

## **Teacher Self-efficacy and Emotional Regulation as Predictors of Teaching Stress: An Investigation of Iranian English Language Teachers**

**Jalil Fathi**

*Assistant Professor in TEFL, University of Kurdistan,  
Sanandaj, Iran*

**Ali Derakhshan<sup>1</sup>**

*Assistant Professor of Applied Linguistics, Department of  
English Language and Literature, Faculty of Humanities and Social  
Sciences, Golestan University, Gorgan, Iran*

### **Abstract**

As it has been revealed that characteristics of teachers and their psychological factors have a significant share of variance in affecting teacher performance, a bulk of empirical studies have been conducted to investigate factors related to teachers and their interrelationships. As an attempt to shed more light on the relationships among teacher psychological factors in English as a Foreign Language (EFL) context, this study examined the role of teacher self-efficacy and emotional regulation as predictors of teaching stress among Iranian EFL teachers. In so doing, a sample of 256 teachers completed three questionnaires measuring these constructs. Structural Equation Modeling was employed to test the hypothesized relationships among the variables. The findings revealed that emotional regulation accounted for 14.2% of the variance and teacher self-efficacy accounted for 22.1% of the variance in teaching stress. Although each of the two variables had a unique effect on teaching stress, teacher self-efficacy outweighed emotional regulation in predicting teaching stress. Finally, the practical implications of the results were discussed.

**Keywords:** Emotional Regulation, EFL Teachers, Teacher Efficacy, Teaching Stress, Structural Equation Modeling

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### **1. Introduction**

Teachers are deemed to play a pivotal role at both classroom and school levels, as they are required to manage and organize classroom, plan and

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<sup>1</sup> Corresponding author: a.derakhshan@gu.ac.ir

organize for instruction, implement instruction, monitor students' progress and potentials (Stronge, 2007), set high expectations of students, be creative and fair, respect students and be forgiving (Walker, 2008), and facilitate the learning process (Cardelle-Elawar & Sanz de Acedo Lizarraga, 2010) among other factors. Therefore, due to the multiple influential roles played by the teachers in the educational arena, teachers' mental health is regarded to be of utmost significance. The mental health of the teacher affects the emotional atmosphere of the classroom which in turn impacts students' experience of education (Vesely, Saklofske, & Leschied, 2013). One of the factors which are detrimental to teachers' mental health and well-being is teaching stress (Harmsen, Helms-Lorenz, Maulana, van Veen, & van Veldhoven, 2019). Despite its significance, teaching stress was sporadically attended to by researchers in the past (Spilt, Koomen, & Thijs, 2011). Teaching stress is defined as "the experience of unpleasant and negative states, such as anger, tension, disappointment or depression, which arise from teaching responsibilities" (Kyriacou, 2001, p. 104). Research has testified that teaching is among the professions with highest degree of work stress (Newberry & Allsop, 2017), and many teachers, especially novices, quit their job due to work pressures (Hong, 2012). Work-related stress has been linked to work dissatisfaction, emotional exhaustion, decreased work engagement, teaching inefficiency, lower motivation, and higher levels of burnout and teacher attrition (Betoret, 2009; Klassen & Chiu, 2010; Newberry & Allsop, 2017; Skaalvik & Skaalvik, 2007, 2011, 2016). While the relation of teaching stress to such factors has been extensively studied in the literature, there are also other important attributes such as self-efficacy and emotional regulation which have been less attended to by the researchers.

