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EMOTIONAL REGULATION IN THE WORKPLACE: A QUALITATIVE STUDY WITH TEACHERS

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ABSTRACT: This study aimed to characterize the emotional labor of the professional and technological education teacher by examining the emotions and the emotion regulation strategies teachers adopt. Eight focus groups were held, with the participation of forty-one teachers to collect the data. For the data analysis, we adopted the inductive and deductive categorization methods. The results showed that different emotions are activated in the face of specific emotional demands and that teachers use a variety of strategies, either in isolation or in chains, to regulate them. However, cognitive change strategies and situation modification of the procedural model of emotional regulation were more frequently reported. The results suggest differences in the regulatory preferences of the teachers based on the career period and the training /performance area. Future research could use varied methods (e.g., observation diary) to investigate the regulation's dynamic, context, and outcomes and develop a contextual scale of teacher emotion regulation. The findings have implications for teacher training programs, educational management, and future research.

Key-words: Emotional Labor. Emotion Regulation. Teacher.

REGULAÇÃO EMOCIONAL NO LOCAL DE TRABALHO: UM ESTUDO QUALITATIVO COM PROFESSORES

RESUMO: Este estudo teve como objetivo caracterizar o trabalho emocional do professor da educação profissional e tecnológica, ao examinar as emoções e as estratégias de regulação emocional adotadas pelos professores. Foram realizados oito grupos focais, com a participação de quarenta e um professores para coletar os dados. Para a análise de dados, adotou-se o método indutivo e dedutivo de categorização. Os resultados mostraram que são ativadas diferentes emoções frente às demandas emocionais específicas e que os professores usam uma variedade de estratégias, de forma isolada ou encadeada, para regulá-las. No entanto, as estratégias de modificação cognitiva e modificação da situação do modelo processual de regulação emocional foram mais frequentemente relatadas. Os resultados sugerem diferenças nas preferencias regulatórias dos professores, baseadas no período da carreira e na área de formação/atuação. Pesquisas futuras poderiam utilizar métodos variados (e.g., observação, diário) para investigar o processo dinâmico e contextual da regulação e seus desfechos, além de propor uma escala contextual de regulação emocional docente. As descobertas têm implicações para programas de formação docente, gestão educacional e pesquisas futuras.

Palavras-chave: Trabalho Emocional. Regulação Emocional. Professor

REGULACIÓN EMOCIONAL EN EL LUGAR DE TRABAJO: UN ESTUDIO CUALITATIVO CON DOCENTES

RESUMEN: Este estudio tuvo como objetivo caracterizar el trabajo emocional del profesor de educación profesional y tecnológica, examinando las emociones y las estrategias de regulación emocional adoptadas por los profesores. Se realizaron ocho grupos focales, con la participación de cuarenta y un docentes en total, para recolectar datos. Para el análisis de los datos, se adoptó el método inductivo y deductivo de categorización. Los resultados mostraron que diferentes emociones se activan ante demandas emocionales específicas y que los docentes utilizan una variedad de estrategias, aisladas o encadenadas, para regularlas. Sin embargo, las estrategias de modificación cognitiva y modificación de situaciones del modelo procedimental de regulación emocional fueron reportadas con mayor frecuencia. Los resultados sugieren diferencias en las preferencias normativas de los docentes, con base en el período de carrera y área de formación/actividad. Futuras investigaciones podrían utilizar diferentes métodos (por ejemplo, observación, diario) para investigar el proceso dinámico y contextual de regulación y sus resultados, además de proponer una escala contextual de regulación emocional docente. Los hallazgos tienen implicaciones para los programas de formación docente, la gestión educativa y la investigación futura.

Palabras clave: Trabajo Emocional. Regulación Emocional. Profesor

INTRODUCTION

The emotion regulation field has grown exponentially in terms of theoretical and empirical work over the last 20 years (GROSS, 2015). However, only recently has it sparked interest in educational research (TAXER; GROSS, 2018; YIN, 2016). Literature reviews on teachers' emotions (e.g., FRIED; MANSFIELD; DOBOZY, 2015; UITTO; JOKIKOKKO; ESTOLA, 2015) highlight the growing concern over emotion regulation as one of the main topics of investigation. This interest considers the increasing rates of teacher burnout and psychological distress resulting partly from processes associated with emotion dysregulation and emotional demands (e.g., CHANG, 2013; YIN; HUANG; WANG, 2016). Nevertheless, studies have also pointed out that adaptive emotion regulation enhances professional performance (e.g., TAXER; FRENZEL, 2015), teachers' mental health, and teacher-student interactions (e.g., CHANG; DAVIS, 2009; TAXER; FRENZEL, 2015; YIN, 2015).

In this sense, Bahia et al. (2013) and Taxer and Frenzel (2015) claim that teachers' emotional lives encompass genuinely expressed or regulated emotions. However, studies have focused mainly on a few self-regulation strategies, especially cognitive reappraisal and emotional suppression (TAXER; GROSS, 2018). Furthermore, these investigations are generally decontextualized and cannot capture regulation as it occurs in the classroom (e.g., CHANG, 2013; UITTO et al., 2015), which might lead to superficial and hasty conclusions (GROSS, 2014). In this regard, it is noteworthy to investigate how the context can influence teachers' emotional experiences and their selection of regulatory strategies, given that most studies focus on an intrapersonal perspective, thus neglecting interpersonal and situational aspects (ENGLISH et al., 2017; FRIED et al., 2015; UITTO et al., 2015).

Gross (2015) suggests that research on emotional regulation in specific work contexts can yield important information about the process, the contextual application, and the immediate outcomes (e.g., emotional outcomes) of particular types of regulation. Moreover, this author holds that a promising line of investigation is to identify how each strategy translates into specific tactics and how different strategies combine, producing a chain, thus departing from traditional models that consider strategies in a decontextualized, isolated, and linear way. In practical terms, such an approach can more effectively assist teacher education programs and interventions to broaden teachers' emotional repertoire. Theoretical and conceptual issues, empirical evidence, and recent questions that underlie and justify this study are presented in the following sections.

Emotion regulation: Theoretical and conceptual issues

Emotional labor can be understood as a form of emotion regulation in response to emotional demands to achieve work outcomes (GRANDEY, 2000; MALLORY; RUPP, 2016). In her integrative model of emotional labor, Grandey (2000) claimed that events and emotion rules from the work environment activate and guide workers' emotion regulation, influencing the selection and implementation of strategies. Emotion regulation is a process that involves the modulation of different dimensions of the emotional episode, such as its context of occurrence, intensity, valence, frequency, and expression. It encompasses physiological, behavioral, and cognitive processes (ALDAO, 2013; GROSS, 2015) and can start automatically or deliberately when emotions are perceived as dysfunctional in a given situation (GROSS, 2015).

Different theoretical models have been proposed to account for emotion regulation. The Process Model of Emotion Regulation (GROSS, 1998; GROSS; THOMPSON,

2007) has been considered the most suitable for an educational context (BURIĆ; SORIĆ; PENEZIĆ, 2016). For analytical purposes, this model encompasses five families of emotion regulation strategies that progress from the activation to the manifestation of the emotion (GROSS, 2015), namely: a) situation selection refers to actions that approach or avoid emotion-eliciting stimuli; b) situation modification refers to actions that alter features of the external situation, thus changing its emotional impact; c) attentional deployment refers to attempts to pay attention to inner or outer events to modify the emotion; d) cognitive change refers to reinterpretations of inner or outer situations, thus altering their emotional impact and e) response modulation refers to the direct manipulation of physiological, experiential, and behavioral components after total emotional activation.

