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Teaching Emotional Self-Awareness through Inquiry-Based Education

Linda M. Perez
Mills College

Abstract

This exploratory case study examined how graduate students' understanding about their own emotions and regulatory patterns influenced their ability to co-regulate young children's emotions. The study also explored the effectiveness of creating a learning context in which the students could learn the value of self-reflection and thoughtful inquiry into their own professional practices. Preliminary findings suggested that inquiry-based education and self-reflection enabled the students to recognize their own emotions and become better at regulating their emotions and co-regulating the children's emotions.

Introduction

Young children's development of the ability to understand and regulate their emotions has been the subject of some current research on early emotional development. Two essential features of emotion regulation are identifying emotions and accessing effective coping skills (Kopp, 1989; Shonkoff & Phillips, 2000; Siegel, 1999). According to Kopp (1989), knowledge of emotion regulation provides a more comprehensive perspective on the development of self-regulation than is possible without an understanding of how children experience and cope with emotions. Self-regulation is a complex process that proceeds from early control of arousal in infancy to regulation of internal states in response to social expectations in later childhood (Cole, Martin, & Dennis, 2004; Kopp, 1982). Perry (2001) claims that self-regulation is essential to young children's healthy emotional development.

The literature on emotion self-regulation indicates that successful early regulation requires an aware and responsive caregiver who can monitor and regulate her own internal processes and behavior during interactions with a child (Kopp, 1982; Schore, 2005; Schuder & Lyons-Ruth, 2004). Stern (1985) refers to this interactive regulatory capacity as affect attunement. A child's ability to modulate his or her emotions develops within emotionally regulated and verbally mediated interactions between the child and a caregiver who is attuned to the child's emotions (Kopp, 1989; Schore, 2001, 2003a, 2003b, 2005; Shonkoff & Phillips, 2000; Siegel, 1999) and is influenced by the child's individual characteristics and emerging cognitive skills. Siegel (2001) explains that alignment, a component of affect attunement, is one way in which the caregiver alters her own emotional state to approximate that of the child.

For example, if when interacting with a child with a high level of arousal, the adult raises his or her level of arousal slightly, this response can get the child's attention and help him to "map onto" the adults' subsequent modeling of self-regulation processes. The message for the child is "I go up, and I can come back down" in terms of emotion arousal. The adult mindfully attunes to a child's emotions and behavior, with the intention of helping the child re-regulate. In order to do this, the adult must be aware of his or her own emotions and be self-regulating.

Similarly, alignment may also be part of a child's process of learning to self-regulate. The child who is at a high level of emotional arousal may notice the adult's lower level of emotion arousal and align her emotion state with that level.

In contrast to the mounting evidence that successful early emotion regulation requires an aware and responsive caregiver who can monitor and regulate her own internal processes (Als, 1982; Kopp, 1982, 1989; Schore, 2005; Schuder & Lyons-Ruth, 2004), little research has been done on ways to cultivate early childhood professionals' own emotional self-awareness and their capacity to effectively meet the regulatory needs of the children in their care. Kremenitzer (2005) found that self-reflective journaling enhanced early childhood educators' ability to regulate their own emotions and contributed to successful teaching practices. The focus of this article is on an approach to fostering caregivers' emotion regulation and ability to co-regulate young children's emotions (that is, to act in ways that help children regulate their emotions).

The primary purpose of this exploratory study was to examine how graduate students' understanding about their own emotions and regulatory patterns may influence their ability to co-regulate young children's emotions. The secondary purpose was to explore the effectiveness of creating a learning context in which the students could learn the value of self-reflection and thoughtful inquiry into their own professional practices.

The following questions formed the basis of the study: Does inquiry into their own emotions make the students more insightful about their emotions and those of young children? If so, does such inquiry assist their interactive regulatory capacity to meet young children's regulatory needs?

Methods

Setting

The study was conducted with advanced seminar students in a master's-level early childhood education program in the School of Education at Mills College. The course covers developmental theory and research evidence in infancy, developmental psychology, and developmental interpersonal neurobiology.

