate the frequency.

<table>
<thead>
<tr>
<th>Subject</th>
<th>ROE Related Activities? (yes or no)</th>
<th>Frequency (please check one)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Arts (examples of activities: journal writing, activities with ROE books,</td>
<td>☐ Yes</td>
<td>○ Once or twice</td>
</tr>
<tr>
<td></td>
<td>☐ No</td>
<td>○ Monthly (once a month all year)</td>
</tr>
<tr>
<td>Activity Type</td>
<td>YES/NO</td>
<td>Frequency</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>--------</td>
<td>--------------------</td>
</tr>
<tr>
<td>novel study, oral language activities, records or</td>
<td>□</td>
<td>Weekly/Daily/Other</td>
</tr>
<tr>
<td>observations of baby behaviour, poems for baby)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Math (example of activity: estimating costs of diapers)</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>once/twice/monthly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>weekly/daily</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other (please describe)</td>
</tr>
<tr>
<td>Science (examples of activities: human body parts/functioning, reproduction)</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>once/twice/monthly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>weekly/daily</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other (please describe)</td>
</tr>
<tr>
<td>Social Studies (examples of activities: cultural aspects of parenting, customs for welcoming babies)</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>once/twice/monthly</td>
</tr>
<tr>
<td></td>
<td></td>
<td>weekly/daily</td>
</tr>
<tr>
<td></td>
<td></td>
<td>other (please describe)</td>
</tr>
<tr>
<td>Art (examples of activities: ROE topics as themes for art lessons, emotions in art, colours of emotions)</td>
<td>□ Yes</td>
<td>□ No</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal Planning (examples activities: classroom discussions, family life program, recording sleep activity)</th>
<th>□ Yes</th>
<th>□ No</th>
<th>□ Other (please describe)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Once or twice</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Monthly (once a month all year)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Weekly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Daily</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>□ Other (please describe)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other (Describe)</th>
<th>□ Yes, ROE related activities</th>
<th>□ No, ROE related activities</th>
<th>□ Other (please describe)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>□ Once or twice</td>
<td>□ Monthly (once a month all year)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Weekly</td>
<td>□ Daily</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Other (please describe)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

THANK YOU SO MUCH FOR COMPLETING THIS QUESTIONNAIRE. THE INFORMATION YOU HAVE PROVIDED WILL HELP US WITH OUR EVALUATION.
Appendix F

Teacher Questionnaire

(Quasi-experimental Study Intervention Group, Post-test)

Scales include: ROE Extension-Activity Implementation Fidelity
Dear Participating Teacher,

Thank you very much for participating in this research study. The information that you provide on this form is of immense value to our understanding of how children develop and how teaching contexts contribute to this development. There are two sections to this questionnaire. The first section provides us with some information about your background, and the second section asks about your beliefs about social and emotional learning. We have included some of your responses from last OCTOBER (when you first completed the questionnaire). Please correct any wrong information and fill out the blank spaces.

Given the importance of teachers to their students, the influence of teachers’ attitudes and beliefs can make a huge difference. Therefore, it is vital to make sure we understand you and how you have contributed to the program implementation in your classroom.

Thank you again for your participation, IOM Roots of Empathy Evaluation Team
1. Did you implement any extension activities related to the “Roots of Empathy” curriculum, beyond the time scheduled for the Roots program?

☐ No (please move on to the next page).

☐ Yes (please answer the following below and continue on to the next page).

We would like to get a sense of the nature and frequency activities related to the “Roots of Empathy” program that you implemented in your general curriculum. Please consider the following subject areas:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Activity</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>(examples: journal writing, novel study, oral language activities, records or observations of baby behaviour, poems for baby)</td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>(example: costs of diapers)</td>
<td></td>
</tr>
<tr>
<td><strong>Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>(examples: human body parts/functioning, reproduction)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>History &amp; Geography</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(examples: cultural aspects of parenting, customs for welcoming babies)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Art &amp; Design</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(examples of activities: ROE topics as themes for art lessons, emotions in art, colours of emotions)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(please describe)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(please describe)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix G

Teacher Questionnaire

(RCT Control Group Teachers, Pre-test)

Scales include: Background Characteristics
Background Questionnaire 2003-2004
COMPARISON TEACHER-Time One

Name: ____________________________________ School:
_____________________________________

Grade Currently Teaching: ________________

Dear Participating Teacher,

Thank you very much for participating in this evaluation. The information that you provide on this form will contribute greatly to our understanding of how children develop and how teaching contexts contribute to this development. There are two sections to this questionnaire. The first section will provide us with some information about your background and the second section asks about your beliefs about social emotional learning.

