

Teacher Emotions and Teacher Self-Regulation: Insights from Teachers' Perspectives

Nihal Yurtseven^{a,*}, Seda Saraç^b

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^a **Corresponding Author:** Nihal Yurtseven, Faculty of Educational Sciences, Bahçeşehir University, İstanbul, Türkiye
E-mail: nihal.yurtseven@bau.edu.tr
ORCID: <https://orcid.org/0000-0002-1338-4467>

^b Seda Saraç, Faculty of Educational Sciences, Bahçeşehir University, İstanbul, Türkiye
E-mail: seda.sarac@bau.edu.tr
ORCID: <https://orcid.org/0000-0002-4598-4029>

Abstract

In this paper, we aimed to explore the connection between teacher emotion and self-regulation, the predictive power of teacher emotions on teacher self-regulation, and factors that influence teachers' emotions. An exploratory sequential design was adopted in the study. Data was gathered from 403 teachers teaching actively in elementary grades in the quantitative dimension. In the qualitative dimension, a focus group interview was held with eight teachers. The Teacher Emotion Questionnaire (TEQ), The Teacher Self-Regulation Scale, and focus group interview questions were used to collect data. The quantitative data was analyzed through correlational analysis and simple linear regression analysis and the qualitative data was analyzed through content analysis. The quantitative findings demonstrated that teachers' pride and love in the profession significantly predicted teacher self-regulation levels; however, predicted only 2% of the variability in teacher self-regulation. The findings from the qualitative dimension seemed to explain why we did not find significant relationships between teacher self-regulation and teacher emotions. Emotions seem to be unrelated to teaching skills. Instead, the teachers attribute the source of their emotions mostly to external factors and individual characteristics to some extent.

Keywords:

Teacher Emotions, Teacher Self-Regulation, Pride, Joy, Predictive Power

Introduction

Teachers experience several emotions in their profession. Happiness, anger, pride, or pity are some of them (Frenzel, 2014). Although there is no strong consensus, the literature demonstrates that emotions experienced by teachers are classified into two categories, positive and negative. Happiness (Frenzel et al., 2009; Sutton & Wheatley, 2003), love (Rodrigo-Ruiz, 2016) and pride (Darby, 2008; Sutton & Harper, 2009) are among the emotions that are often mentioned in the category of positive emotions, whereas the category of negative emotions refers mostly to anger (Frenzel, 2014; Sutton & Wheatley, 2003), anxiety (Frenzel, 2014; Sutton & Wheatley, 2003), shame, and guilt (Frenzel, 2014). Teachers' emotions are at the core of the teaching-learning process. Taking teachers' feelings into account at schools leads to increased teaching performance (Argon,



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2015) and improved teaching practices (Tsang, 2018).

Among teachers, being in a positive emotional state involves a variety of uplifting and inspiring emotions that can directly affect their teaching methods, interactions with students, and general academic and professional performance. These emotions contribute to the development of a good class climate; boost the engagement level of the students, and enhance teaching performance (Fredrickson, 2001; Jennings & Greenberg, 2009; Rimm-Kaufman et al. 2015). One of these emotions is joy. Several studies found that joy can have positive implications for student success (Fredrickson, 2003; Lyubomirsky et al. 2005; Pekrun et al. 2002). Teachers who are joyful are generally more likely to be energetic, creative, and passionate about what they do. Emotional contagion, which transfers teachers' mood to the students has a beneficial effect on the classroom atmosphere creating positive mood (Frenzel et al., 2009; Jennings & Greenberg, 2009). The interaction between joy and student engagement demonstrates the possibility of improved learning experiences. Addressing these issues can lead to enhanced teacher happiness, which can improve teaching practices (Hakanen et al., 2006; Reeve, 2013).

