

How Early Childhood Educators' Beliefs About Emotions and Educator-Student Relationships
Enhance Understanding of Support of Emotion Regulation for Children with Varying Abilities:

A Convergent Mixed Methods Study

by

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Abstract

Emotion regulation has been singled out as a critical component of social functioning and other psychological processes (e.g., focus attention, promote problem solving, support relationships). Early Learning and Care (ELC) educators have been identified as key agents of children's emotion regulation support because of the ample time they spend with children who attend ELC centres. Supporting emotion regulation in young children is a complex process and there are many factors which contribute to how educators support emotion regulation development in young children (e.g., educator's beliefs and behaviours, culture, educator-student relationships, and psychological characteristics). Educators' view of children's emotion regulation is influenced through the interaction of these factors, yet it is unknown how these factors may lead to the support they give to children with differing levels of emotion regulation abilities. The focus of this study was: how do emotion beliefs and educator-student relationships enhance understanding of early learning and care (ELC) educators' support of varying emotion regulation in young children? Two sub research questions were explored in this study, (a) how do ELC educators' emotion beliefs enhance understanding of ELC educators' support of varying abilities of emotion regulation in young children? and (b) how do educator-student relationships enhance understanding of ELC educators support of varying abilities of emotion regulation in young children? This convergent mixed method study was conducted using both qualitative (interview) and quantitative (questionnaire) data from seven ELC educators on their emotion beliefs, student's emotion regulation, and educator-student relationships (with 41 students). The major finding was that the support educators provide children of varying emotion regulation is impacted by their emotion beliefs, which in turn impacts the quality of relationship with the children. These findings urge ELC educators to reflect on their emotion beliefs and relationship

with students that may be constraining in their support of emotion regulation to students with differing emotion regulation abilities.

Keywords: early childhood, support of emotion regulation, emotion beliefs, educator-student relationships.

Preface

This thesis is an original work by Nicole Nosworthy. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board, Project Name “Social-Emotional Development in the Early Years Project”, No. 34677, January 15, 2013.

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CHAPTER ONE

Introduction

Overview of the Topic

Research literature indicates the crucial importance of the first few years of life in establishing the basis for positive child development (Shonkoff & Phillips, 2000; Walker et al., 2011). An important component of early development is emotional competence (Denham, 1996). According to Saarni (1990), emotional competence is “how [children] can respond emotionally, yet simultaneously and strategically apply their knowledge about emotion and their expression to relationships with others, so they can negotiate interpersonal exchanges and regulate their emotional experience” (p. 116). Emotional competence is comprised of emotion expressiveness, emotion knowledge, and emotion regulation (Denham et al., 2003). Developing emotional competence has been found to help children form positive social relationships and positive self-esteem, and is critical for school readiness and ongoing academic success (Raver, 2003; Ulloa, Evans, & Parkes, 2010).

Emotion regulation is a core component of emotional competence, and in recent years has received increasing research attention because of its link to impaired social functioning, in particular externalizing problems (Trentacosta & Shaw, 2009). It is an important construct in emotional development because it helps explain how and why emotions organize and facilitate other psychological processes (e.g., focus attention, promote problem solving, support relationships) as well as how the non-regulation of emotions can have detrimental outcomes in a child's life (e.g., disrupt attention, interfere with problem solving, harm relationships) (Cole, Martin, & Dennis, 2004). In addition, emotion regulation has been identified as a process linked to physiological (e.g., regulating heart rate) and attentional (e.g., observing and processing

relevant sides of a disagreement) processes, and may have consequences for later development of more sophisticated cognitive skills (e.g., self-regulation, executive functioning) (Gross & Thompson, 2007).

Emotion regulation consists of intrinsic and extrinsic factors (Calkins & Hill, 2007). Intrinsic factors include the temperament of the child and the underlying neural and physiological systems that support emotion regulation (Calkins & Hill, 2007; Fox, Henderson, & Marshall, 2001). Research on intrinsic factors suggests that at birth an infant has a tendency to respond to visual and auditory stimuli (e.g., becomes distressed from loud noise), which influences their behavioural response (e.g., turn away from noise) (Zentner & Bates, 2008). Furthermore, research on intrinsic factors focuses on biological support systems (e.g., maturation of the frontal lobe) that lay the foundation for emotional regulation observed across childhood (Calkins & Hill, 2007). Extrinsic factors include the ways in which caregivers shape and socialize the child's emotion regulation (Calkins & Hill, 2007; Thompson & Meyer, 2007). A newborn is almost exclusively reliant on caregivers to regulate their emotions. Over the first few years of life they incrementally learn, during interaction with adults, how to regulate themselves through strategies such as, thumb sucking, distraction, seeking help, or soothing themselves from distressing stimuli (Calkins, 1994; Hill, Degnan, Calkins, & Keane, 2006; Trentacosta & Shaw, 2009) or conversely stimuli that elicits positive affect so as to keep the emotion in a manageable and pleasurable range (Calkins & Hill, 2007). At age three to five, the preschool child begins peer interaction and learns more control over emotional arousal, begins prosocial behaviour and interactions, understands expressions and situations of basic emotions, and develops more independent emotion regulation (Denham, 2006). This research focuses on extrinsic factors that support emotion regulation; although children's repertoire of emotion regulation strategies

becomes more sophisticated by preschool age (Blandon, Calkins, & Keane, 2010), they still lack adaptive emotion regulation skills because of underdeveloped cognitive skills (e.g., executive functioning, self-regulation; Calkins & Hill, 2007). Thus adults still play a critical role in helping them develop specific strategies to regulate emotions (e.g., distraction, self-soothing). For example, Gilliom, Shaw, Beck, Schonberg, and Lukon (2002) found that secure attachment in infancy was predictive of the use of distraction and led to successful waiting (e.g., waiting for a parent or sibling to end a telephone conversation so that he or she can play). When the children who had secure attachment reached preschool in Gilliom et al.'s study, they were capable of controlling their attention to successfully control emotion and behaviour. In addition, Morris, Denham, Bassett, and Curby (2013) found that preschool teachers' use of modeling, contingent responding, and teaching was predictive of children's emotion knowledge and observed emotional behaviour. This literature suggests that adult caregivers provide a solid basis from which emotional learning can occur.

Supporting Emotion Regulation in Early Childhood Education

Young children experience emotion within all contexts and relationships. Thus emotion regulation is developed within a variety of experiences (e.g., play with peers, interaction with adults) (Pianta, 1992). Young children who attend early learning and care (ELC) settings generally spend the majority of their day interacting with ELC educators and other children (Denham, Bassett, & Zinsser, 2012). Consequently, ELC educators have been identified as key socialization agents of children's emotion regulation (Ahn, 2005; Denham et al., 2003; Denham, et al., 2012). An important role of ELC educators is to provide a safe and secure environment in which students can explore and strengthen their abilities to regulate their emotions (Ahn, 2005). Often ELC educators help children develop emotion regulation through an emotion-centered

curriculum, responding to emotion expression (affectionate touches, predictable routines, and supportive words), modelling appropriate emotional expression, and facilitating children's understanding of their own feelings and those of others (Ahn, 2005; Garner, 2010).

Research in early childhood has successfully highlighted the importance of ELC educators as socializers of emotion regulation (Denham, et al., 2012). However, recent research has brought attention to the idea that supporting emotion regulation in young children is a complex process, involving many factors that influence how children's emotion regulation abilities are viewed and how support of emotion regulation for children with varying emotion regulation abilities is provided. Factors include educator's beliefs and behaviours (O'Connor, 2010), emotional ability (Denham et al., 2012), educator-student relationships (Lee, 2012), and psychological characteristics (de Schipper, Riksen-Walraven, Geurts, & de Weerth, 2009). Yet, no research to date has examined the degree to which these factors influence how children's emotion regulation abilities are viewed and how support of emotion regulation for children with varying emotion regulation abilities is provided. ELC educators bring to their practice varying life experiences, backgrounds, knowledge, skills, preconceived notions, stereotypes, feelings, and varying levels of emotional control themselves. Recognizing this, for optimal professional development and growth, it is essential to explore how these factors influence how ELC educators support emotion regulation. With a focus on promoting healthy relationships and emotional functioning in young children, early childhood education research can focus on how ELC educators promote positive emotion regulation of young children in ELC settings.

The focus of this convergent mixed methods dissertation was to determine how emotion beliefs and educator-student relationships enhance understanding of early learning and care (ELC) educators' support of varying emotion regulation in young children? The following two

research questions were explored in this study, (a) how do ELC educators' emotion beliefs enhance understanding of ELC educators' support of varying abilities of emotion regulation in young children? and (b) how do educator-student relationships enhance understanding of ELC educators' support of varying abilities of emotion regulation in young children?

CHAPTER TWO

Review of Literature

To contextualize the research questions of the study, the following chapter provides a brief review of the literature on emotional competence (EC) and emotion regulation (ER) in the early years, and relevant theoretical frameworks. Additionally, the literature on ELC educators' beliefs about emotions, and educator-student relationships was reviewed in relation to emotion regulation and child outcomes in general.

Emotional Competence

A fundamental part of children's social-emotional development is the acquisition of emotional competence (Ahn, 2005; Ulloa et al., 2010). While there has been much debate on how to operationalize emotional competence, there is consensus that generally EC is an individual's ability to understand the causes of emotion, and the skills to effectively regulate emotion and manage emotional expression in a functional way (Eisenberg, Cumberland, & Spinrad, 1998; Saarni, 1999). Emotional competence has been linked to academic and social success. That is, children who have a hard time managing emotions, following directions, or getting along with others often receive less instruction or positive feedback from adults and peers, which results in less social and academic success (Raver & Zigler, 1997).

Young children's emotional competence is comprised of emotional expressiveness, emotion knowledge, and emotion regulation (Denham et al., 2003). Emotional expressiveness involves observable verbal and nonverbal behaviours that communicate an internal emotional or affective state or emotions from others appropriately. According to Saarni (1999), children often develop (and understand) emotion expressions when they are contextually anchored in social meaning. Emotional expressions can lead to either positive interactions with others or serve as

barriers to successful interactions (Denham et al., 2003). For example, a child who experiences and expresses more negative emotions (e.g., anger) than positive emotions (e.g., happiness) are rated lower by teachers on friendliness and assertiveness and lower on aggressiveness and sadness (Denham et al., 2003). Children who express positive emotions in response to their peers' emotions are seen as more likeable by peers.

The second component of EC as identified in the literature is emotion knowledge. Emotion knowledge involves identifying emotion expressions in others and appropriately responding. Children who have a better understanding of the emotion expression of others are more likely to respond prosocially to friends and adults. In a study by Denham and colleagues (1990), children with more emotion knowledge and prosocial behaviour were regarded as more likeable by peers and teachers.

The third identified component of EC is emotion regulation. Emotion regulation is the awareness of emotions and the ability to monitor and modify them. The focus of this study is on this component of EC because it involves the ability to manage arousal and expressive behaviour, which is deemed as a vital skill during social interaction (Denham, 2006; Kappas, 2012; Lopes, Salovey, Cote, & Beers, 2005). Research has shown that children with better emotion regulation strategies show higher social competence, have higher peer status (Trentacosta & Shaw, 2009), better relationship quality, and engage in prosocial behaviour at a higher level than peers with lower skills in regulating emotions (Roll, Koglin, & Petermann, 2012). Longitudinal studies have reinforced the link between emotion regulation and later functioning in life. For example, Bandon et al. (2010) found that the use of more maladaptive than adaptive regulation strategies in challenging situations placed children at a high risk of having social-emotional problems later in life.

In addition to its influence on social functioning, emotion regulation has been identified in the literature as a process linked to physiological (e.g., regulating heart rate) and attentional (e.g., observing and processing relevant sides of a disagreement) processes, and as having consequences for the later development of more sophisticated cognitive skills (e.g., self-regulation, executive functioning) (Gross & Thompson, 2007). This literature suggests that emotion regulation is a fundamental component of emotional competence, social functioning, and overall development. While emotion regulation is important in early childhood, defining the construct of emotion regulation has proven to be a challenging process.

Defining Emotion Regulation

While many researchers have recognized emotion regulation as a critical component of development (e.g., Campos, Walle, Dahl, & Main, 2011; Thompson, 2011), others remain unconvinced of its scientific existence because of its conceptual and methodological diversity (e.g., Gross & Barrett, 2011). Below is an exploration of the differing views of the concept of emotion regulation as well as methodological issues in the study of emotion regulation.

Conceptual issues in defining emotion regulation. Conceptually, emotion regulation is a multi-faceted construct without a single, widely accepted definition (Cole et al., 2004). Some researchers consider emotion regulation to be a trait (e.g., the well-regulated person; Petrides, Perez-Gonzalez, & Furnham, 2007); while others treat it as a transitory state change (e.g., moment-to-moment adjustments in emotion; Cole et al., 2004). Cole et al. (2004) conceptualized emotion regulation in two types of regulatory phenomena: (1) emotion as regulating (changes from the activated emotion), and (2) emotion as regulated (changes in the activated emotion). While Eisenberg and Spinrad (2004) agreed with this definition, they argued it was too broad. As a conceptual definition, they added four key points that are necessary to differentiate when

defining emotion regulation. First, emotion as a regulator of change should be differentiated from attempts to regulate emotion. Second, regulation that stems externally from the child should be differentiated from regulation that stems from the child. This is particularly important when conducting research in early childhood because of the large regulatory influence of adults on young children. Different processes and goals are involved when regulating oneself versus through the efforts of others. Third, regulation-relevant behaviour based on goals should be differentiated from behaviour that is unintentional. For example, if a child cries after her mother drops her off at daycare, she may be behaving based on the emotion. Whereas, if the child cries and walks to the door to open it and retrieve the mother, it would appear to be behaviour to regulate the emotion (retrieving the mother would alleviate the sadness). Last, regulation that is voluntary (effortful) should be differentiated between other behaviour that is less voluntarily controlled (reactive). Emotion regulation occurs only when effortful control (e.g., attention and focus on the emotion) is applied. When reactive processes are involved, biological processes determine the behaviour and regulation was not attempted.

Gross (2010) also discussed conceptual problems with emotion regulation in the literature. He argued that emotion regulation should be conceptualized as a heterogeneous set of processes by which emotions are themselves regulated compared to how emotions regulate something else (e.g., behaviour). Gross argues that this distinction should be made by researchers because emotions arise when they efficiently co-ordinate a response system. Emotion regulation does not refer to how individuals influence other people's emotions (e.g., telling someone to stop crying), but rather how they influence their own emotions (e.g., holding back tears). Each process has its own motives, goals, and strategies and should be separated.

For this research, the definition of emotion regulation proposed by Eisenberg and Spinrad (2004): “the process of initiating, avoiding, inhibiting, maintaining, or modulating the occurrence, form, intensity, or duration of internal feeling states, emotion-related physiological, attentional processes, motivational states, and/or the behavioural concomitants of emotion in the service accomplishing affect-related biological or social adaptation or achieving individual goals” (p. 338) will be utilized. While this definition does not encompass all elements of Cole et al.’s discussion, it is chosen for the research because it encompasses processes and the interconnection of psychological, physiological, behavioural, and cognitive control and influence. These processes have been found in the literature to have important interlinking roles in emotion regulation (Gross & Thompson, 2007).

Methodological issues in the study of emotion regulation. Determining whether emotions are regulated in children presents a tremendous challenge. This is because drawing conclusions of the occurrence of emotion regulation cannot be made simply by observing behaviour (or an emotional response). According to Grolnick et al. (1996) purported regulatory efforts may coincide with different emotion expressions without necessarily modifying them. For example, toddlers who actively engage in their surroundings may show less negative emotion because they were less distressed. To illustrate this point, Grolnick and colleagues examined regulatory strategies in toddlers who experienced a separation from their mother and a delay in receiving a desirable object. Results showed that self-distraction was an effective strategy for toddler regulation of fear and frustration. However, Grolnick et al. (1996) cautioned that the method of observation did not demonstrate that distraction actually changed a toddler’s emotional states or that the efforts regulated the emotion; unless we have physiological indicators we don’t know if it is actually suppressed.

Current methods for examining emotion regulation in young children provide several limitations to understanding the construct. Vikan, Karstad, and Dias (2012) argued that most research in this area uses a protagonist, a puppet, or a toy animal to elicit emotional responses but end up eliciting artificial responses (e.g., leads to guesses because children conceive these artificial figures as different from themselves). Additionally, questionnaires (e.g., parent or teacher reports) and observations have been primarily used in the literature as methods to research emotion regulation. While they add value to research, there is a growing awareness that in isolation they cannot capture all of the information and insight required to appreciate children's experiences (Darbyshire, MacDougall, & Schiller, 2005). Cole argues that studies using a singular method to measure emotion regulation do not capture the different ways in which emotion can be expressed and regulated and only measure one aspect of it. For example, an emotion can be activated without a conscious awareness to self-report. However, if multiple methods, such as teacher self-reports and observations are used, a deeper understanding of children's experiences may be achieved.

In the following section the literature on educator's beliefs about emotions, educator-student relationship quality, and how this may inform our understanding of how educators support children with varying emotion regulation will also be explored. Then the theoretical framework of the study will be presented in an attempt to better understand the support educators give to children with varying emotion regulation.

Teacher's Beliefs About Emotions

Teachers' beliefs about emotions and emotion regulation are another way to understand how educators support emotion regulation. Whether conscious or not, beliefs represent individuals' fundamental ideas about their life experiences which directly affects their behaviour

(Ahn, 2005). Some researchers argue that teachers' beliefs are created through the formal training they receive and their personal experience working with children in the classroom (Kowalski, Pretti-Frontczak, & Johnson, 2001). On the other hand, Wilcox-Herzog and Ward (2004) suggest that teachers enter the field with beliefs, which they then use as a filter for any subsequent training and experiences with children in the classroom. Examining these beliefs is important because research has shown that they influence a teacher's classroom practice (Kowalski et al., 2001).

The importance of teachers' beliefs on their educational practice becomes clearer and more refined over time (Ertmer, 2005; Ertmer, & Ottenbreit-Lettwich, 2014; Guskey, 2005; Phipps & Borg, 2009) yet it remains an area that is unexplored in great depth. Kowalski, et al., (2001) examined preschool teachers' beliefs concerning the importance of social-emotional, language and literacy, and mathematical functioning skills and abilities of preschool-aged children. They found that the preschool teachers believed social-emotional development was more important to teach than literacy and math. The authors argued that this may be because of the teacher belief that children need to learn social-emotional skills before they can even comprehend other academic content. Siu (2004) focused on teachers' beliefs about emotion from a different cultural perspective. She found that early childhood teachers in Hong Kong believe they have an important role in teaching children emotion regulation. This small body of published research suggests that educators' emotion beliefs may impact children's emotion regulation.

Some unpublished thesis studies have also focused on teachers' beliefs about emotion. In one study, Bellas (2009) focused her dissertation work on teachers' emotion socialization beliefs and behaviours. Results showed that teacher beliefs predicted their emotion socialization

behaviours even after controlling for emotion type, frequency, and intensity. In addition, results showed teachers who demonstrated greater motivation-orientation in their beliefs, engaged children in regards to their behaviour or used emotion or motivation based responses to emotion and had classrooms with more positive affect and child engagement.

Heumer (2004) focused her thesis on the emotion beliefs of child care teachers across key demographic factors (e.g., education level, years in field) and if there was a relationship between the emotion beliefs of the teachers and the emotional competence of the children in their care. Results showed that teacher beliefs about competence (felt that children could handle their emotions and emotions of others) were moderately related to children with higher levels of emotional competence. There was also a significant negative correlation (a negative correlation score indicates a higher importance on relationship building) between the teachers' beliefs about the importance of relationships and children's language scores; as teachers place more importance on building relationships with the children, the child's expression of emotional competence through language increases. However, the results of the study did not find any significant relationships between teacher beliefs surrounding teacher and child emotions and children's levels of emotional competence. These results suggest that children's emotional competence may be influenced by the emotion beliefs of their teachers.

Gosney (2004) also conducted a thesis on teachers as emotional socializers. She explored the relation between child care teachers' beliefs about children's emotions and child care teachers' behaviours in emotional situations in their classrooms. She also explored whether high accessibility to attitudes (the likelihood that an attitude will be automatically activated when an individual is presented with a situation related to that attitude) to these beliefs moderated the relationship. Using self-report questionnaire and observations, results showed that teachers'

beliefs were a significant predictor of three out of six subscales on the *Teachers Coping with Children's Negative Emotions Scales* (punitive, distress, and minimization).

Through research more attention has been brought to the importance of teachers' beliefs about emotions, however, research in this area is not without challenges. One challenge posed by this area of research is the unclear patterns of beliefs about emotions. In their work, Hyson and Lee (1996) acknowledged the importance of understanding the role of teachers in supporting the emotional development of children, and developed a questionnaire called *Teachers' Beliefs About Emotions* (revised from the *Caregivers Beliefs About Feelings, CBAF*; Hyson, 1994) to measure the extent to which teachers agreed with certain statements about children's emotional development. The TBAE was reduced to 6 emotion belief areas from the 10 emotion belief areas on the original CBAF. They found that teachers' emotion-related beliefs and strategies varied depending on the teacher's level of education. For example, teachers with higher levels of education had endorsed four of six belief areas (i.e., emotional bonds between teachers and children, a stronger belief of talking with children about their emotions, and a lower belief of protecting children from unpleasant or strong feelings). Teachers with less education endorsed only two out of six beliefs (teachers should be emotionally expressive and children should be able to display their emotions acceptably).

In another study, Leavitt and Power (1989) used observations of child care centres and dayhomes to examine emotional socialization of children. Although this study never asked teachers directly about their beliefs, through observations the researchers arrived at the conclusion that the teachers' observed actions were impacted by their personal belief system. Furthermore, the teachers seemed to believe myths like "only babies cry" and "emotional

displays are childish." This set of teacher beliefs is distinctly different than the set of beliefs Hyson and Lee found highlighting the difficulty of categorizing teachers' beliefs about emotion.