The principles on which the programs of professional development at Mills College School of Education are founded include the following: (1) teaching is connected to subject matter; (2) teaching is an act of inquiry and reflection; (3) learning is a developmental and constructivist process; and (4) education is collegial, relationship-based, and guided by an ethic of care.

Participants

The participants were 25 students, 24 female and l male, in a master's-level early childhood education program. They ranged in age from 22 to 50 years, with a mean age of 29 years. Forty-four percent of the participants were Caucasian, 28% were Hispanic, 20% were Asian, and 8% were African American. While enrolled in the class, 68% (17) of the participants were working in the Mills College laboratory school. Twenty percent (5) worked at hospitals, 4% (1) worked with infants and preschool children in a community-based mental health setting, and 8% (2) worked in school settings with school-age children. The participants were students in the spring 2008 class, which met once a week for 15 weeks for an hour and a quarter.

The participants were informed that human subjects approval for the study was obtained through the Mills College Internal Review Board. They were told that they were under no obligation to take part in the study, that nonparticipation would not affect their grades, and that they could withdraw from the study without consequences. As their instructor, I reassured them that their participation did not involve work beyond the requirements for the course, that the data were confidential, and that they would use ID numbers—not their names or the children's names—on class assignments and in class discussions. All the students agreed to participate.

Data Sources

Data sources for this study consisted of students' emotional self-awareness logs, the students' written assignments, and the author's reflective teaching journal. The data were submitted and analyzed under pseudonyms to minimize bias in interpreting the findings.

Students' Emotional Self-awareness Log. The students were instructed to fill out and bring to each class meeting a daily emotional self-awareness log that identified triggering situations and the thoughts and feelings that elicited emotional responses during challenging interactions in their work with children. The students were also asked to gauge the intensity of the response (0 = negligible to 10 = excessive), to report when they recognized the emotional response (before, during, or after the event), to describe how they coped with the situation, and to reflect on how they could have coped differently (see Table 1). The purposes of this intense and personal mode of inquiry were for the students to make concrete representations of their own emotions and to examine their ability to self-regulate in moments when difficulties arose. A third purpose was to help them learn to anticipate triggering situations before they occurred.

Table 1

Daily Emotional Self-Awareness Log

	Monday	Tuesday	Wednesday	Thursday	Friday
Triggering situation—what happened?					
Identify your feelings and thoughts.					
What beliefs explained your feelings?					
Intensity Scale (0-10)					
How were your feelings expressed?					
Did you realize after, during, or before?					
Coping—what did you do?					
What would you cope differently?					

Students' Reflective Written Assignments. For the reflective written assignments, students responded to questions intended to prompt them to reflect on their experiences in their work with children; they were also directed to use a variety of course readings to inform their reflections. First, the students were asked to reflect upon ways in which they had attuned to their own emotions and aligned with a child's emotional state to modulate the child's emotions. Then they were asked to observe a child and identify environmental stimuli that may have precipitated emotional responses that moved the child beyond his or her threshold of optimal emotional arousal and to record how quickly the child returned to an optimal emotional state. At the same time, they were asked to chart their own states of emotional arousal.

The students then followed up with a reflection paper that discussed the child's arousal levels and recovery time, their own emotional responses to the child, and regulatory strategies that kept them both in a zone of optimal emotional arousal. The purposes of this assignment were to enable the students to develop an understanding of the child's pattern of arousal and how it influenced their own arousal levels, to help them learn to predict when a child might be moving toward hyper- or hypo-aroused states, and to help them scaffold the environment and their interactions with the children, with the goal of facilitating increasing levels of self-regulation in the children.

The students were also asked to re-read their emotional daily logs and to reflect on how they thought inquiry into their own emotions improved present-moment awareness and their interactive regulatory capacity to meet young children's regulatory needs.

Reflective Teaching Journal. I systematically looked closely at my own teaching through a weekly journal. I wrote notes about in-class discussions and student interactions and reflected on these notes to enhance interactive teaching strategies that I practiced in class.

Classroom Context

For this study, I created a learning environment in which my students learned to use inquiry to cultivate their own emotional self-awareness and their potential for meeting young children's regulatory needs during their interactions with the children.