It is a conviction that teachers' internal characteristics such as self-efficacy and emotional regulation can affect how teachers perceive work

stress and how they deal with it. This claim is corroborated by Kyriacou and Sutcliffe (1978), stating that durable personality characteristics are influential in how individuals perceive stress. In the same line, individuals' perceptions and interpretations are highlighted over external factors in how people react to stressful stimuli, given the centrality of one's cognitive appraisal (Boyle, Borg, Falzon, & Baglioni, 1995). Teacher self-efficacy is defined as teacher's belief in one's ability to take any necessary action for successful accomplishment of a particular task in a specific context to happen (Tschannen-Moran, Woolfolk-Hoy, & Hoy, 1998). To date, some studies have examined the potential role of self-efficacy in work stress among employees in various contexts (e.g., Grau, Salanova, & Peirò, 2001; Law & Guo, 2015; Siu, Spector, Cooper, & Lu, 2005; van Dijk, 2009). However, few empirical studies have continued such a line of inquiry in the field of education with the prime focus on teachers (e.g., Collie, Shapka, & Perry, 2012; Klassen & Chiu, 2010; Yu, Wang, Zhai, Dai, & Yang, 2014). There seems to be a dearth of research examining self-efficacy and job stress among English as a Foreign Language (EFL) teachers. An exception is the study done by Vaezi and Fallah (2011) which will be elaborated upon in the literature section of the paper.

Furthermore, as emotional factors lie at the center of educational success, focus on emotional aspect of teachers has gained momentum in the field of education (Yin, Lee, Zhang, & Jin, 2013). Emotional intelligence, referring to various emotional abilities and enhancing emotion diagnosis, processing, and regulation, has the potentiality of decreasing undesirable negative teacher experiences and improve teacher mental health and well-being (Petrides & Furnham, 2001). More importantly, inquiries have arisen regarding the effect of teachers' emotional regulation ability in how teachers cope with teaching stress, as emotional regulation can protect individuals against undesirable

outcomes of experiencing work stress (Myruski, Denefrio, & Dennis-Tiwary, 2018). Wang and Saudino (2011) postulate that "emotion regulation focuses primarily on the modulation of internal emotional changes so as to meet the external needs" (p. 96). A number of studies have been conducted to shed some light on these issues and their interdependence (e.g., Biron & van Veldhoven, 2012; Ghanizadeh & Royaei, 2015; Ju, Lan, Li, Feng, & You, 2015; Mérida-López, Extremera, & Rey, 2017). However, no study has been found to specifically focus on the possible role of emotional regulation in teaching stress among EFL teachers in any context, including Iran.

All in all, based on what was mentioned, the necessity of this study is warranted due to the following reasons: First of all, to date, a very limited number of studies have inquired into the role of teacher self-efficacy in teaching stress among EFL teachers in the context of Iran. Second, studies examining the impact of emotional regulation in teaching stress are scarce in the field of education, and are none, to our best of knowledge, in the field of ELT. Last but not least, to date, no study has investigated the simultaneous effects of teacher self-efficacy and emotional regulation ability on teaching stress among EFL teachers in the context of Iran. Consequently, the aim of the study is to examine self-efficacy and emotional regulation as potential predictors of teaching stress among a group of Iranian EFL teachers.

## **2. Theoretical Background**

### **2.1 Teaching Stress**

Teacher stress was defined by Kyriacou and Sutcliffe (1978) as:

A response of negative affect (such as anger or depression) by a teacher usually accompanied by potentially pathogenic physiological and biochemical changes (such as increased heart rate or release of adrenocorticotrophic hormones into the bloodstream) resulting from aspects of the

teacher's job and mediated by the perception that the demands made upon the teacher constitute a threat to his self-esteem or well-being and by coping mechanisms activated to reduce the perceived threat. (p. 2)

Research has revealed that for many teachers, their profession is full of stress (Newberry & Allsop, 2017). Teaching stress can affect teacher productivity and satisfaction as stress is perceived by the teacher as a threat to his/her self-esteem or health (Kyriacou, 2001). In other words, teaching stress is tied to teachers' self-esteem, because the crucial issue is that when individuals encounter a stressful stimulus, they first of all feel their self-esteem to be threatened (Roe & Gray, 1991). The importance of examining teaching stress cannot be underemphasized because work stress is so dangerous that in order to overcome it, teachers often need to undergo a remedial treatment (Hall, Woodhouse, & Wooster, 1985). Three models exist for approaching the concept of stress. The first one is the engineering model, according to which stress happens due to environmental stimuli (Hinkle, 1974). The second model deals with the physiological one, taking into account the emotional states of the individual (DeFrank & Stroup, 1989). And lastly, the interactional/transactional model highlights the role played by the interaction between individual needs and environmental demands as sources of stress (Handy, 1986).