Another challenge to the study of teachers' beliefs about emotions is the disparity between theory and practice. In her study, Delaney (1997) discussed the disparity between theory and practice when examining experienced teachers' beliefs about emotion. Based on interviews with four experienced preschool teachers (> 20 years), she found that teachers organize their beliefs into a system that is: (1) accessible to them, (2) is stable, (3) is structured and (4) influences their behaviour. Yet, the teachers vary in the patterns of organization and the level of importance given to specific aspects of children's emotional development. Ahn (2005) found teachers' beliefs about emotions to vary from teacher to teacher. Ahn conducted interviews and observations of teachers in three child care centres. She found that teachers share some (e.g., sharing their feelings with the children, discussing causes of emotions with the children, providing physical comfort when the children were emotional) but not all beliefs about their role in supporting children's emotional competence. Additionally, Delaney (1997) noted that in comparing the personal theories of the experienced teachers to theories of psychology and child development, the teachers operated from distinctly different assumptions than the theorists. First, teachers' personal theories began with the emotional nature of children rather than the more abstract nature of emotions. Also, teachers do not view emotions as "quickly passing passions" (p. 16) but instead as "long term underlying processes (p. 16)." Additional findings by Delaney (1997) indicated that educators view children as "active agents in their appraisal and generation of emotions." She also found that teachers believe that children's emotions are inextricably linked to their cognition which, she argues, may come from the "wisdom of practice" rather than from any professional development system.

There are some similarities present in research findings suggesting minimal patterns of emotion beliefs held by educators. For example, Delaney (1997) discussed how all four educators in her study viewed "emotional development as an interpersonal process" (p. 15). This finding is supported by Hyson and Lee's (1996) report of teachers' strong agreement with the need to model and teach children about appropriate emotional responses. Furthermore, Hyson and Lee's finding that most teachers believe in the importance of nurturance and affection in the classroom is also substantiated by Wilcox-Herzog and Ward (2004) that found that teachers espouse the importance of interacting with children in sensitive, involved ways. Beyond these two patterns of emotion beliefs, no other clear patterns have emerged in the research.

Educator-Student Relationship Quality

One way of understanding how ELC educators support emotion regulation in children with varying emotion regulation is through educator-student relationships. Young children participate in several interactions with ELC educators that are centered on emotions and their causes and consequences (e.g., instruction, one on one interaction, scaffolding). Early experiences of positive educator-student relationships are particularly meaningful because the differing quality of interaction leads to differences in expectations of children regarding the dependability and responsiveness of the educator (Ashiabi, 2000). In addition, the educator provides children with comfort, protection, and security (Ashiabi, 2000), as well as providing children with internal working models about interpersonal interactions which further develop into the child's sense of him or herself in relation to others and can become templates for future relationships (Koles, O'Connor, & Collins, 2013).

Pianta and Steinberg (1992) characterized the educator-student relationship based on three relatively independent dimensions: closeness, conflict, and dependency. Closeness is

described as the degree of warmth and open communication that exists between an ELC educator and a child (Birch & Ladd, 1997; Koles et al., 2013). Conflict is described as the amount of discordance and anger in the relationship (Birch & Ladd, 1997; Koles, et al., 2013), and lack of communication (Birch & Ladd, 1997). Lastly, dependence is described as the amount of possessive, over clingy, and immature behaviour in the relationship (Birch & Ladd, 1997; Koles et al., 2013) that is indicative of an overreliance on the ELC educator as a source of support (Birch & Ladd, 1997). High-quality, positive educator-student relationships, are characterized by high levels of reported closeness (i.e., mutual respect, caring, and warmth between educator and students; Birch & Ladd, 1997; Hughes, Gleason, & Zhang, 2005; Pianta, 2001), low levels of conflict (i.e., positive rapport), and low levels of dependency (i.e., independent from educator but still see them as a source of security) (Birch & Ladd, 1997).

The educator-student relationship typology has been used frequently in educator-student relationship research showing strong association with child social and academic outcomes (Baker, 2006; O'Connor, 2010). However, this descriptive typology of educator-student relationships is created solely from educators' perspectives and self reports, and has been criticized for compromising the existence of reliable educator-student patterns (Gregoriadis & Grammatikopoulos, 2014). Despite the biased perspective of the three dimensions, research using the typology emphasizes the importance of examining factors and characteristics that may influence the link between educator-student relationships in early childhood, and child development and academic success.

Educator-Student Relationships and Student Outcomes

Existing research supports the notion that educator-student relationships during the early years has a significant impact on the social-emotional development of children (Ashiabi, 2000;

Garner, Mahatma, Moses, & Bolt, 2014). For example, O'Connor and McCartney (2007) found that a small yearly decrease in educator-student relationship quality across the first three years of elementary school was associated with significantly lower levels of achievement in third grade. Other research has shown that positive educator-student relationships characterized as low in conflict and dependency, and high in closeness (Pianta, 1999; Rudasill & Rimm-Kauffman, 2009) were associated with positive behavioural adjustment (Birch & Ladd, 1998), higher academic achievement (Hamre & Pianta, 2001), good work habits, and fewer internalizing and externalizing problems in later school years (Baker, 2006; Birch & Ladd, 1997; Hamre & Pianta, 2001). Birch and Ladd (1997) examined relationships between kindergarteners and their teachers and found that students who had more positive educator-student relationships (i.e., close and less dependent) had higher visual and language scores on standardized tests. Valiente, Lemery-Chalfont, Swanson, and Reiser (2008) found educator-student relationship to partially mediate the relation between effortful control and change in school absences across the year.

The research literature discussed above reveals the essential role of quality educator-student relationships and suggests the necessity of ELC educators to develop quality relationships with children. However, the discussion neglects the tension ELC educators experience balancing their personal and professional relationships with children. In a qualitative study, Quan-McGimpsey, Kuczynski, and Brophy (2013) revealed the source and nature of the tension of forming close relationships with children. Two themes that emerged from their analysis were: systems tensions and ecological factors. Systems tension involved tension within the systems of relationships. For example, a common systems tension expressed by the educators was how much time to spend with one child at the expense of spending time with the whole group of children. Ecological factors included individual elements of the ecological system of

the relationship or the larger social system from which relationships evolve. For example, the educators regarded parents as either supports or obstacles in developing close relationships with children.

Educator-Student Relationship Quality and Emotion Regulation

Educator-student relationships have been examined in regards to overall child development; however, few studies have explored the link between educator-student relationship and emotion regulation outcomes of children more specifically. Some studies have examined educator-student relationships and the connections to social-emotional development. Garner et al. (2014) examined the associations of preschool type (i.e., urban and suburban Head Start and university-affiliated centres) and educator-student relationship quality with social-emotional outcomes of preschoolers. They found that educator-student conflict was negatively and significantly associated with emotion regulation. They also found that higher educator-student dependence was associated with the highest levels of emotion regulation for programs affiliated with a university compared to suburban Head Start children. The authors offered three possible explanations for the results: (1) the ability to manage emotions may support the development of self-regulation and independence and may contribute to less conflict with the teacher; (2) teachers play an important role in children's emotion regulation so much so that children who have conflictual relationships with their teacher may be deprived of opportunities to learn emotion regulation strategies; and (3) emotional dysregulation prompts children's refusal to accept authority, thereby causing more negative educator-student relationships and consequently even more emotion dysregulation in the child. Graziano, Reavis, Keane, and Calkins (2007) found that quality of educator-student relationships did not mediate educator reports of children's academic success and productivity in the classroom, and standardized early literacy and math

scores. Yet, Baker, Grant, and Marlock (2008) found that qualities of educator-student relationships (i.e., warmth, trust, low conflict) were associated with positive school outcomes. Arbeau, Caplan, and Weeks (2010) found shyness and negative educator-student relationship (dependency and conflictual) were related to socio-emotional difficulties. While close educator-student relationships were associated with indices of positive adjustment. Taken together these results highlight the importance of studying educator-student closeness and emotion regulation.

In summary, this section reviewed the literature on emotion regulation, educators' emotion beliefs, and educator-student relationships. The available literature on educators' emotion beliefs and educator-student relationships is emerging, however, there is very limited focus on how these two constructs are related to emotion regulation. Studies on educator-student relationships have revealed a negative significant relationship between educator-student conflict and emotion regulation of children, and a positive significant relationship between educator-student dependence and emotion regulation of children. In addition, the small body of literature and unpublished thesis work on educators' emotion beliefs suggests that educators' beliefs about emotions may influence children's emotion regulation outcomes. Research on these areas of study in relation to emotion regulation can provide a deeper understanding of what influences educators support of children with varying emotion regulation.

Present Study

The main research question of this study was: how do emotion beliefs and educator-student relationships enhance understanding of early learning and care (ELC) educators' support of varying emotion regulation in young children? Two sub research questions were explored in this study, (a) how do ELC educators' emotion beliefs enhance understanding of ELC educators' support of varying abilities of emotion regulation in young children? and (b) how do educator-

student relationships enhance understanding of ELC educators support of varying abilities of emotion regulation in young children? The emotion socialization theory will be presented to answer these research questions.

Theoretical Frameworks of Emotion Regulation

Currently no theoretical model exists to help explain how educators' beliefs about emotions and educator-student relationships impact the support they give to children with varying emotion regulation abilities. However, an application of results from literature (i.e., emotion beliefs and educator-student relationships) combined with emotion socialization theory (Thompson, 2006; Laible, Thompson, & Froimson, 2015) guides our understanding of how the different aspects of it may come together to better understand the support educators give to children with varying emotion regulation abilities. Figure 1 illustrates the relationship between the literature on educators' emotion beliefs and emotion socialization theory. While there is no theoretical framework on educators' emotion beliefs, emerging research (represented by the dotted box on the left) has revealed that educators' hold many emotion beliefs that impacts their teaching practice (a more detailed description of this will be described below). In addition, the emotion socialization theory (represented by the dotted box on the right) deepens our understanding of the bidirectional perspective of educator-student relationships and helps us understand how the context of the relationship as well as a child's characteristics can contribute to the quality of the relationship and thus the support given to high and challenged regulators.

Emotion socialization theory. Emotion socialization as defined by Eisenberg et al. (1998) encompasses the "behaviours enacted by socializers that (a) influence a child's learning (or lack thereof) regarding the experience, expression, and regulation of emotion and emotion-related behaviour, and (b) are expected to affect the child's emotional experience, learning of

content, and emotion-related behaviour in a manner consistent with socializers' beliefs, values, and goals about emotion and its relation to individual functioning and adaptation in society" (p. 317). Research on the socialization of emotions suggests that what parents and educators believe about emotions, as well as what they do in response to emotion expression in their children, are relevant in building emotion related skills in children (Denham, 2007; Denham, et al., 1997; Eisenberg et al., 1998). Early theorists of socialization highlighted the importance of a warm, nurturing relationship for fostering emotion socialization (Sears, Maccoby, & Levin, 1957). These theorists usually took a unidirectional approach to socialization in that emotion knowledge was seen to be transferred from parent to child. More recent approaches to emotion socialization (Laible, Thompson, & Froimson, 2015) realize the bidirectional influence in dyads, recognizing that children also have a strong influence on the interactions they receive. Thus modern emotion socialization theories focus on how children develop emotion competence and social skills resulting from behavioural, emotional, and representational contingencies between dyads (Collins & Laursen, 1999; Dunn, 1993). Defining aspects of emotion socialization include: (a) each relationship is unique because both partners' emotion competence, temperament, and behaviour is influenced by that of their partner and their shared history, (b) relationships are dynamic and affective so they change over time as the partners develop, and (c) relationships are only meaningful within the broader relational context because they encompass both broad (e.g., warmth) and immediate (e.g., rewards) influences that interact to determine children's emotion competence.

Laible et al. (2015) discuss emotion socialization in terms of more immediate relational process (e.g., reinforcement, modelling, sensitive responsiveness) and the characteristics of children that impact socialization (e.g., construction of experiences, their emotion competence,

and their temperament). By considering these two aspects, researchers can work towards developing a deeper understanding of how educators' beliefs about emotions and educator-student relationships influence the support they give to children with varying emotion regulation. That is, immediate relational processes and characteristics of children coincide to create a unique relationship between every educator and student, influenced by the beliefs that educators hold. Figure 2 illustrates emotion socialization processes and educators emotion beliefs and educator-student relationships. The child in the left circle has a relationship with the educator in the right circle. Their relationship is characterized by the genetic predisposition and temperament of the child, and the emotion beliefs of the educator which in turn create greater emotion competence and regulation for the child and newer or reinforced emotion beliefs of the educator. For example, relationships characterized as warm and reciprocal, enhance motivation for children to cooperate with partners (Grusec & Davidov, 2010), and promotes relational harmony and children's social-emotional development. Yet if a child, who is an active participant in their socialization, is predisposed to genetic, emotional, and temperamental profiles, may not be susceptible to the relational influences, such as warmth from a caregiver (Belsky & Pluess, 2009). Thus regardless of how the educator is interacting with the child, the child may interpret the interaction a different way, and express their emotions accordingly (Laible et al., 2015). Consequently the educator may interpret that behaviour based on their beliefs about emotions which in turn influences how they interact with the child moving forward and creating new emotion beliefs and influencing the relationship quality.

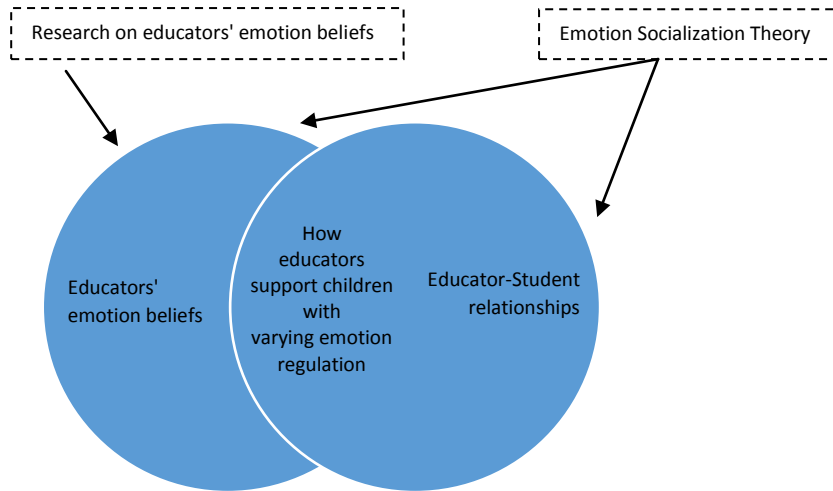


Figure 1. Intersection of literature on educators' emotion beliefs and emotion socialization theory.

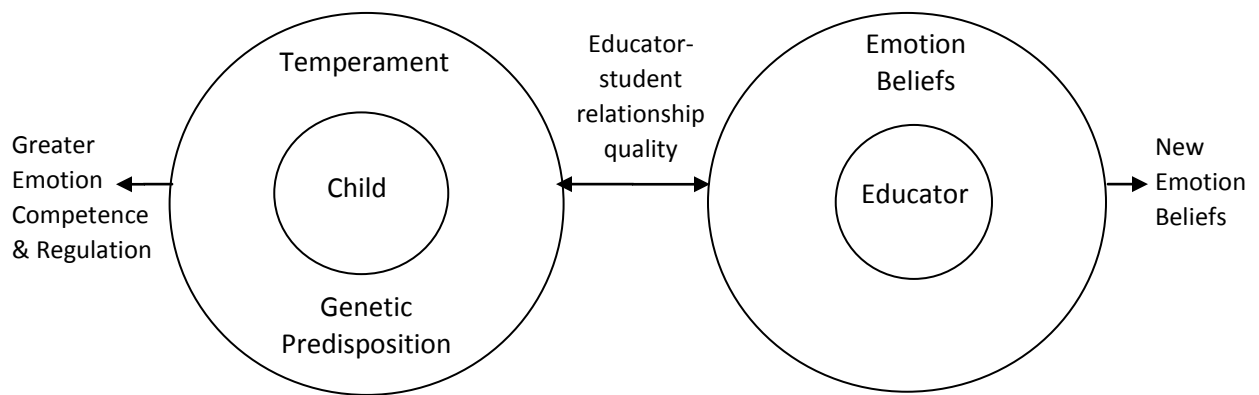


Figure 2. Illustration of emotion socialization processes and educators emotion beliefs and educator-student relationships.

CHAPTER THREE

Methods

The following chapter outlines the methods and procedures used to explore how emotion beliefs and educator-student relationships enhance understanding of early learning and care (ELC) educators' support of varying emotion regulation in young children. This chapter begins with a description of the research study context and the research design. Next, participant selection, data sources, and a discussion of the worldview of the researcher are provided. The chapter closes with a description of the analysis and integration of each dataset.

Study Context

Seven ELC sites in Edmonton, Alberta participated in a larger research study called, *Access, Support, and Participation: Social-Emotional Development in Early Learning and Care*. In partnership with Getting Ready for Inclusion Today (GRIT) these seven ELC sites were supported in implementing the Teaching Pyramid Model (TPM) aimed at promoting social-emotional development in young children (Hemmeter, Ostrosky, & Fox, 2006; Fox, Dunlap, Hemmeter, Joseph, & Strain, 2003). The objectives of the larger study were twofold: (a) to explore what changes were made to educator's support of children's social-emotional development with support from trained coaches (i.e., coaching); and (b) to explore the influence of the implementation of the TPM intervention (i.e., staff capacity and family engagement strategies) to help support staff and families to promote social-emotional (SE) skills during early childhood. The two-year study ran from 2012 to 2014 and is now complete. Data collection for the larger project included one-on-one semi-structured interviews with parents and the seven site leads (manager of the ELC site), questionnaires completed by site leads and parents (e.g., *Social Competence and Behaviour Evaluation Inventory-30*; SCBE-30; LaFreniere & Dumas, 1995),

and observation of the site lead's fidelity to the pyramid model (*Teaching Pyramid Observation Tool*; Fox et al., 2009). The seven site leads also participated in the current study. Participation in the larger project is important to note because it gives the participants of the current study (ELC educators) training and experience that a regular ELC educator may not have. Having this training and experience may have provided the educators with a base of knowledge and language about social-emotional development and emotion regulation of young children. Studying emotion regulation with this small but specialized population enabled a deeper understanding required for answering all the research questions in the current study.

Current Study

The purpose of this convergent parallel mixed methods study (Creswell, 2013) was to explore how emotion beliefs and educator-student relationships enhance understanding of ELC educators' support of varying emotion regulation in young children. To explore this question, collection and integration of both qualitative (interview) and quantitative (questionnaire) data on ELC educators' emotion beliefs and educator-student relationships was completed. Integrating (i.e., mixing two datasets) quantitative and qualitative data provides a deeper understanding of how ELC educators support varying abilities of emotion regulation in children.

The main research question was: how do emotion beliefs and educator-student relationships enhance our understanding of early learning and care (ELC) educators' support of varying emotion regulation in young children? Two sub research questions were explored in this study: (a) how do ELC educators' emotion beliefs enhance understanding of ELC educators' support of varying abilities of emotion regulation in young children? and (b) how do educator-student relationships enhance understanding of ELC educators support of varying abilities of emotion regulation in young children? Figure 3 outlines the research questions, and the

qualitative and quantitative data that was gathered for integration to answer the research questions.

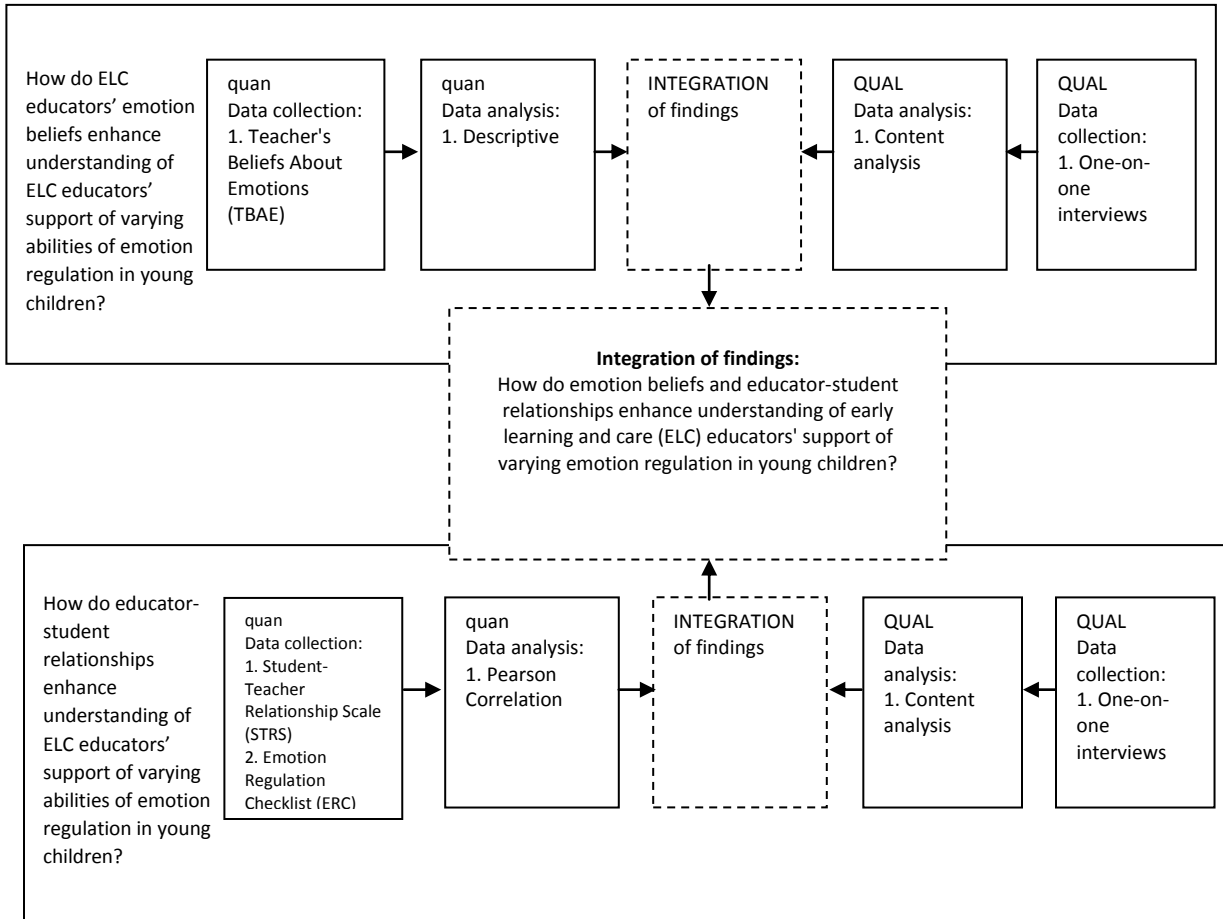


Figure 3. Research questions and methods used to answer each question.

Worldview

According to Creswell (2013), the types of beliefs a researcher holds will often lead to embracing a mixed methods, quantitative, or qualitative approach to their research. A worldview consists of dimensions of contrast comprising of ontological (nature of reality), epistemological (how we gain knowledge of what we know), and axiological (the role values play in research) (Teddlie & Tashakkori, 2009). As a researcher, I have a pragmatist worldview, in that I want to see the knowledge gained through my research transferred into change of practice. Thus the

current study was designed with the intent of informing ELC educator's practice based on results gleaned from the study. For this dissertation qualitative and quantitative methods were needed to provide a deep understanding of the research question. The research paradigm of mixed methods has largely been attributed to the worldview of pragmatism (Creswell, 2013; Christ, 2013).