The students were assigned to study groups to discuss their written assignments outside of class and to get the group's written feedback before bringing their assignments to class for a larger group discussion. I returned the students' daily emotional self-awareness logs and written assignments within one week with extensive notation. In this ongoing collaborative and reflective dialog with my students, I steered them to critical thinking by identifying which of their regulatory practices effectively met the regulatory needs of the children they worked with. This collaborative format was intended to encourage classroom participation and to facilitate the students' commitment to learning and to thoughtful inquiry.

My lectures linked the students' practical experiences and written reflection assignments with readings about emotional development, including related theoretical principles. I used class discussion to teach subject matter and to encourage reflective thinking. I reframed questions that arose in class in order to facilitate solutions to the difficulties that students were encountering in their field placements. My goal was to encourage them to use inquiry to bring clarity to their practice—to reflect on which interactive regulatory strategies did or did not effectively meet the children's regulatory needs. I emphasized that the desired outcome was to establish their own positive regulatory patterns and to facilitate positive regulatory patterns in children.

Mindful of the difficult interactions that the students had described in their written assignments, I listened carefully to their concerns during in-class discussions and reflected back their concerns in a meaningful way. First, I validated the students' expressed concerns about the interactions they described, acknowledging that it is nearly impossible to regulate a child's emotions, even for someone with many years of experience working with children, without intense concentration on that task. I then encouraged students to reexamine their own emotion regulation when working with emotionally aroused children; to do so, I posed open-ended questions such as "What were you trying to do in that situation? "What made you frustrated?" "What could you do to assist your own regulation?" "How might this benefit the children you are working with?" I encouraged the students to reflect on how their own emotions were influencing the children, and vice versa, and to try

interventions that better facilitated solutions to the difficulties that they were experiencing in assisting the children with their regulatory needs. I wrote weekly notes at the end of each class and used these notes to reflect on interactive regulatory strategies that I used in conversation with students.

To enable the students to see themselves and the children as separate individuals who had their own unique emotional needs and ways of modulating their arousal levels, I asked the students to examine their own expectations and values and the expectations and values that the children brought to each interaction. I began by questioning what students perceived as their own standards regarding children's emotions and social behavior: In what ways might their sociocultural and familial values influence their interactions and effective communications with children? I asked the students to think broadly about how normative variations might mesh with children's emerging regulatory capacity and to think about behavioral norms within specific contexts. The purpose of such questions was to help them to grasp that, for example, exuberant and emotionally aroused age-appropriate behavior on the playground is often at odds with classroom norms and teachers' expectations for children's classroom behavior. I asked the students to examine how a teacher's expectations for "good" self-regulation and behavior could influence children's self-perceptions of themselves as students.

During classroom discussions when a student's emotional arousal seemed heightened, I supported the aroused state with the intention of reorganizing the student's affect and facilitating mutually regulated emotional states. First, I aligned my emotional state to the student's state, demonstrating awareness of her or his level of emotional arousal. Next, I helped the student make a transition to a calmer place by scaffolding self-regulation through pausing, self-calming, and reflecting on our interactions. Then I used collaborative communication, inviting discussion of students' use of self-directive strategies that they found effective in meeting their own regulatory needs and the regulatory needs of the children they worked with; this strategy generally helped the student to maintain the calmer state.

Ultimately, I affirmed that it is difficult even for me, with many years of teaching and clinical experience, to remain calm and in a regulated state when interacting with emotionally aroused or under-aroused children. I believe that my willingness to talk about these struggles created a safe space for raising the students' emotional self-awareness and for them to monitor their own emerging emotions and feelings. I sought consistently to be responsive and attuned to the students when they discussed the conflicts they experienced regulating their own emotions while attempting to regulate children exhibiting challenging behavior. Such conflicts presented opportunities for me to scaffold their growth by listening carefully and providing affective guidance and multiple perspectives.

