

THE ASSOCIATION OF TEACHER EMOTIONAL EXPRESSION AND
REACTIONS TO EMOTIONS AND TODDLER EMOTION INTERACTIONS WITH
PEERS

by

Samantha N. Plourde
A Thesis
Submitted to the
Graduate Faculty
of
George Mason University
in Partial Fulfillment of
The Requirements for the Degree
of
Master of Arts
Psychology

Committee:

_____ Director

_____ Department Chairperson

_____ Dean, College of Humanities and Social
Sciences

Date: _____ Fall Semester 2013
George Mason University
Fairfax, VA

The Association of Teacher Emotional Expression and Reactions to Emotions and
Toddler Emotion Interactions with Peers

A thesis submitted in partial fulfillment of the requirements for the degree of Master of
Arts at George Mason University

By

Samantha N. Plourde
Bachelor of Science
Virginia Polytechnic Institute and State University, 2011

Director: Susanne A. Denham, Professor
Department of Psychology

Fall Semester 2013
George Mason University
Fairfax, VA

TABLE OF CONTENTS

	Page
LIST OF TABLES	iii
ABSTRACT.....	iv
THE ASSOCIATION OF TEACHER EMOTIONAL EXPRESSION AND REACTIONS TO EMOTIONS AND TODDLER EMOTION INTERACTIONS WITH PEERS.....	1
<i>Emotion Expression and Knowledge</i>	2
<i>Toddlerhood</i>	4
<i>Peer Emotional Interactions</i>	5
<i>Teacher Socialization of Emotion</i>	7
<i>Research Questions</i>	9
METHOD	12
<i>Participants</i>	12
<i>Measures</i>	12
RESULTS	17
<i>Data Analyses</i>	17
<i>Findings</i>	18
DISCUSSION.....	21
<i>Limitations</i>	26
REFERENCES	35
BIOGRAPHY	39

LIST OF TABLES

Table	Page
Table 1: <i>Descriptive Statistics of the Proportion of Emotional Displays of Teachers</i>	28
Table 2: <i>Descriptive Statistics of Teacher Contingent Reactions to Children's Emotions</i>	29
Table 3: <i>Descriptive Statistics of the Proportion of Emotional Displays of Children towards Peers</i>	30
Table 4: <i>Descriptive Statistics of Children's Contingent Reactions to Peers' Emotions</i> .	31
Table 5: <i>Estimates of Teacher Emotions Predicting Child Emotions in the Classroom</i> ..	32
Table 6: <i>Estimates of Teacher Contingent Reactions Predicting Child's Expressed Emotions</i>	33
Table 7: <i>Estimates of the Association between Teacher Contingent Reactions to Emotions and Child Contingent Reactions to Emotions</i>	34

ABSTRACT

THE ASSOCIATION OF TEACHER EMOTIONAL EXPRESSION AND REACTIONS TO EMOTIONS AND TODDLER EMOTION INTERACTIONS WITH PEERS

Samantha N. Plourde, MA

George Mason University, 2013

Thesis Director: Dr. Susanne A. Denham

Dual-working families have become more prevalent in the past decade. Therefore, research on socialization of emotions has shifted focus to include not only parents, but also early childhood educators. Socializers of social-emotional learning (SEL; e.g., effectively interacting with teachers, responding empathetically to peers) can socialize emotions in several ways, including modeling, coaching, and contingent responses to emotions. It is expected that teachers, like parents, provide an affective environment for children to learn the emotional norms of the classroom. The core purpose of this thesis is to examine: 1) the association of teachers' emotion expression and child emotional expression, 2) the association of teachers' reactions to emotions and child emotional expression, and 3) the correlation of teachers' reactions to emotions and child reactions to emotions. Teacher-child emotional interactions and peer emotional interactions were recorded through observations of emotions expressed in the classroom and reactions to

these expressed emotions. It was hypothesized that the frequency of positive and negative emotions expressed by teachers in the classroom would be associated with the frequency of positive and negative emotions expressed by their students during peer interactions. It was also predicted that children would express both positive and negative emotions while interacting with classmates when their teachers used comforting and validating reactions to their emotions. Last, it was expected that the types of reactions to emotions that teachers exhibit in the classroom would be similar to those reactions that children use while interacting with their peers. Structural Equation Modeling (SEM) using Bayesian estimation was conducted to analyze these hypotheses. Results showed that teacher happiness, sadness, and tenderness were negatively associated with anger expressed by children towards their peers. Teacher emotion focused reactions were positively associated with children's sadness, whereas teacher expressive validation was negatively associated with children's sadness. Results also showed a negative association between the teachers' positive reactions and children's no response reactions to their peers' emotions and a negative association between teachers' no response reactions and children's no response reactions to their peers. Interestingly, results indicated a negative association between teachers' expressive validations reactions to their students and children's emotion focused reaction towards their peers.

THE ASSOCIATION OF TEACHER EMOTIONAL EXPRESSION AND REACTIONS TO EMOTIONS AND TODDLER EMOTION INTERACTIONS WITH PEERS

The increase in the number of dual working families created a new demand for childcare centers to include toddlers. Childcare is a setting where children are constantly engaged in social interaction with their teachers and peers. These interactions are challenging to young children who have never been exposed to an environment where they have to follow behavior norms (i.e., sitting still during circle time, taking turns, remaining calm when free play is over, etc.) (Denham, Bassett, & Zinsser, 2012). Toddlers who attend childcare are exposed to these social interactions, but may have more difficulties in following the norms because of their age. Therefore, it is important to look at the SEL techniques of early childhood educators.

Given this need, research has grown to investigate the importance of the role that teachers play in facilitating preschoolers' social-emotional learning (SEL) through modeling, coaching, and contingent responding (Ahn, 2005). The teachers of toddlers and preschoolers may differ on how they facilitate SEL (Ahn, 2005; Ahn & Stifter, 2006). For example, Ahn & Stifter (2006) found that toddler teachers tended to match their student's positive affect and comfort expressed negative emotions more often than preschool teachers. It is important to note that although toddlers are often considered to

be preschool-aged children, they differ from preschoolers in the level of instruction and types of curricula they receive while attending childcare. Therefore, focus of the present investigation is to examine how teachers of toddlers promote children's emotional competencies through modeling of emotions and contingent responding to emotions.

Emotional Competence

Previous literature indicates there are many benefits that are associated with emotional competence, including school readiness (Denham, 2006), future academic success (Denham, Brown, 2010), and social competence (Denham et al., 2003). Emotional competence encompasses three main constructs: young children's (a) experience and expressions of emotions, (b) regulation of emotional expressiveness and experience, and (c) knowledge of emotions (Denham et al., 2012). Emotion regulation and knowledge will be discussed, but only in terms of how children react to their peers' emotions.