A caring and compassionate teacher-student interaction contributes to a pleasant emotional atmosphere. Love, as an emotion rooted in real concern for the well-being and growth of students, is crucial in shaping these relationships (Noddings, 2005). Roorda et al. (2011) draws attention to the importance of instructors' loving and caring behavior in the classroom, fostering a sense of safety and belonging, and promoting student involvement and motivation. Furthermore, the emotional bond between teacher and student might contribute to improved academic achievement and general development (Hamre & Pianta, 2001; Wentzel, 2012). Recognizing the cultural and environmental variations that influence the expression and perception of teacher-student love is critical to ensuring that it remains suitable and conducive to learning (Pianta & Stuhlman, 2004). Likewise, witnessing children's triumphs and progress inspires teacher pride. Teachers who take joy in their students' accomplishments instill a sense of efficacy and competence in their students. This good mood helps teachers stay motivated, committed, and satisfied at work (Frenzel et al., 2009).

Negative emotions are also an unavoidable aspect of the teaching profession and can have serious consequences for both teachers and students. For instance, anger is defined as the emotional state of frustration, irritation, or discontent that teachers experience in response to various triggers in the classroom or in their professional environment (Sutton & Wheatley, 2003). According to Sutton and Harper (2009), teachers, like any other person, might

become enraged as a result of causes such as student misbehavior, classroom disturbances, difficult administrative decisions, a lack of support, or crushing workloads. Research indicates that prolonged anger in teachers can have negative implications such as low job satisfaction, strained teacher-student relationships, and compromised instructional efficacy. Similarly, fatigue, often known as emotional tiredness, is another common negative emotion caused by the demanding nature of the profession. Marcionetti and Castelli (2022) point out that fatigue can result from constant contact with students, administrative tasks, and the emotional investment required for effective teaching. Teachers' enthusiasm, energy, and overall well-being might suffer from fatigue. Teacher fatigue has ramifications that go beyond the individual, hurting instructional quality and student participation (Blömeke et al., 2016; Skaalvik & Skaalvik, 2018). Finally, hopelessness occurs when teachers believe difficulties to be insurmountable or feel powerless to impact positive change. Day and Gu (2014) imply that this negative mood might be triggered by causes such as low student accomplishment, insufficient resources, or a lack of professional development opportunities. Hopelessness among teachers can stifle creativity, innovation, and enthusiasm to invest in students' achievement (Kyriacou, 2021). The study of teacher emotion has acquired substantial attention in educational research, reflecting a growing appreciation of the intricate interplay between educators' emotions and their professional practices (Frenzel et al., 2007). Researchers have investigated several elements, such as classroom dynamics, that affect the genesis and management of these emotions (Brackett et al. 2010; Sutton & Wheatley, 2003).

Another dimension that also influences the practice of teaching is teachers' self-regulation. Teachers are often perceived as self-guided actors within the classroom environment (Randi, 2004). They depend on their self-regulating capacities to plan, perform, and evaluate their teaching methods. Teachers should be able to regulate themselves to deal with the dynamics of the teaching/learning process (Delfino et al., 2010). Teachers' self-regulation denotes their ability to manage their thoughts, emotions, and actions proactively and adaptively within the classroom context. It involves purposefully designing and applying teaching techniques, maintaining resilience amidst emotional challenges, and flexibly responding to diverse student needs and classroom disruptions. The capacity of teachers to regulate themselves in various aspects such as setting goals, maintaining intrinsic motivation, managing emotions, and seeking assistance plays a pivotal role in elevating the quality of teaching and enriching student learning outcomes (Kunter et al., 2013; Skaalvik & Skaalvik, 2018; Tschannen-Moran & Woolfolk-Hoy, 2007). By effectively navigating these dimensions of self-regulation, educators can

cultivate robust self-regulated learning strategies, which are essential for fostering an engaging and productive learning environment in the classroom (Monshi-Toussi et al. 2011; Çapa-Aydin et al., 2009).