According to the plethora of research done in the literature in order to explore the components of teaching stress concept (e.g., Kyriacou & Sutcliffe, 1978; Payne & Furnham, 1987), the components of pupil misbehavior, time resource difficulties, professional recognition needs, and poor colleague relations were identified more unanimously by researchers. Issues such as disruptive students, classroom discipline, large class size, and

students' negative views toward learning contribute to pupil misbehavior, while factors such as inadequate teaching time, ambiguous and unclear specified syllabus, insufficient educational supplies, and poor facilities can result in time resource difficulties. Besides, insufficient payment and ignoring teachers' teaching efforts can contribute to teachers' professional recognition needs.

Teaching stress can have various physical and mental repercussions for teachers. As to the effect of stress on physical health, it can result in problems such as decreased immune system, hypertension, diabetes, overweight, and increased probability of infections and cardiovascular diseases. Additionally, work stress can negatively affect one's psychological well-being by damaging cognitive processing, increasing job dissatisfaction and negative affect, increasing emotional exhaustion, decreasing work engagement and efficiency, lowering motivation, and rising the probability of burnout and teacher attrition (Klassen & Chiu, 2010; Skaalvik & Skaalvik, 2007, 2011, 2016).

Regarding the sources of teaching stress, Brenner and Bartell (1984) state that school environment, teaching-related stressors, health conditions, and personality traits are among the factors which can contribute to teaching stress. Other researchers have maintained that work overload, high work demands, student diversity, negative pupil aspects, conflicts among co-workers, low salary, low job resources, discipline issues, disruptive and problem students, student demotivation, and different student needs may contribute to teacher stress (Hakanen, Bakker, & Schaufeli, 2006; Harmsen, Helms-Lorenz, Maulana, & van Veen, 2018).

## **2.2 Teacher Self-Efficacy**

Self-efficacy refers to "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997,

p. 3). More specifically pertained to our concern, teacher self-efficacy relates to "the extent to which the teacher believes he or she has the capacity to affect student performance" (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977, p. 137), and "the teacher's belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific teaching task in a particular context" (Tschannen-Moran et al., 1998, p. 22).

To date, some empirical studies have focused on the role of self-efficacy in occupational stress. For instance, in a study attempting to examine the moderating roles of work values and self-efficacy on the job stressors-work well-being relationship among 234 Chinese employees, Grau et al. (2001) reported that self-efficacy played a moderating role in the relationship between job well-being and stressors, and it was also positively associated with work satisfaction. Similarly, in an empirical study done on 83 Dutch bank employees, van Dijk (2009) reported that self-efficacy is negatively predict employees' work-related stress and risk perception is a mediating variable in the self-efficacy-job stress relationship. In another study, three domains of self-efficacy, namely instructional strategies, classroom management, and student engagement, were examined in relation to two types of job stressors, namely workload and classroom stress among 1430 teachers from Western Canada. The results indicated that those teachers experiencing greater workload stress had more classroom management self-efficacy, while those with higher levels of classroom stress experienced lower self-efficacy and job satisfaction. Finally, more job satisfaction was associated with higher levels of instructional strategies self-efficacy and classroom management self-efficacy (Klassen & Chiu, 2010).