Children's emotional expressiveness is a central construct to emotional competence (Denham et al., 2003). Children who demonstrate positive affect are regularly viewed by teachers as more assertive and friendly, and less aggressive (Denham, 2006). Children who exhibit positive emotionality also often respond more prosocially to their peers' emotions and are considered more likable (Denham et al., 2003). They are also more likely to receive social bids, exhibit prosocial behavior, and initiate social interactions (Garner & Estep, 2001). In contrast, negative affectivity is generally associated with peer rejection (Fabes et al., 1999) and problematic social

interactions (Denham et al., 2003). Moreover, emotion expression is predictive of both emotion knowledge and emotion regulation (Denham et al., 2003). This set of findings suggests that children who show strong patterns of positive emotional expressivity may be more capable of learning about emotions and have less reason to regulate their emotions (Denham et al., 2003).

Emotion regulation refers to a set of abilities that children acquire in order to monitor, modulate, evaluate, and appropriately express emotions (Denham et al., 2012). Emotion regulation may be either adaptive or maladaptive. Adaptive methods often include distraction from stimuli, self-soothing, and talking about the cause of emotions (Ekas et al., 2011). Emotion dysregulation refers to the maladaptive strategies of regulation including venting and aggression (Santucci et al., 2008). Emotion regulation includes the regulation of both negative and positive emotions (such as exuberance). For example, a child who is overjoyed about a group time activity may need to regulate their happiness in order to not disrupt the activity. Children who are able to regulate their emotions in an adaptive manner often have successful interactions with peers (Cole, Michel, & Teti, 1994; Denham et al., 2003), whereas children who vent to regulate their emotions are seen as disorderly by teachers and can intimidate or cause tension in peers (Contreras, et al., 2000; Miller et al., 2004). Emotion regulation does not imply that children have emotion knowledge; however children who are better at regulating their emotions are often more knowledgeable about theirs and others emotions (Fabes et al., 1999).

Emotion knowledge consists of accurately understanding expression of emotions, emotional cues, and functions of emotions (Izard et al., 2011). Young children who are more knowledgeable about emotions show greater academic success (Leerkes et al., 2008). Similar to emotional expression, emotion knowledge is associated with appropriate interactions with peers and adults, including reacting appropriately to expressed emotions, and increased likability by peers (Denham et al., 2003). In contrast, aggression is often associated with a lack of emotion knowledge (Denham et al., 2002). Therefore, being knowledgeable about emotions allows children to navigate through the norms placed in the classroom. Intuitively, emotion knowledge is key in effectively reacting to others' emotions, because in order to respond to an expressed emotion, the emotion has to be understood. Although only emotional expression will be methodologically addressed, emotion regulation and knowledge will be indirectly addressed through the observation of contingent responses to emotions of peers. The skills involved in emotional competence begin to emerge at a very young age.

Toddlerhood

Toddlerhood marks a time of many developmental milestones that are crucial to social emotional competence. Development during this age encompasses many different processes that are important to social and emotional functioning. Cognitively, toddlers are rapidly developing language and self-awareness. Around 18 months of age, children experience a vocabulary growth spurt which requires them to infer meaning of new words with very little exposure (Siegler & Alibali, 2005). These new cognitive abilities involve an increasing sense of identity. Toddlers start to classify themselves by age,

gender, and characteristics, and assess their behavioral qualities (Siegler & Alibali, 2005). At this age, children are able to choose how to behave and start to understand how behaviors fit into social norms (Kopp, 1982). Socially, toddlers start to incorporate others into their play behaviors (Farver & Wimbari, 1995). Specifically, during this time of development, children engage in pretend play and are able to effectively play with others while still pretending.

Although toddlers are becoming more developmentally aware of themselves and others, they are not as cognitively and socially prepared as preschoolers to handle the social emotional demands of childcare. Toddlers in childcare often use instrumental aggression (Hartup, 1974) when they do not know what to do in social situations where others block the toddlers' goals and desires. For example, a toddler may bite their classmate who just took his toy from him. In these situations, it is imperative that teachers guide their students on more appropriate methods of coping with negative emotions and difficult social situations with peers. Social interactions with peers occur often in a typical day of attending childcare, thus, children have to learn how to handle the emotionality within these interactions.

Peer Emotional Interactions

Peer interactions begin in infancy. Infants have been observed contingently responding to other infants around them, especially without the presence of toys (Hay, Payne, & Chadwick, 2004). As infants develop into toddlers, they begin to engage in more complex peer interactions. Peers play an important role during this young age. For

example, successful peer relations in early childhood are associated with later school success and adjustment (Ladd, 1990). The ability to interact with peers while adhering to social norms is essential for adjusting to the childcare setting. As toddlers develop, their interactions with peers involve complex behaviors including prosocial behaviors and aggression (Hay, Payne, & Chadwick, 2004). These behaviors occur because peer interactions at such a young age are very emotionally charged (Hubbard & Dearing, 2004). For example, a child might become frustrated because a peer will not share a toy, or a child might become silly while playing with their peer outside. Emotionality within peer interactions may determine the success or failure of that interaction. For example, if a child expresses positive affect often while interacting with peers, they may seem more inviting than those children who often express negative affect (Denham, 2006; Garner & Estep, 2001). These emotions involved with peer interaction may be difficult to handle for an unskilled toddler during interaction.

Learning to cope with emotions during peer interaction may lead to social competence or “successful social functioning” (Howes, 1987, p.253; Denham et al., 2003). Social competence of young children is often correlated with later academic success, kindergarten readiness, increased participation in school, and positive attitudes (Denham, Brown, & Domitrovich, 2010; Denham, 2006). Children who are competent in interacting with peers are often skilled in sending and receiving emotional cues (Halberstadt, Denham, & Dunsmore, 2001). In contrast, children who have difficulties engaging in peer interactions often lack emotion regulation abilities (Mize, Ladd, & Prize, 1985). Therefore, it is important for children to learn how to interact with peers

successfully. Toddlers and young preschoolers need help from their caregivers to establish behavioral norms in emotional situations because of the nuance of the childcare environment. Teachers may be able to help establish these norms in the classroom by modeling interaction.

Teacher Socialization of Emotion

Research in socialization of emotion often discusses the role that parents play in shaping SEL. The literature on parents as socializers shows that parents who model positive emotions, discuss emotions with their children, and encourage the expression of emotions help their children become emotionally competent (Denham, Bassett, & Wyatt, 2007). Although teachers are recognized as socializers of emotion (Denham et al., 2012), there is little extant literature on their role (Ahn, 2005). Teachers are role models for young children and can impact social emotional development. Currently, early childhood education curricula often include SEL (Denham et al., 2012). At the same time, teachers often (sometimes unknowingly) use other techniques not inherent in curricula to socialize SEL by modeling their emotions, coaching, and responding to emotions (Ahn, 2005, Ahn & Stifter, 2006). This project examines the modeling of emotions and contingent responses of teachers to promote SEL in toddlers.