Recent studies in emotion regulation have underscored that strategies have different outcomes depending on the context (ALDAO; SHEPPES; GROSS, 2015; GROSS, 2015). As such, the strategy's efficacy and adequacy should not be assessed a priori because its adaptive nature (i.e., costs and benefits) must be considered in light of contextual factors (e.g., ALDAO et al., 2015; GROSS, 2015). Furthermore, each regulatory effort might change the regulator, the situation, and the interaction partners. Such changes might generate new emotion regulation demands and require additional strategies in a random and alternative way until there is no need for further regulation, thus creating a feedback loop (GROSS, 2015; TAXER; GROSS, 2018). These issues represent recent advancements in emotion regulation research, as noted by Taxer and Gross (2018). However, such a model has not been consistently explored, especially in work contexts where there has been a trend towards mainly examining two major strategies, i.e., cognitive reappraisal and suppression (MALLORY; RUPP, 2016).

Teachers' emotion regulation: empirical evidence and recent issues

Little attention has been paid to teachers' emotions despite their considerable relevance to teaching practice and student learning (AKBARI et al., 2017; BURIĆ et al., 2016; TAXER; GROSS, 2018). Studies on teachers' emotional experiences, especially in Brazil, have been carried out using the theoretical framework of stress and coping, focusing mainly on teachers' stress responses and stressful events (BURIĆ et al., 2016; LIPP, 2016). The emotion regulation model, in turn, encompasses a variety of negative and positive emotions evoked under teachers' normative work circumstances, which might broaden investigative possibilities on the topic.

In a qualitative study with professional and technological education, for instance, contextual emotional demands in the classroom were identified and grouped into three categories: affective interaction events (e.g., conflict with students and inappropriate behavior), technical-pedagogical (e.g., learning difficulties and student demotivation), and intrapersonal (e.g., frustration and emotional dissonance). These elements seem to evoke various negative emotions in teachers, thus requiring adequate regulation to minimize their harmful impact on teachers' performance and well-being (MORAIS; GONDIM; PALMA, 2020).

Evidence suggests that various emotion regulation strategies are used in the classroom (e.g., AKBARI et al., 2017; TAXER; GROSS, 2018). For instance, some teachers might adopt strategies to prevent attending to student misbehavior, whereas others might use reactive strategies such as leaving the classroom until they achieve emotional balance (AKBARI et al., 2017; SUTTON, 2004). In a study by Taxer and Gross (2018), teachers reported using mainly response modulation (e.g., emotional suppression) strategies. In the opposite vein, Sutton (2004) and Burić et al. (2016) found that teachers prefer using cognitive change (e.g., reappraisal) strategies. However, Akbari et al. (2017) found that teachers were more likely to use

situation selection and modification strategies. Taken together, these findings illustrate divergent conclusions regarding teachers' use of emotion regulation strategies. These discrepancies might be accounted for, in part, by contextual factors that were not adequately explored in previous research (FRIED et al., 2015).

Other issues have been raised regarding research on teachers' emotions. For instance, studies have focused on specific tactics used by teachers in terms of emotion regulation strategies and their consequences. For example, a study by Yin et al. (2016) indicated that, under emotionally exhaustive circumstances, teachers were more likely to suppress than reappraise their emotions. Similarly, Burić et al. (2016) found that reappraisal is usually more beneficial and that suppression is associated with exhaustion. As can be observed, studies tend to group teachers' emotion regulation strategies into adaptive and maladaptive categories, neglecting, to some extent, their primary functions and the influence of personal and situational factors.

The literature review has revealed that researchers have mainly concentrated on how emotions are regulated in terms of teachers' abilities, thus neglecting what emotions are regulated and why regulation occurs. Therefore, far too little is known about what specific emotions are activated in the classroom in different situations. Furthermore, most research has focused primarily on intrapersonal dimensions, not considering interpersonal and contextual factors associated with teachers' emotion regulation. The literature has not adequately addressed the consequences of emotion regulation and the chaining of strategies. According to Frield et al. (2015), more research still needs to deal with the dynamics and contextual nature of emotion regulation in educational contexts. These are some of the issues that motivated the present study. In this regard, the research question is: how do vocational and technological education teachers regulate their emotions in the face of the diverse emotional demands of the classroom? This study aimed to characterize the emotional work of vocational and technological education teachers by examining the emotions and the emotional regulation strategies they adopt in the face of the emotional demands of the classroom.

The present investigation focused on vocational and technological education due to the complexity of this context. It is a hybrid education model, encompassing different levels and modalities of education, ranging from basic to higher education (baccalaureate and graduate programs) and professional and continuing education courses. Further, it involves research, extension, and activities related to technological development (PACHECO; MORIGI, 2012). It is assumed that such characteristics imply a broad and diversified audience with increasing emotional demands on the teacher (MORAIS et al., 2020). The recent implementation of this model and the scarcity of research on psychosocial issues in this context were also considered.

METHOD

Study Design and Data Collection Procedures

This is an exploratory study with a case study design because it occurs in a specific context, a Federal Institute (IF) located in a northeastern state in Brazil. Data were collected using the focus group technique to explore teachers' emotions and how teachers deal with emotional demands. Eight focus groups were performed with an average duration of one hour each. First, we conducted four focus groups (A, B, C, and D) and the others (E, F, G, and H). We adopted this procedure to cover the diversity of training areas/occupations (basic and technical subjects) and career paths at the IF (beginners - up to five years of experience at the IF, and non-beginners - more than five years of experience at IF). In addition, this procedure allowed us to explore the effects of these variables on strategy selection by encompassing a

greater diversity of situations experienced and to detail strategies (see Figure 1). This criterion was adopted considering three stages: a) the beginning of the teaching career in Brazil (1 - 5 years), marked by introductory formative experiences and difficulties in adaptation; b) the stabilization stage (5 - 8 years); and c) the career maturity stage (FERREIRA, 2014).

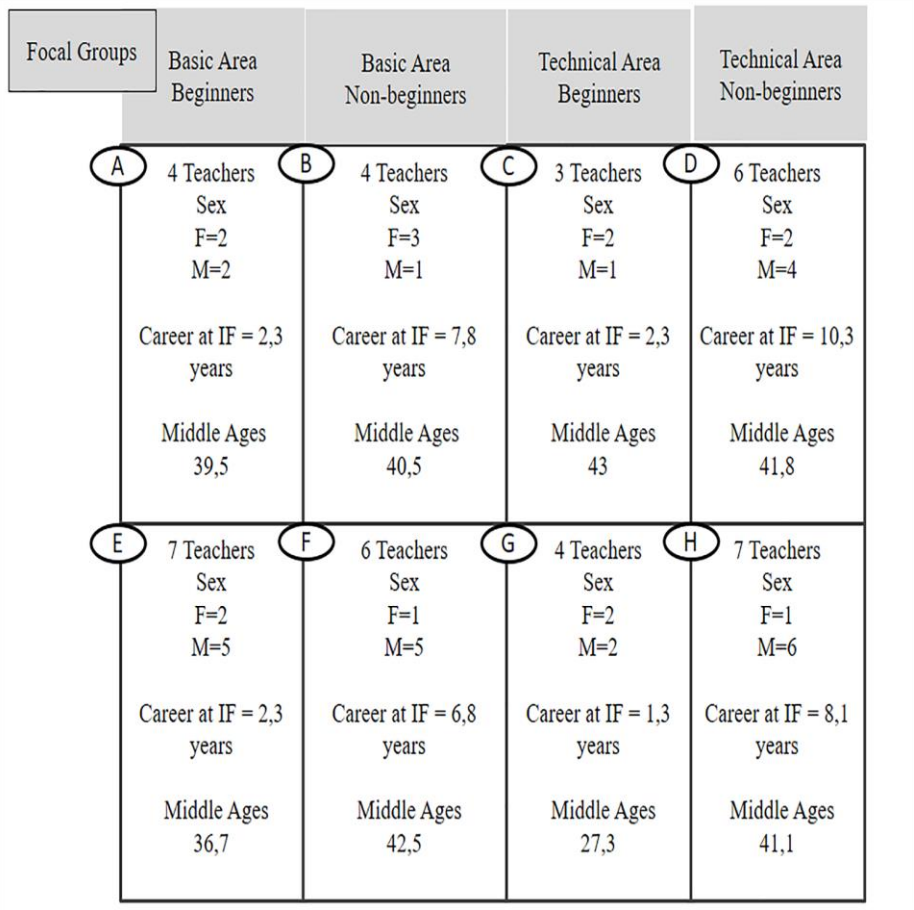
The focus groups were conducted in four phases (Figure 1): I) presentation of the research focus and signing of the Informed Consent Form; II) presentation of the demands of emotional work identified and organized into three categories: a) interactional demands arising from relationships with students, colleagues, and managers; b) technical-pedagogical demands related to the teaching practice itself and; c) intrapersonal demands resulting from internal conflicts, dissonances, etc. (MORAIS et al., 2020); III) presentation of the guiding questions involving which emotions are activated by specific emotional demands and how teachers deal with these emotional demands, and IV) group discussion in search of consensus, disagreement, and deepening of the topic. Each emotional demand (e.g., interactional, technical-pedagogical, and intrapersonal) was discussed individually, and the guiding questions were presented sequentially.