Studies on job-related emotions show that individuals who demonstrate elevated levels of engagement in their professional endeavors are likely to encounter transient episodes characterized by enthusiasm and active involvement (Ouweneel et al., 2012, Xanthopoulou et al. 2012). Research on teachers' emotions, on the other hand, indicates that teachers' emotions stem from their interactions with students in the classroom (e.g. Chen, 2016; Cross & Hong, 2012; Sutton & Wheatley, 2003). Teachers report feeling joyful when they see their students making progress and enjoying learning. On the flip side, teachers encounter difficulties when attempting to interact with students and boost their academic progress, particularly when students fail to take responsibility for their own learning (Chen, 2020). This lack of student ownership creates tensions for teachers as they seek to facilitate effective learning experiences. These findings suggest a relationship between teacher emotions and teacher self-regulation, which is considered as one of the fundamental skills for creating an effective learning environment. Teachers who can handle classroom situations, adjust teaching methods, solicit feedback, reflect on their practices, cope with stress, and nurture positive connections with students are likely to contribute to students' learning and progress by creating a conducive learning environment thus experiencing more positive emotions. On the other hand, teachers who struggle with self-regulation in the teaching process may face negative emotions.

Nevertheless, to the best of our knowledge, neither the predictive power of teachers' emotions on teachers' self-regulation nor their reflections in the classroom have been investigated yet. In this paper, we aim to explore the connection between teacher emotion and self-regulation, the predictive power of teacher emotions on teacher self-regulation, and factors that influence teachers' emotions.

Thus, in the current study, we sought answers to the following research questions:

1. Does teacher self-regulation predict teacher emotions?
2. In the views of the teachers, what are the factors that affect teacher emotions?

Methodology

Design of The Study

For this study, an exploratory sequential design was adopted. This approach is commonly used in mixed methods research and comprises two interconnected

phases: an initial quantitative phase followed by a subsequent qualitative phase. Researchers typically employ this design when qualitative insights are needed to clarify significant or nonsignificant quantitative findings. (Plano-Clark & Creswell, 2015). In this study, in the quantitative phase, data was obtained from a larger sample of teachers with two scales (Teacher Emotion and Teacher Self-Regulation), and in the qualitative phase, semi-structured focus group interviews were held with teachers to further understand the antecedents of teacher emotions.

Participants

A convenience sampling technique was used to determine the participants in the quantitative phase (Klassen et al., 2012). Data was gathered from 403 teachers teaching actively in elementary grades in Türkiye. However, teachers with missing information in the surveys were excluded from the dataset. Therefore, the analyses were conducted with 384 teachers (M= 55; F= 329). Only volunteer teachers were included.

In the qualitative phase of the study, a focus group interview was held with eight teachers. Maximum variation sampling (Palinkas et al., 2015) was employed to ensure the inclusion of opinions from teachers in both early childhood and primary school settings. The teachers worked in eight different elementary schools. Four of them were engaged in early childhood teaching, while four were teaching in the primary grades. All teachers had a bachelor's degree. The ages of the teachers ranged between 24 and 52, with the most experienced teacher having served for 30 years, while the most novice teacher has been in service for 2 years. The teachers were contacted through direct outreach with personalized emails to the selected teachers that fit our criteria, explaining the purpose of the focus group interview and inviting them to participate. Those who were interested and willing to participate voluntarily responded directly to our email, expressing their consent and availability. All teachers were assured of confidentiality and informed consent was obtained prior to their participation.

Data Collection Instruments

Teacher Emotion Questionnaire

The Teacher Emotion Questionnaire (TEQ) was developed by Burić, Slišković, and Macuka (2018) and adapted to Turkish by Yurtseven (2020). The TEQ is a psychometric-based scale that was developed to explain teachers' emotions with a multidimensional approach. Teachers respond on a five-point Likert-type scale (strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree). The scale consists of six dimensions that measure teacher emotions. These dimensions are joy, pride, love, anger, fatigue/exhaustion, and hopelessness. EFA and CFA

analysis for the Turkish form verified the six-factor structure of the scale. The Cronbach alpha coefficient values were between .71 and .92 for the subscales in the Turkish form.