Through modeling, teachers' own expressiveness of emotions teaches children the characteristics of emotions and which situations certain types of emotions are acceptable (Ahn, 2005; Denham et al., 2012). From the literature on parents, frequent expression of positive emotions and regulated expression of negative emotion facilitate children's

emotion knowledge (Denham et al., 2012; Nixon & Watson, 2001). Conversely, frequent displays of negative emotion often discourage emotion knowledge (Raver & Spagnola, 2003). Modeling emotions exposes children to different types of affective environments (Ashiabi, 2000). Young children observe caregivers and behave based on the observation. Also, the pattern of caregiver negative emotionality is associated with children's negative emotionality in distressing or disappointing situations (Garner & Estep, 2001). Teachers not only express emotions that create an affective climate in which children learn about acceptable elicitation of emotions, but they also react to emotions elicited in the classroom.

The different ways teachers react to children's emotions can either encourage or discourage emotions expressed in the classroom. These reactions are important in determining appropriate behavior when children feel a certain way, and which situations are worth an expression of emotion (Ashiabi, 2000). Teachers encourage expression of positive emotion by complimenting and commenting on children's emotional displays. In order to support expression of negative emotions and assist children in dealing with them, teachers can show empathy of the emotional situation, physically comfort the child, and help the child problem solve (Ahn, 2005). Punitive reactions occur when the child is threatened with a punishment for eliciting an emotion, whereas minimizing reactions occur when the child is ridiculed for showing an emotion. These types of reactions discourage the display of certain emotions (Engle & McElwain, 2011). Caregivers who use punitive and minimizing reactions are described as detached from the emotion and

intolerant (Ahn, 2005). Regardless of their content and valence, teachers' contingent responses to children's emotions typify the social norms they create in the classroom.

Research Questions

The purpose of this paper is to examine teacher socialization of emotion in toddlerhood. Navigating through the emotional and social demands necessary to maintain complex interactions between their peers and teachers is difficult at this age. Although social-emotional learning is escalating during toddlerhood (Denham et al., 2003), toddlers lack many cognitive and social skills, so they especially need help from caregivers to facilitate their SEL. Given its importance, it is necessary to examine the role that teachers play as socializers of SEL. Teachers of toddlers set the stage for SEL as they prepare their students for preschool classrooms; they match and encourage positive emotions more often than teachers of preschoolers. They also use physical comfort and distraction techniques when children display negative emotions (Ahn & Stifter, 2006). Because little is known about teachers as socializers of SEL, especially about teachers of toddlers, several research questions need to be addressed:

Research Question 1 (RQ1): Are teacher emotions expressed in the classroom associated with their students' emotional expression? It is expected that teachers will set the tone for the emotions expressed in the classroom. Specifically, it is hypothesized that teachers' expression of positive emotions will be associated with children's expression of positive emotions towards peers. In contrast, when teachers of toddlers often express negative emotions, it is expected that their students will also express negative emotion

while engaged with peers. This question will be addressed using observations in the classroom of teachers' expression of emotions and children's expression of emotions.

Research Question 2 (RQ2): Are teachers' contingent reactions to emotions in the classroom associated with their students' emotions expressed in the classroom? When teachers react to support the expression of emotion in children, it is expected that children will exhibit many different emotions. However, it is expected that when emotions are discouraged, children will be less expressive. Naturalistic observations of teachers reacting to expressed emotions of children and children expressing emotions in the classroom will be used to assess *RQ2*.

Research Question 3 (RQ3): Are teacher contingent responses to emotions associated with toddlers' contingent responses towards others' emotions in the classroom? It is hypothesized that teachers who respond in a supportive manner to negative and positive emotions will model more positive and attentive reactions for children's interactions with their peers. In contrast, it is expected that teachers who discourage negative emotions will not promote constructive ways to deal with peers emotions. Thus, when interacting with peers, emotionally charged situations may elicit reactions in children that are disruptive or inappropriate. *RQ3* will be addressed using naturalistic observations of teachers responding to children's emotions and children responses to other children's emotions expressed in the classroom.

Because the only literature discussing teachers as socializers of emotional competence is more descriptive and qualitative than quantitative, hypotheses are primarily based on previous literature on parents' socialization of emotion.

METHOD

Participants

Thirteen two-year old classrooms in nine different private childcare centers in the Northern Virginia area were used in this study. First, permission from the directors of each center to conduct research was obtained. Teachers were then recruited to participate through meetings designed to discuss the goals of the study. A total of 19 teachers were asked to participate, with 2 teachers who did not consent. Researchers recruited preschoolers by talking with their parents at pick-up times and by sending fliers home in cubbies with information describing the risks and benefits of the study. Teacher participants consisted of thirteen lead teachers and four assistant teachers. Teachers were all female and ranged from 18-24 to 55-64 in ages. Of the 17 teachers, nine identified themselves as Caucasian, six as African American, one as Asian, and one as Hawaiian/Pacific Islander. From the thirteen classrooms, there were a total of 45 male and 57 female child participants, ranging from 24-39 months in age.

Measures

FOCAL is an observational tool used in a naturalistic setting to measure frequencies of emotions and reactions to emotions (Denham, 1986). In alternating five minute trials, facial, vocal, and behavioral indices were observed to record teacher- child emotional interactions and peer emotional interactions, using tablet computers and

software designed by Roberts (2012). For each teacher participant, observers coded her interactions with the children in her classroom for eight 10 minute sessions, where the participant was focal for the first 5 minutes and target for the second 5 minutes. When the teacher was the focal person, her expressed emotions were recorded, whereas when she was the target person, her reactions to expressed emotions of nearby children (within a 3 feet radius) were recorded. When the teacher was the focal person, the nearby children were the target, and vice versa. The observations of the teacher-child interaction will be labeled FOCAL-T. Observations of peer interactions will follow the same procedure. For each child participant, he or she will be observed interacting with their age-mates for eight 10 minute sessions. The child participant will be the focal person for the first 5 minutes and the target person for the second 5 minutes. Observations of peer interactions will be labeled FOCAL-P.

FOCAL observations will be used to address all three of the research questions. *RQ1* used expressed emotions observed using FOCAL-T when the teacher is focal as a predictor of expressed emotions by children in FOCAL-P. *RQ2*, on the other hand, will be assessed by examining the connection between teacher's reactions to emotions as the target person in FOCAL-T and children's expressed emotions when child is the focal during FOCAL -P. Last, *RQ3* will look at the association between teacher's reactions to emotions when she is the target person in FOCAL-T and children's reactions to emotions in FOCAL-P.