Participants

Teachers were allocated to groups based on two criteria to maximize sample characteristics and compare results (Figure 1): areas of training/occupations at IF and career levels. The total sample consisted of 41 vocational and technological education teachers invited to participate in the study by IF course coordinators. Most were male (n = 25). Detailed participant characteristics are shown in Figure 1.

It is worth highlighting the training characteristics of the participants. In the Basic Group, most teachers had a master's degree (n = 8), followed by two PhDs and one specialist. The others had a background in the social sciences (n = 3), pedagogy (n = 2), philosophy (n = 2), mathematics (n = 2), geography (n = 2), arts (n = 1), chemistry (n = 1), history (n = 1) and physical education (n = 1). Among the teachers in the Technical Group, most had a Ph.D. (n = 9), seven had a master's degree, and two were specialists. Their areas of study were engineering (n = 10), followed by computer science (n = 7), gastronomy (n = 2), and agribusiness (n = 1). The Ethics Committee at the Institute of Psychology of the Federal University of Bahia approved this research project (CAA 92122318.1.0000.5686).

Figure 1. *Data collection procedures and participants*



Data Analysis Procedure

The focus groups were recorded and transcribed, generating a corpus of 103 pages. To categorize emotions, we used deductive analysis using the list of primary and secondary emotions proposed by Parrot (2001). Bardin (2011) thematic content analysis was initially adopted to investigate the strategies, using the support of the emotional regulation models available in the literature to assist in elaborating an open coding system of the strategies grouping them into previous and broad categories. After defining the system, an inductive analysis supported by Atlas.ti software was employed to help identify context-specific strategies and tactics not covered in the literature and help group, quantify, and analyze the data. Thus, the procedure of systematic comparison between coded items was performed until data saturation, exhausting the emergence of new (sub) categories or the need for further reorganization of data. This method revealed a wide variety of strategies and tactics used by teachers in the classroom, which was supported by theoretical models of emotional regulation found in the literature (see Figure 2).

To ensure the reliability of data analysis, the codings were compared and examined repeatedly until the information was reliable and unchanged. Then, content validity was used. Finally, another researcher, a Ph.D. in emotional regulation, analyzed the corpus validating the

codes and categorization until a consensus was reached. This process resulted in 97.2% consistency among the researchers.

RESULTS

Twenty-four emotional regulation strategies were identified and then broken down into tactics (concrete and more specific actions that help operationalize the strategy) adopted by teachers in the face of the classroom emotional demands and the frequency these emotions and strategies emerged, as shown in Table 1. These dimensions are explored, related, and discussed in the discussion section, providing a contextual framework for teacher emotional regulation.

Table 1. *Emotions and activated emotion regulation strategies in the face of emotional demand* [1]

Emotion and emotion regulation strategies		Emotional demands							
		Interactional (N=154)			Technical-pedagogical (N=109)				
		Inappropriate Behavior	Strained relationship	Lack of support and over-bureaucracy	Diversity	Learning disability	Demotivation	Academic indiscipline	Classroom management
Emotion	Surprise	5 (7%)	—	1(2%)	1(7%)	1(3%)	—	—	—
	Anger	30(45%)	2(29%)	23(39%)	3(13%)	—	3(12%)	1(16%)	2(20%)
	Sadness	23(34%)	4(57%)	30(51%)	10(73%)	28(93%)	20(87%)	4(67%)	6(60%)
	Fear	9(13%)	1(14%)	5(8%)	1(7%)	1(3%)	3(12%)	1(16%)	2(20%)
Emotional regulation strategy	Situation selection	9(6%)	3(6%)	16(21%)	10(18%)	14(19%)	7(11%)	3(38%)	12(16%)
	Situation modificatio	52(32%)	17(33%)	9(12%)	12(22%)	18(25%)	21(32%)	2(25%)	26(35%)
	Attention deployment	18(11%)	3(6%)	12(16%)	10(18%)	11(15%)	17(26%)	—	8(11%)
	Cognitive modificatio	44(27%)	25(48%)	14(18%)	17(31%)	22(30%)	14(22%)	3(38%)	19(25%)
	Response modulation	24(15%)	3(6%)	26(34%)	5(6%)	8(11%)	6(9%)	—	9(12%)
	Genuine expression	18(11%)	1(2%)	—	1(5%)	—	—	—	1(1%)

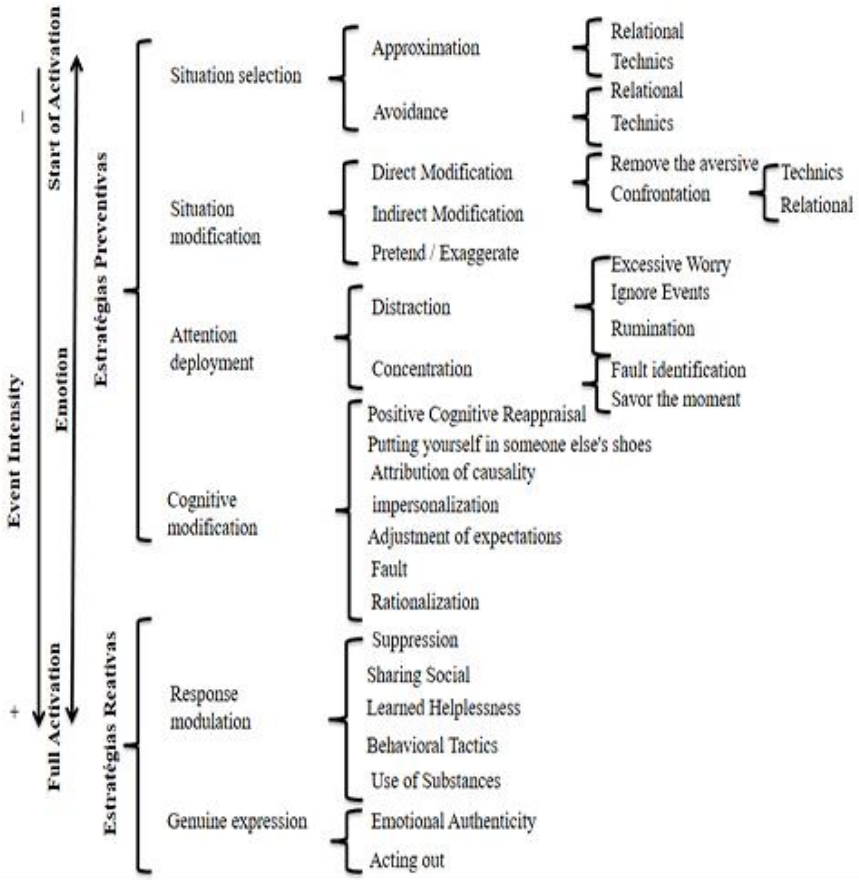
1 Detailing of reported emotions according to Parrot's model (2001):
Primary emotion love: affection (N=4)
Primary emotion joy: secondary emotions joy (N=4), contentment (5) and optimism
Primary emotion anger: secondary emotions anger (N=48), anger (7)
Primary emotion sadness: secondary emotions sadness (N=16), frustration (N=59), helplessness (N=19), worry (N=10), Compassion (N=7) and Guilt (N=6)
Primary emotion fear: secondary emotions fear (N=9) and distress (10)