Pragmatism highlights the importance of the research question guiding the choice of methodologies; methods are chosen based on what will best answer the research questions (Creswell, 2013; Creswell & Clark, 2011). Pragmatism is not committed to any one system of philosophy or reality. As a result, both quantitative and qualitative methods have value from a pragmatist's perspective, and can be integrated using mixed methodology to answer research questions without ontological, epistemological, and axiological contradictions (Creswell & Clark, 2011). For this mixed method study, a pragmatist worldview opens the door to multiple methods, different assumptions, and different data collection and methods (Creswell, 2014).

Researcher Positionality

The nature of qualitative research positions the researcher as a data collection instrument (Xu & Storr, 2012). It is reasonable to expect that the researcher's beliefs, political stance, cultural background (gender, race, socioeconomic status, educational background) are important variables that may affect the research process (Creswell, 2007). Therefore, as the primary researcher, I needed to acknowledge my own subjectivity in the research process and be self-aware about my own background, worldview, and biases throughout the process. Just as the participants' experiences are framed in social-cultural contexts, so too are those of the researcher. I am a White female born and raised in middle to upper class neighborhood. I have been trained as a researcher to conduct research in various ELC settings, yet have never worked in ELC settings. As I prepared to enter the ELC centres, I expected that my position as a White

woman and an outsider (i.e., a university researcher) would situate me in a relation of power to the other women who were non-White, or non-researchers (i.e., ELC staff). To aid in connecting and building rapport with the staff I strongly integrated some principles of community-based research that framed the larger ASaP project. Several techniques, such as building trust and respect, were used to address relations of power. For example, I conducted several information nights where I approached parents and educators during pick-up and drop off to discuss the research project and providing easy to read materials to accompany the information letters. I also spent countless hours discussing child development with the educators after school hours; a method of communicating my interest and passion for positives outcomes of young children. Throughout data collection and analysis, I acknowledged that my own biases may influence the participant's responses, and my own interpretations. In this, I tried to describe and interpret participants perspective using their language and low inference, however, as it has been argued "objectivity, authority and validity of knowledge is challenged as the researcher's positionality is inseparable from the research findings" (Smith, 1999, p. 436).

A major concern regarding my positionality was my role as a researcher leading the ASaP research study as well as my own dissertation study. I was aware that my research participants could see their involvement in my dissertation study as a threat to their involvement in the ASaP project or their role in the ELC centre (e.g., information getting back to the director). I was comforted in knowing that GRIT was supportive of my dissertation and too communicated to the ELC educators that the data collected for my dissertation study would not impact their involvement in the ASaP project. In building rapport and trust with my participants I also found an opportunity to emphasize confidentiality and anonymity (a theme repeated in information letters and material), thereby creating comfort in the educators knowing their information was

protected to the best of my ability. I also was determined to create a distinction between my roles. A part of ASaP data collection involved observation of educators and an assessment of the fidelity to the TPM but I was intentional and careful in not including data from these observations (or any quotes that were spoken during this time) in my dissertation study. I do, however, also acknowledge that the observations and assessment may have also impacted my interpretation of the data.

Mixed Methods Design

A mixed methods design is defined as using both quantitative and qualitative data for collection and analysis, integration of findings, and drawing inferences to answer research questions (Merten, 2013). It has been viewed as a methodology, not just a method that requires a thorough understanding of qualitative, quantitative, and mixed methods research (Creswell, 2013; Johnson, Onwuegbuzie & Turner, 2007). A mixed method design was chosen for this research study because neither quantitative nor qualitative methods alone could adequately answer the research questions and provide in depth understanding of ELC educators' support of varying emotion regulation in young children. Several types of mixed methods designs exist, however, a convergent parallel mixed methods design was employed in this study. A convergent design is used when a researcher "collects and analyzes quantitative and qualitative data separately on the same phenomenon and then the different results are converged (by comparing and contrasting the different results) during the interpretation" (Creswell & Clark, 2007, p. 45). It was chosen for this study because the opportunity to collect data with the participants was a one-time occurrence (due to time restraints of the participants and activity of the larger research study), thus qualitative and quantitative data collection occurred simultaneously, resulting in efficiency and less participation fatigue for the ELC educators. The strongest benefit of using

this type of mixed methods design is that findings are well-validated and substantiated (Creswell, Clark et al., 2008). However, a limitation is the degree of difficulty in comparing the results of two analyses using different sources of data (Merten, 2013).

According to Onwuegbuzie and colleagues (2011), qualitative dominant crossover mixed analysis involves a dominant qualitative approach to analysis, with the belief that the addition of quantitative analysis will enhance answering the research question. While both qualitative and quantitative data is collected in a mixed methods design, the qualitative data in this study takes priority (or dominant status) because the detail provided by analysis is qualitatively oriented, since the analysis of quantitative data was restricted to descriptive statistics and did not include inferential statistics, which is a necessary element for quantitative dominant analysis (Onwuegbuzie et al., 2011; for an example of qualitative dominant analysis see McAuley, McCurry, Knapp, Beecham, & Slead, 2006). Due to the small sample size, inferential statistics were not appropriate for this study. Therefore, this study is identified as a QUAL + quan study. According to Morse and Niehaus (2009), the QUAL (in capital letters) represents a qualitatively driven study (theoretical drive), the + sign represents the data collected simultaneously (pacing), and the quan (lower case letters) represents a quantitative supplementary component. As shown in Figure 3, the integration of the datasets occurs at three points: (a) integration of the qualitative and quantitative datasets to explore how emotion beliefs enhance understanding of ELC educators' support of varying emotion regulation in young children, (b) integration of the qualitative and quantitative datasets to explore how educator-student relationships enhance understanding of ELC educators' support of varying emotion regulation in young children, and (c) the integration of the qualitative and quantitative datasets to explore how both emotion beliefs and educator-student relationships together enhance understanding of ELC educators' support of

varying emotion regulation in young children. Integration at these three points provides data that enhances understanding of the support ELC educators' provide to children of varying emotion regulation abilities.

Participants

Ethical approval from the Research Ethics Board at the University of Alberta was granted January 15, 2013. Using purposive sampling (Patton, 2005), seven site leads and 41 children were recruited from seven ELC centres that were already participating in the larger study. Participants were recruited based on participation in the larger social-emotional development project. A site lead is the head ELC educator in charge of a classroom of approximately 20 children. The minimum education requirement of a site lead is a Child Development Supervisor (formerly Level Three) certificate. According to Alberta Human Services (2012) ELC requirements, to receive a certificate the individual must: complete a two-year early learning and child care certificate program offered by an Alberta public college, or an equivalent level of training; obtain a Canadian Language Benchmark Assessment (CLBA) of at least Level 7 (if the post-secondary training was not completed in English or French); and complete a college-level English/French course (e.g., communication, composition, etc.). There were no age restrictions or years of experience in this study for the site leads, so the site leads vary on these two variables across the centres. Part of the larger research project had identified site leads as also working directly with children at least 60% of the time.

From the seven ELC sites, 41 parents gave informed consent to have their children participate in the study. Consent from the parents was granted to allow the educators to complete questionnaires on the children. Table 1 shows the characteristics of the participants. Table 1 shows that site A had the most participating children ($n=10$), and site I had the least participating

children ($n=3$). Of the seven sites, five were child care centres and two were preschools. Children attended child care centres all day but only attended preschools for half the day. Most ELC participants ($n=6$) had a CDS - level 3 and all had formal educational training in ECD. The years of experience in ELC varied for the participants from 2 to 23 years.

Table 1.

Site lead demographic characteristics.

SL	No. of CP	Daycare / Preschool	Certification Level of SL	Ed. of SL	Yrs of Exp. of SL
A	10	DC	CDA- level 1	ECD diploma & B.Ed.	Not reported
B	8	DC	CDS- level 3	B.Ed.	20 years
C	8	DC	CDS- level 3	ECD diploma & B.Ed.	2 years
F	4	PS	CDS- level 3	B.Ed.	12 years
G	4	DC	CDS - level 3	ECD diploma	23 years
H	4	DC	CDS- level 3	ECD degree- Germany	4 years
I	3	PS	CDS- level 3	ECD diploma	20 years
Total	41	5 DC 2 PS	--	--	--

Notes: Ttl: Total, CDS: Child Development Supervisor, Ed.: Education, SL: Site Lead, Yrs: Years, CP: Child Participants, Exp.: Experience

Qualitative Methods

Qualitative descriptive method was used for the qualitative component of this study (Sandelowski, 2000; Sullivan-Bolyai, Bova & Harper, 2005). The qualitative description method uses low inference interpretation. By analytically staying with the “surface of the words and events” (Sandelowski, 2000, p. 336), descriptions about the experience by those experiencing it

are elicited using their everyday language (Sullivan-Bolyai et al., 2005). Exploring emotion beliefs and educator-student relationships involves an investigation of ELC educators' experiences with children, understandings, and evolving beliefs that are context specific to young children. By using descriptive qualitative research methods a deeper understanding of these educator-student relationships and perceptions of their exchanges were captured. Each research question has a qualitative component, and the qualitative component in each research question has two roles: (a) in isolation it provides rich descriptive detail about emotion beliefs or educator-student relationships that quantitative questionnaires cannot provide alone, and (b) when integrated with quantitative data it provides information about how educators' emotion beliefs and educator-student relationships enhance understanding of support of varying abilities of emotion regulation. One-on-one semi-structured interviews were used in this research project to collect qualitative data to develop an in depth and rich description of the educators' emotion beliefs and educator-student relationships with children of varying emotion regulation ability. The semi-structured interview was organized around a set of predetermined open-ended questions, with other questions and probes (i.e., Can you tell me more about that?) emerging from the dialogue between the researcher and participant (DiCicco-Bloom & Crabtree, 2006).

Video vignettes. A short video of children and an ELC staff interacting in an ELC setting was shown to participants during the interview (CSEFEL, 2014). The video vignette was 30 seconds in length, displaying two young boys during free play at a day care. One of the boys (in a white shirt) aggressively approaches another boy (in a red shirt) to take away a toy that he is playing with. The boy playing with the toy cries in response to the aggression but quickly recovers and continues playing with the toy. The boy in the white shirt becomes distraught not having the toy and whines and cries. This video clip was chosen because it shows the emotion

behaviour of what appears to be a challenged regulator (boy who is aggressive in white shirt) and higher regulator (boy who has his toy taken away in a red shirt). The voice of the staff is heard in the background but the staff member does not intervene until the end of the clip. While the participant can interpret the emotion behaviour of the boys in many ways, the video was chosen to show a range of emotions exhibited by children. A video vignette was used in this study for two reasons. First, it illustrated a scenario between a high and challenged regulator intended to prompt participant's memories of their own experiences with children with similar regulating abilities. Second, it was intended to elicit strong emotional responses from the educators (stimulated recall) which would allow the educator to report how they would feel (using their language) and respond to the scenario. For these reasons, it was expected that a deeper understanding of the support educators provide for varying levels of emotion regulation in children would be captured in a more genuine way.

Interview guide. Several steps were taken to develop the interview guide. First, a list of topic areas was developed from the research questions (i.e., emotions beliefs, educator-student relationships, varying emotion regulation ability). The topics represented areas of the overall research question that needed to be addressed. Second, a list of interview questions was developed for each topic. Creation of interview questions were based on Seidman's (1991) recommendations for creating effective research questions for interviews: (a) wording should be open-ended (respondents should be able to choose their own terms when answering questions); (b) questions should be as neutral as possible (avoid wording that might lead answers); (c) questions should be asked one at a time; (d) questions should be worded clearly (this includes knowing any terms particular to the program or the respondents' culture); and (e) be careful asking "why" questions. Third, the list of interview questions was edited for overlapping or

repetitive questions. Lastly, interview questions were pilot tested with members of the ASaP team (i.e., a coach and the project lead) for clarity and interpretation of each question, and overall estimated length of interview. Edits were made to the wording of one interview question and order of a few other questions based on feedback from the pilot test.

The format of the interview guide was to begin with the video vignette followed by seven questions that were in relation to the video vignette. These questions addressed the emotional behaviour of the child and how the educator would respond to the behaviour (e.g., strategies and educator behaviour). Answers to the seven questions were followed by probe questions to get at some underlining emotion beliefs (e.g., can you explain why you would ignore the child's behaviour?). Question eight was intended to get participants to reconstruct a story of a child in their classroom and also elicit an emotional response. The following three questions were in response to the story they shared.

Qualitative Procedures

One-on-one semi-structured interviews were scheduled separately with each of the seven educators. The interviews were scheduled during a time and a place that was convenient for the educator lasting roughly one to one and a half hours. Often the interview was scheduled during the educator's lunch hour, naptime for the children, or after work hours. A laptop and a pad of paper and pencil were present during the interview, and interviews were audio recorded. Prior to the interview, the educator completed a consent form and the four questionnaires described below. After the questionnaires were completed, the video clip of the emotion-eliciting situation was shown. After the video clip was viewed on the laptop provided (or reviewed again if the participant requested), questions in a semi-structured format were asked (see Appendix A). For example, what is the emotional behaviour of the child (identifier in clip: boy in the red shirt)?

Tell me of a time when a child in your care acted similar to the child in the clip. How did it make you feel? How would you describe your relationship with that child? After the interview questions were asked, the participant was asked if there was any information they would like to add and then informed that the taping of the audio recording was stopping. The participant was thanked and given a Safeway gift card for their involvement in the study.

Quantitative Methods

Similar to the qualitative data, the quantitative data was used to answer each research question. That is, the quantitative close-ended questionnaires were used to collect descriptive data that the qualitative methods were not able to do with little expenditure of time and effort by participants. When integrated with the qualitative data, the quantitative data aims to add a deeper understanding of ELC educators' support of varying emotion regulation in young children.

Quantitative Procedures

During the scheduled interview with each of the seven educators, they were given a package containing four questionnaires (see Appendices B, C, E, and F) to complete (on either themselves or on each participating child). The questionnaires gathered information on the educator demographic characteristics, child's emotion regulation abilities, educator's beliefs about emotions, and educator-student relationship quality. Below is a description of each questionnaire used in this study.

Educator demographic characteristics. Each site lead completed a demographic questionnaire. See Appendix B for a copy of the demographic questionnaire for educators. The questionnaire consisted of 12 questions about age, educational background, years of experience in early learning and care, and years at current ELC site. These questions were used to gather background information on each educator.

Educator beliefs about emotions. The *Teachers' Beliefs about Emotions* (TBAE; Hyson & Lee, 1996) was completed by each educator, and it assessed the beliefs that educators hold about emotions in the classroom and the role the ELC educator has in supporting their students' emotional development. See Appendix C for the TBAE questionnaire. The TBAE is a 23-item self-report questionnaire, using a 5-point Likert scale. Table 2 shows the scale of the TBAE and the interpretation of the score. For example, if the mean score for talk/label for the educators was 4.8, it would suggest that the educators *agree* that they should help students identify and discuss their emotions.

Table 2.

TBAE scale and score interpretation

Scale	Score interpretation
1-1.9	Strongly Disagree
2-2.9	Disagree
3-3.9	Neither agree or disagree
4-4.9	Agree
5-5.9	Strongly Agree

The TBAE is comprised of six subscales with varying internal reliability suggested by authors (Hyson & Lee, 1996): (a) Bonds - beliefs about the importance of educator-student connections (4 items: e.g., *Children need to feel emotionally close to their educators*; $\alpha = .60$); (b) Expressiveness - beliefs about educators' candid expression of emotions around students (4 items: e.g., *Educators should 'let their feelings out' in the classroom*; $\alpha = .54$); (c) Instruction/Modeling - beliefs about using direct instruction and demonstration to help illustrate to students appropriate emotion expression (4 items: 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*; $\alpha = .66$); (d) Talk/Label - beliefs about helping children identify and discuss their

current emotion states (6 items; e.g., *When one of my children is upset about something, I usually try to put into words how he or she is feeling*; $\alpha = .45$); (e) Protect - beliefs about shielding students from upsetting emotions (3 items; e.g., *Educators should not read children stories that might make them sad or worried*; $\alpha = .55$); and (f) Display/Control - beliefs about students' ability to regulate and exhibit emotions in a socially acceptable manner (3 items; e.g., *As a teacher, it's important for me to teach children socially acceptable ways of expressing their feelings*; $\alpha = .79$). See Appendix D for items that are associated with each subscale.

Intercorrelations among the subscales is generally low (the mean r was .18), indicating that the areas formed somewhat independent clusters of beliefs. While the reliabilities are relatively low (a good reliability ranges from $0.7 \leq \alpha < 0.9$; George, & Mallery, 2003) and there is an absence of other psychometric properties, this was the only tool found to measure educators' emotion beliefs. For this reason, integrating the qualitative data with the quantitative data from this tool has the potential to provide a richer understanding of how ELC educators' emotion beliefs support varying emotion regulation. In addition individual educator scores per questionnaire item are reported for each subscale for the TBAE. Results of the TBAE subscales means and individual educator responses to items of each subscale were reported and interpreted as per table 2. Strongly agreeing (score of 5) or agreeing (score of 4) reflects the likelihood of endorsing the items in the subscale. Whereas strongly disagreeing (score of 1) or disagreeing (score of 2) reflects the likelihood of not endorsing the items in the subscale. Neither agree nor disagree reflects the likelihood of remaining neutral on endorsing the items in the subscales.

Child's emotion regulation. The *Emotion Regulation Checklist* (ERC; Shields & Cicchetti, 1997) was used to assess whether a participating child is a high or challenged regulator. The ERC (see Appendix E) consists of 24 items that assess teachers' perceptions of

their young student's typical methods of managing emotional experiences on a scale of 1 (never) to 4 (always). The ERC yields two subscales: (a) Lability/Negativity, which assesses inflexibility, lability, and dysregulated negative affect (e.g., "Exhibits wide mood swings"), referred to in this study as *dysregulation* or *challenged regulation*; and (b) Emotion Regulation, which measures appropriate emotional expression, empathy, and emotional self-awareness (e.g., "Can modulate excitement in emotionally arousing situations"), referred to in this study as *high regulation*. Reliability coefficients are high for the overall scale (.89) and for the two subscales (Lability/ Negativity = .96, Regulation = .83) (Shields & Cicchetti, 1997). Validity has been established through positive correlations with observers' ratings of children's regulatory abilities and the proportion of expressed positive and negative affect (Shields & Cicchetti, 1997). Discriminant validity demonstrates that the ERC can reliably be differentiated from other emotion-related constructs (Shields & Cicchetti, 1997). This ERC was chosen for this study because of its excellent psychometric properties and use in early childhood research to assess emotion regulation (Fujiki, Brinton, & Clarke, 2002; Suveg & Zeman, 2004). With that said, the ERC has not been used to categorize children as high or challenged regulators. Thus a median split (MacCallum, Zhang, Preacher, & Rucker, 2002) was conducted on the ERC data to determine which scores are above the median (high regulators) and below the median (low regulators).

Educator-student relationship quality. The *Student-Teacher Relationship Scale* (STRS; Pianta, 1996) was completed by all participating educators, on each participating student, to assess perceptions of educator-student relationships. See Appendix F for the STRS scale. The STRS uses a 5-point Likert scale ranging from "Definitely does not apply" to "Definitely applies." It is comprised of three subscales: (a) Conflict, which is made up of 12 items related to

conflictual educator-student relations (e.g., *This child and I are always struggling with each other*); (b) Closeness, which is made up of 11 items related to warmth, communication, and involvement in educator-student relations (e.g., *This child spontaneously shares his/her feelings with me*); and (c) Dependency, which is comprised of 5 items related to dependent educator-student relations (e.g., *This child is overly dependent on me*). According to Pianta (2001) the STRS has good internal consistency, with a Cronbach alpha correlation of .92 for the total score formula, which is derived utilizing the formula shown in Figure 4.

$$(72 - \frac{\text{Conflict raw score}}{\text{Conflict raw score}}) + \frac{\text{Closeness raw score}}{\text{Closeness raw score}} + (30 - \frac{\text{Dependency raw score}}{\text{Dependency raw score}}) = \frac{\text{Total raw score}}{\text{Total raw score}}$$

Figure 4. Formula for scoring the STRS.

The authors of STRS calculated reliabilities for the three subscales and found them to be moderate to high: Conflict, $\alpha=.91$; Closeness, $\alpha=.81$; Dependency, $\alpha=.57$. Four scores are generated from the STRS: (a) total, (b) conflict, (c) dependency, and (d) closeness score. The STRS Total score (see Figure 4 for the scoring formula) was determined from summing each subscale subtracted from constants (to account for the different meanings of high/low scores on each subscale; Pianta, 1996). For the Conflict subscale, the number 72 is a constant representing the highest possible score of 60 and the lowest possible score of 12 ($60+12=72$). For the Dependency subscale, the number 30 is a constant representing the highest possible score of 25 and the lowest possible score of 5 ($25+5=30$). A high Conflict subscale score means (36 to 60) the educator tends to struggle with the student, perceives the student as angry or unpredictable, and consequently feels emotionally drained and believes himself or herself to be ineffective with the student. A high score on the Closeness subscale (33 to 55) means the educator tends to think that the student views them as supportive and uses them as a resource. A high score on the

Dependency subscale (15 to 25) indicates a problem with the child's overreliance on the educator. It also indicates that the student tends to react strongly to separation from the teacher and often requests help when not needed. The Total score measures the degree to which the educator perceives the quality of their relationship with the students. A high Total score (28 to 112) tends to reflect lower levels of conflict and dependency and higher levels of closeness and a generally more positive relationship.

Data Analysis

The following section will review the steps and rationale for the analysis of each dataset separately. Also reviewed in this section is the process for integrating the two datasets to assess confirmation, expansion, and discordance.

Qualitative Data Analysis

All qualitative data were analyzed for categories using conventional hand in hand content analysis (Hsieh & Shannon, 2005). This approach to qualitative analysis is conducted when there is limited or no existing literature about the phenomenon. Content analysis is also the choice in qualitative descriptive research because it is oriented toward summarizing the informational contents of the data (Sandelowski, 2000). Conventional content analysis focuses on the characteristics of language as communication with attention to the content or contextual meaning of the text (Hsieh & Shannon, 2005). Thus researchers avoid using pre-existing categories; categories and codes flow from the data. The steps taken to analyze the qualitative data were adapted from Creswell (2009), Hsieh and Shannon (2005), Patton (2002), and Morse and Niehaus (2009). An undergraduate research assistant hired through the Serving Communities Internship Programs supported the qualitative data analysis. The research assistant was trained and mentored by the researcher in qualitative (and some quantitative) analysis. This was done

through article discussions, providing her with examples of other research, conducting analysis together, discussing results, and giving feedback on her work.

