

## *Original Paper*

# Teaching Emotion Regulation: K-12 Teachers' Perceptions and Practices across the Curriculum

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### **Abstract**

*Students can gain a range of skills and knowledge from interactions in schools, including emotional competencies such as regulation of emotions. Teachers are positioned to support students' development of emotion regulation in the social context of school. We sought to determine K-12 teachers' sense of responsibility, preparation, engagement, comfort, and approach to teaching students emotion regulation. The quantitative and qualitative data we gathered from 155 general K-12 classroom teachers revealed a sense of responsibility, low preparation, varied engagement, and low to moderate comfort. We found differences by grade levels, school location, and teacher education level. There was moderate alignment between how the teachers regulate their emotions and the emotion regulation processes they teach their students. We share implications for school psychologists and suggest multiple directions for future research.*

### **Keywords**

*emotion regulation, teacher practices, student well-being, implications for practice*

### **1. Introduction**

Students can gain a range of skills and knowledge through their school experiences that influence their development and long-term well-being (Carter, 2016; McCaslin & Good, 1996). While the focus on student learning tends to be on curriculum content, skills, and knowledge acquisition, students are likely to engage in peer and teacher interactions that influence their dispositions, social skills, and

character development (McCaslin & Good, 1996; Stefanou et al., 2004). Students' social interactions in schools are likely to influence their emotional learning, including their ability to regulate emotions.

In our search of the literature, we found multiple reports of curricula or programs designed to teach students how to regulate their emotions (e.g., Barton et al., 2014). However, we found few empirical studies that focused on the perceptions, preparation, practices, and support for teachers across grades PreK-12, concerning teaching their students how to regulate their emotions (e.g., Buchanona et al., 2009). Briudgeland et al. (2013) recognize a gap in the research aligned with our focus and call for more empirical studies that explore classroom level teaching of social emotional learning. Further, we were not able to find any empirical studies that linked a general sampling of general classroom teachers' personal emotion regulation with how they teach their students to self-regulate their emotions. Our research addressed these gaps in the literature as we explored PreK-12 teachers' perceptions and practices for teaching their students to regulate their emotions.

## **2. Review of Literature**

### *2.1 Importance of Emotion Regulation*

“Emotional regulation” and “emotion regulation” includes the ability to appraise and reappraise a situation, express emotions adequately, and act in socially acceptable ways (McRae & Gross, 2020; Reeck et al., 2016). Emotion regulation also includes the ability to influence one's own emotions and the emotions of others (Gross, 1998) and is closely aligned with emotional self-regulation. “Emotion regulation” and “emotional self-regulation” have, at times, been used interchangeably by various researchers even though there are subtle differences in the definition of the terms. There are multiple varied definitions of “emotion regulation” (Cole et al., 2004; McRae & Gross, 2020). To guide our research and we synthesized the following definition based on the range of perspectives we found in the literature: “the ability to recognize and manage personal feelings and the potential emotional reactions that may impact self and others”.

Children need to learn to effectively manage their emotions in order to be productive and well-adjusted citizens. The development of emotion regulation occurs rapidly during the beginning years of life and becomes more stable in adulthood (Eisenberg et al., 2010). It is unrealistic to expect children to have the capacity to consistently regulate their emotions without being taught how to or without a supportive environment in which they can develop their abilities to self-regulate. Children may learn emotion regulation in a range of settings, including in schools. Blair and Diamond (2008) conclude that emotion regulation is linked to school success, specifically for children who are at risk for maladjustment. The association between learning and emotion regulation (Reschly et al., 2008) increases the need to explore how educators teach their students to regulate their emotions (Denham & Browen, 2010; Jackson & Peck, 2018).

## *2.2 Teacher Preparation to Teach Students Emotion Regulation*

General teacher preparation programs tend to focus on the fundamentals of teaching and subject content knowledge. Additionally, teacher certification standards typically include expectations for preparing teachers to teach emotion regulation (e.g., Melnick & Martinez, 2019). However, as Hoffman (2009) recognizes, social-emotional learning has yet to become a major focus of teacher preparation programs. Programs that prepare teachers to reflect on the importance of emotion regulation are rare (Fried, 2011).

Typically, there is little or no time devoted to preparing teachers to teach social-emotional learning in the classroom, indicating that many teachers enter the profession without adequate preparation to effectively teach their students how to regulate emotions (Schonert-Reichl et al., 2015). An exception is special education teachers, who commonly are required as part of their professional preparation to take courses in behavior management and are exposed to an array of content that is focused on teaching students how to regulate their emotions (Hemmeter et al., 2008). Even with preparation, it is unclear how the preparation translates to practice (Elias, 2006; Schonert-Reichl et al., 2017).

Given the association between emotion regulation and successful learning there is a critical need for teachers to be prepared to teach students to regulate emotions. Doss et al. (2019) recommends that researchers investigate teachers' need for support related to teaching their students emotion regulation. Thus, there is reason for exploring the level of teachers' professional preparation and their desire for continued support for teaching their students to regulate emotions.

## *2.3 Responsibility to Teach Emotion Regulation*

The association between students' ability to regulate their emotions and their academic performance (e.g., Diamond, 2010; Greenberg et al., 2003; Graziano et al., 2007) suggests a level of responsibility for teachers to teach emotion regulation. In general, students are much more motivated and engaged in learning when they effectively regulate their emotions (Denham & Brown, 2010). Thus, students benefit from teachers who help them learn to regulate their emotions, which lead to a positive learning environment (Jackson & Peck, 2018). The relationship provides justification for examining teachers' perceptions of responsibility for teaching emotion regulation.

Multiple organizations have developed social emotional learning standards that indicate that teachers hold some responsibility for teaching their students emotion regulation. These standards are similar to or aligned with the Collaborative for Academic, Social and Emotional Learning (CASEL) (2017). While standards for teaching emotion regulation are common, there is a dearth of information regarding teachers' perceptions of their level of responsibility to teach students to regulate their emotions. We did find reports on early childhood educators indicating they take responsibility for supporting the social emotional development of their students (Harrington et al., 2020; Humphries et al., 2018). Additionally, we located research on differences by country in expectations for teachers to take responsibility for teaching emotion regulation and differences in expectations and approaches between

teachers teaching special education and regular education students (Ferreira-Gonzalez et al., 2019). However, we were not able to locate any studies empirically documenting general education PreK-12 teachers' perceptions of their level of responsibility to teach their students to emotionally regulate. Given the importance of social-emotional learning for students' success, there is warrant for examining elementary and secondary general education teachers' perceptions of responsibility to teach their students emotion regulation.

#### *2.4 Approaches for Teaching Emotion Regulation*

There are different approaches that can be used to teach emotion regulation, including adopting and implementing of prepared curriculum (for lists of the curricula see CASEL, 2013, 2015; Jones et al., 2017). CASEL (2015) recognizes packaged curriculum typically involves one or a combination of four common instructional approaches: integrate teaching emotion regulation into the current learning environment; infuse emotion regulation content into the general curriculum; shifts in policies and organizational structures to support student emotion regulation development; explicitly teaching emotion regulation as specific lessons. It is interesting to note that the actual implementation of school intervention programs and corresponding shifts in students' emotion regulation are rarely studied and reported (Schlesier et al., 2019). Thus, according to Schlesier et al. (2019) there are package curricula for teaching social emotional learning which tend to be evidence-based, but there is a lack of empirical evidence associated with how teachers are teaching the content.

Harley and colleagues (2019) propose a model of emotion regulation based on a reappraisal of situations. The translation of the model to teacher practice involves two approaches that include refocusing student attention. One approach involves teaching students to shift their expectations for what might happen in the future. A second approach involves adjusting perspective of events that have taken place. Both approaches have been found to be effective for helping students regulate their emotions (Gross, 1998; Schutte et al., 2009). It is important to note that individuals are likely to use a combination of strategies in their emotion regulation (Aldao & Nolen-Hoeksema, 2013).