Emotional displays of happy, sad, angry/annoyed, tense/afraid, tender, pain, and neutral were observed and recorded. Examples of expressing happiness include smiling, laughing, dancing, or singing. In contrast, sadness is indicated by crying, a falling pitch in voice, and downturned lips. Anger was recorded if the observer witnessed aggressive behaviors such as hitting, yelling, and throwing, tense lips, furrowed eyebrows, or clenched teeth. Indices of being tense or afraid include jumpy body language, nervous habits such as thumb-sucking or tapping toes, wide eyes, and high eyebrows. Tenderness was displayed by hugging, kissing, saying “I love you,” and showing general empathy. Last, examples of expressing pain are saying “Ouch” and crying and holding the injured spot. When a participant displayed an emotion not listed (pride, disgust, surprise, etc.), it was considered an “other” emotion. When a participant was not emoting, they were coded as neutral. In order to assess emotion expression, the percentage of each emotion per total emotions expressed by the focal person in FOCAL-T and FOCAL-P will be calculated.

Reactions to the above-mentioned emotional displays were observed and recorded. These reactions included distress reaction, positive reaction, punitive reaction, emotion focused, problem focused, expressive validation, minimization, and no response (adapted from Fabes et al., 2002). A distress reaction was recorded if the participant showed a negative emotion in response to the focal person’s emotion. For example, a distress reaction was coded if a teacher became irritated with a crying child. In contrast, a positive reaction was indicated when the participant showed a positive emotion in response to the focal person’s positive emotion (e.g., smiling at a child who is being

silly). A punitive reaction was evidenced when the target person sought to rebuke or discourage the focal person's emotion (e.g., a teacher saying "stop being sad or I will put you in time-out). Similarly, minimization was recorded if the target person ridiculed or criticized the focal person's emotional experience (e.g., calling a child a baby for crying). An emotion-focused reaction was shown when the target person attempted to comfort the focal person, to make the focal person feel better. For example, an emotion-focused reaction was coded if a child hugged their crying peer. Via a problem-focused reaction, the target person uses strategies to resolve the problem that evoked the focal person's emotion (e.g., a teacher giving an angry child back a toy that was taken from them). Last, when the target person encouraged or otherwise validated the focal person's emotion (e.g., asking a question, saying "it's okay to cry"), observers recorded expressive validation. Multiple reactions to displayed focal persons' emotions may be coded. When the participant showed no reaction to the emotions, a no-response code was recorded. To capture a proportion of occurrence for each type of emotion and reaction to emotion, the frequency of each reaction will be divided by the number of emotions that elicited reactions.

Observers went through extensive training in all FOCAL codes. Towards the end of training, a preliminary written test was given to ensure comprehension of codes ($\kappa_{\text{avg written}} = .78$). Once training was complete, trainees had to complete a video reliability before moving on to live reliability. Video reliability consisted of watching and coding two 20-minute videos in 5 minute segments, alternating with adult and child as focal/target persons. Codes from the videos were compared to a master code, using kappa

statistics. In order to pass video reliability, observers had to have a kappa of $\kappa_{\text{avg video}} = .60$. Live reliability consisted of dual coding a teacher and child interaction for 10 minutes, alternating the focal and target persons. In order to become reliable, observers had to have a kappa of $\kappa_{\text{avg "live"}} = .80$. All observers had adequate reliability ($\kappa_{\text{avg video}} = .65$ and $\kappa_{\text{avg "live"}} = .82$).

RESULTS

Data Analyses

Using the FOCAL program, a time-budget analysis was conducted to determine the frequencies of the seven emotions and eight contingent reactions expressed per 10 minute sessions. Then, each session was aggregated to create a total frequency for each of the emotions and contingent reactions for both FOCAL-T and FOCAL-P. Based on previous literature of the FOCAL observation system (see Denham, 1986, p.197), I calculated the percentage of each expressed emotion per total emotions expressed for teachers in FOCAL-T and children in FOCAL-P. In the analyses for *RQ1 and RQ2*, the expressed emotions from FOCAL-T consisted of happiness, sadness, anger, and tenderness for teachers. Tension/fear, pain and “other” emotions occurred too infrequently to be used in analyses. The emotions from FOCAL-P that were frequent included happiness, sadness, anger, tension/fear, and tenderness. These emotions will be used in the analyses for *RQ1*. All reactions will be used for teachers in *RQ2 and RQ3* and for children in *RQ3*. For each of the contingent reactions, I calculated a ratio of type of reaction per total emotion expressed by the children or peers for FOCAL-T and FOCAL-P, respectively (see Denham, 1986 p. 197; see Denham & Grout, 1993 p. 213).

Preliminary analyses determined that the data were distributed non-normally. For example, both teachers’ and children’s happiness was the only emotion that was

distributed normally across participants, for all other emotions the data was positively skewed. Due to non-normality of data and small sample size, all analyses were conducted using a Bayesian estimator in M-plus software. Credible intervals (CI) were examined to determine significance, with any CI containing 0 being non-significant. Type=Complex was used in M-plus to account for the inflation of the standard errors due to nested data. The following findings show the associations between teachers of toddlers' emotional interactions with their students and toddlers' emotional interactions with their peers in the classroom.

Findings

Research Question 1 (*RQ1*) addresses the association between the emotions expressed by teachers in the classroom and the children's expressed emotions. It was expected that when a teacher expressed positive emotions often, children would express positive emotions in peer interactions. Conversely, when a teacher expresses negative emotions frequently, it was expected that children would express more frequent negative emotions when engaged with peers. The model used to assess *RQ1* regressed each of the teacher emotions from FOCAL-T on each of the children's emotions from FOCAL-P. For example, teacher happiness was regressed on child happiness, child sadness, child anger, child tenseness/fear, and child's tenderness. The same process occurred for each of the emotions used in the model (happiness, sadness, anger, tenseness/fear, and tenderness). Table 1 indicates the results for each of the pathways for *RQ1*. Results indicated that teachers' happiness, tenderness, and sadness all negatively predicted children's anger (-1.706, $p = .05$, -1.658, $p \leq .05$, and -1.795, $p \leq .05$, respectively). Thus,

teachers who displayed more happiness and tenderness had students who displayed less anger when interacting with peers. Similarly, teachers who expressed sadness often had students who displayed less anger towards peers. Therefore, the hypotheses of *RQ1* that teachers' emotionality would be the same as children's emotionality towards their peers were not supported by the results.

Research Question 2 (*RQ2*) examined the association between the teachers' reactions to emotions and the emotions expressed by children in the classroom. It was expected that reactions to emotions that are supportive or validating will facilitate the expression of various emotions (both positive and negative) in children while interacting with peers. However, when teachers react to emotions in a manner that is ridiculing or punishing, it was expected that children will show fewer emotions, especially negative emotions. The model used to address *RQ2* associated teacher contingent reactions from FOCAL-T to child emotions from FOCAL-P. As indicated in Table 2, results showed a positive association between teacher's emotion-focused reactions to children's emotions and sadness while interacting with peers ($0.817, p \leq .05$). Thus, teachers who sought to comfort children's emotions had children who experienced more sadness while interacting with peers. In contrast, results showed a negative association between teacher's validation of emotions and child sadness in peer interactions ($-.511, p \leq .05$). Therefore, hypotheses for *RQ2* are partially supported.