Teacher Self-Regulation Scale

The Teacher Self-Regulation Scale, developed and validated by Çapa-Aydın et al. (2009), was used. The scale was developed based on Zimmerman's (2002) self-regulation model. It consists of 40 items that the teachers respond to on a 6-point Likert scale ('strongly disagree' to 'strongly agree'). The scale comprises 9 factors, namely; (1) goal setting; (2) intrinsic interest; (3) performance goal; (4) mastery goal; (5) self-instruction; (6) emotional control; (7) self-evaluation; (8) self-reaction and (9) help-seeking. Higher scores represent higher levels of self-regulatory strategy used in teaching. Confirmatory factor analysis validates the nine-factor structure (CFI (.98), NFI (.98), and RMSEA (.06), all the item loadings are significant and they are above the .50 standard. Internal consistency coefficients range from .62 to .86. for the nine factors.

Focus Group Interview Questions

For the focus group interviews, semi-structured interview forms were used. Focus group interview questions were prepared to understand how teacher emotions are formed. In this respect, two questions were asked "What kind of emotions do you experience during teaching in your classrooms?" and "What do you think affects these emotions?" The focus group interview was conducted in Turkish, which was the native language of the teachers. Excerpts from teachers' views were translated into English by researchers for reporting purposes. The interview was conducted via a cloud-based video conferencing platform and lasted approximately 95 minutes.

Data Collection Procedure

For the quantitative phase of the study, after ethics committee approval, District National Education Directorates were contacted for data collection. In line with the guidance of the directorate, teachers were contacted by email, and consent forms and scales prepared in electronic environments were delivered to the participants via email.

For the qualitative phase of the study, again, District National Education Directorates were contacted. With their reference, the teachers were contacted by email or phone. Volunteer teachers were invited to focus group interviews.

Data Analysis

The quantitative data was analyzed through correlational analysis and simple linear regression

analysis. The qualitative data was analyzed through content analysis. For the validity and reliability of the qualitative part of the study, Lincoln and Guba's (1986) terms of credibility, transferability, dependability, and confirmability were ensured. To ensure credibility, two focus group interviews with different groups of teachers were held. For the transferability, data collection, data analysis, and research setting were explained in detail. For dependability, two researchers analyzed the focus group data independently, and to enhance the analysis process, the data were coded independently by the two raters based on the recommendation proposed by Joffe (2011). Researchers then compared their interpretations of the main themes. When a consensus could not be reached, the data was returned to reach a consensus.

Findings

Findings on the Predictive Power of Teacher Emotions on Teacher Self-Regulation

Descriptive statistics for the variables examined in the study are presented in Table 1, along with the correlation coefficients between teacher emotions and teacher self-regulation variables.

Table 1.
Descriptive Statistics and Correlation Coefficients for Teacher Emotions and Teacher Self-Regulation

Variables	Min.	Max.	M	SS	r
Teacher Self-Regulation	162	239	207.33	15.23	-
Joy	23	25	24.92	.31	.04
Pride	15	30	28.98	2.13	.15*
Love	23	30	29.45	1.24	.26*
Anger	5	25	10.54	5.07	.01
Fatigue/Exhaustion	7	35	16.80	7.55	.05
Hopelessness	6	30	11.86	5.96	-.00

$p < .01$

As per the information in Table 1, there is a significant positive correlation between teachers' self-regulation and the emotions of Pride and Love they experience towards their profession, $r(368) = .15, p < .01$. However, no significant correlations were observed between teachers' emotions of Joy, Anger, Fatigue/Exhaustion, and Hopelessness, and their self-regulation. To investigate whether teachers' levels of pride and love predict their self-regulation levels, Simple Linear Regression Analysis was conducted. Table 2 presents the analysis results.