Davis and Levine (2013) documented how students' ability to regulate their emotions enhances their learning. Davis and Levine report that when students navigate through sad events in ways that lowered their negative emotions, it resulted in an increased ability to remember, and therefore, learn. Davis and Levine recommend that teachers and parents work with children to help them learn to evaluate situations for importance and lower negative emotions to increase their ability to function effectively. Yet, we speculate few teachers have been exposed to specific approaches to teaching emotional regulation and therefore, do not approach teaching emotion regulation strategically.

Given the potential for teachers to influence their students' emotion regulation there is justification for examining the approaches teachers use. Further, there is a need to determine if the approaches they are using are evidence-based.

### *2.5 Teacher Comfort and Confidence for Teaching Emotion Regulation*

As teachers are working with developing youth, they are in positions to implicitly and/or explicitly influence the development of their students' emotion regulation (Sutton, 2004). Even though teachers may teach emotion regulation to their students, they may be uncomfortable or lack confidence with the process (Cvar, 2019). Doss and colleagues (2019) report that even those teachers who have received professional development focused on teaching students how to regulate emotion, continued to perceive a need for additional support to be effective. Teachers' ongoing need for support even with preparation may potentially reflect a lack of comfort or confidence for teaching students how to regulate their emotions (Durlak & DuPre, 2008). Consequently, there is a justification for examining the relationship between level of preparation to teach emotion regulation and the comfort or confidence with the process.

Despite the increase in knowledge about emotion regulation and the importance of learning, there remains challenges (Harley et al., 2019). Due to the specialized knowledge needed to teach students to emotion regulate, it is common for certain groups of teachers, such as special education teachers, to have been prepared for the instruction (Cressey, 2019). However, special education teachers typically focus on special education students, leaving the teaching of emotion regulation to the majority of the students, to general classroom teachers. However, if teachers lack comfort and confidence with the teaching emotion regulation they may be reluctant to engage in the process.

In our search of the literature, we were not able to locate any empirical studies that explicitly focused on teacher confidence and comfort for teaching emotional regulation, particularly with regard to their levels of preparation for the process. The gaps in the literature and the lack of understanding of teachers' confidence and comfort for teaching emotion regulation provides a justification for our research.

### *2.6 Teacher Self-Regulation of Emotions*

Teaching is a physically and psychologically demanding profession, and it is common for teachers to become emotionally overwhelmed in the classroom (Katz et al., 2018). Teachers' emotions are associated with their professional effectiveness (Day & Quing, 2009; Sutton, 2005; Trendall, 1989). Therefore, teachers who are able to regulate their emotions are likely to be more effective at teaching students how to emotion regulate (Young, 2016). Given the physiological indicators of stress that teachers accumulate over the school year, some emotion regulation strategies may positively or negatively influence the progression of chronic stress (Katz et al., 2018). For example, applying the strategy of cognitive reappraisal (i.e., changing perceptions of situations to reduce an emotional response) may help teachers manage their emotions and reduce their stress (Katz et al., 2018).

There is a high probability that teachers lack professional knowledge of how their emotion regulation affects their teaching practices (Sutton et al., 2009). Some teachers may have high levels of emotion regulation while other teachers may struggle, which may manifest in variations in how teachers interact

with students, colleagues, and community members (Sutton, 2007; Taxer & Frenzel, 2015). Research on teachers' perceptions of emotion regulation indicate that teachers understand the benefits of emotional expression and acknowledge the importance in regulating emotions, particularly their negative feelings (Zinsser et al., 2015). Teachers will commonly engage in emotion regulation strategies to manage their anger and frustration (Sutton, 2004). Teachers may engage in cognitive, behavioral, and responsive strategies, which may include sitting in a quiet place, talking to peers, or diverting attention (Sutton et al., 2009).

Teachers' personal variables and professional experiences may influence their emotion regulation. Demetriou et al. (2009) have identified gender differences in teachers' expressions of emotions associated with their teaching. The research findings indicate personal traits of teachers may be predictive of their emotion regulation and ability to navigate emotional situations that occur during teaching.

While teachers may utilize strategies to regulate their own emotions and recognize these strategies may improve their physiological and psychological stress, there is limited research on general classroom teachers engaging in emotion regulation strategies and modeling the practices for their students. Research to date has focused on teachers teaching emotion regulation in physical education (Klemola et al., 2013), in sports (Wagstaff et al., 2013), and in elementary settings (Zinsser et al., 2015). Our study addressed the limited research reported in the literature by exploring elementary, middle, and high school general classroom teachers' engagement in emotion regulation strategies and if and how they teach the strategies they use with their students.

### **3. Methods**

#### *3.1 Research Question*

Our overarching question was, "What are PreK-12 teachers' perceptions of and practices for teaching their students emotion regulation?" To answer this question, we developed the following guiding research questions:

- i. How have teachers been prepared to teach their students to regulate their emotions?
- ii. What level of responsibility do teachers feel they have in teaching their students emotion regulation?
- iii. What are teachers' approaches for teaching their students emotion regulation?
- iv. What are teachers' levels of comfort and confidence for teaching emotion regulation?
- v. What is the relationship between teachers' personal emotion regulation and teaching their students to regulate their emotions?
- vi. What is the relationship between the perceptions and practices for teaching emotion regulation and teachers' personal and professional variables?

### 3.2 Participants

The participants in our research were PreK-12 teachers working in a region of south-central United States. There were 155 teachers who completed the survey, of which 70% identified as female and 28% identified as male, 2% did not provide a gender. The educators' ages ranged from 22-67 years of age, with the average age being 40.77 years old ( $SD = 11.67$ ). The average teaching experience was 13.36 years ( $SD = 10.16$ ) and the grades taught varied from elementary, middle/junior high, high school, or multiple levels. Most of the educators taught elementary (37%), followed by 35% teaching high school, 27% taught middle/junior high, and 1% indicated teaching multiple levels. Class sizes ranged from three to 22 students, with the average class size being 21.06 students ( $SD = 8.02$ ). The majority of the educators identified as White (94%), followed by Asian (2%), and the remaining identified as either Black, Native American, or Hispanic (4%). Most of the teachers worked in a suburban setting (54.2%), 25.2% worked in a rural area, and the remaining 20% indicated working in an urban location. Twenty-eight percent of the educators reported having a bachelor's degree, 5% indicated post bachelor's course work, 50% indicated having a master's degree, 12% indicated post master's course work, 2% indicated being an education specialist, and 2% indicated they held a doctoral degree.

### 3.3 Measure

In our search of the literature, we were unable to locate an extant instrument designed to assess the engagement of K-12 teachers across disciplines in teaching their students emotion regulation (most extant studies focused exclusively on teachers of Special Education). Therefore, we deemed it necessary to develop an instrument.

We started our instrument development by using our guiding research questions to frame the generation of multiple free and selected-response items. We developed a cache of items with representation for each area of our research focus (e.g., preparation, comfort, and confidence). We then reviewed the cache of items for redundancy, alignment, clarity, and complexity. Our goal was to have about five survey items for each of our guiding research questions.

Through discussion and editing of items, we retained 23 selected-response items and two free-response items. The survey is designed for participants to respond to the selected-responses items on a Likert scale (i.e., Strongly Disagree to Strongly Agree) or Likert-like scale (i.e., Never to Constantly), with "1" being the lowest end of the range and "5" being the upper end of the range of possible answers. Our selected-response items included items such as, "Sometimes I have to put forth a lot of effort to regulate my emotions in the classroom" and "I feel uncomfortable working with students having an emotional breakdown". Our two free-response items were, "What strategies for emotion regulation do you model for your students?" and "How would you teach your students to self-regulate emotions?"

Once we created a working version of our survey, we sought to establish the instrument validity. We shared the tool with several PreK-12 teachers and post-secondary faculty members in a college of education. We asked them to consider each item and the instrument as a whole, through a lens of

teaching students to regulate their emotions. Based on their feedback, we made minor adjustments to the survey and prepared the tool for data collection. Our process gave us the confidence we had established the content and construct validity of our tool. We assessed our survey Cronbach's alpha to be .83 ( $N = 155$ ), indicating an acceptable level of internal consistency for our 23 selected-response items.