Thank you again for your participation.

ROE Evaluation Team

SECTION A: Background Information

1. Are you? ☐ Male ☐ Female

2. What is your ethnic/cultural heritage? (check all that apply to you.)
   ☐ African/Caribbean
   ☐ Asian (Chinese, Japanese, Vietnamese, Korean, etc.)
   ☐ Arab/West Asian (Armenian, Egyptian, Persian, Iranian, Lebanese, Moroccan)
   ☐ European (Italian, French, German, Austrian, English, etc.)
   ☐ First Nations (Native, Indian, Aboriginal)
☐ South Asian (Indo-Canadian, East Indian, Pakistani, etc.)

☐ Other (please describe): ________________________

3. What is your highest level of education? (check one)

☐ Some Undergraduate Coursework

☐ Bachelor Degree, (other than a B.Ed.)

☐ B.Ed. or P.D.P.

☐ Post Baccalaureate Diploma

☐ Graduate Degree (MA/M.Ed/M.Sc.)

☐ Doctorate

☐ Other (please describe): ________________________

4. How many years of teaching experience have you had? ____________________Years

5. Have you taken any special coursework/workshops in social and emotional development that applies to your current teaching position?

   No____

   Yes_____ If yes, please describe

   ________________________________________________________

   ________________________________________________________
Appendix H

Teacher Questionnaire

(Quasi-experimental Study Control Group Teachers, Pre-test)

Scales include: Background Characteristics
Dear Participating Teacher,

Thank you very much for participating in this research study. The information that you provide on this form will contribute greatly to our understanding of how children develop and how teaching contexts contribute to this development. There are two sections to this questionnaire. The first section will provide us with some information about your background and the second section asks about your beliefs about social emotional learning.

Thank you again for your participation, UBC Evaluation Team

---

**SECTION A: Background Information**

1. Are you?  □ Male  □ Female

2. What is your ethnic/cultural heritage? For example: Western European-White (Italian, French, German, Austrian, English, etc.), Black British, Asian (Chinese, Japanese, Vietnamese, Korean, etc.), Arab/West Asian (Armenian, Egyptian, Persian, Iranian, Lebanese, Moroccan, etc), Aboriginal, South Asian (East Indian, Pakistani, etc.) (Please describe in the space provided below)
3. What is your highest level of education? (Please describe in the space provided below)


4. How many years ... (Please answer the following questions)


<table>
<thead>
<tr>
<th>First</th>
<th>1-2</th>
<th>3-5</th>
<th>6-10</th>
<th>11-15</th>
<th>16+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>Years</td>
<td>Years</td>
<td>Years</td>
<td>Years</td>
<td>Years</td>
</tr>
</tbody>
</table>

How many years of experience have you had in teaching?  
[ ] O  [ ] O  [ ] O  [ ] O  [ ] O  [ ] O

How many years have you been teaching at this school?  
[ ] O  [ ] O  [ ] O  [ ] O  [ ] O  [ ] O

How many years have you been teaching in primary grades?  
[ ] O  [ ] O  [ ] O  [ ] O  [ ] O  [ ] O

5. Have you taken any special coursework/workshops in social and emotional development that applies to your current teaching position?