Furthermore, Law and Guo (2015), investigating self-efficacy and hope with regard to job stress, job satisfaction, and organizational commitment among a group of prison system officers in Taiwan, reported that hope was

positively associated with job satisfaction and negatively associated with job stress, while self-efficacy was positively related to job satisfaction and organizational commitment. Siu et al. (2005), analyzing the roles of self-efficacy and work values in job stressors and well-being among a group of Chinese employees, identified self-efficacy as a moderator variable in the relationship between work stress and work well-being. In a study done on 387 school teachers, focusing on the role of teaching stress in teacher burnout while taking teacher self-efficacy as a mediating variable, it was found that teacher burnout was significantly associated with both work stress and self-efficacy, and self-efficacy could mediate the path from work stress to teacher burnout (Yu et al., 2014). Similar findings were reported for the results of a study by Thompson and Gomez (2014) on a sample of 78 Australian employees selected from professional occupations such as teaching and nursing, maintaining that self-efficacy and self-esteem moderated the workplace stressors-strain relationship among employees. Results of a study conducted by Collie et al. (2012) on 664 school teachers from British Columbia and Ontario revealed that teaching stress was linked negatively to teacher efficacy. More closely pertained to the context of the present study, Vaezi and Fallah (2011) examined the potential association of self-efficacy and occupational stress among 108 Iranian EFL teachers teaching at various private language institutes. Their results demonstrated that self-efficacy variable is inversely associated with teaching stress, and both classroom and organizational efficacy dimensions of self-efficacy could predict work stress.

### **2.3 Emotional Regulation**

Emotional regulation ability, constituting the main component of emotional intelligence theory, is defined as the individual's ability to regulate emotional states of oneself and others. Accordingly, those people with higher emotional regulation abilities are equipped with more strategies to decrease undesirable



emotions and increase desirable emotions in themselves and others (Mayer & Salovey, 1997). Within emotional intelligence theory, emotional regulation ability is supposed to impact the way teachers convey emotions, cope with teaching stress, and communicate with learners (Gross, 2002). More specifically related to our concern, emotional regulation is considered as "a key regulatory capacity that can buffer against the negative effects of stress" (Myruski et al., 2018, p. 2).

To date, some lines of inquiry have examined emotional regulation with regard to work stress and job burnout. For example, Brackett, Palomera, Mojsa-Kaja, Reyes, & Salovey (2010), investigating the association among emotional regulation, job satisfaction, and burnout among 123 school teachers in the context of England, reported that emotional regulation was positively associated with job satisfaction and personal accomplishment component of burnout. In another study, aiming at exploring the association among emotional regulation, job satisfaction, and perceived global stress among 239 Turkish workers from various economic sectors, it was found that emotional regulation is related to lower stress and higher job satisfaction (Yahyahil & İkieir, 2009). Moreover, Ghanizadeh and Royaei (2015) investigated the correlation among emotional regulation, burnout, and emotional labor strategies among 153 EFL teachers teaching at different private language institutes in Iran. Their results revealed that emotional regulation and emotional labor strategies inversely impacted teacher burnout. Similar findings were found from other studies showing that the emotional intelligence-teacher burnout relationship is mediated by workplace social support (Ju et al., 2015) and greater emotional demands lead to more emotional exhaustion (Biron & van Veldhoven, 2012). Given the significance of the mental health of teachers, Mérida-López et al. (2017) attempted to identify the factors affecting teachers' psychological well-being. To this aim, with the aid of some psychology students from the University of Malaga, the

researchers targeted 900 teachers from different schools and centers of Spain to participate in the study. Their findings revealed that emotional regulation ability was inversely linked to teachers' levels of depression, anxiety, and stress, and the role ambiguity-emotional regulation interaction predicted greater depression. Moreover, Pugliesi (1999), who elicited his data from all employees chosen from a public American university, reported that emotional labor augment perceived occupational dissatisfaction, stress, and distress among the participants. All things considered, it is worth mentioning that in spite of the surge of research in other domains, it seems that researchers in the field of ELT lag behind researchers in other domains in their effort to inspect emotional regulation as a potential predictor of work stress.