### 3.4 Data Collection

The population from which we intended to sample were PreK-12 teachers working in a range of situations and across disciplines in a region of the southern United States. To collect the data, we invited teachers from multiple schools and districts to participate in our research. After obtaining authorization to conduct our research, we emailed approximately 1,200 PreK-12 teachers using publicly accessible email addresses. We had 155 of the teachers we contacted complete our survey.

### 3.5 Data Coding

To analyze the participants' responses to, "how do you teach their students to self-regulate their emotions" we developed and applied a coding system. The codes, definitions, and a representation of the participants' responses are included in Table 1. To assure interrater reliability, we coded a set of 20 responses collectively and discussed our justification of code classification. We then worked in pairs going through a similar process, with each pair of researchers coding a subset of the dataset and discussing their coding choices and resolving differences. The coding provided additional insight into the data, illuminating how teachers were teaching their students to regulate their emotions.

**Table 1. Codes, Definitions, and Representative Responses to How the Teachers Teach their Students to Regulate Emotions**

Code	Definition	Representative Participant Response
Emotional Awareness	Being conscious of personal emotions	I would first attempt to teach students how to recognize their emotions, and then how to deal with them accordingly.
Emotional Sharing	Sharing feelings and emotions with another	Every morning during Morning Meeting Time with a different social emotional prompt that we all share and discuss out loud.
Breathing	Purposeful and conscious inhaling and exhaling	We use tools from our occupational therapist (deep breaths, chair pushups).
Expectations	Plans and consequences for emotional stress	Third, at a later time frame we have a discussion to create an action plan for future frustrations.
Safe Space	A physical location to	Provide a cool down spot and tools. I teach them how to use the tools



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	escape from emotional stress	before letting them use the area.
Reflecting	Thinking about and sharing emotional conditions	I like to use reflection surveys, conversation circles, and scenarios to practice the skill.
Brain Break	Using imagery or other mental/physical activities to redirect focus	We learn an exercise to calm them down (stand, cross legs, cross arms and interlace fingers, rotate arms up so hands touch chin, take a deep yoga/belly breath).
Set Curriculum	A developed combination of content and instruction for teaching emotion regulation	Choose Love or Conscious Discipline.
Classroom Climate	Changes to the physical or social environments that results in different expectations and interactions with others	Sometimes we all take a calming break, listen to music, dim lights until the emotions have passed.
Disengage	To end interactions with a situation	If they feel they are getting upset, walk away and breathe.
Counselors	Professionals prepared to support emotion regulation development	We use tools from our occupational therapist (deep breaths, chair pushups).
Modeling	Performing in a way that is noticeable and recognizable by others	I model making mistakes and being kind to self.
Role Playing	Interacting in situations that are not real but parallel reality	Role play, books, discussions on things I am seeing in class and what we could do in certain situations, calm down corner.

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Social Stories	Stories of interactions between and among individuals	I use the Zones of Regulation, Social Stories, and the Superflex social skills curriculum.
Don't Know	No specific instructional approach identifiable	There's no problem in the classroom that is worth getting worked up over. I am emotionally on an even keel mostly 24/hrs a day because I know that most things are unimportant in the big picture.

We replicated our process for establishing interrater reliability and coding to analyze the responses to our item asking the teachers to share how they regulate their own emotions. The codes that we developed, definitions, and representative responses are presented in Table 2.

**Table 2. Codes and Representative Responses of Teachers Approaches for Self-Regulating Emotions**

Code	Definition	Representative Response
Breathing	Purposeful and conscious inhaling and exhaling	Taking a moment to be silent and breathe
Emotional Sharing	Sharing feelings and emotions with another	“thinking aloud” (talking about how I feel and why), etc.
Emotional Awareness	Being conscious of personal emotions	I probably don't let them know I'm having to regulate my emotions.
Brain Break	Using imagery or other mental/physical activities to redirect focus	I don't raise my voice when tensions get high I have the student take a “time out” if need be and I have said to a class before “we all need to take a 5 minute brain break) when I saw frustration levels rising. I stay calm and considerate towards all students
Reflecting	Thinking about and sharing emotional conditions	Taking time out to breathe, keeping quiet, avoiding the frustrating situation, focusing on the positive.
Modeling	Performing in a	Practice with cognitive reframing. Modeling regulation in front of them.

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	way that is noticeable and recognizable by others	De-stigmatizing emotional responses.
Safe Space	A physical location to escape from emotional stress	Deep breathing, taking a moment
Classroom Climate	Changes to the physical or social environments that results in different expectations and interactions with others	Sometimes we all take a calming break, listen to music, dim lights until the emotions have passed.
Disengage	To end interactions with a situation	Sometimes I may distance myself for a brief time and come back to regroup when student(s) are ready.
Expectations	Plans and consequences for emotional stress	I watch my volume and tone when speaking or redirecting students.
Set Curriculum	A developed combination of content and instruction for teaching emotion regulation	Choose Love or Conscious Discipline
Don't Know	No specific instructional approach identifiable	Show professionalism, courtesy. Remain calm, but firm.
Role Playing	Interacting in situations that are	Modeling, explicit instruction, discussions, picture books, situation based, etc.

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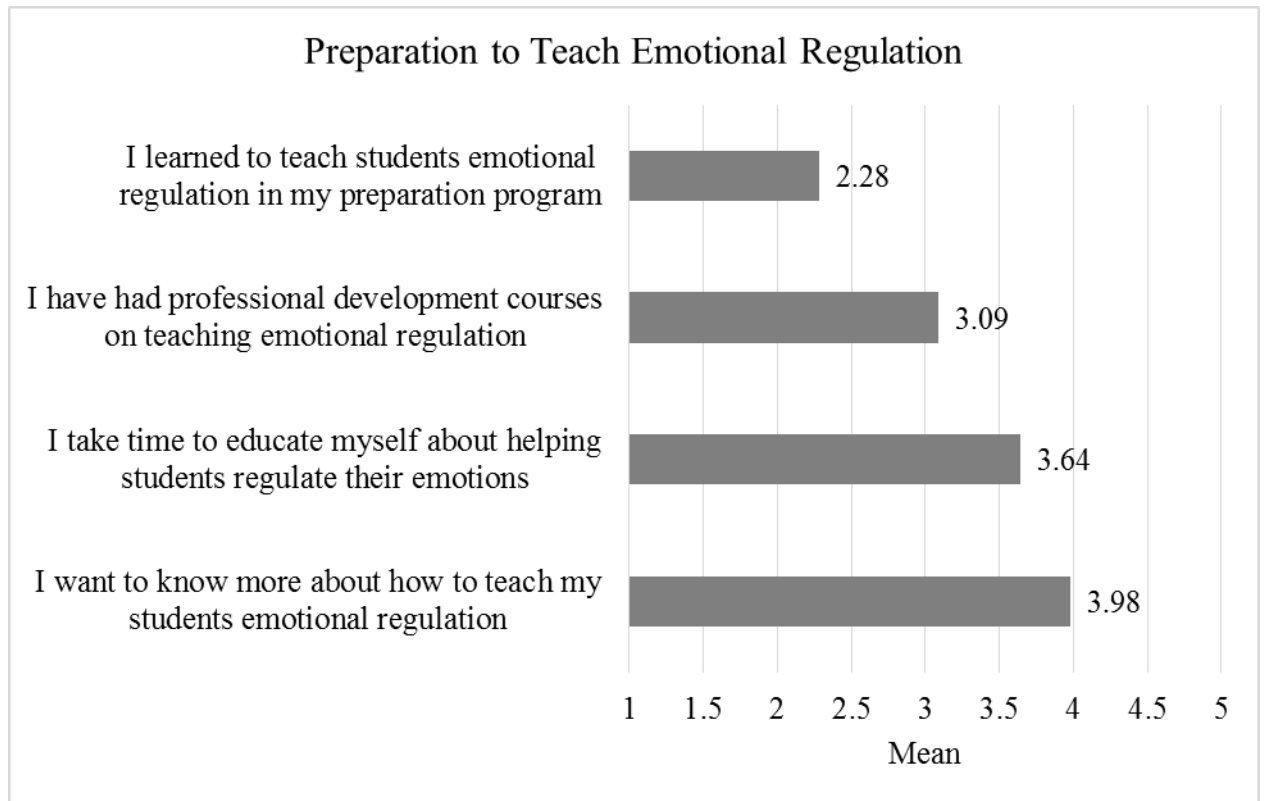
	not real but parallel reality	
Social Stories	Stories of interactions between and among individuals	I try to teach them explicitly using examples from my own life with small bits of role-playing infrequently throughout the school year.