Preliminary Data Analysis

Triangulation was achieved during this study through analysis and comparison of the students' logs, written assignments, and my own reflective notes about in-class discussions and student interactions (Yin, 2003). I continually checked the accuracy of the qualitative analysis with a colleague who also reviewed the data. The colleague and I identified and made a list of emerging themes and discussed potential alternatives until we agreed upon a new set of themes. We subsequently categorized the themes into three theoretical constructs. I addressed internal validity by documenting, inquiring, and questioning my own subjectivity and personal biases with my student assistant and a colleague.

Preliminary Results

Examination and analysis of the students' written assignments and self-awareness logs identified three theoretical constructs that collectively suggest ways in which the inquiry process facilitated students' insight into their own emotions and understanding of their own potential to assist or facilitate young children's efforts to self-regulate: (1) emotions trigger emotional responses; (2) affect attunement is an interactive regulatory process; and (3) present-moment awareness of emotional states is critically important during interactions. Examples of each theme are discussed below.

Emotions Trigger Emotional Responses. The following vignettes, each taken from the work of a different student, indicate the students' increasing awareness that their own emotional arousal might affect the child (italics added for emphasis):

> His behaviors become disorganized when he is over stimulated. When this happens, he quickly loses control of his emotions and his behavior. Through working with him, I have discovered the importance of identifying my emotions and knowing my limits before trying to influence his behavior. *I see how quickly my interactions with him improve when I am attuned to my own emotions and can control the way I react*.
>
> Reflection forced me to look at how my reactions affect her emotional tone and ability to organize. When she started crying, I wanted to fix the problem as soon as possible. After each solution, I noticed that she was not calming down, and I would try a different method. As she continued crying, my arousal escalated. Every time I became more stressed out, she cried harder. Her arousal state was matching my own. I developed certain classroom techniques to assist our regulation. I introduced comfort items and developed a rhythm to our naptime routine. These tools helped her.

The most helpful tool was regulating my own emotions.

In the backlash of his destruction of the activity center, I was able to pause and assess my own emotions, regulate my thoughts, and then proceed to help manage the child's emotions through scaffolding self-regulation. I went down on my knees next to him, and I began talking to him. I chose a book that he likes and keeps his attention and allows him to become calm. *Through the process of journal writings, I have become increasingly more aware of my internal state and how it influences my interactions with him.*

Recognizing that my own anxiety about the child's behavior was feeding into his distress, I forced myself to step back and calm my own. Still, I maintained the connection and quietly affirmed his emotions. The frequency of his tantrums has decreased, and he rebounds more quickly.

My analysis of the students' written comments revealed a trend in their reflections: They noted repeatedly that the children's expressions of emotion affected the way that they interacted with the children until they (the students) learned to recognize and modulate their own emotions. Their own emotion regulation, they repeatedly found, was essential to assisting the children's self-regulation.

Analysis also revealed that, through the reflective processes, students became aware of the relationship between their own bodily responses and their regulatory patterns. They described autonomic changes such as increased respiratory and heart rates when interacting with emotionally aroused children and lethargy when interacting with withdrawn children. In the following comment, for example, a student discusses how concentrating on her physical reactions during a difficult interaction with a child made her more aware of how to both regulate her own emotions and assist the child's self-regulation:

Focusing on my own body reactions allowed me to recognize my emotions quicker than processing them cognitively. It freed me to interpret these emotions and to understand the child's affective state. *Over time, I became better at recognizing and regulating my own arousal and leading the child to a place of regulation*.

Affect Attunement Is an Interactive Regulatory Process. Another common theme in the students' writing was recognition that that pausing, reflecting, and remaining calm when interacting with unregulated children assisted the students' own interactive regulatory capacity to help bring the children into a more regulated state. In the following participant self-reports, for example, the students describe how they attuned to both their own emotions and the children's; in turn, the children alter their expressions of emotion to approximate the students' state:

His body was tense and his brow furrowed. I gently put my arms around him loosely and quietly communicated my desire to help him regulate. His body collapsed into my awaiting embrace. *He aligned emotionally and physiologically. His state changed from one of tension and stress to one of calm and relaxation*.