Table 2.
Regression analysis results for the prediction of teacher emotions by teacher self-regulation

	R	R ²	F	Std. E	β	t
Pride	.15	.02	8.43*	.37	.15	2.90*
Love	.26	.07	26.51*	.26	.15	5.15*

$p < .01$

According to the analysis results, teachers' pride in the profession significantly predicted teacher self-regulation levels, $[F(1, 366) = 8.43, p < .01]$. Their pride in the profession explained 2% of the variability in teachers' self-regulation. In addition, teachers' love for the profession significantly predicted teacher self-regulation levels, $[F(1, 366) = 26.51, p < .01]$. Their love for the profession explained 2% of the variability in teachers' self-regulation.

Findings on the Views of the Teachers about Teacher Emotions and Teacher Self-Regulation

Data from the focus group interviews about the factors that affect teacher emotions revealed two themes: external factors and individual factors. Table 3 shows the content analysis related to themes, categories, and sample codes.

Table 3
Content Analysis on The Factors that Affect Teacher Emotions

Theme	Category	Sample Codes
External Factors	Work Conditions	Working hours, Salary, Perceived workload, Demands from the administration, Duty
	School Context	Curriculum, Administrative support, Supportive relationships, Professional development opportunities, Parents' feedback, Peer relationships
	Classroom Context	Learning progress, Repeated errors, Repeated instruction, Student engagement, student behavior, Disobeying rules
Individual Factors	Characteristics	Calmness, Enthusiasm, Nervousness, Cheerfulness, Friendliness, Ambitiousness, Conscientiousness
	Capabilities	Self-efficacy, Resilience, Problem-solving capacity, Coping, Self-confidence, Autonomy
	Dispositions	Cognition, Beliefs, Motivation, Personal goals, Commitment

External factors

Three categories, namely, work conditions, school context, and classroom context, emerged under this theme.

Work conditions. The teachers generally referred to working hours, their perceived workload, and the daily responsibilities that they needed to fulfill in line

with the demands of the administration, paperwork, and material development, emphasizing that the amount of work demanded influenced their emotions in this category. They often associated this with negative feelings that paved the way for anger and fatigue. They also frequently mentioned their salaries and underlined that being underpaid affected their emotions negatively. Below are some statements regarding this category:

"As a teacher, my emotions are strongly influenced by the demands of my job environment. Balancing my job, administrative responsibilities, and material development can sometimes be difficult, causing frustration and exhaustion. Furthermore, feeling undervalued owing to low salaries adds stress and has a bad impact on my emotions." (T8, 42, Female)

"Balancing the demands of my job with personal commitments can be challenging, especially when I work long hours. However, knowing that my work directly impacts the lives of students motivates me to persevere and maintain a strong sense of dedication." (T2, 26, Female)

School context. The teachers emphasized the importance of a properly constructed curriculum that adhered to educational benchmarks while also accommodating students' different needs. They expressed the need for administrative assistance, which included open communication lines, judicious resource allocation, and proactive leadership capable of resolving issues quickly to establish a conducive learning environment, and how this affected their emotions. They also valued opportunities for professional development to improve their instructional skills and emphasized the need for ongoing training, workshops, and conferences to support their continued growth and evolution as educators. As another important factor affecting their emotions, they referred to the significance of positive family involvement and engagement in the educational process, adding that they valued constructive feedback from parents on the school and classroom environment. They advocated for open lines of communication so that any issues or challenges could be addressed properly. Lastly, they emphasized the importance of peer connections in building a pleasant workplace environment. Collaborative interactions with colleagues not only provided emotional support, but also allowed for the exchange of ideas, resources, and instructional techniques, which improved instructional effectiveness. Some of the statements regarding this category can be seen as follows:

"Professional development opportunities are crucial for improving our instructional skills and keeping current with best practices in education. If the school where we work can create opportunities for continuous training and workshops, it not only helps us grow as educators but also improves our general job satisfaction and emotions." (T6, 30, Female)

"School-home communication and parents' involvement influence teachers' emotions and motivation badly. For example, when parents exhibit rude or confrontational behavior, it causes friction and weakens the sense of partnership between home and school. It was one of the challenges that I faced in the first years of my teaching career." (T5, 28, Female)