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## 4, Results

### 4.1 Teacher Preparation to Teach Students Emotion Regulation

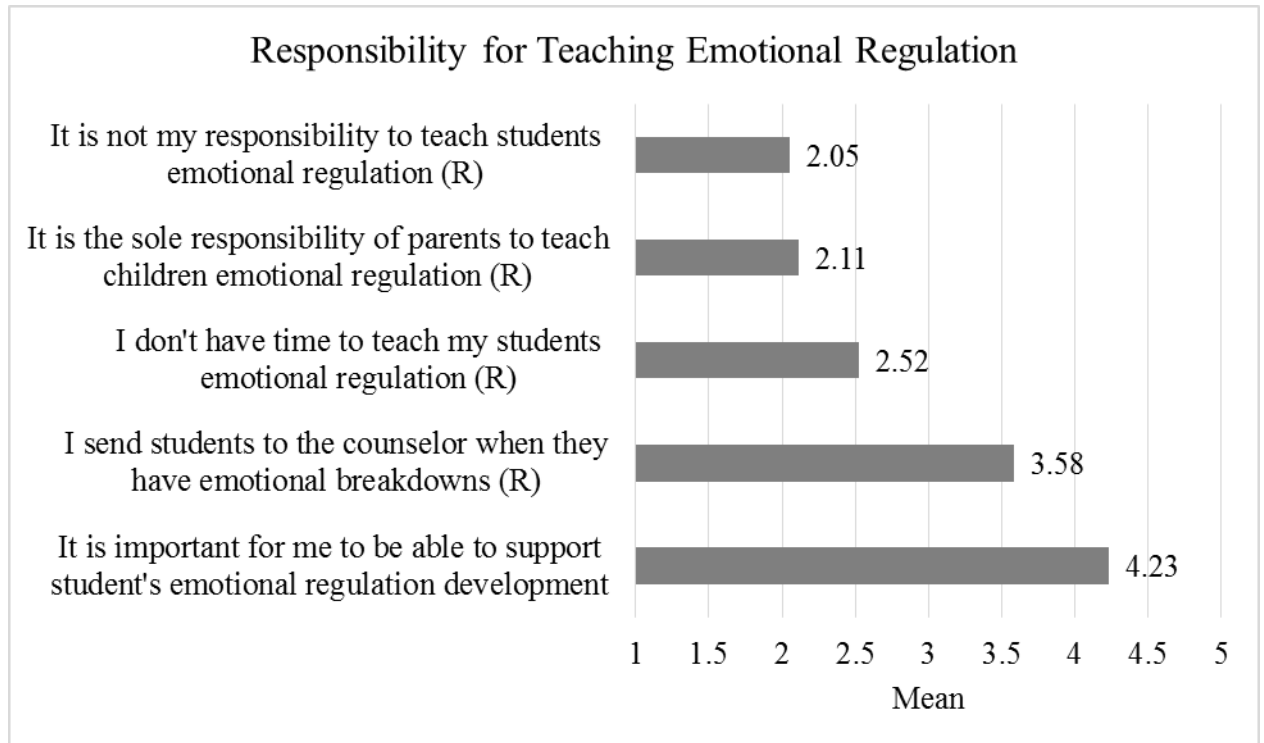
Our first guiding research question asked, “How have teachers been prepared to teach their students to regulate their emotions?” To answer this question, we examined the teachers’ mean responses to our selected-response items assessing their preparation to support their students’ emotion regulation (see Figure 1). We found the teachers agreed that they would like to know more about how to teach students emotion regulation ( $M = 3.98$ ,  $SD = .77$ ,  $Mdn = 4.00$ ). Teachers’ responses also leaned to agree that they take time to educate themselves about how to help students regulate their emotions ( $M = 3.64$ ,  $SD = .94$ ,  $Mdn = 4.00$ ). In contrast, teachers were neutral in their responses about whether they have had professional development courses on teaching emotion regulation ( $M = 3.09$ ,  $SD = 1.26$ ,  $Mdn = 3.00$ ). Additionally, teachers seemed to disagree with the statement, “I learned to teach students emotion regulation in my preparation program” ( $M = 2.28$ ,  $SD = 1.15$ ,  $Mdn = 2.00$ ). We interpret the results to indicate that the teachers had moderate levels of engagement in professional preparation to teach their students emotion regulation. Our data suggest that the participants either wanted more support with preparation or were self-preparing to teach their students emotion regulation.



**Figure 1. Averages for the Responses to Our Teaching Emotion Regulation Items**

#### 4.2 Responsibility to Teach Emotion Regulation

Our second guiding research question asked, “What level of responsibility do teachers feel that they have in teaching their students emotion regulation?” We examined the teachers’ mean responses to the items assessing their perceived level of responsibility to teach emotion regulation to their students (see Figure 2). Our analysis revealed that overall, teachers agreed that it is important for them to support students’ emotion regulation development ( $M = 4.23$ ,  $SD = 0.78$ ,  $Mdn = 4.00$ ). The teachers also tended to agree with sending students to the counselor when they have emotion breakdowns ( $M = 3.58$ ,  $SD = 0.99$ ,  $Mdn = 4.00$ ), which suggests they rely on others in the school to help them teach their students emotion regulation. The teachers tended to disagree with the statement indicating that they do not have time to teach students emotion regulation ( $M = 2.52$ ,  $SD = 1.03$ ,  $Mdn = 2.00$ ), signifying that teachers tend to have time to teach their students to regulate their emotions. The teachers were more likely to disagree that it is the sole responsibility of parents to teach children emotion regulation ( $M = 2.11$ ,  $SD = 0.78$ ,  $Mdn = 2.00$ ) and that it is not their responsibility to teach students emotion regulation ( $M = 2.05$ ,  $SD = 0.83$ ,  $Mdn = 2.00$ ). Overall, our results indicate that teachers feel a level of responsibility for teaching their students emotion regulation.

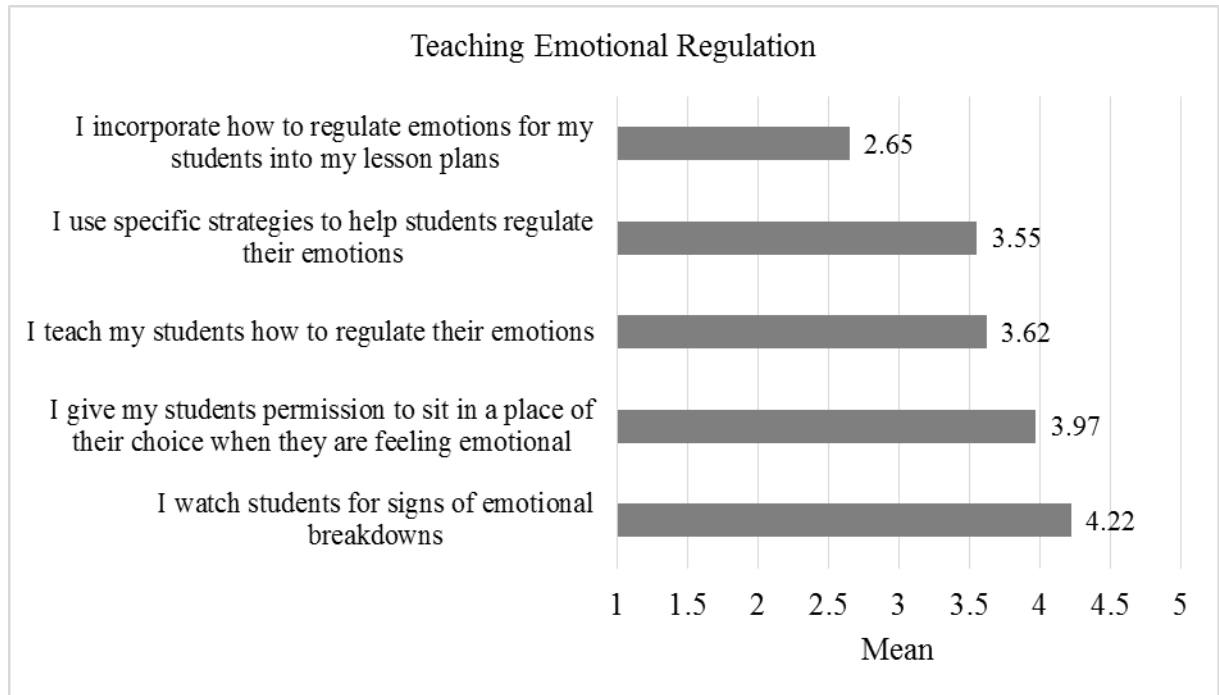


**Figure 2. The Mean Responses for Our Responsibility for Teaching Emotion Regulation Items (R Indicates negatively Stated Item Stem)**