Participants reported numerous emotions triggered by the investigated emotional demands (Table 1). Although they also cited positive emotions, the focus of the study was on negative ones. The most mentioned and important ones were anger, frustration, helplessness, and sadness. Interactional demands such as inappropriate behavior, perceived lack of support, and over-bureaucracy primarily triggered emotions such as anger, frustration, fear, and anger.

On the other hand, technical-pedagogical demands such as demotivation, learning disability, classroom management, diversity, and academic indiscipline seemed to trigger more frustration, worry, compassion, impotence, and anguish, especially for the first two demands. In short, interactional demands seem to trigger the most intense and difficult negative emotions to regulate.

The deductive and inductive analysis of the data allowed us to arrive at the categorical system of teacher emotional regulation illustrated in Figure 2. It is observed that the identified emotional regulation strategies adequately adhered to the five strategy families of the Process Model of Emotion Regulation. Box 1 presents the definition of the strategies, their breaking down into tactics, the (general) frequency of families and strategies, and the examples that characterize them. Breaking down the strategies into tactics and their detailed description helped illustrate the emotional regulation in the investigated context and highlight its specificities. Furthermore, it allowed group comparison. We considered that a more general analysis would make such findings difficult to reveal.

Figure 2.
Categorical system of teachers' emotional regulation strategies



Note: Emotional authenticity does not occur in genuine expression, so it is not configured as a strategy, but appears in the Figure because its regulation is a form of emotional display relevant to the teacher

Regarding frequency and definition, the family of cognitive change strategies (n = 135/30%) was the most cited and referred to attempts to reappraise the situation or teachers'

ability to deal with it to change the emotional impact it may have caused. Situation modification (n = 117/26%) was the second most mentioned family of strategies and referred to attempts to modify directly or indirectly (for instance, by requesting someone else's help or intervention) a situation to alter its emotional impact or to intentionally display emotions (for example, by pretending/exaggerating) in order to influence students and other social actors. Response modulation (n = 69/15%) was the third most frequent family and involved attempts to influence the emotional response's experiential, behavioral, and physiological components. Attention deployment (n = 63/14%) was the fourth and occurred by redirecting attention by distracting or concentrating on something to alter emotional responses. Finally, situation selection (N = 53/12%) involved approaching or avoiding certain circumstances (e.g., methodologies, activities, classes, students, colleagues, etc.) based on predicting emotions that may be activated. More specifically, among preventive strategies, direct modification (n = 89) – situation modification - was the most cited, followed by positive cognitive reappraisal (n = 40), external causal attribution (n = 28), putting oneself in someone else's place (n = 27) and cognitive modification. Suppression (n = 25) was strongly emphasized among the reactive strategies, followed by social sharing (n = 21) – response modulation. Although genuine expression (n = 19/4%) is not considered a self-regulating strategy because experience and emotional expression are not regulated, it emerged in focus groups as one of the ways of coping with demands and is discussed in this study.

Teachers reported using more than one emotion regulation strategy to deal with each emotional demand they were presented with. In general, cognitive change was used most in conjunction with other strategies. For example, it was used with situation selection (n = 16), situation modification (n = 32), attention deployment (n = 10), and response modulation (n = 14). The most cited chainings (chains/threads) or sequences were: a) situation selection with cognitive modification and b) situation modification with cognitive change.

Box 1. *Result of the quantitative-qualitative analysis: frequency of families and strategies, definitions of strategies, unfolding of tactics, and examples of citations of emotion regulation strategies*

Emotion Regulation Strategies N (%) Family (general)		N (%) Strategies	Definition of strategies	Tactics	Example
Situation selection 53(12%)	Approximation/ Adaptation: Relational(1) and technical(2)	30(56%)	Approaching circumstances that promote a pleasant emotional response (Gross, 1998;2002)	(1)Students, colleagues, groups that have empathy, strengthening ties (2)Plan classes: methodologies/resources/themes/activities (events, research, extension, orientation, etc.), preventing(1)	When I see the student with a lot of difficulty, but with a commitment to overcoming, it brings me to positive emotions, coming together and trying to help (B4) I try to set up a class style, use methodologies and didactics that are more appropriate to the class profile [...] I use games, videos [...] they love it (C1)
	Avoidance: Relational(1) and Technique(2)	23(44%)	Withdrawing from circumstances that promote unwanted emotion (Gross, 1998; 2015)	(1) Avoid students, colleagues, classes, etc. (2)Plan classes or avoid themes/methodologies/activities (events, research, extension, orientation, etc.)	I can no longer work with PROEJA students, first because of frustration and also because of commitment (C3) [...] There are students who don't make an effort [...] if they don't appreciate it, neither do we (B3) To stop feeling this stress, we avoid activities (H3)
Situation modification 117(26%)	Direct modification: Remove the aversive(1); Relational(2) and technical(3) coping	89(76%)	Implement practical actions to modify the ongoing situation and emotion (Nelis et al, 2011)	(1) Removing students from the room, strategic breaks when predicting difficult times (2)Open spaces for dialogue/reflection to adjust the student, redirect the discipline; individual service, etc. (3)Adjust the class (methodologies/resources/didactic materials/themes) to make the class attractive or palatable.	Last Saturday I removed three students from the classroom (due to cell phone use). I used this strategy first because I was already irritated and had already been oriented about it (A2) The unmotivated class is terrible [...] for both the student and the teacher. What do you have to do? Look for activities that change (D1) When I see that the class is not responding [...] I try to do [...] a practical activity (D4) We do it like this... be welcoming, know how to listen, try to [...] stop one day and do, like washing the dirty clothes (B1) Many times I have to stop the class to ask for respect [...] I get indignant, so I stop the class and ask: if they laughed at your hair, your mouth, your eyes, would you feel good? When I do this, it works (A2)