### **3. Method**

#### **3.1 Participants**

In order to accomplish the purpose of the study, a total of 256 practicing Iranian EFL teachers who were teaching English in different language institutes, schools, and universities from different provinces participated in this study. With regard to the sampling procedure, a combination of stratified random sampling and cluster sampling (Ary, Jacobs, Irvine, & Walker, 2018) was employed in this study. The data collection began with distributing the questionnaires to the participants. The sample of participants consisted of both male (N = 108) and female (N = 148) teachers with various levels of educational degrees. The participants' age varied from 20 to 48 with mean age of 24.58. Teaching experience of the participants ranged from nine months to 27 years with mean teaching experience of 7.28.

#### **3.2 Instruments**

The Teachers' Sense of Efficacy Scale (TSES) which was designed and validated by Tschannen-Moran and Woolfolk Hoy (2001) was employed to assess EFL teachers' sense of efficacy. The TSES was developed to measure teachers' capability concerning instructional strategies, student engagement,

and classroom management. The 24-item form of TSES was used in this study. Twenty-four items were measured on a five-point Likert scale from 1, 'nothing', to 5, 'a great deal'. Inasmuch as the fact that this scale was validated at the Ohio State University, it is often called the Ohio State Teacher Efficacy Scale. Numerous researchers have used and evaluated this scale in various contexts and have confirmed the reliability and validity of the scale (e.g., Klassen, Foster, Rajani, & Bowman, 2009).

Emotional regulation of EFL teachers was also assessed by emotion regulation questionnaire developed by Gross and John (2003). This instrument is a 10-item scale developed to assess respondents' willingness and preferences to regulate their emotions in two aspects: (1) Cognitive Reappraisal and (2) Expressive Suppression. The participants were required to respond to each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

To measure teaching stress of the participants, Teacher Stress Inventory (Boyle et al., 1995) was employed. This scale includes 20 items which ask respondents to rate the degree of stress that teachers experience while carrying out various teaching tasks. The stem for the items begins with "As a teacher, how great a source of stress are these factors to you?" with Likert-type responses ranging from 1 (*No stress*) to 5 (*Extreme stress*). The validity and reliability of this scale has been previously verified by some scholars (e.g., Klassen & Chiu, 2011). All the items of this inventory can be seen in Table 1.

### **3.3 Data Collection and Procedure**

In order to carry out this quantitative correlational study, the required data were gathered through administration of self-report questionnaires. At the beginning of the fall semester in 2018, the data collection procedure began with distributing three validated scales measuring three variables under

investigation in the study.

Upon administration of the scales, some explanations about how to fill out the scales were provided to the respondents. In order to increase the ease of administration and scoring, an online version of the questionnaires was constructed by inserting instructions and questionnaires in the Google Docs application. Then the online version including the three variable scales (i.e., self-efficacy, emotional regulation and teaching stress) was put into a booklet questionnaire format and was shared on the Internet channels and groups (WhatsApp & Telegram) whose members were EFL Iranian teachers teaching English in different parts of the country. Before going through the items of the questionnaires, the participants were requested to complete the first part of the booklet which was about their personal information such as name, surname, age, educational degree, and teaching experience. Moreover, the participants were assured that their information remains confidential and would be used just to conduct this research.

### **3.4. Data Analysis**

In order to analyze the collected data, the SPSS AMOS 20 was used. As the first step in data analysis, the dataset was analyzed in terms of the missing and outlier values. The initial analysis revealed that there was no wrongly coded data. In addition, in the missing value analysis, very few missing items were randomly assigned through the expectation– maximization (EM) algorithm. Then, Structural Equation Modelling (SEM) was used to investigate the prediction of independent over dependent variables and several goodness of fit indices were analyzed. The fit indices employed to assess the models of this study were:  $\chi^2/df$  (chi-square divided by the degrees of freedom), Goodness of Fit Index (GFI), Comparative Fit Index (CFI), the Tucker–Lewis Index (TLI), and the Root Mean Square Error of

Approximation (RMSEA). An acceptable model is demonstrated by  $\chi^2/df < 3$ , GFI > .95, TLI > .95, CFI > .95, and RMSEA < .06 (Hu & Bentler, 1999).