#### 4.3 Approaches for Teaching Emotion Regulation

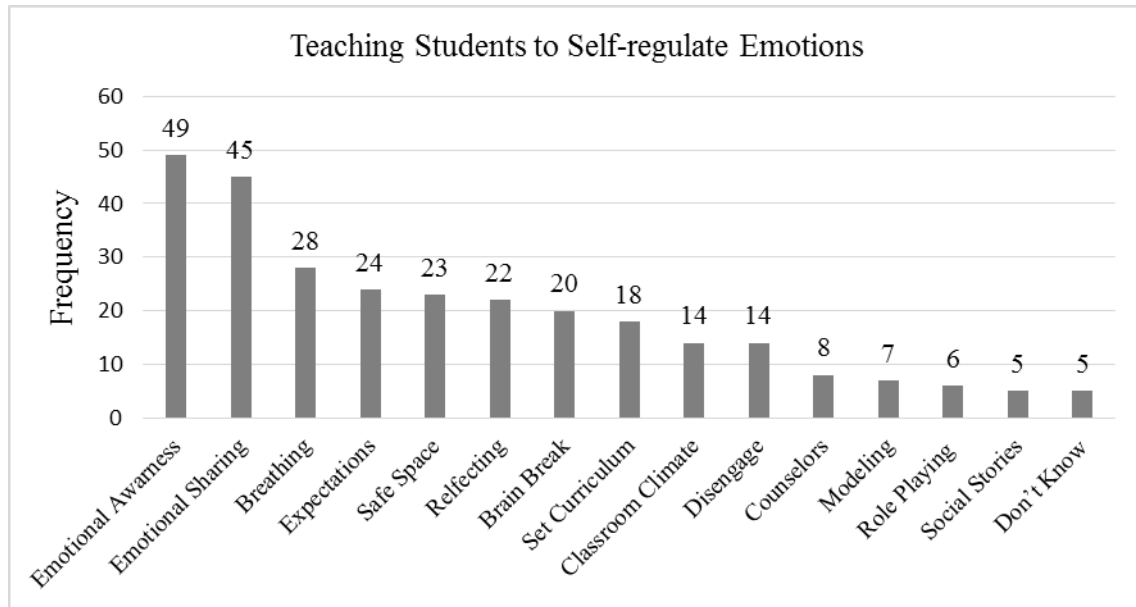
Our third guiding research question asked, “What are teachers’ approaches for teaching their students emotion regulation?” We examined the participants’ mean responses to the selected items assessing their use of approaches to teach emotion regulation (see Figure 3), their coded responses for how they would teach their students to self-regulate (see Table 1), and the frequencies for each coded response (see Figure 4).

The teachers agreed to strongly agreed that they watch their students for signs of emotion breakdowns ( $M = 4.22$ ,  $SD = .76$ ,  $Mdn = 4.00$ ). Teachers’ average responses indicated that they agreed they give students permission to sit in a place of their choice when they are feeling emotional ( $M = 3.97$ ,  $SD = .78$ ,  $Mdn = 4.00$ ). Similarly, teachers were more inclined to agree that they do teach their students how to regulate their emotions ( $M = 3.62$ ,  $SD = .82$ ,  $Mdn = 4.00$ ). Teachers’ also tended to agree to the statement, “I use specific strategies to help students regulate their emotions” ( $M = 3.55$ ,  $SD = .95$ ,  $Mdn = 4.00$ ). Additionally, teachers’ responses tended to disagree when responding to whether they incorporate how to regulate emotions for their students into their lesson plans ( $M = 2.65$ ,  $SD = .1.03$ ,  $Mdn = 2.00$ ). Overall, the data indicate that there were moderate levels of teachers attending to and teaching students emotion regulation, but the teaching was in response to potential or actual students’ outbursts and not necessarily structured or planned.



**Figure 3. The Mean Responses for Our Approaches to Teaching Emotion Regulation Items**

We analyzed the frequency of the occurrences of codes in the participants' responses to how they teach emotion regulation (see Figure 4). We were able to identify 288 unique strategies in the 155 participant responses, as some teachers shared more than one instructional approach. The participating teachers' responses were varied. About two-thirds of the teachers (94 of 155) indicated that they use emotional awareness or emotional sharing to teach their students to self-regulate. About one in three teachers (68 of 155) responses included using breathing, reflection, or set curriculums to teach emotion regulation. In contrast, only a few teachers (18 of 155) indicated that they teach their students emotion regulation through modeling, role-playing, or telling social stories to their students to facilitate learning about emotion regulation.

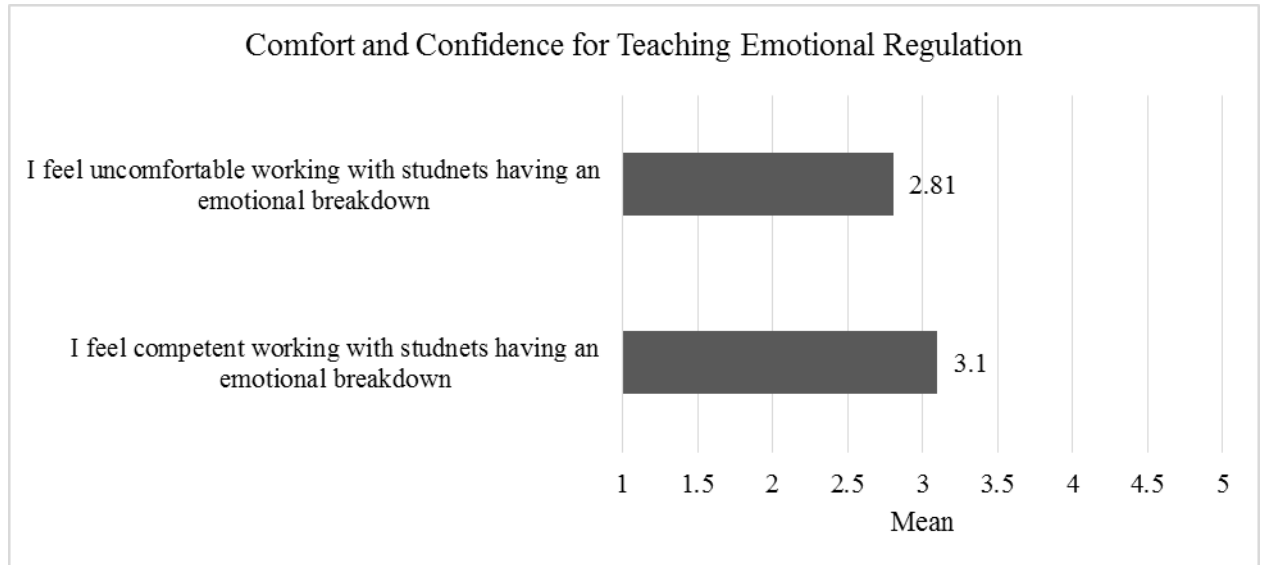


**Figure 4. The Frequency of the Free-responses Codes to Our Item Asking the Teachers How They Teach Emotion Regulation**

#### 4.4 Comfort and Confidence for Teaching Emotion Regulation

Our fourth guiding research question asked, “What are teachers’ levels of comfort and confidence for teaching emotion regulation?” To answer this question, we examined their mean responses to the items included to assess their comfort and confidence for teaching emotion regulation (see Figure 5). Teachers’ average responses were neutral about feeling competent working with students who are having an emotional breakdown ( $M = 3.1$ ,  $SD = 1.04$ ,  $Mdn = 3.00$ ). Additionally, teachers’ responses were near neutral in feeling uncomfortable working with students having an emotion breakdown ( $M = 2.81$ ,  $SD = 1.07$ ,  $Mdn = 3.00$ ). Overall, our results indicate that teachers were neutral to feeling competent and comfortable teaching their students to regulate their emotions.