Steps in analyzing qualitative data. There were six steps used to analyze the qualitative dataset for the two sub research questions. First, data was organized and prepared for analysis. Seven transcripts were prepared (transcribed by the researcher and research assistant) with room for notes and coding in the right margin. Second, the data was read in its entirety by the researcher and research assistant to get an overall sense of the information and its meaning and portions of text were highlighted that were important to answering the research questions. Reflection questions at this step included: What general ideas are participants sharing? What is the tone of the ideas? How does this answer the research question? Third, the transcripts were read again and notes were taken in the margins regarding anything related to emotion beliefs, emotion regulation beliefs, educator-student relationships, and emotion regulation support. Saturation of data (i.e., no new information is emerging from the data) (Mason, 2010), and credibility (Shenton, 2004) of participants was considered at this step. Fourth, the notes from each transcript from both researchers were combined. Both the researcher and research assistant read the transcripts independently line by line. Using brackets around segments of data and the margins, notes were written about the meaning of the lines (to describe all aspects of the text). Notes from researcher and research assistant were compared and combined into one document. Fifth, a coding scheme was created from the researcher and research assistant's combined notes. A code was created from segmenting and labeling text from the transcripts as it pertained to each research question separately. Sixth, the codes were analyzed for overlap and redundancy and the codes were collapsed into categories based on how codes are different, and related or linked, and answered each research question. For research question one, the codes were collapsed based on

evidence of an educator's belief of emotions, emotion regulation, or children with varying emotion regulation abilities (e.g., "I believe", "I think it is important"). Some of the beliefs were derived from segments and codes referring to strategies they use to support emotion regulation. For research question two, codes were collapsed based on segments referring to educator-student relationships and emotion, or emotion regulation (e.g., high or challenged regulators). For both research questions, a challenged regulator was identified either directly ("A low regulator in my class...") or indirectly (e.g., when referring to the challenged or low regulator in the video which they previously identified as a challenged/low regulator). Last, the categories were given names based on interpretation by the researchers. There were 8 categories in total and 11 sub-categories. According to Morse and Field (1995) the ideal number of categories (and sub-categories) is between 10 to 15 to keep them broad enough to sort a larger number of codes. Table 3, shows an example of the process of creating codes from text segments and categories from collapsed codes. However, upon consultation with the researcher's supervisors, the 10 categories were collapsed into 8 categories due to overlap between categories. For example, the verbal support and physical support categories were collapsed into one category (support), with two sub-categories (verbal and non-verbal support). A codebook was created made up of definitions for each category or sub-category with exemplars from the data.

Table 3.

Example of the process of creating categories.

Research question	Text segments	Codes	Categories
RQ1	They need our help to be like, ok, I want to play with these classmates but don't know how to initiate that play. But it is not working for me to just grab the Lego they have. So they need our help in how to deal with that and how to go in and start to play.	Belief about needing adult support to be able express emotions Appropriate emotion expression	Emotion expression
RQ2	Kind of like there are some children you just bond to naturally and really quick. Because their behaviour is great, they just joke with you, they like talking to you. But there is other children in the classroom where you have to make an effort to have that relationship or go over to that child because it doesn't come naturally and they don't want to do it because they are playing. Often I find children like that little guy [points to challenged regulator in the video vignette], they don't want to be around you. They are always trying to be in the middle with children. So for me knowing that it could really affect my bonding I make more of a mental note to make an effort to make sure I am still trying to make a bond with that child.	Bonding with children Challenging to bond with challenged regulators	Bonds
	I say, remember when we went on the walk and saw the poor little bird who could not fly? Remember how we felt for the bird?...this sort of thing helps develop a special relationship with the child.	Special relationships Reminiscing with the children	Relationship Quality

When conducting qualitative analysis, many researchers argue that it is important to engage in and demonstrate validity or credibility (Onwuegbuzie, & Leech, 2007; Patton, 1999). Integration of data (using both qualitative and quantitative data explained below), rich descriptions, and member checks were used in this study as techniques to establish validity and credibility of the data.

Rich descriptions. One way of establishing credibility in qualitative findings is providing rich descriptions of the data. This entails describing the setting, the participants, and the themes of a qualitative study in rich detail. According to Denzin (1989), “thick descriptions are deep, dense, detailed accounts. . . . Thin descriptions, by contrast, lack detail, and simply report facts” (p. 83). The purpose of a thick description is to provide as much detail as possible to produce the feeling that readers have experienced, or could experience, the events being described in a study. It may involve describing a small slice of interaction, experience, or belief; locating individuals in specific situations; bringing a relationship or an interaction alive between two or more persons; or providing a detailed rendering of how people feel (Denzin, 1989). With this vivid detail, the researchers help readers understand that the account is credible; readers who read a narrative account and are transported into a setting or situation (e.g., in the ELC classroom). Rich descriptions also enable readers of the findings to make decisions about the applicability of the findings to other settings or similar contexts.

Member checking. Transcripts were sent to the participants (via email) for member checking (Creswell & Miller, 2000). Lincoln and Guba (1985) describe member checking as “the most crucial technique for establishing credibility” (p. 314) in a study. Member checking is a form of validation of qualitative data because it consists of taking data and interpretations back to the participants in the study so that they can confirm the credibility of the information (i.e.,

themes) and narrative account. With the lens focused on participants, the researchers systematically check the data and the narrative account (Creswell & Miller, 2000). Member checks were performed by providing participants with a copy of their interview transcript and the opportunity to make changes (e.g., additions, clarifications). Ample time was provided to send feedback based on their transcript. Five of the educators took this opportunity to provide more detail to their transcripts (via emails), while two educators did not have any information to add.

Quantitative Data

Item level raw data was manually entered from the demographic questionnaire, ERC, STRS, and TBAE into SPSS (version 20). Educators answered all the questionnaire items resulting in no missing data. The raw data was converted into scores to represent the subscales and total scores for each measure, in accordance with the instructions provided by authors of the tools.

Descriptive analyses (i.e., standard deviation, means, and range of data) were conducted on the TBAE to determine distributions of the data and answer the research question: *how do emotion beliefs enhance understanding of how ELC educators support varying abilities of emotion regulation in young children?*

To answer the research question: *how do educator-student relationships enhance understanding of ELC educator' support of varying abilities of emotion regulation in young children?* a series of Pearson Correlation coefficients were calculated between the STRS subscales and ERC (high and low) scores to see if there was a relationship between the variables. Data validation and effect size was also computed on the data. No assumptions were violated on the STRS and ERC data.

Integration of Datasets

After each dataset was analyzed separately, the datasets had to be integrated to enhance understanding of ELC educators' support for varying emotion regulation in children. Mixed methods researchers often mix qualitative and quantitative findings in the discussion section as another form of integration (Clark et al., 2010). In the current study, mixing occurred both in the Findings and Discussion sections yet all datasets were mixed in the Discussion section to answer the overarching research question in a coherent whole. The 3 phases of Teddlie and Tashakkori's (2008) framework for mixed methods analysis were used to guide the integration analysis of this study. First, data reduction was completed using descriptive statistics to represent the quantitative data, and categories from a content analysis to represent the qualitative data. Tables (13 and 17) were used to summarize quantitative and qualitative findings for integration.

For the second step, a side-by-side comparison for merged data analysis (Creswell & Clark, 2011) was conducted. A side-by-side comparison involves presenting the quantitative and qualitative findings in a summary table so they can easily be compared and then merged (refer to Appendix G and H). Because this is a qualitatively driven mixed methods design, the qualitative data is presented in the first column and the quantitative data is presented in the second column. The last column was a label of the fit of the integration of the datasets. When integrating the two datasets, three aspects of fit of datasets were assessed: confirmation, expansion, and discordance. Confirmation occurs when the findings from both types of data confirm the results of the other. If the two data sources provide similar conclusions, the results have greater credibility. Expansion occurs when the findings from the two sources of data expand insights of the phenomenon of interest by addressing different aspects of a single phenomenon or by describing complementary aspects of a central phenomenon of interest. For example, quantitative data may

speak to the strength of associations while qualitative data may speak to the nature of those associations. Discordance occurs if the qualitative and quantitative findings are inconsistent, incongruous, contradict, conflict, or disagree with each other. In the final step, data integration was completed by integrating the qualitative and quantitative data into a coherent whole. Using these steps, the data was integrated and interpreted based on confirmation, expansion, and discordance of the datasets in order to answer the research questions. The individual educator responses per questionnaire item of the subscales for the TBAE were also integrated with other findings to support the TBAE subscale means.

Mixed Methods Data Validation and Legitimization

A mixed methods study involves validation and legitimation of both qualitative (e.g., rich description and member-checking) and quantitative (e.g., validity) datasets (Collins, Onwuegbuzie, & Johnson, 2012). Collins et al. (2012) reported seven types of legitimation to apply to a mixed methods study to ensure design quality, interpretive rigor, and overall meta-inference quality. Tashakkori and Teddlie (2008) describes a 'meta inference as "an overall conclusion, explanation or understanding developed through and integration of the inferences obtained from the qualitative and quantitative strands of a mixed method study" (p. 101). Below is a discussion of five (i.e., sample integration, inside-outside, weakness minimization, paradigmatic mixing and multiple validities) of the seven types of legitimation and a discussion of how it was addressed in this study. The sequential legitimation is not discussed here because it applies only to sequential mixed methods designs and not a convergent design as used in this study. The conversion legitimation is also not discussed here because no qualitizing of quantitative data or quantizing of qualitative data was conducted.

Sample integration. Sample integration is the extent to which the relationship between the quantitative and qualitative sampling designs yields quality meta-inferences. While this study used the same sample for the qualitative and quantitative components, legitimation can be weakened because of the sampling method used (i.e., purposive nonrandom sampling and small sample size). Even with the limited number of ELC educators who participated in the larger study resulting in the small sample size for the current study, saturation was reached during the qualitative analysis phase.

Inside-outside. Inside-outside legitimation is the extent to which the researcher accurately presents and appropriately utilizes the insider's view and the observer's view for purposes such as description and explanation. Collins et al. (2012) suggest using a peer reviewer to strengthen this legitimation. In this study, the researcher and a research assistant analyzed the qualitative data separately and then compared individual analysis. Another method suggested by Collins et al., is member checking. Member checking was conducted in this study by sending the transcripts, categories, and their descriptions to the participant to review and provide feedback.

Weakness minimization. Weakness minimization is the extent to which the weakness from one approach is compensated by the strengths from the other approach. During the design of the study and integration of results, how the weaknesses of one approach were compensated by another approach was considered. For example, the limited depth that could be gained from the questionnaires was considered in creating interview questions in order to dig deeper into ELC educators experience and understandings of varying emotion regulation abilities in young children.

Paradigmatic mixing. Paradigmatic mixing legitimation is the degree to which the mixed researcher reflects on, understands, and documents his or her “integrated” mixed research

philosophical and methodological paradigm, including his or her epistemological, ontological, axiological, methodological, and rhetorical beliefs about mixed research. In this study the paradigmatic mixing legitimation was strengthened by discussing the pragmatic worldview (see methods section), to make explicit the use of the paradigm assumptions and conducting the study within those assumptions.

Multiple validities. Multiple validities is the extent to which addressing legitimation of the quantitative and qualitative components of the study results from the use of quantitative, qualitative and mixed validity types, yielding high quality meta-inferences. In this study all relevant research strategies pertaining to qualitative (e.g., credibility), quantitative (e.g., reliability), and mixed (discussed here) components were addressed and achieved.

CHAPTER FOUR

Findings

In this chapter, participant demographic information will be presented first to provide information about the background of both educators and their students. The qualitative and quantitative findings will be presented separately and then the integration of the findings as they relate to research question one and two.

Participant Demographic Information

Demographic information of educators. There were seven ELC educators that participated in this study. All educators were female. The mean age of the educators was 35 ($SD = 1.15$). There was some variability in the ethnicity of the educators, with two educators reporting German ethnicity, three reporting Canadian ethnicity, one reporting Filipino ethnicity, and one reporting Irish ethnicity. Because of the parameters in the larger study in choosing educators as site leads (refer to page 39), the educators were identified as site leads based on education and experience. For this reason, there is little variability in the education of the participants (minimal education was post secondary and highest was a Masters degree), and most educators had a diploma or degree in early childhood. The educator's years of experience in ELC ranged from 1 to 16 years and above but most ($n=4$) had 6-10 years of experience in ELC. The educator's years of experience in the current ELC site ranged from 1 to 16 and above years but most ($n=3$) had 6-10 years of experience in the current ELC site. Table 4 presents the demographic information of the educators.

Table 4

Educator Demographics

Demographic variable		<i>N</i> (7)
Gender	Female	7
	Male	0
Age	30-44	5
	45 and above	2
Ethnicity	Canadian	3
	German	2
	Irish	1
	Filipino	1
Education	Post-secondary	1
	Diploma/Degree	5
	Graduate school	1
Years of experience in ELC	1-5	1
	6-10	4
	11-15	1
	16 and above	1
Years at current ELC site	1-5	2
	6-10	3
	11-15	1
	16 and above	1

The seven educators were given pseudonyms in the qualitative findings for the purpose of keeping their anonymity. The pseudonyms given to the educators are: (1) Sarah, (2) Natalie, (3) Mello, (4) Malika, (5) Pamela, (6) Charlotte, and (7) Stephanie.

Demographic information of children. There were 41 children in the study. The mean age of the children was 4 years ($SD=1$). Table 5 presents the demographic information of the children.

Table 5

Student Demographics

Demographic variable		<i>N</i>
Gender	Female	21
	Male	20
Age	3	15
	4	19
	5	7
Ethnicity	Canadian	34
	Spanish	2
	Portuguese	2
	Chinese	1
	Filipino	1
	Japanese	1
Years at current ELC site	1 and under	15
	2	20
	3	6

Research Question One

To answer research question one, how ELC educators' emotion beliefs enhance understanding of ELC educators' support of varying abilities of emotion regulation in young children?, the qualitative and quantitative datasets were analyzed separately and integrated. First, a content analysis was conducted on the qualitative interview data. Second, descriptive statistics were conducted on the TBAE data. Last, the interview data and TBAE scores were integrated using a side-by-side comparison.

Qualitative findings. The content analysis of the interview data for research question one resulted in five categories and four sub-categories: (a) emotion expression with the sub-categories of verbal expression, non-verbal expression, and tools to support emotion expression, (b) sharing educator's emotions, (c) use of strategies to support emotion regulation with the sub-category of modelling, (d) emotion regulation and overall development, and (e) guidance through

negative emotions. Below is a description of the categories and sub-categories with accompanying quotes.

Category one: Emotion expression. Educators described a belief that young children need guidance from adults in expressing emotions appropriately. They also described the belief that emotion expression matures over time with positive support from adults and that it is an important part of positive development throughout childhood (e.g., making friends). Educator's descriptions that made up this category included acknowledging their feelings through "words and intonation" (Sarah), and body language to support the children in expressing their emotions (Sarah, Natalie, Charlotte, Stephanie). Thus this category was made up of three sub-categories: (a) verbal expression (emotion labelling, intonation), (b) non-verbal expression (body language and gestures), and c) tools to support emotion expression. Educators believed young children needed both verbal and non-verbal support for emotion regulation; yet, some situations would only call for verbal ("I am upset with you right now as I raise my voice", Natalie) or non-verbal (crossing arms across their chest) support. Each sub-category is described below.

Sub-category: Verbal expression. Educators described a belief that young children that did not have the ability to verbally express their emotions were more inclined to act out inappropriately in the classroom. They also described that it was their role to give them the language to use to express their emotions and thereby learn to regulate their emotions. For example, when asked how the educators would respond to the situation in the video vignette, Sarah, Stephanie, and Charlotte explained how they would help the child talk about the situation and their feelings by providing labels for their emotions. Sarah explained how she would use verbal expression in the following:

The one in the red shirt is feeling frustration and so you can see him using his body to be like, hey I don't like this situation. So when I would intervene, I would look him in his face and guide him along talking about it, saying, I am frustrated because... He needs to hear the language and be able to pair it with the feelings.

Stephanie explained why she believes it is important to give children language to express their emotions in the following quote: "So they hear it and go ohhhh, when I feel like this, this is what it means. So I talk a lot about feelings because it's important to give them the words." Later Stephanie added the following explanation for using intonation with the children:

I go ouch! [raises her voice] and that sort of emphasis and my voice when I am doing it, that is saying that hurt me. But it's not a whiney ouch or a yelling ouch I am teaching them; it's a firm ouch-like saying no, it is not ok to hurt me; I need your attention because you hurt me and you need to apologize.

Natalie also described using intonation as verbal support of emotion regulation. "My voice and the manner of intoning communicates to them how I am feeling or the seriousness of what I am saying."

Charlotte described teaching a non-verbal child in her classroom hand signals to communicate his feelings:

He does not have the vocabulary and is very shy. I don't think many people talk to him at home. So I have shown him some hand gestures to help show us what he wants or feels. Like this (educator shows hand signal for more) for wanting more, or this (shows hand gesture for I want) for I want. So really cool stuff. Oh, and we try to show and encourage parents to do it at home so the message is consistent but, well, yeah, they are busy.

Malika and Charlotte described a belief that children come to class with different regulating abilities. They described adjusting their language and emotion labelling to support emotion expression depending on the child's emotion regulation ability. Malika described using "simple to moderate sentences depending on the emotion and cognitive ability of the child."

Charlotte described adjusting the way she talks to children based on their emotional and cognitive ability as follows:

Like if they are a kind of kid that is up and down all the time I have to approach and talk to them a certain way so that they can process it at their own speed and I would use like more of a short simple sentences and stuff.

Charlotte also described pairing the emotion label words with a "brief explanation" of the emotion behaviour of the other child and cause or "consequence of the child's action." Charlotte used the following example to show how she uses emotion labelling and description with children: "Matthew is feeling sad and you can see that his arms are crossed and he is crying. I think he was enjoying playing with the swirly thing and you took it without asking him for permission." This pairing of emotion labels with an explanation was echoed in Malika's quote: "I would let the child explain the situation and the emotions experienced but use prompts and several questions to help them like are you feeling jealous that the girls are having fun with the dress?"

Stephanie and Pamela described the belief that teaching emotion regulation strategies allows for more mature emotion regulation. They described using verbal emotion labelling as a preventative and follow-up method to support emotion regulation. They both described using verbal expression not just during emotion-eliciting situations but also all day long through

curricula instruction or other daily interactions. Stephanie described labelling emotions as a preventative strategy as follows:

I would say I feel so sad right now because my friend is hurt. Then I would follow it up with an explanation of how I am going to problem solve and try to change my feeling. Problem solving is a big focus for our classroom this year because of GRIT training. So like, I am going to give my friend a hug so he stops crying or share my snack with him or whatever. So it's not just a follow-up strategy but also a preventative strategy; an effective method to help teach them emotion control.

Pamela described using talk and labelling during daily instruction as follows:

I talk about it all day and in stories and some of it is intentional teaching, where I intentionally choose a story that has a lesson about friendship or feelings, but sometimes it is more spontaneous and develops out of a question posed by a child. So they could ask why the character in a book is acting a certain way and so then we...we get a little side tracked but we turn it over to a discussion or lesson about feelings. I really encourage this kind of thing in my class.

Some of the educators (Charlotte, Natalie, and Sarah) described using more emotion labelling with challenged regulators. This was based on the belief that children that have difficulty regulating emotions need more verbal expression support in emotion regulation.

Charlotte described the regulating challenged boy in the video as follows: "Kids like him often have limited emotion language and internal strategies to manage the emotions...I would do more labelling with him." Natalie also described using labelling with challenged regulators as follows: "They don't really know the words to say like, Oh, I want this or I feel this way, so they show it in their actions, like grabbing and sulking...We are always putting words to these emotions."

Sarah echoed these sentiments in the following quote when referring to a challenged regulator:
 “With these kids I do a lot of labelling for their feelings and emotions.”

All but two participants (Mello and Malika) described using different emotion labelling strategies with challenged regulators. All five of these educators mentioned getting down to the eye level of the children in support of the challenged regulator in talking about the situation and how they were feeling. Charlotte described the belief behind this action in the following quote when referring to the challenged regulator in the video:

I believe that the little boy needs more attention and help. So connecting with him through that eye contact allows me to read his behaviour and help him focus on what I am saying. Then we would talk through what happened. But with these kids you have to connect first and then teach instead of just jumping in and teaching when he is so emotional.

Sarah's response to the child in the video vignette illustrates an implied belief that part of supporting emotion expression in children is validating their emotions and communicating that they are real human experiences: “I would say, I can see that you are upset. So I am showing them that word but I am also acknowledging their feelings.” When asked what effect acknowledging the child’s feeling has on the child, she responded, “it sort of says it’s ok to be upset. It’s human to be upset. And you are important to me, so yeah. I see you are hurt.” Later in the transcripts she explains how the challenged regulator in the video, “would need this the most.”

Sub-category: Non-verbal expression. Natalie, Mello, Malika, Pamela, and Charlotte described using non-verbal expression to support emotion regulation because they believe that children pick up on the non-verbal behaviour of adults as much as the verbal. Natalie described

how educators cannot talk and label emotions and feelings without also acknowledging their feelings through facial expression and body language.

They kind of go hand in hand. Like I wouldn't say, oh Cindy today you are having a bad day and look sad, without showing a sad face or without showing some compassion on my face or do this (educator crosses arms over chest and slouches shoulders).

Mello acted out how she would model a negative emotion through slumped over body language, pouting, crossing arms, stomping feet, and positive emotions through waving arms in the air and jumping and loudly saying yay! Malika described how she would always pair the body language with verbal language ("I am so happy I get to go swimming after daycare" coupled with waving hands in the air). Pamela described following up the body expression and verbal expression with an explanation to the children of what they are doing and why: "So like, I would be like this [crosses arms and pouts lips] and tell him or her: I am angry that you did that and I am crossing my arms or whatever." Charlotte explained:

I would close my eyes and take a deep breath and say, see Mrs. J., she is very frustrated right now and she is taking a deep breath and counting to three to help her calm down because she doesn't want to upset her friends. So I give that sort of explanation of this is what I am doing....and I show that by doing it, and this is why I am doing it.