Box 1. *(continued)*

Emotion Regulation Strategies N (%) Family (general)		N (%) Strategies	Definition of strategies	Tactics	Example
Situation modification	Indirect modification	14(12%)	Requires third-person intervention to modify the ongoing situation and emotion (Nelis, 2011)	Request help from the pedagogical team, superior, colleagues, other students in the current situation (external intervention)	If the student continues to interfere with my class and the situation becomes uncomfortable, I simply refer him to the responsible sector or I call someone to come and solve it (G2) When I saw the situation I thought: It's better to calm down [...] I looked for other people to take the measures (D5)
	Fake/exaggerate emotion	14(12%)	Faking/intensifying an emotion, intentionally, to change the ongoing situation (Gross, 1998)	Display emotion to model student behavior (motivate or punish)	There is a student who says she doesn't know everything, sometimes she puts her head down in the classroom and sleeps [...] and you try to put on a show to see if the class is pleasant for her and sometimes it works, at other times you comes out worse (D6)
Attention deployment 63(14%)	Distraction: Excessive worry(1); Rumination(2)	25(40%)	Avoid the ongoing situation by positioning attention to (Gross, 1998): (1) Future threats (Nelis et al., 2011) (2) Negative feelings and consequences (Nelis et al., 2011) (3) Simply divert attention	Worrying excessively about situations because you don't feel prepared; to be under control of the conduct taken in a room assessed as inappropriate; ignore minor student infractions;	He manages to continue the class, but he is afraid, he is shaken, with that thing... he asks himself: Am I giving a good class? Because of the boy's reaction [...] And it doesn't go away with two/three days, it drags on (D1) If I'm in the classroom and I hear something inappropriate, I pretend I'm not listening. [...] If you're going to take everything seriously [...] it's going to be a great wear and tear (G2)

Box 1. *(continued)*

Emotion Regulation Strategies N (%) Family (general)		N (%) Strategies	Definition of strategies	Tactics	Example
Attention deployment	Concentration: Fault identification(1); Savor the moment(2)	38(60%)	(1) Focus attention on what could have been better / negative elements of the situation (Nelis et al, 2011) (2) Deliberately directing eyes/awareness/attention to present pleasurable experiences (Nelis et al, 2011)	Focus on unmotivated and agitated students, learning difficulties, lack of resources and inappropriate conduct. Focus on motivated, dedicated students, progress and positive feedback	One student called the other: Ah, you faggot!. Oh, I complained [...]. The student sat down and was very upset. Then I was thinking: Did I do it right with the question? Should I have hit on the question more? [...] So my hands were tied, I felt frustrated, because then they left (A4) When I take these attitudes I am happy, when I see that the student is integrating, when I see that he is growing, that this is leading him to understand the subject. This is gratifying (B3)
Cognitive modification 135(30%)	Positive Cognitive Reappraisal	40(30%)	Cognitively transform the external situation by giving positive meanings to events, changing their emotional impact (Gross, 2015)	Perceiving progress and development potential of students, thinking that difficult situations promote development and expands repertoire, and the importance of the profession, etc.	Classroom is a space of conflict [...] it is the moment of debate, discussion and these discussions I see as healthy (F6) He entered the room and apologized to me [...] I thought I had taken an appropriate attitude in the room [...] it showed that everyone approved of my attitude (C3)
	Attribution of external causality	28(21%)	Having thoughts that "justify" the situation, lessening its impact (Jermann et al, 2006)	Attributes to external factors (weakness of education, socioeconomic and family environment, etc) and student attributes (age, personality, etc.)	I realize that when the student shows violence, aggression, he has a problem that can be family, personal (H5) They are family issues that hurt the emotional in such a way that it reflects on learning (A3) This thing that is typical of youth, this place of claiming a space (E5)
	Putting yourself in someone else's shoes	27(20%)	Having thoughts that relativize the situation, reducing its impact (Jermann et al, 2006)	Putting yourself in the place of the student/colleagues/supervisor, reinterpreting their behaviors and difficulties, reflecting on the student's own experiences, empathy	You have to try to understand the other side. You begin to see different realities and begin to understand the reason for the rebellion. I started trying to understand what is happening and it no longer affected me (F3) I do this exercise: If I were in his place, what kind of behavior would I have? [...] I think that makes it easier (F5)

Box 1. *(continued)*

Emotion Regulation Strategies N (%) Family (general)		N (%) Strategies	Definition of strategies	Tactics	Example
Cognitive modification	Impersonalization	12(9%)	Distinguish personal versus professional criticism and emotions by being impersonal	Understand that the rejection and difficulty of students is due to the school and discipline, not to the figure of the teacher	Problem students [...] disrupt, cause trauma and emotional problems! I can deal with it by professionalizing myself, being strictly professional: I am the teacher and you are the student (H6)
	Adjustment of expectations	12(9%)	Adjust or modify goals, responsibilities and assignments (Jermann et al, 2006)	Limit the scope of action, establish new ways of evaluating the student and professional performance	I believe it's part of the education they receive at home, so I believe it's not something they can change quickly [...] we have to set our limits (D2)
	Self-blame	10(7%)	Reassess the situation in order to take responsibility (Jermann et al, 2006)	Negatively reviewing events and performance by taking the blame	Make an appointment and he doesn't show up [...] then you'll find him lost [...] he puts on another negative feeling that is the feeling of guilt, he couldn't do the service he planned (B1)
	Rationalization	6(4%)	Analyze the situation consciously, by facts and logic, to reduce its impact (Gross, 1998)	Attempting to mask negative events by perceiving them as natural, commonplace, or from a theoretical perspective	Coping is even part of the micropolitics of the classroom (E6)
	Positive Cognitive Reappraisal	40(30%)	Cognitively transform the external situation by giving positive meanings to events, changing their emotional impact (Gross, 2015)	Perceiving progress and development potential of students, thinking that difficult situations promote development and expands repertoire, and the importance of the profession, etc.	Classroom is a space of conflict [...] it is the moment of debate, discussion and these discussions I see as healthy(F6) He entered the room and apologized to me [...] I thought I had taken an appropriate attitude in the room [...] it showed that everyone approved of my attitude (C3)
Response modulation 69(15%)	Suppression	25(36%)	Inhibit the expression of ongoing emotion (Gross, 1998)	To be silent, to withdraw for a moment, to mask*, expressive neutrality	I felt anger and frustration [...] I shut up, calmed down and left the room [...] not to respond to the student [...] I came back as if nothing had happened (D5)

Box 1. *(conclusion)*

Emotion Regulation Strategies N (%) Family (general)		N (%) Strategies	Definition of strategies	Tactics	Example
Response modulation	Social Sharing	21(30%)	Sharing experiences and emotion seeking support/guidance/celebration (Gross, 1998; Nelis et al, 2011)	Exchange experiences and emotions with colleagues, superiors, friends, family, etc.	Conversation among themselves, among colleagues: You are not the only one who suffers from this. Improves when externalizing (H3)
	Learned helplessness (resignation)	10(14%)	Behaving passively, through acceptance, accompanied by a feeling of helplessness (Nelis, et al, 2011)	Adopting a passive and accommodating posture when thinking that you are not able to deal with emotional demands	When I see the student unmotivated I feel powerless to solve. I don't have a strategy to deal with this lack of motivation, I just regret it (B4)
	Behavioral Tactic	10(14%)	Influencing the physiological and experiential aspects of emotion through action (Gross, 1998)	Control breathing, count to 10, meditate, exercise and leisure	You are the professional, you will breathe, count to ten and you will think more pedagogically (E2)
	Substance Use	3(4%)	Using substances to reduce physiological/experiential aspects (Gross, 1998)	Controlled drug use	The indiscipline makes me frustrated [...] I do psychological and psychiatric follow-up, I only sleep on medication (A4)
Genuine expression 19(4%)	Adaptive Expression	7(37%)	Express genuine emotion when perceiving it as appropriate	Authentically display moderate emotions in the face of events	When I'm already at my limit, they already realize that I'm not enjoying it, I stop the class and talk and explain that it's not just a moral lesson (A2)
	Impulsive Reaction (Acting out)	12(63%)	Dealing with the emotional event giving rise to the action tendency of the emotion (Nelis et al, 2011)	Authentically display intense negative emotion in a maladaptive and dysfunctional way	Some students acted aggressively and threateningly and my strategy was to act like that too [...] I was not afraid, I was really angry (H3)
Note: Some codes may have multiple strategies This is a summary table of strategies, for more examples and specific frequency of strategies in each type of group see Annex 1					

DISCUSSION

What emotions are triggered by interactional, technical-pedagogical, and intrapersonal emotional demands?