Classroom context. Teachers underlined the joy of watching students' learning progress, as well as the frustration of confronting frequent mistakes and the necessity for additional instruction. Teachers were satisfied when students actively participated in learning activities, but they were also challenged by managing a wide range of student behaviors, including instances of rule disobedience. In short, they emphasized the importance of having a structured yet supportive environment while swiftly addressing behavioral issues to maintain a conducive learning environment. Some of the participating teachers expressed their opinions as follows:

"As a teacher, witnessing my students' progress brings me immense joy and pride. When I see them overcome struggles, I'm filled with contentment and satisfaction. However, dealing with misbehavior or learning problems can sometimes be challenging and frustrating. That's why creating a structured, yet supportive environment is essential for managing diverse student behaviors and maintaining a positive learning atmosphere in the classroom." (T7, 23, Female)

"It's discouraging to see the same mistakes being repeated despite my continuous warnings and guidance. It not only disturbs the class flow, but also makes me feel frustrated and angry. Addressing these recurring problems takes patience and persistence, but it is critical to guaranteeing all students' growth and success." (T1, 32, Female)

Individual factors

In this theme, characteristics, capabilities, and dispositions emerged as a category.

Characteristics. In the first category, teachers stated that their emotions were influenced by a range of personal characteristics they possessed. They pointed out that their levels of calmness, enthusiasm, and cheerfulness had a direct impact on their emotional state and job satisfaction. In contrast, they referred to anxiousness as a characteristic that had a negative impact on their overall emotional state. They referred to friendliness and conscientiousness as characteristics that helped to develop healthy relationships with students and colleagues, which also improved their emotional experiences. Additionally, they stated that ambitiousness influenced their emotional resilience and motivation, affecting their total job satisfaction. Below are some statements related to the characteristics category:

"For me, being friendly and conscientious is essential for developing strong relationships with my students and colleagues. These attributes help to create a healthier emotional experience in the workplace. Furthermore, I've discovered that being ambitious increases my motivation and resilience, which improves my job satisfaction. Of course, this can change from person to person."

"In my 10 years' of teaching experience, I can tell that maintaining a sense of calmness in difficult situations typically results in better outcomes. When I approach problems with a calm and cool demeanor, I find that I can think more clearly and make better decisions. Keeping calm not only allows me to manage hurdles more successfully, but it also fosters a positive environment in the classroom." (T3, 32, Female)

Capabilities. The teachers associated their emotions with their perceived talents in the classroom and workplace. They gave examples of some capabilities, such as a strong sense of self-efficacy, resilience, or problem-solving ability, to be able to better navigate challenges, especially when they were surrounded by problems at the workplace. They emphasized the importance of effective coping skills and self-assurance to maintain emotional resilience and confidence in their talents. Furthermore, they pointed out that autonomy in decision-making and task management gave them a sense of control over their working environment, which improved their emotions and general well-being. The opinions of some teachers can be exemplified as follows:

"From my experience, how I feel in the classroom is largely related to my confidence in my talents. When I am confident in my abilities to efficiently manage obstacles, I am more prepared to deal with difficult situations, even when confronted with several hurdles at work. Having autonomy in decision-making provides me with a sense of ownership and control over my teaching environment, which improves my emotions and general job satisfaction." (T6, 30, Female)

"I've realized that my emotions in class seem to reflect my confidence and perseverance. When I feel capable and empowered to tackle difficulties, I can handle obstacles more easily, even when the workload is heavy. Controlling decisions and tasks allows me to maintain a sense of balance and well-being in my educational environment." (T8, 42, Female)

Dispositions. As an important individual factor, teachers' underlying dispositions had a considerable impact on their emotions. According to them, their cognition, beliefs, and motivation all influenced how they interpreted situations in their professional life and navigated their emotional responses. Furthermore, they emphasized that their personal goals and commitment to the profession strongly influenced their emotions. Below are some statements related to the dispositions category:

"Beliefs about teaching have a significant impact on how we approach problems and disappointments in the classroom. For example, if we trust in each student's potential, we face challenges with hope"

and resolve. However, if our beliefs are restricting, we may have difficulty maintaining emotional resilience. It is critical to continually reflect on and examine our beliefs to ensure that they are consistent with our educational goals and values.” (T4, 40, Female)

“Motivation serves as the fuel that empowers us to overcome our negative emotions and challenges in the classroom. When our passion for teaching and dedication to our students are strong enough, we can find the strength and resilience to navigate any difficulties that come our way. With unwavering motivation, we can transform obstacles into opportunities for growth and continue to strive for excellence in our profession.” (T3, 37, Female)

Discussion

The quantitative part of this study explored the relation between the emotional experiences of elementary teachers, encompassing both negative and positive emotions, and their self-regulation. Surprisingly, negative emotions such as anger, fatigue/exhaustion, and hopelessness were revealed to be devoid of any significant relationship with teacher self-regulation. However, Kelchtermans (2011) proposes that negative emotions predominantly arise from circumstances and outcomes outside of teachers' control, mostly students' misbehaviors (Chang, 2013). Educators commonly experience a range of adverse emotions when interacting with students, such as anger, frustration, hopelessness, and exhaustion. Anger typically stems from situations like student misbehavior or rudeness (Hagenauer et al., 2015), while hopelessness often arises from factors like students' lack of motivation or challenging life circumstances beyond the teacher's influence (Burić et al., 2018). Teacher self-regulation epitomizes the control that teachers exert over the teaching-learning process. Self-regulated teachers manage their learning and teaching through activities such as setting goals, devising strategic plans, monitoring and overseeing their teaching methods, engaging in reflection, and fostering self-motivation for the teaching process (Chatzistamatiou et al., 2014). Therefore, the lack of association between teacher self-regulation and negative emotions may be related to the control factor.

The findings from the study shed light on a significant positive correlation existing between two positive emotions commonly experienced by teachers – Pride and Love – and their ability to regulate themselves effectively. Teachers demonstrate their commitment to enhancing the teaching process through self-regulated instruction, thereby fostering conducive learning environments. As Pawłowska (2020) mentions, the success of others, whom individuals believe they have influenced, generates pride in the individual. The success of students, perceived by teachers within their sphere of influence, also instills pride. As educators observe students' accomplishments stemming from their efforts, they manifest a sense of pride. Burić et al. (2018) note that pride is intricately linked with individual

achievement and development, particularly evident in academic excellence, often underscored by the recognition of the teacher's contribution to student progress. Consequently, the impact of teachers' self-regulation on pride becomes evident, highlighting the significant efforts educators invest in their instructional practices, which in turn evoke feelings of pride. In addition to pride, the study's findings also highlighted a significant correlation between teachers' self-regulation and love. The research by Li and Rawal (2018) demonstrates the relationship between love and teachers' deep passion for their profession, their determination to maintain it despite challenges, and their proactive efforts to understand their students' potential and strategize their teaching, even under unfavorable conditions. Thus, a clear connection between love and effective teaching is evident.

Interestingly, the connection between self-regulation and joy, which is one of the emotions commonly reported by teachers in several studies (e.g. Frenzel & Gotz, 2007; Keller et al., 2014; Sutton, 2000), has not been identified. This result is consistent with the findings of Chatzistamatiou et al. (2014), who also concluded that teachers' enjoyment of teaching was not significantly linked to their reported use of self-regulatory teaching strategies. Research into teacher emotions suggests that the primary source of joy for educators often lies in the relationships they cultivate with their students (Hagenauer et al., 2015) and in maintaining effective classroom discipline (Frenzel et al., 2009). Given that joy is predominantly linked to interpersonal connections, it could be speculated that it may not be directly associated with teachers' self-regulated teaching skills. This implies that while joy is an integral aspect of the teaching experience, its relationship with self-regulation in teaching practices may be mediated by various factors related to interpersonal dynamics and classroom management.