☐ No

☐ Yes. If yes, please describe in the space provided below
Appendix I

Teachers’ Beliefs about Emotions Questionnaire
Teachers’ Beliefs Questionnaire

For each sentence, circle the number that describes HOW TRUE it is for you.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Don’t agree or disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People are better teachers if they aren’t emotionally involved with the children.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. It’s good to hug and touch children affectionately throughout the day.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. In my classroom, I avoid being physically affectionate or “huggy” with the children.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. Children need to feel emotionally close to their teachers.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. It’s good for a teacher to let children know when she is feeling angry.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. Teachers should “let their feelings out” in the classroom.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. When I am upset with the children’s behaviour, I try hard not to show it</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I constantly show the children how much I love them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. When a child is angry because another child won’t share a toy, I often tell the child exactly what words she could use to</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>10. Teachers should avoid showing children how to express their feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I think it’s better for children to figure out how to express their feelings on their own, instead of having the teacher show them how.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. When one of my children is upset about something, I usually try to put into words how he or she is feeling.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I often label the children’s feelings for them, such as “You seem worried about our trip to the swimming pool.”</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. When children are upset or angry about something, it’s not the best time to talk about their feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I believe that some teachers spend too much time talking to children about their feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I spend a lot of time talking to children about why they feel the way they do.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Children in my class are too young for me to discuss the causes of their feelings with</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
18. Teachers should not read children stories that might make them sad or worried.

19. Children should be taken to funerals and other family events, even if they might feel sad or upset as a result.

20. If a class pet died, I would not tell the children because they might become too upset.

21. Children the age of those I teach are really not ready to control the way they express their feelings.

22. Children in my class are really too young to display their feelings in “socially acceptable” ways.

23. As a teacher, it’s important for me to teach children socially acceptable ways of expressing their feelings.

THANK YOU SO MUCH FOR COMPLETING THIS QUESTIONNAIRE. THE INFORMATION YOU HAVE PROVIDED WILL HELP US WITH OUR EVALUATION.
Appendix J

Intercorrelations among Teacher Background Characteristics and Scores on Emotion Beliefs

Questionnaire Subscales
## Variables

<table>
<thead>
<tr>
<th>Teacher background characteristics:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</thead>
<tbody>
<tr>
<td>(1) Grade level taught (N = 58)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) Years of experience (N = 58)</td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Emotion beliefs:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) Bonds (N = 58)</td>
<td>-.00</td>
<td>.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) Expressiveness (N = 58)</td>
<td>.01</td>
<td>.10</td>
<td>.35**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) Instruction/Modeling (N = 58)</td>
<td>.16</td>
<td>.27*</td>
<td>.09</td>
<td>-.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) Protect (N = 57)</td>
<td>-.38**</td>
<td>.05</td>
<td>-.09</td>
<td>.04</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) Display/Control (N = 57)</td>
<td>.33*</td>
<td>-.13</td>
<td>.09</td>
<td>.37**</td>
<td>.19</td>
<td>-.44**</td>
<td></td>
</tr>
</tbody>
</table>

*Note. The variations in sample size are due to missing emotion beliefs data. For grade level taught, 1 = primary grades (K-3), 2 = intermediate grades (4-7). For years of experience, 1 = 0-5 years, 2 = 6-10 years, 3 = 11+ years.