As in the study by Burić et al. (2016), teachers reported experiencing a wide range of emotions with significant intensity when teaching, interacting and dealing with students. However, they also focused more intensely on negative emotions, illustrating efforts to regulate them. In general, primary emotions of anger and sadness stood out and were mainly related to interactional demands such as student misbehavior and peer/coordinator relationships, which is similar to other studies (e.g., BURIĆ et al., 2016; CHANG; DAVIS, 2009; TAXER; GROSS, 2018). The technical-pedagogical demands also seem to trigger negative but less intense emotions, such as frustration, worry, compassion, helplessness, and anguish. Additionally, teachers still regulate frustration arising from intrapersonal demands such as internal conflicts and dissatisfaction. The findings of Taxer and Frenzel (2015) suggest that the genuine display of negative emotions is related to teacher-student relationship impairment and emotional exhaustion, which underscores the importance of emotion regulation in this occupation.

Characterization of emotional regulation strategies: costs, benefits, and aspects associated with intrapersonal, interpersonal, and contextual factors

Teachers in the study reported using a wide variety of emotional regulation strategies to primarily avoid or reduce negative emotions before, during, and after class. These results are similar to the ones found by Burić et al. (2016) and Taxer and Gross (2018). The strategies identified were appropriately grouped into the five families of the Process Model of Emotion Regulation, suggesting that this model serves the classroom context well and is consistent with previous studies (e.g., AKBARI et al., 2017; BURIĆ et al., 2016; SUTTON, 2004; TAXER; GROSS, 2018). The families of cognitive change and situation modification were the most salient, which is similar to the findings by Burić et al. (2016). Sutton (2004) also found the prevalence of cognitive change. However, authors such as Taxer and Gross (2018) found that teachers are more likely to use response modulation (e.g., suppression), whereas Akbari et al. (2017) highlighted the use of situation selection. These divergent findings point to disagreements in the literature about how teachers regulate their emotions in the classroom.

Although the origin of these discrepancies is unclear, it is possible to assume that there are cultural and contextual influences on regulation (e.g., SUTTON, 2004). For example, the studies mentioned above were conducted with elementary and high school teachers from Croatia and the USA (e.g., BURIĆ et al., 2016; SUTTON, 2004; TAXER; GROSS, 2018), except the study by Akbari et al. (2017), conducted with Iranian teachers who taught foreign language. This study, in turn, focused on teachers of vocational and technological education in a specific region of Brazil. In addition, the present research expanded the situational factors investigated, whereas previous studies focused primarily on the student's inappropriate behavior. Thus, certain situations trigger specific emotions and strategies (Table 1). Additionally, personal factors related to the area of training/career level also seem to affect strategy selection (FRIED et al., 2015). Next, the families of strategies are broadly discussed according to their salience.

Cognitive change:

The cognitive change family was the most prominent, suggesting that teachers often reinterpret events or their own ability to deal with them to minimize the impact of adverse circumstances and reduce emotional work (e.g., AKBARI et al., 2017; BURIĆ et al., 2016; TAXER; GROSS, 2018). Cognitive change takes several forms (MALLORY; RUPP, 2016). For example, teachers strive to positively reinterpret undesirable circumstances, such as students' demotivation and inappropriate behavior. For instance, they try to perceive unmotivated students' efforts to do better at school (SUTTON, 2004; YIN, 2016). In addition, they try to blame the external context (socioeconomic, cultural, the educational system, etc.) or the attributes of the students (personality, age, etc.) - the attribution of external causality (BURIĆ et al., 2016). They also try to put the situation in perspective to understand and accept it - putting themselves in the other's place (AKBARI et al., 2017; CLARÀ, 2017; TAXER; GROSS, 2018). Other cognitive change forms involve personalization, expectation adjustment, rationalization, and self-blame (Box 1).

Although these strategies are topographically distinct, they have the function of adjusting cognition to circumstances and emotional goals to reduce contradictions and dissonances. They change teachers' attitudes towards the events (CLARÀ, 2017) to reduce the emotional impact and influence on their behaviors. For example, teachers can become involved in the change process when putting themselves in the student's place. Likewise, positive reevaluation can bring teachers and students closer together. Thus, knowing and understanding students' context can stimulate teacher empathy, engagement, and flexibility. This helps to challenge negative stereotypes (AKBARI et al., 2017; CHANG; DAVES, 2009), promotes a more positive perception of the teacher-student relationship (CLARÀ, 2017), and stimulates helping behaviors (GROSS, 2014). These considerations are consonant with evidence that cognitive modification is related to positive emotions, better relationships, and teacher well-being (CHANG, 2013; CLARÀ, 2017).

However, cognitive change also involves costs. For example, although attributing external causality helps mitigate negative emotions in the short term, it can also put long-term performance at risk by exempting teachers from responsibility for students' development (PEREIRA et al., 2004). In addition, teachers also reassess the situation, their performance, and their ability negatively, taking responsibility for unpleasant circumstances through self-blame. This evaluation might damage teachers' well-being because they perceive themselves as inadequate and incapable, leading to feeling frustrated, distressed, and guilty (CLARÀ, 2017). Thus, cognitive change focusing on adversities can enhance negative emotions and strengthen apathy and impotence, reducing the repertoire to deal with circumstances.

Thus, although this family of emotion regulation strategies seems to be the most accessible and adaptive, it was observed that it might also lead to reduced well-being when analyzing its functions and the interpersonal and contextual aspects. Moreover, as it involves more elaborate regulatory components, such as memory and verbal representations, it requires greater effort and energy in monitoring cognitive processes, consuming individual resources, resulting in greater exhaustion and poorer performance (e.g., SHEPPES, 2014; YIN, 2016). Taken together, these considerations reveal that cognitive modification is not always beneficial and resolving, although it is essential for gradual adaptation.

Situation modification:

This was the second most prominent family of emotion regulation strategies, suggesting that teachers constantly try to change situations (physical and external) capable of activating negative emotions (GROSS, 1998; TAXER; GROSS, 2018). In this study, situation

modification included strategies for: a) direct modification, the most salient one, and was characterized (i) by adjusting the lesson plan to the specific needs that arise in the classroom, such as adopting alternative resources to modify the affective tone of the class, motivate the student and facilitate learning (AKBARI et al., 2017; SUTTON, 2004) and for (ii) facing (dialoguing or scolding) students with inappropriate behavior to adjust their conduct or to remove them from the room (SUTTON, 2004); b) indirect modification, characterized by the teachers' request for school staff intervention to deal with the student's inappropriate behavior; c) faking emotion, characterized by the intentional display of a false emotion or intensification of the expression of genuine emotion to model the students' behavior, (for instance, showing either negative or positive emotions to regulate students' behavior) (GROSS, 1998; YIN, 2016).

Consistent with previous findings, situation modification was mainly used to deal with inappropriate behavior (CHANG; DAVES, 2009; SUTTON, 2004; TAXER & GROSS, 2018), demotivation, and learning difficulties (AKBARI et al., 2017; SUTTON, 2004; YIN, 2016). It seems that, in anticipating unpleasant circumstances, teachers avoid or decrease negative emotions in self (self-regulation) and students (hetero-regulation) (BURIĆ et al., 2016; TAXER; GROSS, 2018), thus avoiding unnecessary conflicts and interruptions (SUTTON, 2004).