FOCAL-T and FOCAL-P were used to assess the connection between teacher contingent responses to emotions when interacting with their students on how individual

children react to emotions expressed by their peers. It was hypothesized for Research Question 3 (*RQ3*) that teachers would exemplify the contingent responses of children to their peers' emotions. That is, when a teacher is encouraging and empathetic towards children's emotions, children will also react prosocially towards their peer's emotions. Results (see Table 3) showed three significant pathways between teachers' contingent responses to children's emotions and children's contingent responses to peers' emotions. First, there was a negative association between teachers' positive reactions to emotions and children's no response reactions to peers' emotions ($-1.134, p \leq .05$). This finding means that when teachers reacted positively to the children's emotions, they were more likely to respond to their peers during interaction. Second, there was a negative association between teachers' expressive validation and children's emotion focused reactions ($-0.120, p \leq .05$). The last finding for *RQ3* is that there was a negative association between teachers no response reactions and children's no response reactions. Thus, hypotheses for *RQ3* were not supported by the data.

DISCUSSION

The goal of this investigation was to examine the role of teachers of toddlers as socializers of SEL. Previous literature in the socialization of emotion is focused primarily on parents. Teachers, like parents, are recognized as facilitators of SEL, but they have yet to be extensively researched in this capacity (Ahn, 2005). Teachers in childcare settings not only set boundaries and norms for behaviors in the classroom, but they also spend a lot of time interacting with their students (Denham, Bassett, & Zinsler, 2012). According to Ahn and Stifter (2006), teachers shape SEL through modeling, coaching, and reacting to emotions. Teachers of toddlers have different challenges than preschool teachers in facilitating SEL. Toddlers are developing new social and cognitive skills, thus, toddlers may need more help from adults to gain SEL skills. The goal of this project was to examine the association between teachers of toddlers' modeling of emotions and their contingent reactions to emotions on children's emotionality while interacting with peers. Toddlers in childcare develop complex peer relations, which are important in later years. The results of this paper indicate that teachers' emotions and reactions are associated with SEL in very young children during their interactions with their age-mates, but not always in the ways that were anticipated.

Discussion of Findings

Research Question 1 (*RQ1*) examined the association between teachers' expressed emotions in the classroom and children's expressed emotions while interacting with peers in the classroom. Based on the literature on parent socialization of emotion, it was predicted that teachers' emotionality would match emotionality within the classroom peer interactions (Denham & Grout, 1992; Eisenberg, Cumberland, & Spinrad, 1998). Inconsistent with previous findings, teachers' expressed emotions in the classroom did not match children's expressed emotions (Ahn, 2005; Ahn & Stifter, 2006). According to the literature on parent socialization of emotion, parent positive emotionality is associated with frequent displays of positive emotion by children (Denham & Grout, 1992; Eisenberg et al., 1998). Similarly, children who frequently experience parental expression of negative emotion often display negative emotions (Eisenberg, et al., 1998). Interestingly, results showed a negative association between teacher happiness and tenderness and child anger. Thus, positive teacher emotions may not promote children's positive emotions as much as they reduce children's displays of negative (i.e. angry) emotions. Results also indicated a negative association between teacher sadness and child anger. These findings imply that teachers who exhibit positive emotions in the classroom have children who express less anger towards peers. Anger and instrumental aggression in toddlerhood is often due to lack of self-regulation and control when dealing with difficult social situations (Hartup, 1974). It is possible that teacher positive emotionality set a positive affective environment that allowed for children to regulate their anger while interacting with their peers. Although child emotion regulation was not

directly measured or observed, this explanation would fit with previous literature which indicates that maternal expression of positive emotion is correlated with child emotion regulation abilities (Eisenberg et al., 2003). The nature of positive affective environments also intuitively allow for less anger occurrences between peers altogether. It is also likely that children who display less anger while engaged with their peers might make a teacher's job less stressful, allowing her to display more positive emotions in the classroom. Results indicate that the affective environment that teachers provide for their students plays a role in their abilities to express emotions in a regulated manner.

Research Question 2 (*RQ2*) involved the association between teachers' contingent reactions to children's emotion and children's expression of emotion. When a caregiver responds to emotions, they either encourage or discourage the expression of emotion (Denham, Bassett, & Zinsser, 2012). Ahn and Stifter (2006) found that teachers of toddlers often reacted to negative emotions by physically comforting the child or distracting the child. These types of reactions may let children know that expressing negative emotions is acceptable in the classroom. The present finding that teachers who used emotion-focused reactions (or comforting behaviors) had children who expressed more sadness while interacting with peers is consistent with the extant literature. Intuitively, when children express sadness in the classroom, teachers seek to comfort the sadness, thus the more displays of sadness by children towards peers, the more comforting behaviors by teachers. The current finding that teachers who used expressive validation (or acknowledging the expressed emotion) had children who had fewer displays of sadness while interacting with peers was unexpected. One possible

explanation is that teachers who acknowledge negative emotions may encourage children to talk about the cause of their emotions with their peers. Anecdotally, children who were aggressed upon were often told by teachers to tell their playmates that the aggressive behavior was not nice. Perhaps teachers who encouraged their students to talk to their peers about negative emotions provided an emotion regulation strategy for their students. This explanation is consistent with the findings from the parent socialization literature that parents who encouraged the expression of emotion had children who usually verbalized the cause of negative emotion (Eisenberg & Fabes, 1994). Expressive validation is the acknowledgment of both positive and negative emotions in the classroom. Thus, another possible explanation is that teachers who validated emotions may have acknowledged positive emotions. Children may have expressed less sadness towards peers when teachers validated positive emotions. Further sequential analyses could be conducted to test this explanation.

Research Question 3 (*RQ3*) addressed the connection between teachers' contingent reactions to emotions expressed by children and children's contingent reactions to their peers' emotions. Supportive reactions from adults that encourage the expression of negative emotions tend to be associated with similar reactions of children to their peers' emotions (Eisenberg, Cumberland & Spinrad, 1998). A present finding that was inconsistent with the extant literature was that there was a negative association between teacher expressive validation reactions and children's emotion-focused reactions. However, when teachers validate emotions, children may not need to use emotion-focused reactions towards their peers. By acknowledging children's emotions,

teachers may provide a way for children to self-soothe. A technique that is often used in childcare is the turtle method (see Denham & Burton, 1994) where children take time to calm down when experiencing a negative emotion and then later talk about their feelings. In these situations, children may not look towards their peers for comfort. In contrast, children may comfort their peers when a teacher does not acknowledge emotions in the classroom. When teachers are less attentive to emotions, children may step in to help ameliorate negative emotions by comforting.