*p < .05, **p < .01
Appendix K

Intercorrelations for Emotion Beliefs Questionnaire Items and Teacher Background Characteristics
<table>
<thead>
<tr>
<th>Emotion Beliefs Questionnaire Item</th>
<th>Grade Level Taught</th>
<th>Years of Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People are better teachers if they aren’t emotionally involved with the children.</td>
<td>-.23</td>
<td>-.13</td>
</tr>
<tr>
<td>2. It’s good to hug and touch children affectionately throughout the day.</td>
<td>.03</td>
<td>.15</td>
</tr>
<tr>
<td>3. In my classroom, I avoid being physically affectionate or “huggy” with the children.</td>
<td>.29*</td>
<td>-.23</td>
</tr>
<tr>
<td>4. Children need to feel emotionally close to their teachers.</td>
<td>.11</td>
<td>-.27*</td>
</tr>
<tr>
<td>5. It’s good for a teacher to let children know when she is feeling angry.</td>
<td>.02</td>
<td>.11</td>
</tr>
<tr>
<td>6. Teachers should “let their feelings out” in the classroom.</td>
<td>-.05</td>
<td>-.05</td>
</tr>
<tr>
<td>7. When I am upset with the children’s behaviour, I try hard not to show it.</td>
<td>.22</td>
<td>.08</td>
</tr>
<tr>
<td>8. I constantly show the children how much I love them.</td>
<td>.23</td>
<td>.27*</td>
</tr>
<tr>
<td>9. When a child is angry because another child won’t share a toy, I often tell the child exactly what words she could use to express her feelings.</td>
<td>.11</td>
<td>.18</td>
</tr>
<tr>
<td>10. Teachers should avoid showing children how to express their feelings.</td>
<td>-.24</td>
<td>-.03</td>
</tr>
<tr>
<td>11. I think it’s better for children to figure out how to express their feelings on their own, instead of having the teacher show them how.</td>
<td>-.12</td>
<td>-.35**</td>
</tr>
<tr>
<td>18. Teachers should not read children stories that might make them sad or worried.</td>
<td>-.24</td>
<td>.02</td>
</tr>
<tr>
<td>19. Children should be taken to funerals and other family events, even if they might feel sad or upset as a result.</td>
<td>.46*</td>
<td>-.03</td>
</tr>
<tr>
<td>20. If a class pet died, I would not tell the children because they might become too upset.</td>
<td>-.08</td>
<td>.08</td>
</tr>
<tr>
<td>21. Children the age of those I teach are really not ready to control the way they express their feelings.</td>
<td>-.26</td>
<td>.22</td>
</tr>
<tr>
<td>22. Children in my class are really too young to display their feelings in “socially acceptable” ways.</td>
<td>-.26*</td>
<td>.23</td>
</tr>
<tr>
<td>23. As a teacher, it’s important for me to teach children socially acceptable ways of expressing their feelings.</td>
<td>.30*</td>
<td>.10</td>
</tr>
</tbody>
</table>

*Note.* For grade level taught, 1 = primary grades (K-3), 2 = intermediate grades (4-7). For years of experience, 1 = 0-5 years, 2 = 6-10 years, 3 = 11+ years. Items 12-17 were not included in any analyses in the present study as these comprise the Talk/Label subscale, which was excluded due to its Cronbach’s alpha being below .50.

*p < .05, **p < .01*
Appendix L

Frequencies of Responses to Emotion Beliefs Questionnaire Items Sorted by Grade Level Taught
<table>
<thead>
<tr>
<th>Item</th>
<th>Instructing primary grades</th>
<th>Instructing intermediate grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. People are better teachers if they aren’t emotionally involved with the children.</td>
<td>1.88 .79 1 4</td>
<td>1.50 .62 1 3</td>
</tr>
<tr>
<td>2. It’s good to hug and touch children affectionately throughout the day.</td>
<td>3.30 .94 1 5</td>
<td>3.35 1 2 5</td>
</tr>
<tr>
<td>3. In my classroom, I avoid being physically affectionate or “huggy” with the children.</td>
<td>2.68 .97 1 4</td>
<td>3.33 1.14 1 5</td>
</tr>
<tr>
<td>4. Children need to feel emotionally close to their teachers.</td>
<td>3.98 .83 1 5</td>
<td>4.17 .71 3 5</td>
</tr>
<tr>
<td>5. It’s good for a teacher to let children know when she is feeling angry.</td>
<td>3.80 .82 1 5</td>
<td>3.83 .62 3 5</td>
</tr>
<tr>
<td>6. Teachers should “let their feelings out” in the classroom.</td>
<td>2.88 .91 1 5</td>
<td>2.78 1.06 1 5</td>
</tr>
<tr>
<td>7. When I am upset with the children’s behaviour, I try hard not to show it.</td>
<td>1.98 .48 1 3</td>
<td>2.28 .89 1 4</td>
</tr>
<tr>
<td>8. I constantly show the children how much I love them.</td>
<td>3.08 .96 1 5</td>
<td>3.50 .62 3 5</td>
</tr>
<tr>
<td>9. When a child is angry because another child won’t share a toy, I often tell the child exactly what words she could use to express her feelings.</td>
<td>3.26 1.0 2 5</td>
<td>3.50 1.10 1 5</td>
</tr>
<tr>
<td>10. Teachers should avoid showing children how to express their feelings.</td>
<td>1.83 .78 1 5</td>
<td>1.44 .62 1 3</td>
</tr>
<tr>
<td>11. I think it’s better for children to figure out how to express their feelings on their own, instead of having the teacher show them how.</td>
<td>2.44 .97 1 5</td>
<td>2.18 1.19 1 5</td>
</tr>
<tr>
<td>18. Teachers should not read children stories that might make them sad or worried.</td>
<td>2.05 .83 1 4</td>
<td>1.67 .49 1 2</td>
</tr>
<tr>
<td>19. Children should be taken to funerals and other family events, even if they might feel sad or upset as a result.</td>
<td>3.19 .64 1 4</td>
<td>3.88 .60 3 5</td>
</tr>
<tr>
<td>20. If a class pet died, I would not tell the children because they might become too upset.</td>
<td>1.59 .55 1 3</td>
<td>1.50 .51 1 2</td>
</tr>
<tr>
<td>21. Children the age of those I teach are really not ready to control the way they express their feelings.</td>
<td>1.69 .66 1 4</td>
<td>1.33 .59 1 3</td>
</tr>
<tr>
<td>22. Children in my class are really too young to display their feelings in “socially acceptable” ways.</td>
<td>1.62 .63 1 3</td>
<td>1.28 .46 1 2</td>
</tr>
<tr>
<td>23. As a teacher, it’s important for me to teach children socially acceptable ways of expressing their feelings.</td>
<td>4.26 .79 2 5</td>
<td>4.72 .46 4 5</td>
</tr>
</tbody>
</table>