#### 4. Results

To ensure that the employed questionnaires of the three variables enjoyed acceptable validity and reliability, a Confirmatory Factor Analysis (CFA) was carried out to verify the fitness of the used survey.

Concerning the investigation of psychometric properties of the three scales, CFA was conducted in order to analyze the hypothesized model. The results of indices for the CFA revealed a good fit ( $\chi^2/df = 1.96$ ,  $p = 0.00$ , GFI = 0.98, CFI = 0.984, TLI = 0.97, RMSEA = 0.05). With regard to the internal consistency of the scales and their underlying sub-scales, Table 1 demonstrates that all the scales' reliability coefficients exceeded 0.70, suggesting that all scales had acceptable internal consistency. Additionally, the values for composite reliabilities varied from 0.78 (teaching stress) to 0.89 (self-efficacy). Also, the factor loadings for the items of all scales turned out to be significant ( $p < 0.001$ ) and acceptable. Because the computed values for composite reliabilities and obtained factor loadings were high, the model can be argued to have convergent validity (Anderson & Gerbing, 1988).

Table 1  
*Overall Reliability of the Constructs and Factor Loading of Indicators*

Construct	Indicators	Cronbach's $\alpha$ /CR	Factor loadings	t- value
Self-efficacy	How much can you do to get through to the most difficult students?	0.895/0.895	0.82	11.14***
	How much can you do to help your students think critically?		0.89	12.68***
	How much can you do to control disruptive behavior in the classroom?		0.84	12.38***
	How much can you do to motivate students who show low interest in school work?		0.69	10.37***
	To what extent can you make your expectations clear about student behavior?		0.79	10.92***
	How much can you do to get your students to believe		0.87	12.46***

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	they can do well in school work?		0.85	12.06***
	How well can you respond to difficult questions from your students?		0.90	12.69***
	How well can you establish routines to keep activities running smoothly?		0.77	11.21***
	How much can you do to help your students value learning?		0.90	12.35***
	How much can you gauge student comprehension of what you have taught?		0.86	12.13***
	To what extent can you craft good questions for your students?		0.82	11.79***
	How much can you do to foster student creativity?		0.78	11.43***
	How much can you do to get children to follow classroom rules?		0.85	12.00***
	How much can you do to improve the understanding of a student who is failing?		0.88	12.11***
	How much can you do to calm a student who is disruptive or noisy?		0.69	10.89***
	How well can you establish a classroom management system with each group of students?		0.92	12.68***
	How much can you do to adjust your lessons to the proper level for individual students?		0.88	11.97***
	How much can you use a variety of assessment strategies?		0.70	10.98***
	How well can you keep a few problem students from ruining an entire class?		0.78	11.47***
	To what extent can you provide an alternative explanation or example when students are confused?		0.89	0.12.87***
	How well can you respond to defiant students?		0.87	11.82***
	How much can you assist families in helping their children do well in school?		0.90	12.68***
	How well can you implement alternative strategies in your classroom?		0.88	11.98***
	How well can you provide appropriate challenges for very capable students?		0.78	11.34***
Emotional Regulation	When I want to feel more <i>positive</i> emotion (such as joy or amusement), I change what I'm thinking about.	0.854/0.854	0.78	11.34***
	I keep my emotions to myself.		0.85	11.34***
	When I want to feel less negative emotion (such as sadness or anger), I change what I'm thinking about.		0.81	10.98***
	When I am feeling <i>positive</i> emotions, I am careful not to express them.		0.79	11.31***
	When I'm faced with a stressful situation, I make myself think about it in a way that helps me stay calm.		0.69	10.57***
	I control my emotions by not expressing them.		0.90	12.13***
	When I want to feel more positive emotion, I change the way I'm thinking about the situation.		0.82	12.01***
	I control my emotions by changing the way I think about them		0.67	9.91***
	When I am feeling <i>negative</i> emotions, I make sure not to express them.		0.69	10.23***
	When I want to feel less <i>negative</i> emotion, I change the way I'm thinking about the situation.		0.69	10.78***