There was a negative association between teachers' positive reactions and children's no response reactions while engaging with peers. Teachers who display less positive reactions to positive emotions may be overall less expressive. According to Denham and colleagues (2012), parents who are inexpressive teach children little about emotions. Thus, when teachers respond with fewer positive reactions, children may not respond to their peers emotions because they are unsure of how to handle the situation. Similarly, children may react more to peers' emotions when teachers model reactions to emotions in the classroom.

Last, results showed a negative association between teachers' no response reactions and children's no response reactions to their peers' emotions. Teachers of toddlers have to handle many different emotions occurring at once in the classroom (Ahn, 2005), thus they may not respond to negative emotions in order to not give attention to them. According to Ahn (2005), teachers may ignore negative emotions either intentionally or unintentionally. One explanation for the current finding is that toddlers

may not have the skills to ignore their peers when they experience negative emotions like teachers. Thus, despite teachers' modeling of non-responsiveness to negative emotions, toddlers may still respond to their peers' emotions. Another explanation may be that if teachers are intentionally unresponsive to deter less desirable behaviors that it is not an effective method in halting these behaviors. Similarly, children who are very responsive to their peers may overwhelm their teachers. In these situations, teachers may not respond purposefully to regulate their own emotions and behaviors while interacting with their students.

Limitations

The focus of this project was on teacher socialization of SEL during peer interactions. One limitation to this focus is that children may interact with teachers differently than interacting with peers. Although SEL skills involve interacting with peers, successful interaction with adults is also important. The FOCAL-T program does include children's emotional interactions with their teachers. A future direction of this project may be to examine how children interact with their teachers. It is expected that children will match the emotions of their caregivers more when interacting with them.

It is also important to consider that although this research project implied directionality of teacher emotional displays and contingent reactions on children's emotional displays and contingent reactions, there really is no way to determine the direction of these results. Teachers who have many students who express frequent negative emotions may express different emotions than a teacher with students who are

often happy. Thus, it is important to note that these results only show associations between certain teacher emotions and reactions to children emotions and reactions.

Last, children who attend childcare on a regular basis often have many teachers that they interact with throughout the day. Although we purposefully chose teachers who would be present for the majority of the children's school day, there is an issue of continuity of care, which may also influence how children interact emotionally with each other. However, it is my belief that even toddlers interact with each teacher differently based on emotional cues that they pick up.

Table 1: *Descriptive Statistics of the Proportion of Emotional Displays of Teachers*

Emotions	Happy	Sad	Angr y	Tense/ Afraid	Tender	Pain	Other
Mean	0.70	0.01	0.08	0.01	0.19	0.00	0.01
Standard Deviation	0.21	0.03	0.14	0.03	0.17	0.01	0.21
Skewness	-0.16	3.14	1.64	2.10	1.17	3.18	2.90
Kurtosis	-1.23	9.96	1.41	2.84	0.50	8.29	7.73

Table 2: Descriptive Statistics of Teacher Contingent Reactions to Children's Emotions

Reactions	Distress	Positive	Punitive	Problem Focused	Emotion Focused	Expressive Validation	Minimization	No Response
Mean	0.01	0.32	0.04	0.16	0.07	0.13	0.05	0.35
Standard Deviation	0.02	0.16	0.06	0.10	0.06	0.07	0.04	0.18
Skewness	1.41	0.18	1.60	0.28	1.03	-0.64	0.97	0.17
Kurtosis	0.39	-0.56	1.70	-0.12	0.87	-0.98	1.53	-0.45

Table 3: *Descriptive Statistics of the Proportion of Emotional Displays of Children towards Peers*

Emotions	Happy	Sad	Angry	Tense/ Afraid	Tender	Pain	Other
Mean	0.68	0.06	0.17	0.04	0.03	0.01	0.00
Standard Deviation	0.21	0.11	0.18	0.11	0.07	0.03	0.02
Skewness	-0.73	2.24	1.81	5.49	4.10	2.75	5.74
Kurtosis	0.25	4.85	4.80	38.20	23.05	7.15	34.10

Table 4: *Descriptive Statistics of Children's Contingent Reactions to Peers' Emotions*

Reactions	Distress	Positive	Punitive	Problem Focused	Emotion Focused	Expressive Validation	Minimization	No Response
Mean	0.09	0.39	0.27	0.02	0.01	0.01	0.02	0.35
Standard Deviation	0.09	0.20	0.08	0.43	0.28	0.03	0.04	0.19
Skewness	0.99	0.64	5.48	2.55	3.81	4.03	2.64	0.17
Kurtosis	0.19	0.29	37.91	5.75	14.10	18.62	6.75	-0.45

Table 5: *Estimates of Teacher Emotions Predicting Child Emotions in the Classroom*

Teacher Emotion	Child Emotion	Estimate	95% Credible Interval	
			Lower 2.5 %	Upper 2.5%
Happy	Happy	1.401	-0.606	3.674
	Sad	0.140	-0.911	1.033
	Angry	-1.706*	-3.587	0.000
	Afraid	-0.493	-1.340	0.316
	Tender	0.290	-.0525	0.970
Sad	Happy	2.098	-0.027	4.258
	Sad	-0.288	-1.424	0.678
	Angry	-1.796*	-3.727	-0.129
	Afraid	-.0527	-1.678	0.580
	Tender	0.054	-0.924	0.729
Angry	Happy	1.552	-0.588	3.983
	Sad	-0.034	-1.166	1.060
	Angry	-1.768	-3.812	0.101
	Afraid	-0.710	-1.630	0.232
	Tender	0.405	-0.419	1.203
Tender	Happy	1.446	-0.843	3.661
	Sad	0.295	-.798	1.151
	Angry	-1.658*	-3.544	-0.060
	Afraid	-0.537	-1.507	0.314
	Tender	0.237	-0.531	0.927

* $p \leq .05$

Table 6: *Estimates of Teacher Contingent Reactions Predicting Child's Expressed Emotions*

Teacher Emotion	Child Emotion	Estimate	95% Credible Interval	
			Lower 2.5 %	Upper
Distress Reaction	Happy	1.945	-0.518	4.305
	Sad	-0.246	-1.586	0.815
	Angry	-1.830	-3.346	0.338
	Afraid	0.390	-0.588	1.385
	Tender	-0.274	-0.927	0.591
Positive Reaction	Happy	-0.324	-1.049	0.751
	Sad	0.041	-0.375	0.469
	Angry	0.409	-0.304	1.078
	Afraid	0.150	-0.274	0.517
	Tender	-0.090	-0.369	0.170
Punitive Reaction	Happy	-0.825	-2.764	0.938
	Sad	-0.088	-0.828	0.759
	Angry	1.033	-0.450	2.495
	Afraid	0.078	-0.734	0.743
	Tender	0.125	-0.362	0.059
Problem Focused	Happy	-0.128	-0.847	0.566
	Sad	-0.003	-0.420	0.243
	Angry	0.213	-0.258	0.840
	Afraid	0.288	-0.114	0.610
	Tender	-0.162	-0.362	0.059
Emotion Focused	Happy	-0.598	-2.468	0.222
	Sad	0.817*	0.230	1.591
	Angry	-0.162	-0.954	0.915
	Afraid	0.098	-0.391	0.827
	Tender	-0.111	-0.624	0.268
Expressive Validation	Happy	0.246	-0.570	1.310
	Sad	-0.511*	-0.960	-0.096
	Angry	0.544	-0.143	1.160
	Afraid	-0.089	-0.584	0.424
	Tender	-0.125	-0.335	0.104
Minimization	Happy	-0.531	-2.309	1.293
	Sad	0.377	-0.264	1.308
	Angry	0.571	-0.348	0.427
	Afraid	0.079	-0.665	0.909
	Tender	-0.450	-1.005	0.055
No Response	Happy	-0.522	-1.223	0.293
	Sad	0.016	-0.348	0.427
	Angry	0.388	-0.248	1.056
	Afraid	0.215	-0.115	0.909
	Tender	-0.007	-0.275	0.275