*Note. The response scale for the emotion beliefs questionnaire ranged from 1 “Strongly disagree” to 5 “Strongly agree.” For grade level taught, primary grades = grades K-3, intermediate grades = grades 4-7. Items 12-17 were not included in any analyses in the present study as these comprise the Talk/Label subscale, which was excluded due to its Cronbach’s alpha being below .50.*
Appendix M

Frequencies of Responses to Emotion Beliefs Questionnaire Items Sorted by Years of Teaching Experience
<table>
<thead>
<tr>
<th>Item</th>
<th>0-5 years</th>
<th>6-10 years</th>
<th>11+ years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>Min</td>
</tr>
<tr>
<td>1. People are better teachers if they aren’t emotionally involved</td>
<td>2.00</td>
<td>.89</td>
<td>1</td>
</tr>
<tr>
<td>with the children.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. It’s good to hug and touch children affectionately throughout the</td>
<td>2.94</td>
<td>.93</td>
<td>1</td>
</tr>
<tr>
<td>day.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. In my classroom, I avoid being physically affectionate or “huggy”</td>
<td>3.19</td>
<td>.98</td>
<td>1</td>
</tr>
<tr>
<td>with the children.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Children need to feel emotionally close to their teachers.</td>
<td>4.38</td>
<td>.50</td>
<td>4</td>
</tr>
<tr>
<td>5. It’s good for a teacher to let children know when she is feeling</td>
<td>3.75</td>
<td>.93</td>
<td>1</td>
</tr>
<tr>
<td>angry.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Teachers should “let their feelings out” in the classroom.</td>
<td>2.81</td>
<td>.98</td>
<td>1</td>
</tr>
<tr>
<td>7. When I am upset with the children’s behaviour, I try hard not to</td>
<td>1.94</td>
<td>.44</td>
<td>1</td>
</tr>
<tr>
<td>show it.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I constantly show the children how much I love them.</td>
<td>2.81</td>
<td>1.11</td>
<td>1</td>
</tr>
<tr>
<td>9. When a child is angry because another child won’t share a toy, I</td>
<td>2.81</td>
<td>1.11</td>
<td>2</td>
</tr>
<tr>
<td>often tell the child exactly what words she could use to express her</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>feelings.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Teachers should avoid showing children how to express their</td>
<td>1.88</td>
<td>.62</td>
<td>1</td>
</tr>
<tr>
<td>feelings.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I think it’s better for children to figure out how to express</td>
<td>3.06</td>
<td>.93</td>
<td>2</td>
</tr>
<tr>
<td>their feelings on their own, instead of having the teacher show them</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>how.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Teachers should not read children stories that might make them</td>
<td>1.88</td>
<td>.62</td>
<td>1</td>
</tr>
<tr>
<td>sad or worried.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Children should be taken to funerals and other family events,</td>
<td>3.44</td>
<td>.51</td>
<td>3</td>
</tr>
<tr>
<td>even if they might feel sad or upset as a result.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. If a class pet died, I would not tell the children because they</td>
<td>1.50</td>
<td>.52</td>
<td>1</td>
</tr>
<tr>
<td>might become too upset.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Children the age of those I teach are really not ready to control</td>
<td>1.34</td>
<td>.50</td>
<td>1</td>
</tr>
<tr>
<td>the way they express their feelings.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Children in my class are really too young to display their</td>
<td>1.31</td>
<td>.60</td>
<td>1</td>
</tr>
<tr>
<td>feelings in “socially acceptable” ways.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. As a teacher, it’s important for me to teach children socially</td>
<td>4.31</td>
<td>.79</td>
<td>2</td>
</tr>
<tr>
<td>acceptable ways of expressing their feelings.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. The response scale for the emotion beliefs questionnaire ranged from 1 “Strongly disagree” to 5 “Strongly agree.” Items 12-17 were not included in any analyses in the present study as these comprise the Talk/Label subscale, which was excluded due to its Cronbach’s alpha being below .50.*
Appendix N