Charlotte further explained that the coupling of non-verbal expression (i.e., body language) with verbal expression was based on the belief that it was an "effective way of demonstrating positive emotion expression" to the children "so they begin to realize it's not ok to throw things or collapsing their body on the floor."

Mello described the belief that challenged regulators need more exaggerated verbal and non-verbal expression to support emotion regulation because it distracts them from their negative emotions. This belief is reflected in the following quote:

I am not sure why I am extra with them. I guess partly because they are so wrapped up in their own little head and the arms waving or doing this (gestures arm swinging across front of her body) takes them out of their world and engages them right there with you. And then obviously it helps get your point across with them and you are pairing the word with that behaviour.

Pamela also described using more expression with challenged regulators because she believed it helped them focus on what the educator was saying:

I think he (challenged regulator in the video vignette) will focus more on what I am saying because I am entertaining him to a certain point and giving him the kind of interaction he craves and understand. Does that make sense? Being so young and having short attention spans, on top of having the very low ability to control his feelings inside, he wants to do a million other things than sit there and concentrate on you trying to tell him what he is actually feeling is sadness or frustration. So that extra body language or raising the intonation in your voice helps pull him in to that moment and distracts him from the real deep feelings he is feeling.

Sub-category: Tools to support emotion regulation. The use of tools and resources in the classroom was described by the educators as an important way to support emotion regulation and give children internal strategies to regulate their emotions. Some examples of tools provided by the educators included a face wheel (labelled with the emotion words; Sarah, Natalie, Malika, and Stephanie), "books that talk about feelings or friendships" (Stephanie), "hand puppets"

(Mello and Charlotte), problem solving kit (all), feelings bucket (Sarah, Natalie, Mello, Pamela, Charlotte), or dolls/toys (Natalie). The site leads described the use of these tools as an effective way to show the children how to express their emotions appropriately, while at the same time “working on reading and spelling and creativity” (Malika). Mello described the use of tools to support expression as follows: “So with using tools I am working on emotions and at the same time spelling and friendship skills.” The educators also described using tools for expression as an effective strategy that the children used when the educator was absent from the situation. Malika described the children's use of tools in supporting the emotion regulation in the following quote:

[GRIT coach] laminated the feelings wheel and then I made one together with the kids with actual pictures of them making different faces. We had a great time making it and once I showed them how to use it in a time of need they started using it on their own. So ummm, I post it over there [points to the feelings chart on the wall] and it's at their level and they can take it whenever they like and they do go and grab it. One child brought her mom over to it to tell her mom she was in a bad mood. We laughed so hard at that.

Natalie described using more tools to support expression with challenged regulators than high regulators. In her response to the video, she commented:

Success in this situation would be having the child use strategies and tools to solve the problem on their own. I mean this little guy is quite young so he needs a lot of guidance, but eventually he will be able to work with the other boy and come to some sort of agreement of sharing the toy. In our class we teach them to use a timer and take turns with a toy. It works well especially for the kids who don't have the internal emotion control system.

Later Natalie said the following:

For example, I would use puppets to work through the little boy's emotions. Or I would use this Little People set we have and we would each be a doll and talk through the situation. He needs you to use these kinds of things. Almost like he relates to them more. But if it were a child who was really good at calming himself and solving problems, he wouldn't need the extra supports, no.

Category two: *Sharing educator's emotion.* Most educators (Sarah, Mello, Charlotte, Stephanie, and Natalie) described a belief in the importance of educators talking about their feelings to the children. It was described as a way to connect with the children as well as modelling appropriate emotion regulation and expression. Sarah commented with the following, "I think we need to talk about our feelings as well as encourage them to do it." Mello also commented, "Staff will talk to each other in front of the kids so they can hear and we ask each other about our weekends and we try to be honest and open about our feelings so they can see." Charlotte commented, "I have an emotions wheel that I use with them and I start off by showing them what emotion I am feeling and sometimes I have a story that goes with it." Later Charlotte adds, "When my grandfather passed away, I was really open with the kids about talking about it because it did affect me greatly and they could tell; they saw it on my face. I could not hide it." Natalie described a moment of sharing emotions with a child in her class:

When she hit my Adams Apple, it knocked the wind out of me and I sort of fell back. I could tell she was upset by it so I sat down with her and said, You hurt Mrs. Natalie. I know you did not mean to but I am hurt and I feel sad and a little embarrassed. So I am putting words to my feelings and sort of being vulnerable at the same time. She apologized and I knew it was sincere. There are other kids who you need to do this process a few times before they get it.

Pamela, Malika, Stephanie, and Sarah provided various reasons for acknowledging their feelings to the children. These reasons included "showing children that adults are human too" (Pamela), providing examples of "appropriate emotion expression" (Malika), "modeling appropriate expression of emotion" (Stephanie), and showing problem-solving processes (Pamela, Stephanie, and Sarah). Pamela described sharing her feelings with children as a way to validate her feelings and show that feelings are real:

[I have worked] 5 years here. So what I have found is the more my emotions get elevated, like in the situation it never gets it better. The more that my emotions get elevated, and I get angry or stressed, the kids can feel it and it makes them more stressed and anxious because something is different. Children are little psychologists you know. They pick up on adults' moods and stuff easily. So if I am mad, they know it. That and I make it clear and tell them. That is important I think. You hurt my feelings or today Mrs. R is not feeling happy.

There was no discussion from the educators on sharing feelings and emotions differently for high and challenged regulators. However, Charlotte and Natalie explained how the high and challenged regulators would respond differently to the sharing of emotions. When describing her relationship with a high regulator in her class, Charlotte explained:

So I was telling him a story so I go, oh I am perplexed at this situation. I worry that my mom did not get a piece of chocolate for dessert but I do not know who ate all the chocolate. Then we looked at Teddy, my dog, and he had a grin from ear to ear! But then I became really worried because dogs can get sick if they eat chocolate and Teddy ate a lot of chocolate. So I go like that, I tell that. And he is laughing and engaged and responding with positive body language.

When describing challenged regulators in her class after a situation of sharing her feelings, Natalie explained, "They won't necessarily share their feelings but they won't not respond either. Like maybe just sit in silence and process it."

Category three: Use of strategies to support emotion regulation. All of the educators described using strategies with the children to support emotion regulation. This practice was based on the belief that children learn to regulate their emotions when they have tools and strategies to draw on during emotion eliciting situations. This category can be distinguished from the emotion expression category because the strategies described were used to support children's internal emotion regulation strategies and is not concerned with the expression aspect of emotion competence. Educators described their belief in the importance of supporting emotion regulation in children by using and encouraging appropriate strategies. Sarah described a counting and relaxation strategy as follows: "I teach them counting techniques, so like counting down from 10, and like yoga type breathing." Pamela described a quiet time nook technique as follows:

We have a 'quiet time nook' that is separate from the rest of the class and tucked away in the corner. We all encourage kids to go there when they are having a bad time. Being alone we find helps them calm down and control how they are feeling. It's not a time out because they are not forced to go there. But instead they volunteer to go there and often we see them going there on their own devices.

The support of appropriate emotion regulation was described as occurring during and/or after an emotion eliciting situation and all throughout the day. Natalie described integrating emotion regulation techniques in her daily lessons as follows:

I would use a book about a character who is experiencing an emotion and then I ask the kids to act out the emotion with a partner and then ask them to act out what they could do

to help the partner feel better. And I get goose bumps when I see them using the techniques I taught them!

When asked to explain her choice of integrating emotion regulation techniques in her lesson she answered:

Well you have to give them the tools beforehand. It makes the days go smoother. So when something does happen you can be like, remember when Momo Mad was knocking at the door? How did he decide he should act? That kind of thing.

There was no distinction in the use of techniques between high and challenged regulators.

Charlotte described using the techniques with all the children as follows:

I use these strategies with all children equally. Because they all need it equally. And it will come in handy to have these skills at such a young age because they are going to go off to elementary and college and of course be confronted with a situation that is going to make them emotional and they need to know how to deal with that emotion in the right way so it doesn't cause harm or trouble. As an adult, if I didn't know how to calm my nerves, then I would have a hard time making connections with my colleagues because they won't want to be around me or work with me. I mean yes, I have my bad days- we all do and that's ok but eventually I need to show some control and not let me emotions and feelings take over my life. So that is why it's important to get to them early in life so they have that throughout their life journey!

Sub-category: Modelling. Educators described showing children appropriate emotion regulation strategies and expression through modelling. This was based on the belief that children need to be shown how to regulate emotions before they are able to do it on their own.

The use of modelling was described by Pamela as follows:

By mid school year we get to see more appropriate emotion control but they still need us to teach them. So I would....and I do this all the time, I would act it out to them. Like during circle time or even during arts and crafts. I would go oh! Look at what I made. It is so lovely and I am excited to show my husband when I get home from work. So I would say this loud so it gets the attention a little, you know. And you can see them watching and looking and observing your behaviour and then you see them emulating it but also thinking about it. I can't wait to show my nanny my artwork and they show the excitement but it controlled and they are not rolling around on other children and breaking things (laughs).

Sarah described using modelling with the children in the video as follows:

I would model an appropriate scenario a couple of times with both of them and then after some practice they are able to use it when reacting to a situation like this or something at home with their siblings or when initiating play or negotiating play.

Some educators described using modelling in the form of social stories (Stephanie), or acting out a scene with a colleague in front of the children (Stephanie, Pamela, and Charlotte). Some educators described using modelling with challenged regulators because of the belief that they would "benefit the most from it" (Pamela). Charlotte described using modelling after a problematic situation occurred between a couple of children but would show the modelling to the whole group and not just to the children experiencing the problem. After reviewing the situation in the video, she explained:

After that little situation would happen I would grab another staff and during circle time later on or I would even right there and then say can I have everyone's attention and turn off the lights and we would act out a situation like we just observed or something similar

to it and show how we would deal with it...process it or ask the kids how they would deal with it. So it's in front of the class Nikki. Its front and centre so everyone has a chance to learn from it as a learning community.

These educators believed this technique was successful because all the children would benefit from "seeing it" (Stephanie) and because challenged regulators would “not respond well to being singled out in front of others and would often exacerbate the emotions,” which could “lead to embarrassment” (Pamela).

Another form of modelling was done through pairing the high regulators with challenged regulators on certain tasks (e.g., "sharing supplies for an art project", going on a "field trip outside the day care") or pulling in high regulators as an example when providing emotion support to challenged regulators. Natalie described the belief of using high regulators as role models as follows:

I would use them as a role model. Can you go play with that person, or I see that person is doing a great job being a role model for others. That kind of thing...I think it gives the higher ones a sense of accomplishment and entitlement and the lower kids a sort of....I can get my way more when I do it this way. Or rather I should act this way and better things will happen.

Pamela described how at the end of the year, high regulators (or the “good kids” as she referred them) naturally flocked to the modelling roles in the classroom:

By the end of the year I didn't even have to tell the good kids to go...you know, go see Mike and show him how to walk quietly to the library. They just do it. So like grabbing the other kid's hands and guiding them or whatever. And you see the small kids....the low

emotion regulators kind of look up to them. It's all most like they pause and think ahhh, that is how it's done!

Category four: Emotion regulation and overall development. Some educators (Sarah, Charlotte, Natalie, and Mello) described the belief that it was their role to support emotion regulation not only for building social-emotional competence but also to enhance a child's overall development. This stemmed from the belief that a child's dysregulation of emotions can interfere with learning and overall development. Charlotte commented, it is "important in the overall early development of the children."

Sarah described this in the following quote: "If they are sitting in class and getting emotional over the little things, it will affect their learning so we have to help them control those emotions and focus on playing or exploring the environment."

When asked what unsuccessful behaviour looks like for the child in the video, Natalie also described emotion regulation and its impact on overall development in the following quote:

It's hard to say because we don't know if he is always like this or just having a bad day. Let's assume he is typically like this. If he is in this constant state of emotion he is not going to get anywhere. A lot of activities in preschool take focus and discipline and so without that ability to be able to calm yourself it would be hard to successfully complete the activities. So for him the unsuccessful behaviour would be this perpetual state of emotion as we see him in.... We would develop a tracking system for this child and really focus our attention to help him gain control of his emotions.

Charlotte also described how emotion regulation and the support of emotion regulation can impact overall development:

They absolutely need to be able to control their emotions, especially for kindergarten and all throughout life actually. I have seen it in all the years I have been a preschool teacher. They come to preschool when they are young and to be successful they need to learn coping skills.

When asked what success means for children in preschool Charlotte explained:

Well I can play and share and follow rules, but also I can get through a challenging activity, like tying my shoes without having a fit, or I know when to ask for help. So everyday activities that require a certain level of control over the feelings and emotions they will experience. So I am not saying success is never crying or getting angry or anything, but yeah, the child can cope and get through it eventually alone and without adult supervision. So like I said before they come to us early and we work with them and give them the tools and coping skills and eventually we start letting go and pulling away and let them use the skills you gave them. Hopefully if you did it right (laughs), and set that foundation, they will be ok.

Natalie commented that children with challenged regulation were given more support of emotion regulation because of the belief that children's emotion regulation influences overall development. Her comment is as follows:

There is a boy in my class this year who is like the boy in the video. He is very hyper and can't sit still. But if we tell him to sit still or join the group on the floor for circle time he gets upset and will lay on the ground and kick his feet. It interrupts circle time so we try to meet him half way and say ok, you can stand but you have to pay attention to circle time. But then there are situations where it is not ok to stand or he does this rocking a lot of the time. So like, if we are lining up to go somewhere, it's not ok for him to be walking

out of line so he needs to be told it's not ok and not throw a fit. Because for that hour or hour and half that he is having the fit he is not hearing anything else going on, the teaching we do. So he misses out.

Mello also commented on challenged regulators and the influence emotion regulation has on overall development. When referring to a child in her classroom with challenged emotion regulation, she spoke about the outcomes it would have on the child, "She won't develop listening skills or classroom skills that she will need for kindergarten."

Category five: Guidance through negative emotions. Educators described the belief in sometimes shielding children from situations that would elicit a negative emotion. Malika described how she tried to eliminate situations that caused negative emotions in challenged regulating children unless she was able to follow up with the situation (talking about the situation after it occurs):

So I knew that when we went to go visit the [therapy] dogs, that she would probably freak out so I purposely held her hand and walked over to the dog with her and slowly helped her warm up to the dog. At first she was shaking and pulling away and whining but eventually because we took it really slowwww, she warmed up and was petting him and smiling. But I had sort of control over that, so....like in other situations if I wasn't there with her it would just blow up and the field trip could go sour.

Sarah explained her belief in protecting children from experiencing some negative emotions depending on their regulating ability as follows:

I do, yes, but ummmm not all the time. Some situations they need to learn to navigate on their own and some situations we have to intervene because of their safety. Like if I knew the little boy in the clip was aggressive or violent then I would intervene early on because

it would probably end up nasty. Whereas other situations like being outside and seeing a worms in the mud would totally freak out some kids but I wouldn't intervene because there is no harm and it is a good situation for them to learn to deal with their fear.

Pamela explained her belief in sometimes shielding children from negative emotions in the following way: "They can do it on their own. If I know they can't and I know it will cause a problem I will take away the stimulus." Sarah also added, "some situations they can learn from or it's a chance to practice managing negative feelings and emotions and we are there to sort of put them back on track if they fall off." Charlotte added, "It is to protect them but at the end of the day I am protecting myself for not having to go through a bad experience with them and having to deal with their emotional outbursts (laughs)." Stephanie, Malika, Mello, Charlotte, and Pamela described experiencing negative emotions in response to children's negative emotions. In response to the challenged regulator in the video, Stephanie connected feeling negative emotions to protecting the child from experiencing the emotions, "I feel sad for him. He is trying to get his message across but he is not doing so well. I feel for him for sure. If most of the day is spent like this I would pay close attention to him and see when I can intervene and make sure the situation goes a certain way. It's too much to handle if this is what his day looks like all day."

Quantitative findings. Each educator completed the TBAE, and it assessed the self-reported beliefs that educators hold about emotions in the classroom and the role the ELC educator has in supporting their students' emotional development. Internal consistencies (using Chronbach's alpha) for the emotion beliefs for the group of educators were: .71 for bonds, .64 for expression, .67 for instruction/modelling, .72 for talk/label, .59 for protect, and .89 for display/control. Comparing the six subscales (refer to Table 6) revealed that the educators highly endorsed the emotion belief Talk/Label (the educators strongly agree that they should support

children in talking about their emotions and providing words for their emotions), followed by expressiveness (the educators strongly agree with the belief that it is important to express their positive and negative emotions in front of their students), bonds (the educators neither agree or disagree with the belief that it is important to affectionately bond with their students), display/control (the educators neither agree or disagree that their students are capable of regulating and expressing their emotions in socially acceptable ways), instruction/modelling (the educators neither agree or disagree that it is important to explicitly instruct their students on how to appropriately express emotions), and protect (the educators disagrees with the belief that it is important to shield children from strong emotions and emotion eliciting situations). Presented in Table 6 are the mean, standard deviation, minimum and maximums, and scale interpretation (e.g., strongly agree for a score of 5 to 5.9) of the emotion beliefs for the current sample of educators.

Table 6

Mean, Standard Deviation, Median, Minimum and Maximum Values of Sample of Teacher's Beliefs about Emotions

Emotion beliefs	<i>M</i>	<i>SD</i>	Min	Max	Scale Interpretation
Talk/Label	4.60	.60	4.00	5.00	Agree
Expressiveness	4.14	.53	3.00	5.00	Agree
Bonds	3.71	.60	2.00	4.00	Neither agree or disagree
Display/Control	3.42	.56	2.00	4.00	Neither agree or disagree
Instruction/Modeling	3.14	.75	1.00	4.00	Neither agree or disagree
Protect	2.00	.48	1.00	3.00	Disagree

Given that some of the reported alphas are low (i.e., $<.70$), tables 7 to 12 are provided to report the individual educator's scores per questionnaire item for the subscales. Table 7 shows the educators responses per item for the talk/label sub-scale. Item scores ranged from 1 to 5 with

a median of 4. Median scores suggest that most educators agree with the items of the talk/label sub-scale. Item 1 (*When one of my children is upset about something, I usually try to put into words how he or she is feeling*) received strongly agree from all educators and item 2 (*I often label the children's feelings for them, such as "You seem worried about our trip to the swimming pool"*) received agree from all educators. Items 3, 4, and 6 are reverse scored for the aggregate educators' scores. For example, item 3 (*When children are upset or angry about something, it's not the best time to talk about their feelings*) received a score of 1 (strongly disagree) from all educators. However, when these scores are reversed scored, they are converted into all 5 (strongly agree) suggesting that when the children are upset or angry about something, it is a good time to talk about their feelings, thus further endorsing the talk/label subscale.

Table 7.
Educator's responses per item for talk/label subscale

Emotion beliefs items	Educator Responses						
	Mello	Malika	Charlotte	Sarah	Natalie	Pamela	Cindy
1. When one of my children is upset about something, I usually try to put into words how he or she is feeling.	5	5	5	5	5	5	5
2. I often label the children's feelings for them, such as "You seem worried about our trip to the swimming pool."	4	4	4	4	4	4	4
3. When children are upset or angry about something, it's not the best time to talk about their feelings. (R)	1	1	1	1	1	1	1
4. I believe that some teachers spend too much time talking to children about their feelings. (R)	1	2	1	2	1	2	2
5. I spend a lot of time talking to children about why they feel the way they do.	4	5	4	4	4	4	4
6. Children in my class are too young for me to discuss the causes of their feelings with them (R)	5	5	5	4	5	5	5

Notes: (R)= scores that were reverse scored.

Table 8 shows the educators responses per item for the expression subscale. Item scores ranged from 2 to 5 with a median of 4. The median score scores suggest that most educators strongly agree with the items of the expression sub-scale. Item 4 (*I constantly show the children how much I love them*) received agree from all educators. Item 3 is reversed scored for aggregate educators' scores. It received mostly scores of 2 (disagree) and 1 neither agree nor disagree. When reverse scored these scores are converted to agree, suggesting that educators agree that when they are upset at children's behaviour, they show it, further endorsing the expression sub-scale.

Table 8.

Educators' responses per item for expression subscale

Emotion beliefs items	Educator Reponses						
	Mello	Malika	Charlotte	Sarah	Natalie	Pamela	Cindy
1. It's good for a teacher to let children know when she is feeling angry..	5	5	5	5	4	4	4
2. Teachers should "let their feelings out" in the classroom.	4	5	4	4	4	4	4
3. When I am upset with the children's behaviour, I try hard not to show it. (R)	2	2	3	2	2	2	2
4. I constantly show the children how much I love them	4	4	4	4	4	4	4

Notes: (R)= scores that were reverse scored.

Table 9 shows the educators responses per item for the bonds subscale. Item scores ranged from 1 to 5 with a median of 3. This median score suggests that most educators neither agree nor disagree with the bonds sub-scale. Items 1 and 3 are reversed scored.

Table 9.

Educators' responses per item for bonds subscale

Emotion beliefs items	Educator Reponses						
	Mello	Malika	Charlotte	Sarah	Natalie	Pamela	Cindy
1. People are better teachers if they aren't emotionally involved with the children. (R)	2	2	2	3	3	4	2
2. It's good to hug and touch children affectionately throughout the day.	4	3	4	3	4	4	4
3. In my classroom, I avoid being physically affectionate or "huggy" with the children. (R)	3	2	2	2	1	2	4
4. Children need to feel emotionally close to their teachers.	5	5	5	4	3	3	3

Notes: (R)= scores that were reverse scored.

Table 10 shows the educators responses per item for the display/control subscale. Item scores ranged from 3 to 5 with a median of 4. The median score suggest that most educators agree with the display/control sub-scale. Item 2 (*Children in my class are really too young to display their feelings in “socially acceptable” ways*) received a neutral response from all educators. Items 1 and 2 are reversed scored in the aggregate educators' scores, yet that does not change the neutral responses.

Table 10

Educators' responses per item for display/control subscale

Emotion beliefs items	Educator Reponses						
	Mello	Malika	Charlotte	Sarah	Natalie	Pamela	Cindy
1. Children the age of those I teach are really not ready to control the way they express their feelings. (R)	3	3	3	3	3	3	3
2. Children in my class are really too young to display their feelings in “socially acceptable” ways. (R)	3	3	3	4	4	4	4
3. As a teacher, it’s important for me to teach children socially acceptable ways of expressing their feelings	4	5	5	5	5	5	5

Notes: (R)= scores that were reverse scored.

Table 11 shows the educator's responses per item for the instruction/modelling subscale. Item scores ranged from 2 to 4 with a median of 3. The median score suggest that most educators neither agree nor disagree with the instruction/modelling sub-scale. Items 2 and 3 were reverse scored in the aggregate educators' scores.