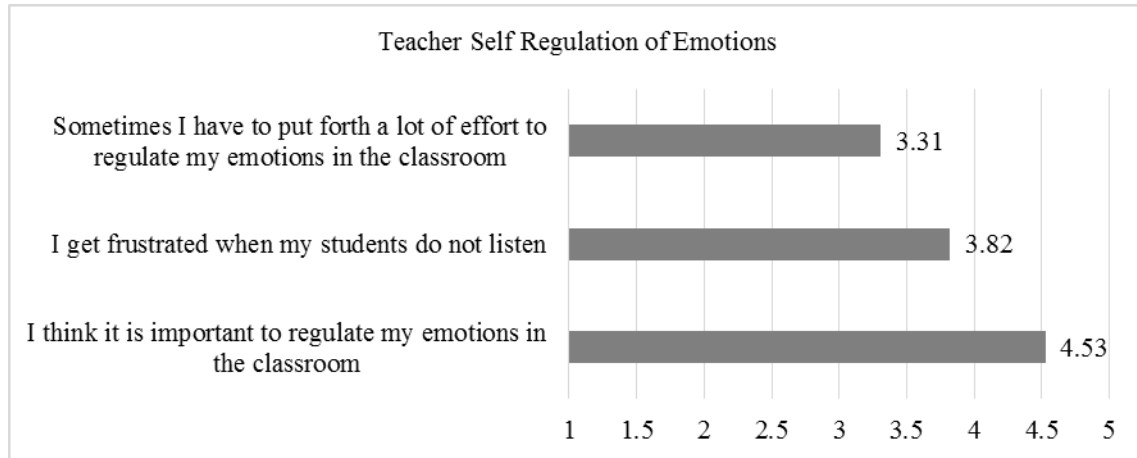




**Figure 5. The Participants' Mean Responses for Our Confidence and Comfort for Teaching Emotion Regulation to Their Students**

#### 4.5 Teacher Self-Regulation of Emotions

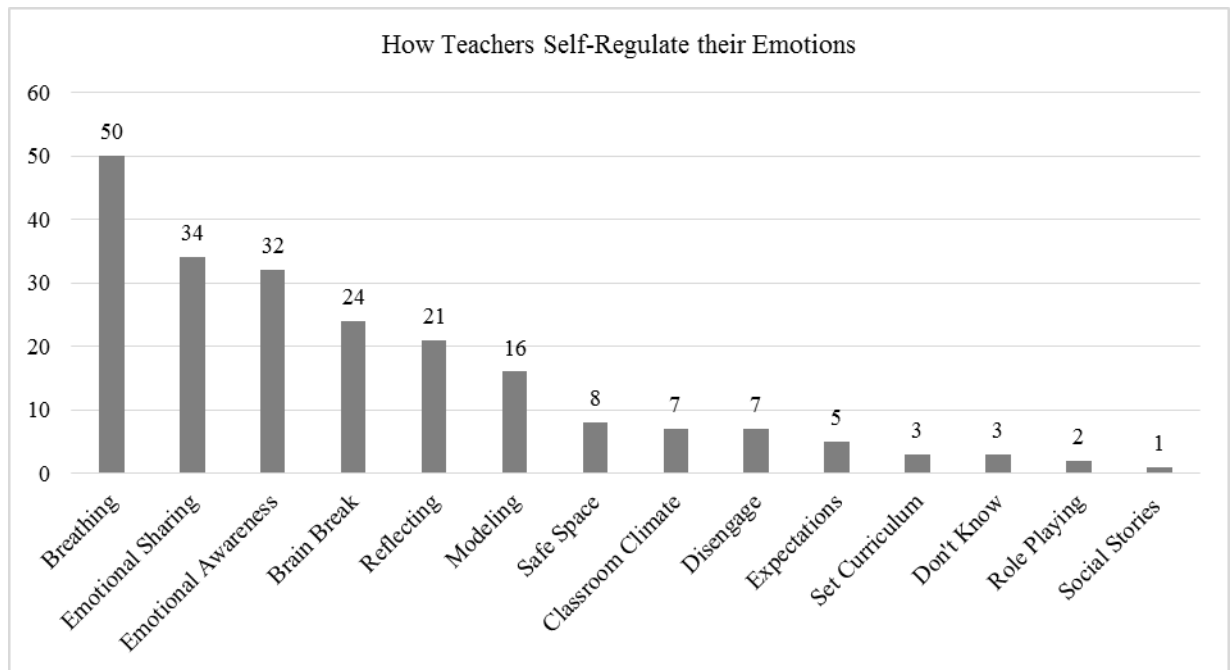
Our fifth guiding research question asked, “What is the relationship between teachers’ personal emotion regulation and teaching their students emotion regulation?” To answer this question, we began by examining the teachers’ mean responses to our survey items aligned with the self-regulation of emotions (see Figure 6). On average, the teachers’ responses were in between agreeing and strongly agreeing that it is important to regulate their emotions in the classroom ( $M = 4.53$ ,  $SD = .63$ ,  $Mdn = 5.00$ ) with the majority strongly agreeing to the importance of regulating their emotions. Similarly, teachers leaned towards agreeing that they get frustrated when their students do not listen ( $M = 3.82$ ,  $SD = .73$ ,  $Mdn = 4.00$ ). The teachers also tended to agree to having to put forth a lot of effort to regulate their emotions in the classroom ( $M = 3.31$ ,  $SD = 1.07$ ,  $Mdn = 4.00$ ), with the majority agreeing or strongly agreeing toward putting a lot of effort forth to regulate their emotions. Interpreted, while the participants perceived the importance of regulating emotions and may need to regulate their emotions due to the likelihood of getting frustrated with their students, they may need to put forth a lot of effort toward the process.