Each time I interacted with her, I slowly became more aware of not only her nonverbal cues and signals but also to my own method of addressing her, which needed to be more attuned to her calm, quiet nature. Simply being present and aligning myself to her emotional state allowed her to feel comfortable to initiate conversations, smile, laugh, and open up. *It took until the end of our time together for me to realize the value of being attuned to her emotions*.

Johnny stops crying and turns his head to look at me as he lets go of the fence, indicating that he feels safe with me. I do not say a word. *In the quiet, he has time to process my body language. He too calms*.

Separations from his mother triggered a hypo-aroused state that was followed by increased arousal that prevented him from participating in an activity or engaging in peer play. I became frustrated and anxious. *Bringing about the child's optimal arousal required bringing about my own optimal arousal. It required attunement and alignment of our emotional states*.

During each of the positive exchanges described, it was apparent that the students' regulated affective states helped the children to regulate their affect.

Present Moment Awareness of Emotions Is Critically Important during Interactions. My analysis found that the students frequently reported that their reflective assignments were a valuable means of becoming aware of their own emotional states "in the moment," which in turn enhanced their own regulatory capacity. The following vignettes from the students' daily emotion logs and written assignments illustrate how disciplined conscious reflection stimulated present-moment awareness of their own emotions during their interactions with children:

The practice of becoming aware of my emotions, their triggers, and their intensities, set me on a course of understanding my work and interactions at a new level. *This course has taught me to reflect on my work through a critical lens that is all too often overlooked and undervalued—my own emotional responses.* This daily practice and reflection helped me acquire and develop present

awareness.

Through reflection, I am more mindful of how I approach difficult children and tense situations. I now use reflection as a way of coping. *I find that after reflection I am more alert to the signs and triggers of my own distressed emotional state and better able to manage children's challenging behavior in the moment*.

The way that I approach a potentially stressful situation has changed since the beginning of the semester, mostly as a result of learning how to frame interactions. Now I frame interactions in the moment by identifying the interaction and beginning a silent monologue. I have become better able to reflect while in the moment and after the incident.

Over the course of the semester, the practice of being mindful of my emotions has helped me to tune that skill. I believe being mindful and calm in the moment of my own discomfort or the discomfort of a fellow teacher or child makes me a more confident and successful teacher.

The logs have allowed me to become more aware of my emotions during the moment and to track the children's emotions before they occur. Prior to these logs, I was unaware how to start this regulation process.

While daily logging was sometimes difficult, the experience helped me become more self-aware and in turn more attuned to my own needs and the needs of my students. My logging and observations of students helped me recognize how much the relationship between student and teacher is one of co-regulation.

Writing about my emotions on my logs has reinforced the importance of remaining present and in a regulated state during my interactions with the children. I feel that this will continue to be a learning process for me.

Preliminary Summary

It was evident that the students believed that this type of reflection on and inquiry into their own emotions and regulatory patterns improved their capacity to interact with young children in ways that assisted the children's self-regulation. A student wrote:

> Understanding the ways in which my own emotions affect his arousal helps me think about different interactive strategies that assist his regulatory behaviors.

The students indicated that the daily emotional logs and reflective assignments were valuable means of developing present-moment awareness and enhancing their own regulatory capacity. They expressed growing awareness of how their reactions to the children might be affected by the children's emotions until they learned how to first recognize and then modulate their own emotions before attending to the children's regulatory needs. For example, one student commented about a boy who had some difficulties with emotion regulation:

> I am concerned about his ability to regulate his emotions during transitions. I feel that it is important for me to stay calm and present, but this is not always possible for me to do when his transitions do not go smoothly. Reflecting on our interactions made me realize that my own agitated state riled him up. Realizing this, I learned to calm myself down in the moment so that I could help him make better transitions.

I noted that the students most often reported on emotionally aroused children who challenged their own emotion regulation. (Interactions with boys were reported to be particularly challenging in this regard.) Students less often identified or wrote about under-aroused children. They reported that the children who exhibited sudden and dramatic shifts in emotional arousal were the most difficult to help regulate until they (the students) became increasingly mindful of their own emotional states "in the moment" and better able to self-regulate during these challenging interactions. I noted that although the majority of students did not yet seem able to identify situations that triggered their own negative emotions before they occurred, they did become aware of regulating their own emotions "in the moment" during their interactions with the children rather than afterward.