It seems that there are also possible costs in changing the situation. For example, although strategies such as indirect modification can provide immediate relief, they can also install and maintain avoidance behaviors in the long term, thus harming teachers' repertoire and professional development (GROSS, 2015). Likewise, strategies such as exaggerating/faking emotion may require additional effort and impact teaching performance and teacher mental health (GROSS, 2015; TAXER; FRENZEL, 2015).

Response modulation:

Response modulation was the third most prominent family of regulation strategies, suggesting that teachers try to change their emotion regulation tendencies, even when it is impossible to avoid them (GROSS, 2015). It was related to extreme events, mainly with student's inappropriate behavior (ENGLISH et al., 2017; SUTTON, 2004; TAXER; GROSS, 2018; YIN, 2016) and conflict with colleagues and superiors, perhaps due to the perception of low control over these events (BURIĆ et al., 2016). Like other studies, teachers modulate their emotions through suppression strategies, behavioral tactics, and social sharing (AKBARI et al., 2017; SUTTON, 2004; TAXER; GROSS, 2018; YIN, 2016).

There is evidence that suppression would be the strategy teachers use the most (e.g., TAXER; GROSS, 2018). In the present study, it was the most frequent reactive strategy and was generally used to avoid or resolve interpersonal conflicts. These findings suggest the relevance of suppression in teaching, thus strengthening evidence that suppression is not necessarily harmful in this context and can be useful in the short term (ENGLISH et al., 2017). This might help explain its high frequency. However, it should be considered that the literature emphasizes the maladaptive character of suppression a priori because it has been associated with burnout (e.g., CHANG, 2013; YIN, 2016). In addition, suppression can hinder interpersonal closeness (GROSS, 2014), which is a vital component of the quality of the teacher-student relationship (TAXER; FRENZEL, 2015). Finally, in line with the findings by Akbari et al. (2017) and Sutton (2004), the most mentioned suppression tactics in this study were: masking (hiding genuine emotion and showing another), expressive neutrality, being silent and leaving the room for a while.

On the other hand, social sharing involves the exchange of experiences and feelings with other teachers, superiors, teaching staff, friends, and family (BURIĆ et al., 2016; SUTTON, 2004). Teachers who perceived social support highlighted the relevance of this strategy in expanding their regulatory repertoire and reducing negative emotions. Sharing emotions helps relieve stress, build resilience, promote effective teaching, and increase well-being (CLARÀ, 2017).

Finally, behavioral tactics, such as breathing deeply and counting to ten, were also highlighted to reduce emotional arousal (AKBARI et al., 2017; BURIĆ et al., 2016; YIN, 2016). It seems that they help the teacher contain the reactive emotional impulse in the face of the intensely unpleasant situation and reduce tension and negative emotion during class (CHANG; DAVIS, 2009; SUTTON, 2004).

Attention deployment:

Teachers rarely mentioned this family, which is congruent with Akbari et al. (2017) and Burić et al. (2016). For Sheppes (2014), the high frequency of demand requires strategies that are more adaptive to the context, such as reappraisal or cognitive change. Attention deployment involves distraction strategies, such as excessive worry and rumination, focusing on non-emotional aspects of the situation or other thoughts and memories.

On the one hand, it was found that teachers use strategies that seem to mitigate negative emotional responses in advance, for example, by ignoring events such as minor behavioral infractions (TAXER; GROSS, 2018; YIN, 2016) or savoring pleasant circumstances (in directing attention to motivated students and academic progress, for example) (TAXER; GROSS, 2018). However, the avoidance provided by these strategies seems to hamper the resolution of routine, emotional events, pointing out long-term costs, according to Sheppes (2014). On the other hand, strategies such as excessive worry, rumination, and fault identification seem to harm the affective state by anticipating, increasing, and prolonging the unpleasant emotional experience. This can lead to emotional and physical exhaustion, as Nelis et al. (2011) noted. In this sense, these latter strategies are counterproductive to teaching. They seem to direct individual resources to a negative experience and not to the resolution of concrete and recurring problems in the classroom, thus reducing the adaptive and functional potential of regulation.

Situation selection:

Although less mentioned, the situation selection family emerged in all focus groups. It entails avoiding circumstances and events (for instance, people, activities, and methodologies) that trigger negative emotions and approaching those situations that activate positive emotions. This occurs especially when teachers prepare lesson plans, activities, and teaching materials and program alternative resources, such as videos, games and music, considering the stage of life, difficulties, affinities, and interests of their classes to be responsive, effective, and minimize the emotional work that can be activated by unpleasant events (TAXER; GROSS, 2018; PEREIRA; MARINOTTI; LUNA, 2004). Although situation selection appears beneficial for the teacher and the student, it seems to be used less often because it is a more forward-looking strategy, which requires repertoire, the ability to predict their own emotional reactions, and those of others (GROSS, 2015). Thus, it is possible that teachers' planning, technical and relational preparation, and emotional awareness make it possible to implement these strategies.

Similar to other findings, avoidance was mainly directed at colleagues, superiors, and institutional activities (e.g., research and extension), which can be explained by the absence or low control over the environment (AKBARI et al., 2017; BURIĆ et al., 2016). In other words, teachers cannot physically avoid the classroom and interaction with students, but they can choose or avoid colleagues and activities. In this way, avoidance can help justify some counterproductive behaviors.

Genuine expression of emotion:

In line with Yin's findings (2016), teachers reported genuine displays of negative emotion in the face of inappropriate student behavior. These emotional expressions were grouped into emotional authenticity and impulsive reaction (acting out). Emotional authenticity refers to the emotional expression that is more adjusted to the context, related to lesser intensity events (for example, cell phone misuse and side-talking). However, there was disagreement about the appropriateness of this display. While some teachers reported being open to moderate expression to regulate student behavior (CHANG; DAVES, 2009; YIN, 2016), others considered it inappropriate to the ethics the function of teaching (BURIĆ et al., 2016; SUTTON, 2004). Interestingly, those who reported emotional authenticity rated themselves as more effective and well-connected with students (SUTTON, 2004; TAXER; FRENZEL, 2015). It seems that exhibiting authentic emotions congruent with the demands of the situation helps the teacher influence the student's behavior (hetero-regulation) by bringing them together (SUTTON, 2004; YIN, 2016). Thus, authenticity can be an effective form of emotional work in this context (ASHFORTH; HUMPHREY, 2013; TAXER; FRENZEL, 2015; YIN, 2016).

The acting out reaction refers to the loss of emotional control (such as the use of offensive language and aggression) (NELIS et al., 2011) in the face of hostile behavior and threats from students, which activate anger and impotence in the teacher (CHANG; DEVIS, 2009). According to Taxer and Frenzel (2015), the expression of anger is counterproductive because it impairs the relationship with students. In this sense, there was a consensus that impulsive reactions are dysfunctional and might hurt the idealized image of the profession (SUTTON, 2004; SUTTON et al., 2009).

Exploring possible effects of the training or teaching area and career periods on teacher emotional regulation

Differences in teachers' emotion regulation were inferred according to the area of training or teaching and the career period. Firstly, a greater frequency and variety of strategies were identified in groups in the basic area, especially among non-beginners, in line with Sutton, Mudrey-Camino and Knight (2009) and Burić et al. (2016), evidencing that more experienced teachers are more efficient in emotional regulation. Second, although the situation modification and cognitive change families stood out in all groups, subtle differences were noted in the strategies of these families, suggesting that teachers in the basic area tend to use strategies for approaching and coping with emotional demands. In contrast, technical domains tend to use strategies to avoid such demands. These differences are accentuated when comparing beginner and non-beginner groups, suggesting that career time strengthens these trends. In other words, among teachers from the basic area, non-beginners seem to face more demands and have greater variability in regulation than beginners. This relationship has been reversed for technical education teachers, so the experience seems to reinforce the avoidance patterns.