**Figure 6. The Mean Responses for Our Teachers' Self-regulation of Emotions Items**

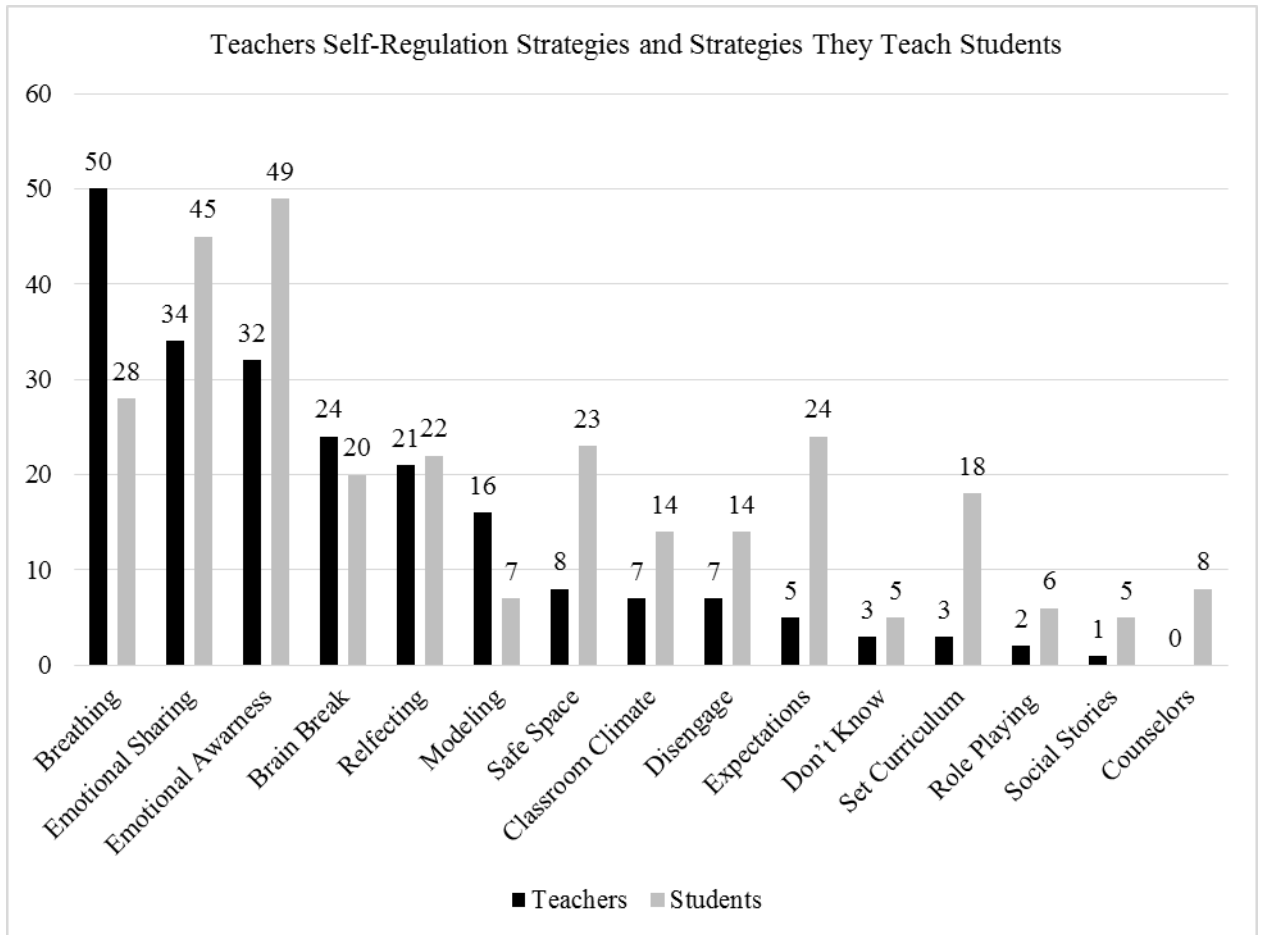
We continued our analysis by determining the coding frequency of responses to our free-response item, which asked the participants to share how they teach their students to regulate emotions. These asked the teachers to share the approaches that they teach their students to regulate their emotions. Our assessment revealed the teachers shared approaches to self-regulating their emotions similar to the strategies they teach their students.

The most frequent approach (50 of 155) used by the teachers to model emotion regulation for their students was breathing techniques (see Figure 7). A moderate number of teachers indicated they engaged in emotional sharing (34 of 155), emotional awareness (32 of 155), brain breaks (24 of 155), or reflection (21 of 155) to model for their students' strategies for emotion regulation. Only a few teachers indicated that they modeled emotion regulation by having a safe place for students, establishing a classroom climate, or by disengaging with the group and engaging with the group at a later time.



**Figure 7. The Frequency of the Free-responses Codes to Our Item Asking the Teachers How They Self-regulate Their Emotions**

Following the examination of how our participants self-regulate their emotions and how they teach their students to regulate their emotions, we examined the alignment between the frequency of the approaches (see Figure 8). We found the highest frequency approaches teachers use to self-regulate emotions included three of most frequent strategies they teach their students. However, there was considerably less alignment among the moderate to low frequency used approaches to self-regulating and the approaches to emotion regulation the teachers teach their students. Our interpreted data suggest that while teachers may be modeling emotion self-regulation to their students, the strategies they use may be of limited usefulness to the students.



**Figure 8. Frequency of the Coded Responses for the Teachers’ Self-regulation Strategies and Strategies They Teach Students**

*4.6 Teaching Emotion Regulation Relation to Personal and Professional Variables*

Our sixth research question asked, “What is the relationship among the perceptions and practices for teaching emotion regulation and personal and professional variables?” To answer this question, we conducted a series of tests of means and calculated correlations.

We began our analysis by calculating the composite score for our measures of confidence and comfort teaching emotion regulation, responsibility for teaching emotion regulation, preparation to teach emotion regulation, approaches to teaching emotion regulation, and teacher self-regulation of their emotions. We generated the composite score by finding the average of the responses to the related items.

Using the composite scores, we calculated the correlation among the different facets of teachers’ perceptions and practices in teaching and engaging in emotion regulation (see Table 3). We found that the composite scores for all the major construct composite scores were significantly positively correlated ( $p < .01$ ), which indicates that if one area of emotion regulation teaching perceptions or

practices increases, the others are likely to increase as well. Interpreted, our data indicates that preparation, engagement, responsibility, comfort and confidence for teaching students to self-regulate emotions are related. We found a positive relationship between teachers' self-regulation of emotions and the responsibility for teaching emotion regulation ( $r = .25, p < .01$ ) and with their approaches to teaching emotion regulation ( $r = .17, p < .05$ ). The finding suggests as teachers' self-regulation increases so does their level of responsibility for teaching emotion regulation and their approaches to teaching emotion regulation (see Table 3).

**Table 3. Correlations between Difference Facets of Teacher Perceptions and Practices Composite Scores**

	M	SD	Responsibility to Teach ER	Approaches to Teaching ER	Competent and Comfort Teaching ER	Teachers' ER
Prepared to Teach ER	3.44	.63	.40**	.50**	.35**	.05
Responsibility to Teach ER	3.39	.43		.53**	.50**	.25**
Approaches to Teaching ER	3.45	.68			.47**	.17*
Competent and Comfort Teaching ER	3.14	.92				.14
Teachers' ER	3.14	.55				

\*\*  $p < 0.01$  \*  $p < .05$  (2-tailed).

We continued our analysis by examining the correlations among facets of teaching emotion regulation and the composite scores for different aspects of emotion regulation. We found a significant negative correlation between a teacher's level of frustration and their perceived responsibility to teach emotion regulation ( $r = -.26, p < .01$ ). This finding indicates an inverse relationship between teachers' level of frustration and their perceived level of responsibility to teach emotion regulation. Our analysis also revealed a significant negative correlation between teachers' level of frustration and their emotion regulation ( $r = -.19, p = .02$ ), indicating that as the level of frustration increases, self-reported level of ability to regulate emotions is likely to decrease. We also found a negative relationship between the

level of frustration and competency to teach emotion regulation ( $r = -.17, p = .037$ ), indicating as the level of frustration decreases the level of competency to teach emotion regulation is likely to increase.

We continued our analysis by conducting an ANOVA using the school level (e.g., elementary, middle, and high school) as the factor. Results revealed a significant difference in responsibility to teach emotion regulation ( $F [2,143] = 9.44, p < .01$ ) and the approaches used to teach emotion regulation ( $F [2,143] = 4.55, p = .01$ ). Post hoc analysis revealed that the differences in responsibility to teach emotion regulation varied between elementary and middle school and between elementary and high school. Our analysis suggests that elementary school teachers take a higher level of responsibility to teach emotion regulation than both their middle school and high school colleagues. The post hoc analysis for approaches to teach emotion regulation revealed that elementary school teachers engage in more emotion regulation teaching practices than high school teachers.

Using school location (e.g., urban, suburban, rural) as a factor revealed there was a significant difference in preparation to teach emotion regulation ( $F [2,151] = 4.64, p = .01$ ). Our post hoc analysis revealed that there was a difference between the teachers working in suburban and rural school locations. Teachers in a suburban school location indicated a higher level of preparation to teach emotion regulation than teachers teaching in a rural location.

Additionally, we used education level as a factor to examine comfort and confidence in teaching emotion regulation. Our results revealed a significant relationship ( $F [5,149] = 2.34, p = .04$ ). Post hoc results indicated that teachers with education beyond a bachelor's degree had a higher level of comfort and confidence in teaching emotion regulation than teachers with just a bachelor's degree.