Table 11

Educators' responses per item for instruction/modelling subscale

Emotion beliefs items	Educator Reponses						
	Mello	Malika	Charlotte	Sarah	Natalie	Pamela	Cindy
1. 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.	3	4	3	3	3	2	4
2. Teachers should avoid showing children how to express their feelings. (R)	3	3	3	3	3	2	2
3. 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)	3	2	3	3	3	3	4

Notes: (R)= scores that were reverse scored.

Table 12 shows the educators responses per item for the protect sub-scale. Item scores ranged from 1 to 5 with a median of 2.

The median score suggest that most educators disagree with protect. Item 2 was reverse scored for the aggregate educators' scores.

Table 12

Educators' responses per item for protect subscale

Emotion beliefs items	Educator Reponses						
	Mello	Malika	Charlotte	Sarah	Natalie	Pamela	Cindy
1. Teachers should not read children stories that might make them sad or worried	1	4	2	2	2	2	1
2. Children should be taken to funerals and other family events, even if they might feel sad or upset as a result. (R)	5	2	5	5	5	5	5
3. If a class pet died, I would not tell the children because they might become too upset	2	5	2	2	2	2	2

Notes: (R)= scores that were reverse scored.

Integration of datasets for research question one

The integration of the qualitative findings (categories) and the quantitative findings (TBAE questionnaire) for research question one are presented in Table 13 for confirmation, expansion, or discordance as discussed in the methods section.

Table 13*Qualitative categories and quantitative findings matrix for research question one*

Category	Qualitative Description	Expansion	Confirmation	Discordance
Emotion expression	Educators described a belief that young children need guidance from adults in expressing emotions appropriately. With positive adult support in verbal and non-verbal expression, and tools children's emotion regulation will mature over time.	--	Scores on the talk/label subscale showed that the educators agree that they should support children in talking about their emotions and providing words for their emotions.	Scores on the display/control subscale showed that the educators neither agree nor disagree that their students are capable of regulating and expressing their emotions in socially acceptable ways.
Sharing educator's emotions	Educators described a belief in the importance of talking about their feelings to the children.	--	Scores on the expressiveness subscale showed that the educators agree in the belief that it is important to express their positive and negative emotions in front of their students.	--
Use of strategies to support emotion regulation	Educators described the belief in using strategies (such as modeling) with young children to support their emotion regulation with the goal that children can draw on them during emotion eliciting situations.	--	--	Scores on the instruction/modeling subscale showed that the educators neither agree nor disagree that it is important to explicitly instruct their students on how to appropriately express emotions.
Emotion regulation and	Educators described the belief that it was their role to support	--	--	--

overall development	emotion regulation not only for social-emotional development but for overall development.			
Guidance through negative emotions	Educators discussed the importance of supporting emotion regulation in children by protecting them from some emotion eliciting situations depending on the emotion regulation abilities of the child.	--	--	Scores on the protect subscale showed that the educators strongly disagree that it is important to shield children from strong emotions.

Notes: Scores based on median scores for subscale; -- = no score on TBAE

Educators described a belief that young children need guidance from adults in expressing emotions appropriately. The qualitative data revealed the *emotion expression* category, which is made up of three sub-categories: (a) *verbal expression* (emotion labelling and intonation), (b) *non-verbal expression* (body language and hand signals), and (c) *tools to support emotion expression*. Mean scores for the *talk/label* subscale (4.60) and a median score of 4 for individual educator questionnaire item responses on the TBAE suggest educators agree that they should support children in talking about their emotions and providing words for their emotions. The integration of the qualitative emotion expression category with the *talk/label* subscale (e.g., *I spend a lot of time talking to children about why they feel the way they do*) on the TBAE resulted in confirmation of data because the data findings converge and both show that educators endorse giving children support in expressing their emotions. In the qualitative findings educators described using emotion labelling to support children's emotion expression through pairing words with feelings and emotions. The *talk/label* subscale on the TBAE also captured emotion beliefs through verbal expression (e.g., *When one of my children is upset about something, I usually try to put into words how he or she is feeling*). Additionally, in the qualitative findings educators described emotion expression as both verbal and non-verbal, and described many tools to support this expression. Educators believed that non-verbal expression was an important component of supporting emotion regulation in children and when paired with verbal expression and emotion regulation tools, was very effective. This was based on the belief that coupling verbal and non-verbal was an effective way to demonstrate positive emotion expression. Furthermore, challenged regulators received exaggerated verbal and non-verbal expression support in order to help them focus on what the educator was saying in the moment, in an attempt to distract them from the emotions they are experiencing. Verbal expression was not

only comprised of talking and labelling children's emotions but also using intonation while doing so. This helped communicate the feeling behind the message and was useful in teaching the children how to express emotions appropriately. Educators also believed in adjusting the language they used when labelling their emotions based on the child's emotional and cognitive ability. They further described that labelling children's emotions had to be paired with a brief explanation of the emotion behaviour and its consequence. These qualitative results describing educator's emotion beliefs illustrate a complex process of emotion expression educators use when supporting emotion regulation that goes beyond just talking or labelling children's emotions as suggested in the TBAE tool. Educators described using emotion expression (verbal and non-verbal) more with challenged regulators based on the belief that challenged regulators lacked the emotion language to express their feelings and emotions often leading to inappropriate behaviour.

The integration of datasets revealed discordance between the *emotion expression* category and the *display/control* TBAE subtest (e.g., *As a teacher it is important for me to teach children socially acceptable ways of expressing their feelings*). The qualitative findings revealed that educators believed that it is important to teach children to express emotion in socially appropriate ways and provided tools to help them do so. More specifically, individual educator scores revealed a median score of 4 with a range of scores from 3 to 5. However, item 1 on this subscale, referring to children's age (*Children the age of those I teach are really not ready to control the way they express their feelings*) received individual scores of 3 (neither agree nor disagree). Item 2 (*Children in my class are really too young to express their emotions in socially acceptable ways*), which also refers to children's age, received three educators' scores of neither agree nor disagree but also four scores of agree. Yet, for the item that does not reference age with

respect to socially acceptable ways of expressing feelings (i.e., *As a teacher, it's important for me to teach children socially acceptable ways of expressing their feelings*), all the educators scored 4 and above suggesting they agree with this item. In the qualitative data educators described how, with positive adult support of emotion regulation, all children can learn to develop control of their emotions over time. While they did not specifically mention age of children, it seems that they believed all children have the ability to mature provided that they have positive adult support. In addition there is a slight difference in the scores for items 1 (*Children the age of those I teach are really not ready to control the way they express their feelings*) and 2 (*Children in my class are really too young to display their feelings in "socially acceptable" ways*), suggesting that the educators feel neutral about children at a young age being able to control their emotions but are capable of socially acceptable expression of the emotions.

The integration of the datasets revealed a confirmation between the *educator's sharing their emotions* qualitative category and the *expressiveness* subscale on the TBAE. Through the qualitative findings, educators described a belief that it is important to talk about their emotions in front of the children so that the children observe problem solving strategies, appropriate emotion regulation and expression, and see that the educators are human too. Mean scores on the TBAE *expressiveness* subscale (4.14), a median score of 4 and range of 2 to 5 for individual educator questionnaire item responses. Item 3 (*When I am upset with a child, I try hard not to show it*) received individual educator questionnaire scores of mostly 2 (disagree) suggesting that if they are upset with a child's behaviour they do try to show it. There was no discussion about educators sharing their emotions differently with high or challenged regulators. However, some educators did describe how high and challenged regulators would respond to the educator

sharing their emotions, with high regulators more engaged in the sharing of emotions and challenged regulators not responding at all.

The integration of datasets revealed a discordance of the qualitative category of *use of strategies to support emotion regulation* and with the TBAE *instruction/modelling* sub-category. Educators described the belief that it is important to use strategies and tools to support emotion regulation in children so that the children had the strategies as resources to draw on in emotion eliciting situations. Strategies and modelling were described by all educators as effective in supporting children's emotion regulation. Some educators described using more instruction and role modelling with challenged regulators because of the belief that they would benefit the most. They also described pairing high regulators with challenged regulators as a form of peer modelling. However, educator scores on the *instruction/modelling* subscale suggest that educators vary in the belief that they should instruct or model appropriate emotion expression as most of them neither agree nor disagree.

The integration of the qualitative category *guidance through negative emotions* and the TBAE subscale *protect* resulted in discordance of data because different findings emerged. Mean scores on the sub-category *protect* (2.00), a median score of 2 and range of 1 to 5 for individual educator questionnaire item responses suggests educators' range in the belief that it is important to shield children from emotion eliciting situations. However, most educators scored a 1 to 2 suggesting they strongly disagree or disagree with this emotion belief. On the other hand, Malika scored 4 to 5 on all three items. In the qualitative findings, Malika described how she tried to eliminate situations that caused negative emotions, especially in challenged regulating children. Other educators described certain situations where they would shield children from emotion eliciting situations. There were situations where they believed that being exposed to the emotion

eliciting situation was a good learning experience or opportunity for the child to practice emotion regulation under the educator's supervision and guidance. Educators described shielding challenged regulators from emotion eliciting situations more often because their lack of emotion regulation would often disturb the class or cause negative emotions in the educator (e.g., anger, sadness, frustration).

A category that emerged from the qualitative data that was not measured by the TBAE tool was *emotion regulation and overall development*. This stemmed from the belief that dysregulation interfered with overall learning and development. More support was given to challenged regulators based on the belief that they needed more support and their overall development was impacted by dysregulation. Bonds, a subscale that was captured in the TBAE, was only mentioned in the qualitative findings for research question two.

Research Question Two

To answer the second research question, how do educator-student relationships enhance understanding of ELC educators' support of varying abilities of emotion regulation in young children, the qualitative and quantitative datasets were analyzed and integrated. First, a content analysis was conducted on the qualitative interview data. Second, descriptive statistics and correlations were conducted on the ERC and STRS. Last, the interview data and ERC and STRS scores were integrated using a side-by-side comparison.

Qualitative findings. The content analysis of the interview data for research question two resulted in three categories and six sub-categories: (a) relationship quality with the sub-categories of conflict, closeness, need for stability, and bonds; (b) strategies for developing close relationships with the sub-categories of targeted attention and strategies for challenged regulators, and special tasks and challenges for high regulators; and (c) educator's frustrations.

Category one: Relationship quality. Most educators (Mello, Malika, Stephanie, Sarah, and Pamela) described their relationships with the students as a fundamental contributor to the student's overall development. Sarah commented, "It is one of the most important relationships they will have in their life because it sets the stage for all other relationships." They described their relationships with the students as having an impact mainly on social-emotional development but they also described their relationships with the students as having an impact on learning such as "reading, writing, and arithmetic" (Malika). This impact on social-emotional development and learning was due to a "feeling of security and warmth" (Mello) the students had with an adult who is a "provider of their basic needs" (Stephanie) as well as other needs, such as, "direction, modelling, affection" (Sarah), and to "be there for them" (Pamela). Sarah described the impact her relationship with the students had on the student's development: "Trust in knowing that their basic and other needs are met, allows for them to feel comfortable exploring their environment and learn but also adapt to new situations like the introduction to a new scary pet in the classroom." Malika described the need to have a close relationship with all children as follows:

It's really important for the staff to be like their mothers. Because honestly some of these kids don't have close relationships at home. They don't have that cuddling time. I feel so bad for those. And we don't always know what they have going on at home so we have to be like that to all the children.

Some of the educators (Pamela, Sarah, and Natalie) described how their high quality relationships with high regulators in particular provided a basis for sharing and learning not only for the students but for the educators as well. Pamela described the relationship quality with a high regulator as follows:

We have a great rapport that I don't have with all kinds of kids; all different personalities or emotion regulators as you call it. I can correct them or give feedback and know how they will react and know they will be able to handle, or not even experience a negative emotion at all, an emotion that would result from me correcting them. So it just makes for a smoother relationship and we can go deeper, sort of, because we are not stuck on spending time and energy and effort on, you know, this is how we appropriately show anger. And at the end of the day, I feel like I can share more with them and have a deeper relationship with them as well.

While educators intended to have a quality relationship with all students, some educators (Sarah, Mello, Charlotte, and Stephanie) reported that it was more challenging building a relationship with challenged regulators. When referring to emotions they experience when interacting with challenged regulators, Charlotte explained, "He just would push me away or reject my attention." Stephanie commented on a challenged regulator in her classroom as follows, "She would rather sulk alone than come to join in activities with us. So I just let her have her time alone and she comes over when she is ready but by this time anything can set her off again, she is so volatile." Natalie and Malika reported that for challenged regulators a strong relationship with the teachers was particularly important in emotion eliciting situations. While the relationship with the teacher "did not prevent emotions to arise in the first place" (Natalie), they did help the children "recover quicker" from the arousal (Malika). When referring to a challenged regulator in her classroom, Sarah explained, "I think my calm way and interactions with him comforts him in that he can look at me or just know I am in the classroom and calm himself."

Through the four sub-categories described below, relationship quality was further illustrated.

Sub-category: Conflict. Conflict in an educator-student relationship was described as having negative emotions towards the other person, unwanted or undesirable behaviour, such as "crying" (Natalie, Mello, and Sarah), "throwing objects" (Sarah), or "ignoring instruction" (Malika and Charlotte). Some conflict was seen as beneficial to the educator because it provided a learning opportunity for the child. Malika described how she used conflict as a learning opportunity as follows:

Well, I had a child snap at me the other day and I- I - was so mad so I had to sit down with her and explain how it was inappropriate to speak to me that way or anyone for that matter. When her mom came to pick her up I had her explain what happened and the conclusion, the solution, rather, that we collectively came up with so it held her accountable telling a third person, like her mom.

While the educators did not have difficult relationships with every student, they reported feeling conflict more often with challenged regulators.

Sub-category: Closeness. Closeness in the educator-student relationships was described by all educators as sharing physical (e.g., hugging, touching, sitting on lap of educator, smiling, winking) and emotional exchanges (e.g., "sharing personal information and feelings/emotions," "spending time together doing activities"). Some educators (Malika, Sarah, Mello, and Charlotte) described having a closer relationship with high regulators. When referring to a high regulator in her classroom, Sarah commented, "It's just easier getting close to them." When describing the close relationship with a high regulator in her class, Malika commented, "I would say it more pleasant of a relationship." Pamela described the ease of getting close with a high regulator as follows: "Well from day one we were close. We had that immediate connection that you hope to have with all children." While Natalie described the difficulty she experienced getting close to

challenged regulators, she also described how one challenged regulator's inability to manage her own emotions attracted her attention to the child, thinking that she tended to need her more to get through certain situations. Her quote is as follows:

Well there was a student in my class last year and no matter what I did, she could not get used to me. Every morning it was the same thing, she would cry when she was dropped off and she just wouldn't relax around any of us. I didn't take it personal because she was like that with all staff. If it was me I would probably be upset (laughs) but it motivated me to keep at her; I just felt she needed to get through it. But yeah, she would get upset over little things, like things that other kids would recover rather quickly from. We tracked her behaviour and progress and at the end of the year she got so much better but she still couldn't attach herself to any of the staff or other children- she always kept a distance from us, and not just a physical space but like an emotional space, yeah. That's it!

When asked why Natalie had more ease in developing a close relationship with this student she replied as follows:

Well, you know, I think we had the same agenda and wanted the similar end goal. For me, I wanted a close relationship with all my students. For her, she probably wants the same thing but for a student who is not on that same level would be thinking oh, I just want to feel better but I don't know how to get there when I am not in my comfort zone. So I think that affects them getting close with the staff.

Sub-category: need for stability. Dependency in the educator-student relationships was described as having security and trust to rely on each other. Some educators (Sarah, Natalie, Mello, Charlotte, and Stephanie) described having a more secure and less dependent relationship

with high regulators than challenged regulators. This relationship was characterized by more positive interactions (e.g., laughing), less "emotional teaching" (Natalie), and more co-dependence (Sarah), and "relying on each other rather than the child relying on us" (Natalie). Stephanie explained the relationship with a high regulator as follows: "I don't know. It's like he doesn't need me. He's still a little one so there are things he will go to me to figure out but yah, he can figure most stuff out on his own." When describing a high regulator, Sarah explained, "And I do depend on them more. If I need something done I would ask one of those children to go and do it for me." Mello describes her relationship with a high regulator as follows:

So the kid who is a high emotion regulator like you described it, I would joke more with them more and like my sense of humour would come out a little more. So I could say oh you don't need to be doing that, they would laugh instead of taking it seriously. Because they would know I am joking or have their best interest and am not a threat. So I think those children who are more self-regulated then I am able to joke with them more.

On the other hand, challenged regulators were described as having less secure and less dependent relationships with educators. This relationship was characterized as mistrust by the child in the educator, and "less seeking support" from the educator (Malika). Charlotte explained, "He will like just sit there, run around and scream and knock things over instead of coming to me (laugh)." Malika gave an example of a child with challenged regulating ability who was upset that her mom was leaving her during morning drop off:

So I grabbed the girl as the mother rushed out of the room. The girl's body went limp and she threw her head back and hit me in the throat knocking the wind out of me. It was essentially because of a lack of trust the child had in me...In her defence there has been a

huge turnover in staff recently and I don't blame her for the lack of trust. But I think those kids, like the one with the red shirt dealt with the change the hardest."

While most educators described their relationship with challenged regulators as less secure and less dependent, Stephanie described a relationship with a challenged regulator as more dependent. Her relationship with this child is reflected in the quote as follows:

So I was working with him and using all the strategies I learned. He was so attached to me because for him it was like finally somebody understands me. That's why he always came to me. If he was at the other end of the room with another teacher and somebody hurt him and instead of going to the teacher he came all the way to the other side of the room to talk to me. That is what I noticed. It is very hard for him when I went on vacation for two weeks because I wasn't in the room. So he was completely different. And he was looking in the room. That's what my co-worker said. He was looking in the room so it was very hard for me to step back and let somebody else step in.

The need for stability sub-category was made up of educator's descriptions of challenged regulators as having less secure and less dependent relationships with educators. High regulators, on the other hand, were described as having more security and trust in the relationship with the educator. The last sub-category is bonds and is described below.

Sub-category: Bonds. Educators described using techniques of getting to know each individual child to bond with them. Techniques to becoming emotionally involved and bonding with the children include, spending "one on one time with each child" (Charlotte), staying in "close proximity" to the children (Mello), welcoming them every day to class (Sarah, Charlotte, Natalie), having private jokes with certain children (e.g., "he and I have inside jokes between us"; Pamela), asking them questions (e.g., "what did you do this weekend, Joey?"; Sarah),

reminiscing about the past (e.g., "I say, remember when we went on the walk and saw the poor little bird who could not fly? Remember how we felt for the bird?"; Charlotte), and sharing personal information with the children (e.g., "I have a German Sheppard dog at home who likes to dig holes in my garden"; Stephanie).

Educators (Sarah, Natalie, Mello, Malika, and Pamela) shared their intent to have a bond with all children. Some of their quotes on developing bonds with children are as follows: "We have to get close with them" (Sarah), "It is important to try to at least bond with each child" (Natalie), "He and I have a relationship built on trust and respect and it is the foundation for all other activities in the preschool" (Malika). The intent of developing bonds with the children was based on the belief that having a bond between educator and child gives the children a sense of security in the classroom to develop other relationships and explore the environment and learn. Sarah explained the sense of security children feel as follows:

I think the close relationship we develop with them is like a blankie or soother; it's as though they feel safer knowing that we are there to help them or care for them if they get hurt or scared.

While educators intended to bond with each child, they described the extra effort that has to be put into developing or maintaining a bond with challenged regulators. Malika described her struggle trying to develop a bond with challenged regulators as follows:

Kind of like there are some children you just bond to naturally and really quick. Because their behaviour is great, they just joke with you, they like talking to you. But there is other children in the classroom where you have to make an effort to have that relationship or go over to that child because it doesn't come naturally and they don't want to do it because they are playing. Often I find children like that little guy [points to challenged

regulator in the video vignette], they don't want to be around you. They are always trying to be in the middle with children. So for me knowing that it could really affect my bonding I make more of a mental note to make an effort to make sure I am still trying to make a bond with that child.

While more effort was made to bond with challenged regulators, educators described less effort needed to develop or maintain a bond with high regulators. Natalie explained:

The other day I looked at him [a high regulating child] from across the room because he was jumping off the blocks pretending to be some sort of superhero he saw on TV, and I looked at him and he looked at me and I gave him this sort of smirk to say like that he knows better to not jump off the blocks and we both just laughed. I didn't have to say anything. That is really good. You connect with the child and you get this sort of back and forth thing going on that other kids don't get.

Later in the interview, Natalie said, "like you feel bad for them [challenged regulators who do not have many friends] but at the same time they don't want to get close to you." Pamela described why she believes it might be harder to bond with a challenged regulating child as follows:

Usually it is the children who like to play by themselves a lot. It just does come easier if they are talking to you and interacting but it's really hard with those children....I find for me one of my hot buttons is just being....you know with some of them, because I see them being that way. So that would be it. Most of the children I try to bond with as quickly as possible too, like in September it is all about that. But there are some children I see being mean in the corner and when you talk to them they don't make eye contact and all of that. So for that kind of thing I need to take a lot more effort to bond.

Some educators (Charlotte, Sarah, and Pamela) described trying to have close emotional bonds with all students because the children may not get it at home and believed bonding with others was a “critical foundation for all development” (Charlotte).

They all come from different environment, I know. This fortunately enough is a wealthier neighbourhood but you still don't know what kind of relationship the kid has with the parents. Some parents work so much and only the nanny sees the kid so you sort of have to be that missing support for them and have that bond that they might not otherwise have.

While educators tried to develop a close relationship with all children, most educators described having a stronger bond with higher regulators because they believed higher regulators were, as Charlotte explained, "more comfortable taking a risk of developing that relationship with the adults." Mello, Pamela, and Stephanie also described having a more positive relationship with the higher regulators, in that “sometimes makes our interactions more pleasant and enjoyable for both the kids and us. So in the end we are developing a stronger bond with them” (Mello). Positive relationships with higher regulators were described as: "we laugh at silly things" (Mello), "I give high fives but the shier ones don't like it" (Mello), "She smiles at me and I smile back just as we are passing each other" (Stephanie). On the other hand, the relationship with the challenged regulators was described by more negative interactions. Some educators explained how the negative interactions would sometimes interfere with creating a bond with that child. For example, Stephanie described giving "more strict instruction" with challenged regulators. Natalie, Pamela, and Charlotte described more crying from challenged regulators, which created a negative exchange between the educator and child. "She cries a lot and it upsets me but sometimes I have to ignore it" (Charlotte).