Although the findings of the research have identified relationships between teacher self-regulation and positive emotions such as pride and love, examining the coefficients reveals that these relationships are not highly significant. Therefore, the inference drawn is that emotions may be influenced by factors beyond the teacher's self-regulation in teaching. In this regard, focus group studies were conducted in the second part of the research to uncover what these influences could be. The qualitative findings of the study shed light on the predominant focus on the impact of external factors. Teachers notably underscored the importance of various variables arising from their work conditions, including factors such as their working hours, salaries, and workload. Additionally, they emphasized the significance of elements within the school context, such as peer relationships, parental feedback, and the curriculum, in shaping their emotional experiences. Furthermore, teachers highlighted the crucial role of

classroom dynamics, such as students' progress and behavior, in influencing the development of both positive and negative emotions. In essence, they tended to attribute their emotional responses more to external circumstances rather than their teaching skills. The sole aspect they highlighted regarding teaching skills was the lack of sufficient professional development opportunities to enhance these skills. These findings are consistent with those of Chen (2019), who observed that teachers often experienced intense negative emotions related to rigid promotion policies, idealistic educational reforms, and unfair public criticism at the macro-system level, as well as unrealistic parental expectations and unhealthy competition among colleagues at the meso-system level. Similarly, Likewise, Bahia et al. (2013) discovered that most negative emotions reported were by the teachers associated with the ongoing political reform, while positive emotions were linked to interactions within the classroom. In sum, they indicated that all these contextual factors being negative led to negative emotions in teachers while being positive led to positive emotions.

Although not receiving as much emphasis as external factors, teachers also saw a connection between their emotions and personal characteristics. They highlighted beliefs such as self-confidence in managing their emotions, assurance in their teaching abilities, and their preferred approaches to teaching. In this context, teachers appeared to prioritize their beliefs and attitudes over solely focusing on their practical teaching skills. This suggests that teachers view their emotional experiences as intertwined with their broader self-perceptions and professional philosophies. This further validates the findings of Burić and Macuka's (2018) study, which examined how teachers' negative and positive emotions are affected by their self-efficacy and motivation, particularly in terms of work engagement. Similarly, Chen (2020) also established a connection between teachers' teaching approaches and their emotional experiences.

Conclusion and Implications for Future Research

In sum, the findings from the focus group interview seem to explain why we did not find significant relationships between teacher self-regulation and teacher emotions. Emotions seem to be unrelated to teaching skills. Instead, the teachers attribute the source of their emotions mostly to external factors and individual characteristics to some extent. It is widely acknowledged that effective teacher self-regulation contributes to fostering effective teaching experiences. This notion suggests that teachers who are adept at self-regulating their actions and behaviors are more likely to create effective learning experiences that may evoke a spectrum of emotions in teachers. Despite these expectations, the observed correlations between teacher self-regulation and

emotional experiences have been relatively weak. Consequently, it becomes challenging to definitively assert the presence of a direct relationship between these two constructs. It is plausible that there may be other variables at play, acting as a moderator in this relationship. Hence, it becomes imperative for future research endeavors to delve deeper into this aspect. By conducting more extensive investigations, researchers can explore and identify potential moderating variables that might elucidate the complex interplay between teacher self-regulation and emotional experiences.

Another reason for the lack of relationship between these two constructs could be related to the measurement approach of teacher self-regulation. Since self-regulated teaching skills were assessed through self-report, they were measured based on teachers' perceptions of their practices, which may not fully reflect their actual teaching activities in the classroom. Future researchers should consider employing multiple measurement approaches, including objective measures and qualitative methods, alongside longitudinal designs and contextual considerations, to better understand the relationship between teacher emotion and self-regulation, as the lack of correlation found in this study may be attributed to the reliance on self-report measures alone, which might not fully capture the complexities of teacher practices in the classroom.

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