*p ≤ .05

Table 7: Estimates of the Association between Teacher Contingent Reactions to Emotions and Child Contingent Reactions to Emotions

Teacher Contingent Reaction	Child Contingent Reaction	Estimate	95% Credible Interval	
			Lower 2.5%	Upper 2.5%
Distress	Distress	-0.826	-2.958	0.309
	Positive	0.181	-0.785	1.464
	Punitive	0.098	-1.017	0.927
	Problem Focused	0.419	-0.143	0.885
	Emotion Focused	0.089	-0.360	0.470
	Expressive Validation	-0.05	-0.416	0.383
	Minimization	0.193	-0.321	0.695
	No Response	1.382	-0.879	3.679
Positive	Distress	0.321	-0.121	0.729
	Positive	0.181	-0.785	1.464
	Punitive	-0.242	-0.617	0.059
	Problem Focused	0.003	-0.189	0.216
	Emotion Focused	-0.089	-0.234	0.037
	Expressive Validation	0.031	-0.084	0.178
	Minimization	0.114	-0.060	0.375
	No Response	-1.134*	-2.160	-0.288
Punitive	Distress	0.370	-0.324	1.046
	Positive	-0.484	-4.355	2.127
	Punitive	-0.032	-0.536	0.554
	Problem Focused	-0.05	-0.425	0.309
	Emotion Focused	-0.108	-0.306	0.129
	Expressive Validation	0.086	-0.156	0.315
	Minimization	0.118	-0.217	0.573
	No Response	-1.351	-3.131	0.094
Problem Focused	Distress	0.112	-0.264	0.446
	Positive	-0.165	-0.968	0.901
	Punitive	0.026	-0.255	0.285
	Problem Focused	0.118	-0.026	0.259
	Emotion Focused	-0.059	-0.175	0.037
	Expressive Validation	-0.011	-0.100	0.133
	Minimization	0.211	-0.060	0.613
	No Response	-0.299	-1.228	0.265
Emotion Focused	Distress	0.041	-0.380	0.598
	Positive	-0.529	-1.705	0.534
	Punitive	0.004	-0.472	0.477
	Problem Focused	-0.213	-0.462	0.027
	Emotion Focused	-1.501	-0.304	0.034
	Expressive Validation	-0.056	-0.229	0.089
	Minimization	0.188	-0.079	0.480
	No Response	-0.027	-1.074	1.035
Expressive Validation	Distress	-0.112	-0.424	0.192
	Positive	0.091	-0.708	1.118
	Punitive	0.054	-0.253	0.328
	Problem Focused	-0.003	-0.175	0.200
	Emotion Focused	-0.120*	-0.228	-0.006
	Expressive Validation	0.020	-0.100	0.131
	Minimization	0.149	-0.081	0.342
	No Response	-0.232	-1.304	0.555
Minimization	Distress	0.141	-0.672	0.787
	Positive	-0.066	-2.003	1.383
	Punitive	-0.286	-1.005	0.298
	Problem Focused	0.118	-0.026	0.259
	Emotion Focused	-0.085	-0.263	0.123
	Expressive Validation	-0.15	-0.321	0.099
	Minimization	0.211	-0.06	0.613
	No Response	-0.763	-1.838	1.006
No Response	Distress	0.282	-0.090	0.680
	Positive	0.027	-0.803	1.174
	Punitive	-0.207	-0.487	0.102
	Problem Focused	0.007	-0.183	0.166
	Emotion Focused	-0.077	-0.202	0.048
	Expressive Validation	0.043	-0.054	0.175
	Minimization	0.112	-0.052	0.358
	No Response	-0.858*	-1.783	-0.162

*p<.05

REFERENCES

- Ahn, H.J. (2005). Child care teachers' strategies in children's socialization of emotion. *Early Child Development and Care*, 175, 49-61. doi:10.1080/030044304200230320
- Ahn, H. J.& Stifter, C. (2006). Child care teachers' response to children's emotional expression. *Early Education and Development*, 17, 253-270. doi: 10.1207/s15566935eed1702_3
- Ashiabi, G. S. (2000). Promoting the emotional development of preschoolers. *Early Childhood Education Journal*, 28, 79-84. doi: 10.1023/A:10095432030389
- Cole, P. M., Michel, M. K., & Teti, L. O. (1994). The development of emotion regulation and dysregulation: A clinical perspective. *Monographs of the Society for Research in Child Development*, 59, 73-100. doi:10.2307/1166139
- Contreras, J. M, Kerns, K. A, Weimer, B. L., Gentzler, A. L., Tomich, P. L. (2000). Emotion regulation as a mediator of associations between mother-child attachment and peer relationships in middle childhood. *Journal of Family Psychology*. 14, 111-124.
- Denham, S.A. (2006). Social-emotional competence as support for school readiness: What is it and how do we assess it? *Early Education and Development*, 17, 57-89. doi:10.1207/s15566935eed1701 4
- Denham, S. A. (1986). Social Cognition, social behavior, and emotion in preschoolers: Contextual validation. *Child Development*, 57, 194-201. doi: 10.2307/1130651
- Denham, S. A., Bassett, H.H., & Wyatt, T. (2007). The socialization of emotional competence. In J. Grusec & P. Hastings (Eds.), *The handbook of socialization* (2nd Edition) (pp. 614-637). New York: Guilford Press.
- Denham, S.A., Bassett, H.H, & Zinsser, K. (2012). Early childhood teachers as socializers of young children's emotional competence. *Early Childhood Education*. Advance online publication. doi: 10.1007/s10643-012-0504-2
- Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J. Sawyer, K., Major-Auerbach, S. & Queenan, P. (2003). Preschool emotional competence: Pathway to social competence? *Child Development*, 74, 238-256. doi: 10.1111/1467-8624.00533