Category two: Strategies for developing close relationships. Educators described strategies that were used with the children to develop close relationships. Sarah said, "With all my years of teaching, I have a few tricks up my sleeves. I pull out these tricks to get closer to them."

This category was divided into two sub-categories: (a) targeted attention and strategies for challenged regulators, and (b) special tasks and challenges for high regulators. The sub-categories are described below.

Sub-Category: Targeted attention and strategies for challenged regulators. Educators described the intent to give all children equal time and attention because "they all need a close relationship with the ELC providers so we have to make sure they all get it" (Sarah). Mello described treating all students equal as follows:

No, it's the same relationship. And we have to make sure everyone is treated equally. It doesn't matter if it's high or low. That's very important. You just have to make sure you give them the right support. But it would be the same relationship with every child. Pamela commented on treating all children fairly as follows, "I treat all children fairly. In our hearts there is someone close to you- you cannot avoid this. But I don't show it. If there was something wrong I have to deal with that. I don't show favour."

While educators intended to treat all children the same, it was revealed in their interview that challenged regulators might require targeted attention and strategies from the educators. Targeted attention for challenged regulators was derived from the educator's belief in the importance of adapting their teaching style or practice to the child's abilities or needs. This is reflected in Sarah's comment:

What is this child's personality? Their likes/dislikes? Ability? If they can't comprehend you telling them to relax or tone it down a notch, then you have to take a step back. If they are more anxious and hyper than you have to know how to handle them but this requires a lot of experience in this field.

Sarah's comment was echoed by Natalie as follows: "We are always assessing where each child is at in their development to know how to tailor our teaching to meet their needs." Pamela described needing to be "in tune with each individual child" which came from watching the children interact on a daily basis ("Every day I observe them interacting and playing") and having ample one on one time with each child ("I spend time with each one on one to see what they are like when other students aren't around or their best friend"). Natalie commented on a particular child in her class as receiving targeted attention as follows: "He gets aggressive because he does not get his way. So we have to keep an eye on him all the time." In response to asking the educators how they would respond to the situation in the video, Malika described how she would "watch the children out of the corner of her eye and only interject if really needed." This technique allowed her to "observe how the low regulator would naturally problem solve or handle their emotions without adult guidance."

Mello, Natalie, and Stephanie described giving targeted attention to low regulators often because their emotional state would often "disrupt the classroom environment" (Mello) if they "were unattended" (Mello). For example, the emotional state of low regulators could impact "learning of other students" (Stephanie), or "even keeled-ness of everyone" (Natalie). Mello was prompted by the video vignette to share an example of a challenged regulator (boy) in her class. Her story is as follows:

On days when his father, who often worked out of town, would drop the boy off to day care in the morning, the boy would have a hard time saying goodbye and his whole day would be one big tantrum. He would often throw objects and hit and kick both students and staff. So on these days I do give him extra attention- on days his father dropped him off – so cuddling, soothing, distraction, correction, but also during other days, working on identifying his emotions, giving him words for his emotions, and giving him opportunities to practice regulating his emotions in preparation for bad days.

The educators described providing more one on one time with the challenged regulator and special opportunities to challenge or "push" the child's emotional regulation. Natalie described a belief in challenging a low regulator as follows:

Like for a higher regulator I would make those challenges more challenging. But for a lower regulator I wouldn't take away all the challenges- I would just alter them so they would be things like that.....actually I have this one kid in my room that is this way now. Her whole day will just go sideways. To the point where the next day she is just shaking and she is afraid she will have another bad day. But one thing she can do is give her control of something but she has to be last. So it's good though. Like if you need something passed you say ok, pass this to everybody and you can have it last. So she gets lots of lessons like that because she needs the practice.

Charlotte described providing differentiated attention to high and challenged regulators as follows:

Yah I would say the strategies are very different. So the children who are not emotionally able to regulate Itotally. If there was a situation that would arise if I know that a child can emotionally regulate then I would not so much brush it to the side but focus with it. I

see that you just pushed that person, now what do we need to say blah blah. But if I see a child that I know is not able to regulate emotions very well come through and push a little bit, if it's not a major deal I let it pass. So I just pick my battles with those children. So the children who are able to emotionally regulate, then I am usually kind of on them especially at the beginning. Because I see that they are able to handle it because they can go further and become those problem solvers and that kind of thing. Whereas I know if some children can't I am just going to be like we are going to leave that today because you need a little bit of help instead of no, you need to do it yourself. That kind of thing.

Educators also described taking the time with challenged regulators to walk through the steps of emotion regulation. Sarah described using this strategy with challenged regulators because they do not have "well developed internal processes to help them control their feelings" (Sarah) so they need educators to help walk them through the process. Sarah commented, "stopping, breathing, counting to three". Natalie described having to support the challenged regulator, step by step, in what to say, think, and act in an emotion eliciting situation. This was reflected in the quote as follows: "You have to break it down for them step by step. This is how you pause for a moment; then you pause and show them. This is how you breath....and so on. Some of them need this."

Malika, Sarah, and Charlotte described giving high regulators different strategies to support emotion regulation development than the challenged regulating children. Strategies for high regulators included questioning actions and reasons or emotions behind behaviour ("I would say, why do you think he is feeling sad? Could it be because A or B and give them choices", Malika, and "I can see you are mad at me. Is that the reason you threw the truck at me? And then we would work out a better solution to show mad", Sarah), and introducing more complex

emotions, such as, jealousy and frustration ("I try to show them the dark side of jealousy and envy", Charlotte). Charlotte described the reason for providing different strategies as follows:

They kind of are already there, like at that level. So like they have that sort of basis. It might be that at home they have parents who talk about their emotions more, like today at work mommy was so angry at her co-worker. Or older siblings. Older siblings I find is a big one.

During the member-checking phase, the educator of the quote above Charlotte further described how older siblings act as a role model for younger siblings in using more sophisticated emotion words and showing more mature emotion regulation.

While challenged regulators required, and were given, targeted attention and strategies, the educators described the emotional strain it had on them. Natalie described the emotional strain challenged regulators caused her as follows:

Yah, like I give her these little extra tasks but let me tell you it doesn't happen often. I just can't. I have a room full of other students needing attention and it's just exhausting with her crying all the time. So I choose my battles so to speak. And like I would like to push her limits every day but to have her on the floor having a tantrum every day is just not.....it's just not something me or the staff can handle daily.

While saying this quote the facial and body language of Natalie was very emotional (hunching low on the desk and face in hands and slamming her hands on the table). Pamela described how educator-staff ratios were low in her classroom and described how challenged regulators would get even more one on one attention if they had more staff in the room. The following quote reflects her feelings:

It's hard because we are eight students to one teacher. It's hard for the staff to take care of that. There are some teachers that are one on one but we don't have funding for that. So we do the best we can...It would be great if we had the extra set of hands because the children with less emotion control demand extra time from us.

Sub-category: Special tasks and challenges for high regulators. Educators described giving special tasks and challenges to high regulators because "They will be able to handle the emotion associated with completing the task because again, they have those internal processes" (Mello). When describing a high regulator in her classroom, Charlotte commented: "She has shown me interest in helping but also that she can take on a special helper role." Mello also described giving high regulators tasks to challenge their emotion regulation as follows:

One child in my classroom is really smart and he has many friends and a few really close ones. But once in a while we will challenge him and ask him to do something that will push his limit. Not a lot but.....like yesterday, no not yesterday, last week- I don't even know what day it is, we got a new game in the class so I taught him how to play and asked him to help me teach other kids how to play. He did great. There were some moments I could tell he was getting frustrated so I had to remind him to be patient while others were learning but other than that he was really good at explaining the game to them.

Malika described giving leadership roles to high regulators, "I get them to help distribute food for snack time or take leadership roles." Stephanie explained that she gives high regulators special tasks because they can "handle the tasks with ease and provide a good example for other children on how to complete the task successfully." Stephanie described giving a high regulator special tasks as follows:

Oh she is good. She will help me put smiley faces on the pancakes. Because I know she will be able to do it without me watching her through it all. I can go get the fruit and leave her and come back and she will be concentrating on the syrup. She can handle it while he can't. I would have to watch him through it all and he would get caught up with his emotions and make a mess of it or not be able to finish the smiley faces. So I see this in her and I use it to show others how to behave.

The strategies for developing close relationships category was made up of descriptions of targeted attention and strategies given to challenged regulators and special tasks and challenging tasks to high regulators in the classroom.

Category three: Educators' frustrations. All educators described experiencing several different emotions (e.g., anger, sadness, frustration, feeling sorry for the child) in response to the child in the video vignette that experiences challenges regulating and similar children in their classroom. Mello explained her emotional response to challenged regulators in her classroom, "I was like crying at home every day and was so tired because I got my own kids. I was like I can't do this job." While many emotions were cited by the educators, frustration was the most intense emotion described and was identified most by the educators (Malika, Mello, Stephanie, Charlotte). Sarah described this frustration as follows:

Sometimes I get frustrated. I would be plastic if I said no. Sometimes it is frustrating. Because I feel for the child; he needs extra help that we cannot afford to give him. Because the child is nice when you talk to him one on one. He just needs proper guidance.

When asked if the emotion they experienced in response to the challenged regulators emotional behaviour would influence their relationship with the child, educators reported

different answers. Some of them reported that it depended on the emotion they were experiencing. For example, if the emotion experienced by the educator was sadness or sympathy for the child the educator might "feel closer to the child" (Malika). Yet the educators (Sarah, Natalie, Charlotte, Stephanie) reported not letting the emotion they experienced interfere with their relationship with the child. The educators all provided examples of ways they deal with the emotions, which included external techniques (e.g., going to the gym, talking to a colleague or the day care director) or internal techniques (e.g., deep breathing, counting, pushing the emotion to the side). Natalie described ignoring her emotions as follows:

I try to push it (frustration) to the side. I have no choice. It makes me sad for them but then I get frustrated. So I have to deal with it on the spot or else we can't like move forward I guess.

Charlotte described having to leave the situation when she would get emotionally charged as follows:

I know what you are saying. It would make me feel tension with the kid. For me I always have to take multiple steps back before dealing with that child. And thankfully there is another person so we can trade off. But for sure it does. It does but it helps me aware that it can't. Does that make sense?

Removing herself from the situation allowed her to deal with her emotions better or allowed for another staff member to try dealing with the child. Educators often explained how in times of frustration they would either ignore their emotion in order to do their job properly or distance themselves from the child emotionally and physically. Stephanie described having to remove herself from a situation and pulling her colleague in to deal with the child as follows:

I had a child that was behaving very bad and I didn't know how to handle. So I said to [colleague's name], can you please go over and try? Somebody else comes in when I really feel I can't handle it anymore.

Sarah also described distancing herself from the child to allow a colleague to step in and try dealing with the child as follows: "Sometimes another person has a better connection with the child." This act of distancing is also reflected in the following quote:

After a while I have to leave the child and go do something else. Besides I can't give him all my attention all day, I have other activities to prepare for. So I tell Mrs. X [colleague] to deal with him. Maybe she has other techniques that work with him. Maybe she gets along with him more and he responds to her more. But I, I get so mad with him sometimes. Sometimes I tell him that- but other times I have to move away from him. I am only human (laugh).

They also reported feeling frustration with challenged regulators who were unable to manage their emotions, because their emotional outburst (e.g., crying, hitting, hiding in corners of the room) would interrupt the classroom cohesiveness and consequently interrupt learning. Sarah described the interruption of the outbursts as follows, "I am going to sound like a hippy saying this, but it interrupts the aura of the classroom (laughs)". Some educators expressed their frustration in putting too much energy into the challenged regulators and feeling exhausted at the end of the day and regrettably admitted that their own emotions may contribute to conflict with challenged regulators. Sarah described how her frustration leads to conflict in the relationship with challenged regulators as follows:

I know it's not right but I am human. So when I put my all into her and I focus my attention on her and work with her through making friends and that kind of thing...and

playing successfully and sharing and counting down when she is upset, that kind of thing, I sometimes don't have any more to give at the end of the day, do you know what I mean? I am not saying I don't try because believe me I do. I am just saying after trying and trying it gets exhausting. And of course, yes, it probably creates a certain negative dynamic in our relationship.

In addressing research question two, three categories and six sub-categories emerged from the qualitative data. The quantitative findings from correlation analysis are discussed below.

Quantitative findings. The STRS and ERC questionnaires were completed by the educators on each child. The quantitative findings for research question two are discussed below.

STRS Descriptives. The STRS was completed by seven Site Leads for 41 students. Descriptive statistics were calculated for the STRS total and 3 subscales: a) Dependency, b) Closeness, and c) Conflict (refer to Table 14). In this group, conflict was high, closeness was low, and dependency was low. Total score was low meaning a general less positive relationship quality. Cronbach's alpha coefficient was calculated for the STRS total score and resulted in .84.

Table 14

<i>Mean, Standard Deviation Values of Sample of Student-Teacher Relationship Scale</i>		
<i>STRS Subscale</i>	<i>M</i>	<i>SD</i>
Conflict	41.99	7.21
Closeness	24.27	9.86
Dependency	7.90	3.17
Total	57.20	6.42

ERC Descriptives. The ERC was completed on each child (n = 41) by each of the seven educators, and it was used to assess whether a participating child is high regulating or challenged regulating based on a median split. The median was 52, therefore, any child with a total score

higher than was coded as a high regulator and any child below 52 was a challenged regulator.

Table 15 shows the total amount of children in the group that were coded as high regulators (above median split) and challenged regulators (below median split) and per educator. There were more regulating challenged children (n=25) than high regulating children (n=16) in the group. Most educators (except Mello and Natalie who had equal numbers) had more challenged regulators than high regulators.

Table 15.

Total number of high and challenged regulating children by educator.

ERC Sub Scale	No. by Educator							
	Ttl No.	Mello	Malika	Charlotte	Sarah	Natalie	Pamela	Cindy
High Regulators	16	5	3	3	1	2	1	1
Low Regulators	25	5	5	5	3	2	3	2

Notes: No.= number; Ttl= total

Correlations. The relationship between the Student-Teacher Relationship Scale (dependency, closeness, conflict) and the Emotion Regulation Checklist (high and low regulation) was investigated using Pearson product-moment correlation coefficient (see Table 16). A preliminary analysis was performed to ensure no violations of the assumptions were made (i.e., normality, linearity, and homoscedasticity). From Table 16 it is shown that there was a significant and strong positive correlation between challenged emotion regulation and STRS conflict, with challenged emotion regulation associated with high conflict in educator-student relationship; and a significant negative correlation between challenged regulation and STRS dependency, with challenged emotion regulation associated with low dependency in educator-student relationship. These findings indicate that educators report having a more conflictual

relationship (e.g., dealing with this child drains my energy) with challenged regulators and less of a dependent relationship (e.g., this child is overly dependent on me) with challenged regulator.

Table 16

Correlation coefficients of STRS and ERC.

		STRS Conflict	STRS Closeness	STRS Dependency
High Regulators (n=26)	Pearson	-.17	.00	.07
	Correlation	.30	.99	.67
Challenged Regulators (n=15)	Pearson	.70**	.29	-.61**
	Correlation	.00	.15	.00

** $p < .001$ (2-tailed)

Integration of datasets for research question two

There was only one point of integration between the datasets. Table 17 presents the qualitative categories and quantitative findings for research question two depending on confirmation, expansion, or discordance as discussed in the methods section.

Table 17

Qualitative categories and quantitative findings matrix for research question two

Qualitative Category	Qualitative Description	Expansion	Confirmation	Discordance
Relationship quality	Educators described their relationship with the students as impacting their overall development. They reported that it is more challenging to develop relationships with challenged regulators than high regulators because of higher conflict and less closeness and dependency present in their relationship.	--	A significant positive relationship was found between challenged regulators and conflict, and challenged regulators and less dependency	--
Strategies for developing close relationships	Educators described strategies that they used with children to develop close relationships. They described targeted attention and strategies for challenged regulators and special tasks and challenges for high regulators.	--	--	
Educators' frustration	Educators' perceived frustration to be the most intense and interfering emotion experienced in response to challenged regulators behaviours.	--	--	

The integration of datasets revealed a confirmation of data from the qualitative category *relationship quality* with a correlation between challenged regulators and educator-student relationship conflict. As part of the *relationship quality* category in the qualitative data, educators described more *conflict* (a sub-category) with challenged regulators because of their inability to manage their emotions, which often leads to disruptions in classroom environments and learning. Educators described this as taking a lot of energy, which leads to exhaustion and more conflict within the relationship. To address the conflict they experience with challenged regulators, educators described developing techniques to deal with the emotions they themselves experienced. These techniques included internal methods (ignoring their own emotions, breathing, counting, or using distraction) or external methods (working out, talking to a colleague, or distancing themselves from the child). Distancing themselves from the child or removing themselves from the situation was a method often described by the educators as a way to calm down or let a colleague try dealing with the child. This may have been interpreted by the educators as adding conflict to the relationship. Because challenged regulators were described as feeling less secure and dependent, this could lead to more conflict and a more difficult time bonding.

The integration of datasets revealed a confirmation of data between the qualitative category *relationship quality* and the significant relationship between challenged regulators and educator-student relationship *dependency*. Educators described challenged regulators as lacking trust, feeling more insecure in their relationship with the educator, and having a less dependent relationship with the educators overall. On the other hand, educators described having a more secure and mutually dependent relationship with the high regulators. Educators described that

they depend on high regulators within their classrooms and that high regulators depend on them for emotional and task completion support.

Beyond the two significant correlations that emerged from the quantitative data, there were no other significant correlations. In addition, some elements of the qualitative findings were not reflected in the quantitative tools. These elements include *strategies for developing close relationships* and *educators' frustrations*.

CHAPTER FIVE

Discussion

The purpose of this convergent mixed methods study was to explore how emotion beliefs and educator-student relationships enhance understanding of ELC educators' support of varying emotion regulation abilities in young children. The use of a mixed methods research design provided rich data that helped to enhance our understanding of the support of varying emotion regulation abilities in children. This chapter includes a discussion of the integration and interpretation of findings of this study to answer the overarching research question. An interpretation of the major findings is presented for the overarching research question through a discussion of how the findings are supported by and extend the literature and emotion socialization theory. This chapter concludes with limitations of the study, recommendations for future research, and implications for practice.

The major finding of this study is that the support educators provide children of varying emotion regulation is impacted by their emotion beliefs and the associated view of how young children should regulate emotions, which ultimately impacts the quality of relationship with the children. Educators described many emotion beliefs that impacted their teaching practice. For example, educators believed it was important to talk about their feelings with children. Sharing of emotions was done for positive and negative emotions in order to connect with the children, show the children that the educators are human with human emotions, and model appropriate emotion expression. This finding of sharing educators' emotions is contrasted by findings presented by Sutton (2004). Sutton found that teachers believed that their ability to regulate their emotions was related to their effectiveness in the job. As a result, 'down-regulating' negative emotions tended to be the most common goal of emotion regulation strategies although 'up-regulating' positive emotion was also viewed as important. Another emotion belief described by

educators was protecting or guiding children from negative emotions. Educators described protecting or guiding children through some negative experiences. An emotion eliciting situation was seen as an opportunity to teach a child to regulate emotion unless it was seen as a danger to the child or if the emotional response of the child would disrupt the classroom and cause significant stress to the educator. Consistent to the findings of this study, Hanson (2008) and Hyson and Lee (1996) found the protect emotion belief to be endorsed the least in their study. They add that endorsing protect the least may indicate that the educators are aware that negative emotions are unavoidable in children's life. Taken alone this finding could suggest that the educators believe children need to cope with the negative emotions instead of preventing children from experiencing such emotions.

Educators described giving differentiated treatment to high and challenged regulators. For example, high regulators received special tasks such as a helper or leadership role in the classroom because the educators felt they could handle the emotion associated with the task. Research on strategies to promote appropriate classroom behaviour and engagement supports this finding (Fried, 2011). It suggests matching a child's emotion regulation ability to a task in a classroom is an important teaching strategy for educators. Educators also believe that because some children lack an internal emotion regulation system, they require special attention from educators to work on developing one. Therefore they took more time walking challenged regulators through emotion regulating strategies in detail (e.g., showing them how to stop and breathe when they are feeling frustrated).

Educators described several emotion beliefs that provide insight into why high and challenged regulators receive differentiated treatment. For example, educators described providing targeted attention for challenged regulators, which includes giving them more emotion

language and emotion labelling (emotion expression) because they believed children's lack of language to express emotion was limited and often caused them to act out, and interrupt learning and the classroom environment. The emotion belief connecting language deficiency and emotion regulation is well documented in early childhood education research (Fujiki et al., 2002; Kopp, 1992; Stansbury & Zimmerman, 1999). This research suggests that language skills provide children with an additional, socially appropriate means of communicating their needs, with enhanced ability to understand their own and others' emotional lives, and with an additional tool for regulating action (Eisenberg, Sadovsky, & Spinrad, 2005). The differentiated treatment towards high and challenged regulators was perpetuated by the belief that with positive adult support and guidance, and teaching emotion regulation strategies, emotion expression for all children could mature over time. They also emphasized how important the nature and quality of the relationship they have with children is for the child's overall development, and believed it was their role as an educator to provide this support to young children. While educators said they want to give all children equal attention and develop a bond with them, the emotion regulation ability of the children requires different strategies and attention. The impact of emotion beliefs on the differentiated treatment of high and challenged regulators extends previous research on educators' beliefs (Ahn, 2005; Delaney, 1997) in at least three areas. First, the current study found additional educators' emotion beliefs that are not captured in the TBAE questionnaire. Hyson and Lee (1996) developed the Teachers Belief About Emotion (TBAE) questionnaire to assess specific emotion beliefs held by early childhood educators. Some of the subscales of the TBAE are made up of items about teaching strategies that may or may not get at the underlying emotion belief. Findings from the current study enhance understanding of the emotion beliefs that underlie some teaching strategies. For example, children learn to regulate

emotions when they have tools to draw on during emotion eliciting situations, thus educators use tools and strategies to support emotion regulation. Second, the findings from the current study provide a deeper understanding of how emotion beliefs impact the types of strategies educators use in their practice. For example, the use of social stories, acting out a scenario in front of the class, or using children with higher regulation to demonstrate a task (i.e., modelling) is often used by educators because of the emotion belief that children need to be shown how to regulate emotions before they are able to do it themselves. Past literature shows that role modelling (among other factors such as encouraging cooperation) contributes to better emotion regulation in students (Ashiabi, 2000), and a classroom climate that is more conducive to learning and that promotes positive developmental outcomes among students (Jennings & Greenberg, 2009). Lastly, the findings from the current study suggest that educators hold different emotion beliefs depending on the emotion regulation ability of children, and for this reason support them differently. For example, children need non-verbal and verbal emotion regulation support to demonstrate appropriate emotion expression. Yet challenged regulators received more exaggerated verbal and non-verbal emotion expression support as a strategy to distract them from their negative emotions and help them concentrate on the instruction from the educator. The finding that emotion beliefs vary depending on emotion regulation ability is both consistent and inconsistent with findings presented by Delaney (1997). Delaney found that educators organize their beliefs about emotions based on a system that is: (1) accessible to them, (2) is stable, (3) is structured, and (4) influences their behaviour. Educators in this study did describe beliefs about emotion that were accessible to them (e.g., can reflect consciously on them) and influenced their behaviour (i.e., differentiated support was provided to children depending on

emotion regulation ability), yet they were not structured or stable. Instead they were impacted by child's regulation ability and the quality of relationship to the child (discussed below).