Contradictorily, strategies such as excessive worry, identification of flaws, and self-blame, all related to psychological disorders (NELIS et al., 2011) were most often cited by more experienced teachers in the basic area. As these teachers were also the ones who most mentioned active coping and approaching attitude, a possible explanation is that the high frequency and intensity of interaction with students requires considerable emotional work, leading to exhaustion throughout their careers (YIN; HUANG; LEE, 2017). Another assumption is that excessive emotional work, unsuccessful attempts, and misdirected effort (usually through trial and error) can overload and undermine emotional and cognitive resources causing teachers to reevaluate their professional competence and self-image negatively. Although exposure to emotional events seems beneficial because it expands the emotional repertoire (ALDAO et al., 2015), it can also be harmful throughout the career if not properly directed and channeled.

Although similar empirical studies have not been identified, it has been inferred that teachers in the basic area seem to have greater awareness and emotional repertoire based on other research. This seems to help face the demands in a more purposeful and result-oriented manner (GROSS, 2014). Castejón, Cantero and Pérez et al., (2010) support this finding, affirming that professionals with training in technology pay less attention to emotions than professionals from other areas such as social sciences, education, and humanities, for example.

Another possible explanation may be in the pedagogical training received, which, although generally reported as ineffective by most teachers, can somehow offer resources to face the demands of the classroom (TAXER; GROSS, 2018). In this regard, teachers in the technical area seem to be more likely to report problems because most are trained in engineering and technology fields, which has traditionally paid less attention to pedagogical aspects of teaching.

Finally, to fill the gap caused by inadequate training, non-beginner teachers emphasized the importance of career time in expanding the emotional and pedagogical repertoire. In contrast, beginners tended to rely on social support, which was not widely shared because many do not perceive the support of colleagues and superiors. These findings reinforce Sutton's (2004) assumption that teachers mainly learn to regulate negative emotions through classroom practice.

Chaining of emotional regulation strategies

Similar to the results of Taxer and Gross (2018), teachers use more than one emotion regulation strategy at a time. However, unlike their study, which highlighted the use of attention deployment, the cognitive change stood out here, appearing to be linked to situation modification (e.g., relational coping). That is, when facing a difficult situation and talking to students about the event, the teacher can modify its impact by influencing student emotion regulation (hetero-regulation) (TAXER; GROSS, 2018) and reinterpreting the negative circumstances (self-regulation). The second most salient link was situation selection (technical approach) and situation modification (technological confrontation). This suggests that teachers use their previous experiences to anticipate emotions (their own and others) and technical-pedagogical knowledge to plan, anticipate and prepare for the negative circumstances that arise in the classroom and modify them when they are unavoidable.

These findings indicate that there are times when teachers combine strategies of hetero-regulation and self-regulation to deal with emotional demands and make emotion regulation more effective, revealing the dynamics and complexity of teacher emotional regulation (e.g., SUTTON, 2004; TAXER; GROSS, 2018). It is added that both emotional and pedagogical repertoire are necessary for the chains to be effective.

In summary, the findings are congruent with research that suggests that negative emotions, genuine or regulated, are present in daily classroom work and mark the emotional lives of teachers (e.g., BAHIA et al., 2013; TAXER; FRENZEL, 2015). It also corroborates the model by Fried et al. (2015) that considers the teachers' emotions as intrapersonal, interpersonal, and contextual due to the specificities of the occupation. Furthermore, it is suggested that negative emotions are often the target of regulation given their counter-hedonic, counterproductive, and disruptive potential in the context investigated (e.g., ENGLISH et al., 2017; TAXER; FRENZEL, 2015).

It can also be said that teachers try to prevent, anticipate, and prepare for events that occur in the classroom (TAXER; GROSS, 2018). And even when they have no choice or influence over teaching situations, they regulate emotions to adjust their emotional responses and those of students (AKBARI et al., 2017). When preventive strategies can no longer be used due to a lack of repertoire and resources or when the situation is highly adverse, teachers tend to resort to reactive strategies. This might be an attempt to control the impulse of action of the unwanted emotion and mitigate its effects (e.g., SHEPPES, 2014; SUTTON, 2004; SUTTON et al., 2009; TAXER; GROSS, 2018). It was also possible to infer that the regulatory process occurs in a cyclical, dynamic, and contextual way, suggesting that teachers resort to a chain of strategies to cope with emotional modulation, in line with the Process Model of Emotional Regulation (GROSS, 2015). In addition, regulation appears to be influenced by professional factors (area of expertise and career) and specific to the situation (demands) (SHEPPES, 2014; ENGLISH et al., 2017).

The results of this study also allow us to infer that the strategies are not inherently "good" or "bad," although it is admitted that some of them are more adaptive (GROSS, 2015). However, this assessment depends on the context, available resources, expected outcomes, and extent of the effects (immediate or long-term) (e.g., ALDAO et al., 2015; GROSS, 2015; ENGLISH et al., 2017). Thus, the form and the function of the different strategies teachers employ from a contextual perspective might be located in the second generation of studies in emotion regulation research. This suggests that strategies have costs and benefits, revealing inconsistencies in applying the labels such as adaptive or maladaptive a priori. Additionally, it is in line with Sheppes's (2014) and Aldao et al.'s (2015) perspective that skillful regulation results from the flexible choice of strategies to adapt to different emotional demands.

CONCLUSION

This study aimed to examine teachers' emotions and emotional regulation strategies in the face of the different emotional demands of the classroom. The study advanced the field by presenting a contextual framework of teachers' emotion regulation, going beyond previous qualitative investigations that focused on intrapersonal factors associated with regulation. It is innovative in terms of methodology because it uses focus groups and compares different groups to search for individual differences in regulation. In addition, by unfolding the strategy families, the study can guide teachers in implementing the strategies and help them become more aware of the possible costs and benefits of specific strategies. Finally, it is believed that learning various forms of emotional regulation can influence the desired emotional flexibility, resulting in teachers' more adaptive regulation of emotion.

Conducting an exploratory and qualitative study proved necessary, given the scarcity of studies of this nature in the field. This methodology also filled some gaps in international studies. However, the present study has limitations, such as the generalization of the results and its reliance on behavioral memories. In addition, the high frequency of cognitive change and

situation modification strategies, considered adaptive, a priori, may indicate response bias due to the "healthy worker" effect. Another limitation was disregarding the impact of demographic variables, such as gender and age, which can influence emotional regulation.

Finally, future research could use the inputs of this study to elaborate a contextual scale of teacher emotional regulation and examine the phenomenon in a more extensive and diverse sample using quantitative methods. In addition, other techniques such as behavioral observation and diaries and others that consider the dynamic process of regulation to understand better teachers' contextual emotion regulation could be used. Finally, one can also investigate the reasons that lead teachers to regulate their emotions and the outcomes in terms of mental health.

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AUTHORS' CONTRIBUTION

Author 1 – Project coordinator, data collection, data analysis and text writing
Author 2 - Active participation in data analysis and review of final writing
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CONFLICT OF INTEREST DECLARATION

The authors declare that there is no conflict of interest with this article.

DECLARATION APPROVAL BY THE ETHICS COMMITTEE

This research was approved by the Ethics Committee of the Institute of Psychology of the Federal University of Bahia (CAAE 92122318.1.0000.5686).