- Denham, S.A., Brown, C., & Domitrovich, C. E. (2010). "Plays nice with others": Social-emotional learning and academic success. *Early Education and Development*, 21, 652-680. doi: 10.1080/41719289.2010.497450
- Denham, S. A. & Burton, R. (1996). A social-emotional intervention for at-risk 4-year olds. *Journal of School Psychology*, 34, 225-245. doi:10.1016/0022-4405(96)00013-1
- Denham, S. A., Caverly, S., Schmidt, M., Blair, K., DeMulder, E., Caal, S.,..., Mason, T. (2002) Preschool understanding of emotions: Contributions to classroom anger and aggression. *Journal of Child Psychology and Psychiatry*, 43, 901-916. doi: 10.1111/1469-7610.00139
- Denham, S. A. & Grout, L. (1992). Mothers' emotional expressiveness and coping: Relations with preschoolers' social-emotional competence. *Genetic, Social, and General Psychology Monographs*, 118,73-101.
- Ekas, N. V., Braungart-Rieker, J. M., Lickenbrock, D. M., Zentall, S. R., & Maxwell, S. M. (2011). Toddler emotion regulation with mothers and fathers: Temporal associations between negative affect and behavioral strategies. *Infancy*, 16(3), 266-294. doi:10.1111/j.1535-7068.2010.00042.x
- Engle, J. M. & McElwain, N. L. (2011). Parental reactions to toddler's negative emotions and child negative emotionality as correlates of problem behavior at the age of three. *Social Development*, 20, 251-271. doi: 10.1111/j.1467-9507.2010.00583.x
- Eisenberg, N. & Fabes, R. A. (1994). Mothers' reactions to children's negative emotions: Relations to children's temperament and anger behavior. *Merrill-Palmer Quarterly*, 40, 138-156.
- Eisenberg, N., Cumberland, A., & Spinrad, T. L. (1998). Parent socialization of emotion. *Psychological Inquiry: An International Journal for the Advancement of Psychological Theory*, 9, 241-273. doi: 10.1207/s15327965pli0904_1
- Eisenberg, N., Valiente, C., Morris, A. S., Fabes, R. A., Cumberland, A., Reiser, M., ..., & Losoya, S. (2003). Longitudinal relations among parental emotional expressivity, children's regulation, and quality of socioemotional functioning. *Developmental Psychology*, 39, 3-19. doi: 10.1037/0012-1649.39.1.3
- Fabes, R.A., Eisenberg, N., Jones, S., Smith, M., Ivanna, G., Poulin, R.,... Friedman, J. (1999). Regulation, emotionality, and preschoolers' socially competent peer interactions. *Child Development*, 70(2), 432-442. doi: 10.1111/1467-8624.00031
- Fabes, R. Poulin, R., Eisenberg, N., & Madden-Derdich, D. (2002). The Coping with Children's Negative Emotions Scale (CCNES): Psychometric properties and

- relations with children's emotional competence. *Marriage & Family Review*, 34, 285-310. doi: 10.1300/J002v34n03_05
- Farver, J. M. & Wimbarti, S. (1995). Paternal participation in toddlers' pretend play. *Social Development*, 4, 17-31. doi: 10.1111/j.1467-9507.1995.tb00048.x
- Garner, P. W. & Estep, K. M. (2001). Emotional competence, emotion socialization, and young children's peer-related social competence. *Early Education and Development*, 12, 29-48. doi: 10.1207/s15566935eed1201_1
- Halberstadt, A. G., Denham, S. A., & Dunsmore, J. C. (2001). Affective social competence. *Social Development*, 10, 79-119.
- Hartup, W. W. (1974). Aggression in childhood: Developmental perspectives. *American Psychologist*, 29(5), 336-441.
- Hay, D. F., Payne, A., & Chadwick, A. (2004). Peer relations in childhood. *Journal of Child Psychology and Psychiatry*, 45, p 84-108. doi: 10.1046/j.0021-9630.2003.00308.x
- Howes, C. (1987). Social competence with peers in young children: Developmental sequences. *Developmental Review* 7, 252-272. doi: 10.1016/0273-2297(87)90014-1
- Hubbard, J. A. & Dearing, K. F. (2004). Children's understanding of regulation of emotion in the context of their peer relations. In J.B Kupersmidt & K. A. Dodge (Eds.) *Children's peer relations: From development to intervention. Decade of Behavior*. (pp. 81-99). Washington, DC, American Psychological Association.
- Izard, C., Woodburn, M. E., Finlon, K. J., Krauthamer-Ewing, S., Grossman, S.R., & Seidenfeld, A. (2011). Emotion knowledge, emotion utilization, and emotion regulation. *Emotion Review*, 3, 44-52. doi: 10.1177/1754073910380972
- Kopp, C. B. (1982). Antecedents of self-regulation: A developmental perspective. *Developmental Psychology*, 18, 199-214. doi: 10.1037/0012-1649.18.2.199
- Ladd, G. W. (1990). Having friends, keeping friends, making friends, and being liked by peers in the classroom: Predictors of children's early school adjustment? *Child Development*, 61(4), 1081-1100. doi:10.2307/1130877
- Leerkes, E. M., Paradise, M., O'Brien, M., Calkins, S. D., & Lange, G. (2008). Emotion and cognition processes in preschool children. *Merrill-Palmer Quarterly*, 54, 102-124. doi: 10.1353/mpq.2008.0009.
- Miller, A. L., Gouley, K. K., Seifer, R., Dickstein, S., & Shields, A. (2004). Emotions and behaviors in the Head Start classroom: Associations among observed

dysregulation, social competence, and preschool adjustment. *Early Education & Development*, 15, 147-165

Mize, J., Ladd, G. W., & Price, J. M. (1985). Promoting positive peer relations with young children: Rationales and strategies. *Child Care Quarterly*, 14, 221-237. doi:10.1007/BF01113437

Roberts, W.L (2002) *Software for observing behavior in natural settings*. Retrieved November 11, 2012, from <http://www.tru.ca/faculty/wlroberts/index.html#focal>

Santucci, A. K., Silk, J. S., Shaw, D. S., Gentzler, A., Fox, N. A., & Kovacs, M. (2008). Vagal tone and temperament as predictors of emotion regulation strategies in young children. *Developmental Psychobiology*, 50, 205-216

Siegler, R. S., & Alibali, M. W. (2005). *Children's thinking* (4th Ed.). Pearson/Prentice Hall: Upper Saddle River, New Jersey

BIOGRAPHY

Samantha N. Plourde received her Bachelors of Science in Psychology at Virginia Polytechnic Institute and State University. While attending Virginia Tech, she worked with Dr. Julie Dunsmore in the Social Development Lab. From her experiences working with Dr. Dunsmore, she became interested in peer relations of young children. She currently is a graduate student in Applied Developmental Psychology working under Dr. Susanne A. Denham at George Mason University on the Teachers As Socializers of Social Emotional Learning (TASSEL) study.