## **5. Discussion and Implication**

The association between students being able to regulate their emotions and their learning in schools justifies determining how teachers are teaching their students to emotion regulate. The lack of research on the general classroom teachers' comfort, confidence, engagement, commitment, and responsibility for teaching students to self-regulate provides additional support for our research. Further, the potential association between teachers' self-regulation of emotions and their effectiveness in teaching their students, increases the importance of assessing teachers' perceptions of teaching and engaging in emotion regulation. There are multiple implications for our findings.

### *5.1 Teacher Preparation to Teach Students Emotion Regulation*

While many educational standards include social-emotional learning, which includes emotion regulation (e.g., CASEL, 2017), we found evidence to suggest that teachers tend to feel under-prepared and may not have experienced formal preparation to teach their students to regulate their emotions. We speculate that most teacher preparation programs focus more on the curricula the teachers will teach rather than educating the child as a whole, which limits the opportunity to prepare teachers to teach students to self-regulate emotions. Similarly, we speculate that many professional development

offerings for inservice teachers focus on the cognitive aspect of student achievement or other school district issues (e.g., policies and procedures), limiting the opportunity to use the time to prepare teachers to teach students how to regulate their emotions. The implications are that teachers may be using approaches that are not evidence-based or are not engaging in teaching their students to self-regulate their emotions. Examining how teacher preparation programs are preparing teachers to teach their students to self-regulate is a needed direction for research.

### *5.2 Responsibility to Teach Emotion Regulation*

Our participants indicated that they agree that they have some responsibility to teach their students emotion regulation. Many of the teachers recognized the potential interference emotional issues may have on students' learning and therefore, realized they must teach their students to regulate their emotions to help them learn. Teachers may recognize the potential disruption to the education of all students when some students have emotional outbreaks, and therefore, to keep the students learning as a group, may need to teach all how to regulate their emotions. The implications of our findings are the potential for teachers to commit to supporting the social-emotional development of their students. Further examination is needed of teachers' explanations for taking responsibility for teaching their students to regulate their emotions.

### *5.3 Approaches to Teaching Emotion Regulation*

Our participants engaged in a wide range of approaches to teaching their students to regulate their emotions. Given the lack of preparation to teach emotion regulation, we speculate that the teachers rely on their personal experiences, ideas from other teachers, their intuition, and perhaps some ideas they gained from self-sought knowledge. The implication of our findings is the approaches teachers use may or may not be evidence-based. Further, it is possible that other strategies may be more useful for helping students regulate their emotions than the choices of the teachers. Investigating teachers' strategy preferences for teaching their students emotion regulation is likely to be a fruitful line of research.

### *5.4 Comfort and Confidence for Teaching Emotion Regulation*

We found the participants were near neutral toward their comfort and confidence for teaching emotion regulation. Comfort and confidence may be directly associated with their level of preparation to teach their students to regulate their emotions. Our finding of a significant correlation between our survey comfort and confidence subscale and level of preparation subscale provides additional support for the potential relationship. The implication of our finding is that the lack of comfort and confidence for teaching emotion regulation may hinder teacher engagement in teaching their students how to regulate their emotions. Exploring how to increase teacher comfort and confidence for teaching emotion regulation to their students is an excellent direction for future research.

### *5.5 Teacher Approaches to Self-Regulation*

We found the teachers used a range of approaches to regulate their emotions. Teachers' engagement in self-regulation is important as the majority indicated they get frustrated when interrupted. The lack of ability to self-regulate their emotions may result in inappropriate reactions to students who act in ways that elicit an emotional response from their teachers. However, we are not able to determine the situations the teachers were considering when sharing how they regulate their emotions. The specific approaches teachers take in response to emotional reactions is a needed line of research.

### *5.6 Association with Personal and Professional Variables*

We found school location, grade level of the school, level of education, class size, and level of frustration to be indicators of different facets of teaching students to regulate their emotions. Our findings reinforce the notion that teaching emotion regulation is likely to be associated with multiple personal and professional variables. The implications for our findings are teachers (both preservice and inservice) may need different approaches to prepare for teaching emotion regulation. Unlike content knowledge acquisition, where teachers need to acquire an understanding of concepts and phenomena, gaining the knowledge necessary to effectively teach emotion regulation may require self-reflection, shifts in attitudes, understanding of the needs of others, human behavior and emotions, and compassion. The range of potential predictors of teacher engagement in teaching their students emotion regulation likely requires additional research to refine how we prepare teachers to teach their students to regulate their emotions.

### *5.7 Implications for School Psychologists*

The lack of teacher preparation to teach their students emotion regulation and their varied approaches to emotion regulation instruction suggest there is a critical need for support. School psychologists are well-positioned to make differences in school by taking steps to increase teachers' knowledge of evidence-based practices and approaches for teaching emotion regulation. Our research made apparent teachers are not being prepared to teach their students emotion regulation in their preservice programs, suggesting there is currently a need to address teachers' inservice professional development. Thus, school psychologists should think about how they could facilitate and catalyze teacher preparation to teach their students emotion regulation using evidence-based methods.

One approach that school psychologists might consider is identifying and sharing available and accessible resources teachers could use to learn more about teaching emotion regulation. Shifting through the abundance of open access resources for teaching emotion regulation requires knowledge and understanding of approaches that are based on evidence and have been empirically documented effectiveness. School psychologists can provide direction for accessible resources, available at low or no cost, which are attainable for teachers to use to become better prepared to teach emotion regulation. School psychologists may also consider taking a proactive role in increasing inservice teachers' preparation by providing professional development opportunities. School psychologists might consider



using innovations such as demonstration, role-playing, or simulation to help teachers envision and practice different approaches to teaching emotion regulation. By engaging teachers in active learning experiences, school psychologists can increase teachers' understanding and comfort using different approaches to teach their students emotion regulation.

Regardless of the approach taken to support teacher preparation to teach emotion regulation, it is critical for school psychologists to be leaders. School psychologists have expert knowledge and skills associated with teaching emotion regulation, and therefore, can make a difference by preparing teachers with similar knowledge and skills. Through the preparation of the teachers to teach emotion regulation, school psychologists can influence the well-being of entire school communities.

## **6. Limitations**

The first limitation of our research is the nature of our data collection, which involved completing our survey. While we found consistency in our dataset, our survey does not allow us to determine why the teachers responded the way they did. Also, we did not observe their practice. Therefore, we could not determine their actual approaches to teaching emotion regulation or regulating their own emotions. Researching deeper teacher engagement in emotion regulation teaching and self-regulation of emotions is an excellent direction for future research.

The second limitation of our research is we recruited participants from a specific region in the southern United States. Teachers from different regions or cultures may hold different perspectives and engage in various practices than the teachers in our sample. Thus, our sample may not be representative of the larger population of teachers in the United States. There is a need to replicate our study with teachers recruited from different areas of the United States to determine the extent to which our results apply to the more significant population of teachers.

A third limitation is a potential for other influences on teacher perceptions and practices in teaching emotion regulation that we did not consider in our research. We did find multiple personal and professional variables associated with the elements of teaching emotion regulation. Yet, there may be some other variables that we did not consider, which may be critical to teacher engagement. Exploring additional variables associated with teacher engagement in teaching emotion regulation is an essential consideration for future research.

A fourth limitation is the potential for bias in our sample and in the participants responses. The sampling bias may have resulted from those who participated in our research holding an interest in teaching emotion regulation, while those with little interest chose not to participate. The response bias may have resulted from the participants providing socially desirable responses that may not be aligned with their actual perceptions and practices. Additional research using a range of methodologies is need to determine the representativeness of our data.

## 7. Conclusion

The association between learning and students' ability to regulate their emotions motivated us to determine K-12 teachers' practices and perceptions for teaching emotion regulation. We designed our research to assess multiple facets of teacher engagement in teaching emotion regulation. We found a need to better prepare teachers to effectively teach their students emotion regulation across grade levels. The findings illuminated multiple new relationships, as well as situations that need further consideration. Our findings have potential implications for school psychologists and their role in supporting teachers' engagement in teaching their students emotion regulation. We hope other researchers will join our efforts to continue to explore the complex process of teacher engagement in teaching their students how to regulate their emotions.

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