The current study extends the body of research that suggests early childhood educators' curriculum and teaching practices are vulnerable to the influence of educators' beliefs (Cassidy & Lawrence, 2000; Wilcox-Herzog & Ward, 2004). In particular, this study found that beliefs about emotions have an impact on educator practice. While the current study only explored emotion beliefs as opposed to other types of beliefs (e.g., pedagogical beliefs), the findings suggest that emotion beliefs have a significant impact on educators' practice (supporting children's emotion regulation) and warrant further exploration.

While emotion beliefs (e.g., the belief that all children can mature in emotion regulation with positive adult support, or it is their role as an educator to provide the support to all children) motivated educators to give differentiated treatment to support the varying levels of emotion regulation, the degree to which they provided this support was impacted by the relationship quality of the educator and student. The dysregulation of emotion experienced by challenged regulators required more effort and energy from educators to support their emotion regulation, resulting in educator frustration and exhaustion. This finding is supported by Tsouloupas et al. (2010) who found that the misbehaviour of children and a teacher's belief about how they can manage that behaviour can result in burnout. Research also indicates that early childhood teachers experiencing psychosocial distress (e.g., depression, high levels of perceived stress, lower levels of perceived social support) demonstrate lower levels of engagement with and sensitivity to children in their care (de Schipper et al., 2009; Gerber, Whitebrook, & Weinstein, 2007; Hamre & Pianta, 2004; Mill & Romano-White, 1999; Pianta et al., 2005). Educators' emotion and emotion regulation and their practice has been well documented in the research

(Hargreaves, 2000; Tsouloupas et al., 2010; Zembylas, 2005). This research shows that educators' emotions and their ability to regulate their emotions has a significant impact on how they act and reflect on the different purposes, methods and meanings of teaching. Despite the effort and energy educators put into supporting challenged regulators, unmanageable behaviour coupled with frustration and exhaustion experienced by the educators may lead to the educators distancing themselves physically and emotionally from the challenged regulators. Gross (1998) refers to this behaviour as expressive suppression, which he explains affects an individual's behaviour by 'shutting-down' emotions viewed as threatening to one's emotional equilibrium. The experience of challenged regulator's behaviour is at odds with their emotion beliefs of supporting all children. This interaction between challenged regulator behaviour and the emotions educator's experience can be explained by past research. Ashiabi (2000) found that a child who has an insecure relationship with a caregiver displays various behaviours such as ignoring the caregiver's behaviour and initiations, heightened expression of negative emotions, or acting in a hostile manner toward the caregiver. Denham (1998) also argues that a child's experience and expression of emotion affects their behaviour, which in turn provides information to social partners if they want to continue or discontinue the interaction. In addition, other research has shown that educators have low tolerance for behaviourally disordered children who do not exhibit appropriate social behaviour, and interact with these children in a more angry, critical, and punishing manner (Coie & Koepl, 1990). On the other hand, children who display better interpersonal skills may be more likely to elicit warm and positive interactions (Graziano et al., 2007). Thus, if an educator is distancing herself from a challenged regulator emotionally and physically as a method of dealing with their emotions, or responding differently to their behaviour than high regulators, the child may pick up on the distance potentially creating more

conflict, more mistrust, and less closeness and dependence in the relationship. Ashiabi (2000) argues that differing quality of care leads to differences in expectations of children regarding the dependability and responsiveness of the caregiver.

These findings align with the bidirectional, transactional nature of the educator-child relationship described in the emotion socialization theory, with children's emotion regulation and behaviour influencing teachers' behaviour and vice versa (Curby, Downer, & Booren, 2013). Dix (1991) also conceptualized the multidirectional process in which adults and children exercise mutual influence upon each other's experience and expression of emotion. While educators may put in effort to develop close relationships with all students, the child may not interpret their behaviour the same way as the educator intended (e.g., harmful, unpredictable) and react negatively. Figure 2 illustrates the process of socialization theory (Laible et al., 2015) and suggests that there is a bi-directional relationship between the educator (who comes with beliefs and past experience) and the child (who comes with temperament and emotion regulation abilities, and genetic predispositions). Figure 5 illustrates how the findings from this study extend the socialization theory to show that the emotion regulation ability of the child also influences the educators' beliefs and how they interact with the child.

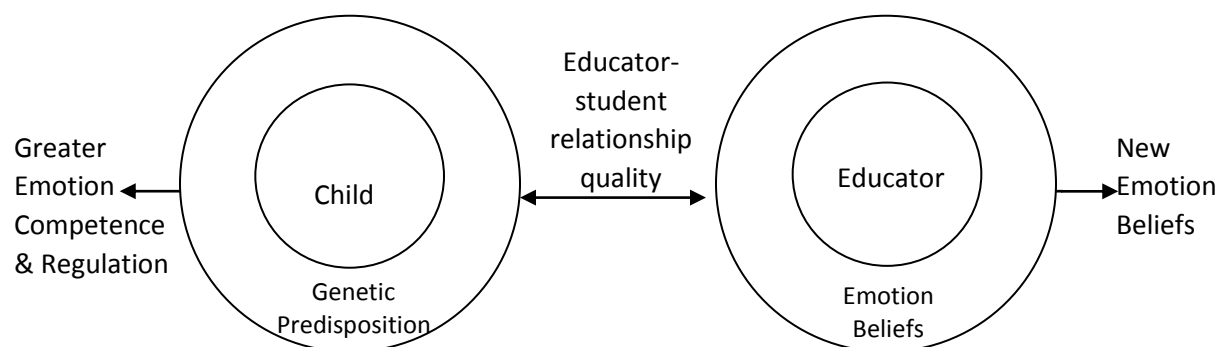


Figure 5. Illustration of emotion socialization processes and educators emotion beliefs and educator-student relationships.

Limitations and Recommendations for Future Research

Despite the importance of this study, there are several limitations that need to be considered when interpreting and drawing conclusions about the findings. The size and convenience of the sample (seven educators and 41 children under their care) was a limitation. A larger sample would be needed to conduct inferential statistics with enough power to detect differences or to generalize to a wider population. The size and nature of the sample in this study also limits the variability in the ethnicity and gender of the educator participants and therefore difference of qualitative descriptions and consequently qualitative categories, in that, a larger sample size may result in more data to create more categories. Although a wide-ranging assortment of educator demographics was desired in this study, the small number of participants created too narrow of a range in characteristics to achieve this goal. A larger sample may have increased variability in different educator characteristics that could have an impact on beliefs and/or relationships (e.g., ethnicity, age, years of experience, gender). In addition, the educators were participating in a larger Teaching Pyramid Model program and received one on one coaching about supporting social-emotional development in young children. With this additional coaching and training, they may have had a deeper understanding and knowledge about supporting emotion regulation that educators who did not receive the training would possess. Although the sample size of this study restricts the transferability of the findings to other ELC educators working in diverse contexts, future research could focus on engaging more ELC educators with knowledge in social emotional development (such as those in the Teaching Pyramid Model program) and those with limited knowledge. With training on this evidence-based model, the educators provided unique insights into social-emotional development that can be further explored.

The limited scales that exist to measure teacher's beliefs about emotion, namely the TBAE (Hyson & Lee, 1996) questionnaire, posed a limit on this study. Specifically, the internal consistencies of the TBAE's subscales were weak to moderate. If this is the only tool available, additional research could enhance the validity of this measure using the findings from this study. With a larger sample size, the reliability of the tool could also be assessed. It should be noted, however, that the Cronbach's alphas found in the present study, overall, exceeded those found in Hyson and Lee's (1996) study. Using qualitative information, such as the data that was gathered in this study, has the potential to enhance the content and even relevance of future measurement in this area. All of the questionnaires used in this study were self-report, and for this reason, some educators may have over- or under-represented their beliefs and practice. 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 beliefs that seemed appropriate to support emotion regulation, (b) described certain aspects of educators-student relationships, or (c) support high and challenged regulators. Although it is fairly unavoidable to use self-reports to gather quantitative data on educators' emotion beliefs and educator-student relationships, it is suggested that future studies consider using multiple informants or methods (e.g., observation, parent-report, student-report) to report on the support they give to children with varying emotion regulation ability.

Future research can expand upon the current study's findings and examine, in more detail, educators' emotion beliefs regarding children's emotional regulation. By examining the six emotion beliefs within the TBAE, within a larger educator and child sample, future research would be able to examine which specific beliefs hold the most significant correlation, and thus have the largest impact on young children's levels of emotion regulation (using a child outcome

measure). Future research could also explore the relationship between emotion beliefs, emotion regulation and educator-student relationship within groups of educators who receive social-emotional development training and those who do not.

The findings of the present study clearly demonstrate that educators believe it is important for young children to attain emotion regulation during the preschool years. However, what is less clear is the skills and abilities that ELC educators' possess in order to support children of varying degrees of emotion regulation. Future research should focus on the demand challenged regulators have on educators, and if they have the skills to support emotion regulation in both high and challenged regulators so that they can provide an enriching and safe environment for children to grow and flourish.

Implications for Practice

The findings of this study suggest three important reasons to train and urge educators to reflect on their emotion beliefs and relationship with students, as it may be influencing their support of emotion regulation to students with differing emotion regulation abilities. First, the findings highlight the need to train teachers to understand emotion regulation generally and appreciate the differences in ability of each child. With this knowledge, they would be in a position to identify which children need targeted attention and strategies to develop their emotion regulation and relationships, and thus educators could individualize their practice to meet the emotional support needed for the child. While high regulators may seem to need less targeted attention from educators, this may not be the case for every child and educators need to keep that in mind. Second, there is a need for educators to reflect on their emotional response to challenged regulators behaviour and how it impacts the quality of the relationship they have with the child. This finding is supported in literature on emotion regulation abilities of educators

which shows that educator's emotional competence has an influence on children's emotional competency (Izard et al., 2001; Jennings & Greenburg, 2009). Last, in line with reflective practice, the findings highlight the importance for educators' to examine the emotion beliefs that they consider important in early childhood development. Knowing what those emotion beliefs can help gain insight into decision-making and support for children of varying emotion regulation.

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Appendix A

Interview guide for Site Leads

Play the high emotion eliciting situation clip followed by the questions below. Repeat for the low emotion eliciting situation clip. Read out loud the instructions to the participant: I am going to play a short video clip on the laptop. Watch the clip and take notes or re-watch the clip if needed (play clip). Now I am going to ask you some questions regarding the clip.

1. What is the emotional behaviour of the (child identifier in clip: girl in blue shirt; boy beside the educator)?
2. What do you think has caused that emotional behaviour in the child?
3. How would you *behave* in response to the emotional behaviour to support their emotion regulation? And why?
4. What would you *say* in response to the emotional behaviour to support their emotion regulation? And why?
5. Tell me how successful emotion regulation in the child would look like after your response to the emotional behaviour in the child?
Probe: What is the desirable child outcome?
6. Tell me what unsuccessful behaviour would look like after your response to the emotional behaviour in the child?
Probe: what is the undesirable child outcome?
7. Are there any follow-up strategies that you would use with either child in the clip?
Probe: are there any strategies/techniques/conversations/instructions you would use with either child in the clip?

8. Tell me of a time when a child in your care acted similar to the child in the clip. How did it make you feel?
9. How did you deal with the emotion you felt?
10. Is it important to acknowledge how you are feeling to the children and why or why not?
11. Did how you feel about the child's emotion affect your relationship with the child?

Probe: did how you feel about the child's emotion create conflict between you and the child? Did how you feel about the child's emotions affect the bond between you and the child?

Appendix B

Demographic Questionnaire- Site Lead

1. Your gender: M F

2. Your age:
 - 18-30
 - 30-45
 - Over 45

3. Your ethnic background (for example, Italian, Jamaican, Somali, Scottish, Portuguese): _____

4. How many years have you worked in child care overall? _____

5. What is the highest level of formal education you have completed?
 - High School
 - Post-Secondary
 - Completed Diploma/Degree
 - Graduate degree
 - Post Graduate degree
 - Other: _____

6. If applicable, what is the name of the degree(s)/diploma you have (e.g., ECD diploma, undergraduate degree in Psychology):

7. How many years have you worked at the *current* Early Learning and Care site: _____

Appendix C

Teacher's Beliefs About Emotions Scale

For each sentence, check the box that describes **HOW TRUE** the statement is for you.

	Statement	Strongly Disagree	Disagree	Don't agree or Disagree	Agree	Strongly Agree
1	People are better teachers if they aren't emotionally involved with the children.	1	2	3	4	5
2	It's good to hug and touch children affectionately throughout the day.	1	2	3	4	5
3	In my classroom, I avoid being physically affectionate or 'huggy' with the children.	1	2	3	4	5
4	Children need to feel emotionally close to their teachers.	1	2	3	4	5
5	It's good for a teacher to let children know when she is feeling angry.	1	2	3	4	5
6	Teachers should "let their feelings out" in the classroom.	1	2	3	4	5
7	When I am upset with the children's behaviour, I try hard not to show it.	1	2	3	4	5
8	I constantly show the children how much I love them.	1	2	3	4	5
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 their feelings.	1	2	3	4	5
10	Teachers should avoid showing children how to express their feelings.	1	2	3	4	5
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.	1	2	3	4	5
12	When one of my children is upset about something, I usually try to put words to how he or she is feeling.	1	2	3	4	5
13	I often label children's feelings for	1	2	3	4	5

	them, such as "you seem worried about our trip to the swimming pool".					
14	When children are upset or angry about something, it's not the best time to talk about their feelings.	1	2	3	4	5
15	I believe that some teachers spend too much time talking to children about their feelings.	1	2	3	4	5
16	I spend a lot of time talking to children about why they feel the way they do.	1	2	3	4	5
17	Children in my class are too young for me to discuss the causes of their feelings with them.	1	2	3	4	5
18	Teachers should not read children stories that might make them sad or worried.	1	2	3	4	5
19	Children should be taken to funerals and other family events, even if they might feel sad or upset as a result.	1	2	3	4	5
20	If a class pet died, I would not tell the children because they might become too upset.	1	2	3	4	5
21	Children the age of those I teach are really not ready to control the way they express their feelings.	1	2	3	4	5
22	Children in my class are really too young to display their feelings in 'socially acceptable" ways.	1	2	3	4	5
23	As a teacher, it's important for me to teach children socially acceptable ways of expressing their feelings.	1	2	3	4	5

Appendix D. The Items for Each TBAE Subscale

Emotion beliefs subscale	Emotion beliefs items
Talk/Label	<ol style="list-style-type: none"> 7. When one of my children is upset about something, I usually try to put into words how he or she is feeling. 8. I often label the children's feelings for them, such as "You seem worried about our trip to the swimming pool." 9. When children are upset or angry about something, it's not the best time to talk about their feelings. (R) 10. I believe that some teachers spend too much time talking to children about their feelings. (R) 11. I spend a lot of time talking to children about why they feel the way they do. 12. Children in my class are too young for me to discuss the causes of their feelings with them (R)
Expressiveness	<ol style="list-style-type: none"> 1. It's good for a teacher to let children know when she is feeling angry. 2. Teachers should "let their feelings out" in the classroom. 3. When I am upset with the children's behaviour, I try hard not to show it. (R) 4. I constantly show the children how much I love them.
Bonds	<ol style="list-style-type: none"> 5. People are better teachers if they aren't emotionally involved with the children. (R) 6. It's good to hug and touch children affectionately throughout the day. 7. In my classroom, I avoid being physically affectionate or "huggy" with the children. (R) 8. Children need to feel emotionally close to their teachers.
Display/Control	<ol style="list-style-type: none"> 4. Children the age of those I teach are really not ready to control the way they express their feelings. (R) 5. Children in my class are really too young to display their feelings in "socially acceptable" ways. (R) 6. As a teacher, it's important for me to teach children socially acceptable ways of expressing their feelings
Instruction/Modeling	<ol style="list-style-type: none"> 4. 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. 5. Teachers should avoid showing children how to express their feelings. (R) 6. 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)
Protect	<ol style="list-style-type: none"> 1. Teachers should not read children stories that might make them sad or worried. 2. Children should be taken to funerals and other family events, even if they might feel sad or upset as a result. (R)

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

R= Reverse scored

Appendix E

Emotion Regulation Checklist

 PARENT/TEACHER NAME

CHILD NAME

Please complete each question on your/each child:

	Never Always	Sometimes	Often	Alm Always
1. Is a cheerful child	1	2	3	4
2. Exhibits wide mood swings (child's emotional state is difficult to anticipate because the child moves quickly from positive to negative moods) <i>*Exhibits means to show</i>	1	2	3	4
3. Responds positively to neutral or friendly overtures by adults <i>*Overtures means to introduce something more substantial</i>	1	2	3	4
4. Transitions well from one activity to another; does not become anxious, angry, distressed or overly excited when moving from one activity to another <i>*Transitions means to move from one thing to another</i>	1	2	3	4
5. Can recover quickly from episodes of upset or distress (for example, does not pout or remain sullen, anxious, or sad after emotionally distressing events)	1	2	3	4
6. Is easily frustrated	1	2	3	4
7. Responds positively to neutral or friendly overtures by peers <i>*Overtures means to introduce something more substantial</i>	1	2	3	4
8. Is prone to angry outbursts/tantrums easily	1	2	3	4
9. Is able to delay gratification <i>*Gratification means satisfaction</i>	1	2	3	4
10. Takes pleasure in the distress of others (for example, laughs when another person gets hurt or punished; enjoys teasing others)	1	2	3	4
11. Can modulate excitement in emotionally arousing situation (for example, does not get carried away in high-energy play situation, or overly excited in inappropriate contexts) <i>*Modulate means to have control of something</i>	1	2	3	4
12. Is whiny or clingy with adults	1	2	3	4
13. Is prone to disruptive outbursts of energy and exuberance <i>*Exuberance means to be full of excitement and energy</i>	1	2	3	4
14. Responds angrily to limit-setting by adults	1	2	3	4
15. Can say when s/he is feeling sad, angry or mad, fearful or afraid	1	2	3	4
16. Seems sad or listless	1	2	3	4

	<i>*Listless means to have no energy or enthusiasm</i>				
17.	Is overly exuberant when attempting to engage others in play <i>*Exuberance means to be full of excitement and energy</i>	1	2	3	4
18.	Displays flat affect (expression is vacant and inexpressive; child seems emotionally absent) <i>*Affect means to act on emotions</i>	1	2	3	4
19.	Responds negatively to neutral or friendly overtures by peers (for example, may speak in an angry tone of voice or respond fearfully) <i>*Overtures means to introduce something more substantial</i>	1	2	3	4
20.	Is impulsive <i>*Impulsive means to act without thought</i>	1	2	3	4
21.	Is empathetic towards other; shows concern when others are upset or distressed	1	2	3	4
22.	Displays exuberance that others find intrusive or disruptive <i>*Exuberance means to be full of excitement and energy</i>	1	2	3	4
23.	Displays appropriate negative emotions (anger, fear, frustration, distress) in response to hostile, aggressive or intrusive acts by peers	1	2	3	4
24.	Displays negative emotions when attempting to engage others in play	1	2	3	4

Appendix F

 **Student-Teacher Relationship Scale™
Response Form**

Teacher's name _____ Gender: M F Ethnicity _____ Date ____/____/____

Child's name _____ Grade _____ Gender: M F Ethnicity _____ Age _____

Please reflect on the degree to which each of the following statements currently applies to your relationship with this child. Using the point scale below, CIRCLE the appropriate number for each item. If you need to change your answer, DO NOT ERASE! Make an X through the incorrect answer and circle the correct answer.

	1 Definitely does not apply	2 Does not really apply	3 Neutral, not sure	4 Applies somewhat	5 Definitely applies
1. I share an affectionate, warm relationship with this child.	1	2	3	4	5
2. This child and I always seem to be struggling with each other.	1	2	3	4	5
3. If upset, this child will seek comfort from me.	1	2	3	4	5
4. This child is uncomfortable with physical affection or touch from me.	1	2	3	4	5
5. This child values his/her relationship with me.	1	2	3	4	5
6. This child appears hurt or embarrassed when I correct him/her.	1	2	3	4	5
7. When I praise this child, he/she beams with pride.	1	2	3	4	5
8. This child reacts strongly to separation from me.	1	2	3	4	5
9. This child spontaneously shares information about himself/herself.	1	2	3	4	5
10. This child is overly dependent on me.	1	2	3	4	5
11. This child easily becomes angry with me.	1	2	3	4	5
12. This child tries to please me.	1	2	3	4	5
13. This child feels that I treat him/her unfairly.	1	2	3	4	5
14. This child asks for my help when he/she really does not need help.	1	2	3	4	5
15. It is easy to be in tune with what this child is feeling.	1	2	3	4	5
16. This child sees me as a source of punishment and criticism.	1	2	3	4	5
17. This child expresses hurt or jealousy when I spend time with other children.	1	2	3	4	5
18. This child remains angry or is resistant after being disciplined.	1	2	3	4	5
19. When this child is misbehaving, he/she responds well to my look or tone of voice.	1	2	3	4	5
20. Dealing with this child drains my energy.	1	2	3	4	5
21. I've noticed this child copying my behavior or ways of doing things.	1	2	3	4	5
22. When this child is in a bad mood, I know we're in for a long and difficult day.	1	2	3	4	5
23. This child's feelings toward me can be unpredictable or can change suddenly.	1	2	3	4	5
24. Despite my best efforts, I'm uncomfortable with how this child and I get along.	1	2	3	4	5
25. This child whines or cries when he/she wants something from me.	1	2	3	4	5
26. This child is sneaky or manipulative with me.	1	2	3	4	5
27. This child openly shares his/her feelings and experiences with me.	1	2	3	4	5
28. My interactions with this child make me feel effective and confident.	1	2	3	4	5