Intercorrelations for Emotion Beliefs and the Implementation of ROE Extension Activities in Each Subject Area
<table>
<thead>
<tr>
<th>Implementation</th>
<th>Bonds</th>
<th>Expressiveness</th>
<th>Instruction/Modeling</th>
<th>Protect</th>
<th>Display/Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended activities in Language Arts (Y/N; N = 26)</td>
<td>.00</td>
<td>.12</td>
<td>.08</td>
<td>-.52**</td>
<td>.63**</td>
</tr>
<tr>
<td>Frequency of implementation in Language Arts (N = 26)</td>
<td>.16</td>
<td>.42*</td>
<td>-.21</td>
<td>-.46*</td>
<td>.51**</td>
</tr>
<tr>
<td>Extended activities in Math (Y/N; N = 26)</td>
<td>-.10</td>
<td>.26</td>
<td>-.03</td>
<td>-.31</td>
<td>.38</td>
</tr>
<tr>
<td>Frequency of implementation in Math (N = 26)</td>
<td>.11</td>
<td>.44*</td>
<td>-.15</td>
<td>-.20</td>
<td>.30</td>
</tr>
<tr>
<td>Extended activities in Science (Y/N; N = 26)</td>
<td>.10</td>
<td>.29</td>
<td>-.24</td>
<td>-.40*</td>
<td>.44*</td>
</tr>
<tr>
<td>Frequency of implementation in Science (N = 26)</td>
<td>.19</td>
<td>.43*</td>
<td>-.32</td>
<td>-.45*</td>
<td>.29</td>
</tr>
<tr>
<td>Extended activities in Social Studies (Y/N; N = 26)</td>
<td>.05</td>
<td>.42*</td>
<td>-.35</td>
<td>-.20</td>
<td>.31</td>
</tr>
<tr>
<td>Frequency of implementation in Social Studies (N = 26)</td>
<td>.23</td>
<td>.50**</td>
<td>-.37</td>
<td>-.14</td>
<td>.30</td>
</tr>
<tr>
<td>Extended activities in Art (Y/N; N = 25)</td>
<td>.03</td>
<td>.16</td>
<td>.08</td>
<td>-.45*</td>
<td>.60**</td>
</tr>
<tr>
<td>Frequency of implementation in Art (N = 26)</td>
<td>-.14</td>
<td>.34</td>
<td>-.11</td>
<td>-.48*</td>
<td>.44*</td>
</tr>
<tr>
<td>Extended activities in Other subject area (Y/N; N = 26)</td>
<td>.03</td>
<td>.20</td>
<td>.25</td>
<td>-.51**</td>
<td>.66**</td>
</tr>
<tr>
<td>Frequency of implementation in Other subject area (N = 26)</td>
<td>.16</td>
<td>.29</td>
<td>-.10</td>
<td>-.43*</td>
<td>.47*</td>
</tr>
</tbody>
</table>

*Note. The variations in sample size are due to missing data. For frequency of implementation for each subject area, 0 = Never, 1 = Once or twice, 2 = Monthly, 3 = Weekly, 4 = Daily.  
*p < .05, **p < .01