Frequently, the students noted that they found that pausing, reflecting, and remaining calm when interacting with emotionally aroused children assisted their own emotion regulation; being able to modulate their own emotions in these ways enabled them to become more focused on facilitating the children's emotion modulation. The students identified approaches that were useful in helping the children regulate emotion such as using eye contact and facial expressions to mirror children's affect, breathing, and posture. They also noted that it was helpful to meet the child at eye level and to be mindful of their proximity to the child—either staying close to the child or standing back to allow the child to re-regulate. They indicated that it was especially helpful when they spoke calmly and used pleasant tones, when they affirmed the children's emotions, and when they helped children find words to express their frustrations, free of the fear of being judged. When they were able to help a child calm down, this success increased the students' confidence and further improved their own regulatory capacities.

Concluding Thoughts

This exploratory study is one of very few studies to examine how students might reflect on their own growth in acquiring emotion regulation through disciplined inquiry and self-reflection.

The preliminary findings suggest that the approach used in my course—student reflective journals and other reflective written assignments, lecture and readings on relevant issues, and class discussion supportive of personal understandings of emotion self-regulation—helped the students cultivate their own emotional self-awareness and their capacity to meet young children's regulatory needs. I anticipate that the students' self-knowledge will be useful as they continue to practice inquiry over extended periods of time for more nuanced understandings of how to remain emotionally "present" or aware and regulated in their interactions with children.

These findings should be interpreted with some caution. It is possible that students felt obligated to participate in the study because I was their professor. Their responses to the assignments and class discussions may have been influenced by their awareness that my data consisted in part of their coursework, which was graded.

Several questions arose during this study that warrant further investigation. Among them were questions regarding my role as a professor and facilitator of the course. Could the students have gained knowledge of their own emotion regulation without being taught the value of disciplined inquiry into their own emotions? Could they have done so without the affective guidance and self-regulation that I, as the instructor, modeled in the classroom? How did the students translate my modeling of self-regulation into their consciousness and their practices in their work with children? How did their own emotional processes affect the ways that they received this information?

Other questions that arose during the investigation focused on whether the students' attunement to their own emotional arousal and vulnerability opened up the possibility of being more empathic to emotionally aroused or under-aroused children. Did the students consciously process the meaning of their own emotional states and the children's emotions *simultaneously* during moment-to-moment interactions? To what extent are students able to improve at anticipating triggering situations that challenge their own emotional states and regulation before they occur?

Although issues of gender were not directly addressed in the study, the need for research into gender-related questions became apparent to the students and to me. Do boys appear to have difficulties with emotion self-regulation and high emotional arousal because adults have different expectations of boys and girls based on "typical" gender roles, or do girls typically develop the ability to self-regulate more rapidly than boys? If so, young boys may require more interactive support from their caregivers and teachers to regulate their emotions. If adults expect boys to be autonomous with regard to self-regulation, or if they misinterpret boys' need for help with emotion regulation, boys may not get sufficient support in their efforts to self-regulate. In addition, it is important to discern the extent to which withdrawn children's emotion self-regulation needs may go unnoticed in a classroom and the extent to which such children miss out on the teachers' interactive regulatory support necessary to bring about optimal states of arousal.

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Author Information

Linda M. Perez, Ph.D., is a licensed clinical psychologist, professor of education, and current chair of the Early Childhood Development Program at Mills College in Oakland, California. Dr. Perez received her Ph.D. from the University of California, Berkeley, and co-directed the Mills Special Start Training Program for community service professionals to learn about the developmental needs of medically fragile premature newborns. Her interests are at-risk children and families and the application of developmental theory to special education issues, mental health, and developmental disorders of infancy and early childhood.

Linda M. Perez
School of Education
Mills College
5000 MacArthur Blvd.
Oakland, CA 94613
Email: lmperez@mills.edu