Teaching Stress	Poor career structure	0.789/ 0.789	0.69	9.72***
	Difficult class.		0.73	11.00***
	Lack of recognition for good teaching responsibility for pupil (e.g. exam success)		0.83	11.65***
	noisy pupil		0.85	11.68***
	too short rest period (mid morning break , mid-day break)		0.78	10.68***
	pupil poor attitude to work		0.67	10.12***
	inadequate salary		0.69	10.57***
	Too much work to do (e.g. lesson preparation and marking)		0.67	10.66***
	Having a large class (e.g. many pupil)		0.89	12.05***
	Maintaining class discipline		0.79	11.02***
	Administrative work (e.g. filling in forms)		0.85	11.87***
	Pressure from parents		0.81	11.08***
	ill-defined syllabus ( e.g. not detailed enough)		0.82	11.34***
	Lack of time to spend with individual pupil		0.89	12.53***
	Shortage of equipment and poor facilities		0.88	12.31***
			0.67	10.59**
	Attitudes and behavior of other teachers		0.67	10.21***
	Pupils' impolite behavior or cheek		0.69	10.71***
Pressure from head teacher and education officers		0.69	9.87***	
Having extra students because of absent teachers		0.70	10.32***	

Note. CR represents construct or composite reliability

\*\*\* significant at the 0.001 significance level

Table 2

*Descriptive Statistics and Correlations*

	M (SD)	1	2	3	4	5	6	7	8
1. CR	12.70 (4.11)	1.00							
2. ES	13.44 (3.88)	.43**	1.00						
3. Total ER	26.14 (9.33)	.23*	.26**	1.00					
4. SE	42.12 (11.60)	.17	.24*	.27*	1.00				
5. IP	41.78 (11.05)	.15	.20*	.21*	.30**	1.00			
6. CM	42.95 (14.70)	.20*	.15	.23*	.30**	.25*	1.00		
7. Total SE	132.55(31.12)	.22*	.30**	.43**	.35**	.39**	.37**	1.00	
8.Stress	48.42 (14.55)	-.23*	-.28*	-	-	-	-	-	1.00
				.48**	.35**	.38**	.30**	.61**	

Note. CR= Cognitive Reappraisal; ES = Expressive Suppression; Total ER= Total emotional regulation; SE= Student engagement; IP= Instructional practices; CM=classroom management; Total SE= Total teacher self-efficacy.

\*  $p < .05$ .

\*\*  $p < .01$ .

Then, descriptive statistics and correlations between the variables and their underlying constructs were calculated. Descriptive statistics and correlations between teacher emotional regulation, teacher self-efficacy, and

teaching stress have been presented in Table 2. As presented in Table 2, the correlation between total teacher self-efficacy and teaching stress ( $r=.61$ ,  $p<.01$ ) is higher than the correlation between total emotional regulation and teacher teaching stress ( $r=.48$ ,  $p<.01$ ).

SEM was employed to gain a more in-depth understanding of the effectiveness of the significance of teacher self-efficacy and emotional regulation in predicting teacher teaching stress. SEM is considered as a strong multivariate procedure which is utilized to adopt a confirmatory hypothesis-testing approach for the theorized structural model proposed in this study. SEM is different from other multivariate techniques because of some salient characteristics. One key feature of SEM is the fact that "it takes a confirmatory rather than an exploratory approach to data analysis" (Byrne, 2001, p. 3). As a result, in contrary to the other multivariate techniques which are descriptive in nature (such as exploratory factor analysis), SEM has the potentiality to be used for hypothesis testing. Another feature is the fact that while traditional multivariate procedures fail to assess measurement error, SEM helps to measure the estimates of error variance components. Another characteristics is the fact that although other multivariate procedures are dependent on only the observed measurements, SEM is able to take into account both observable and latent variables (Byrne, 2001).

For the purpose of analyzing the data in the study, two models were specified, as shown in Fig. 1. The structure of the correlations for each of these two hypothesized models is identical. Consequently, they are statistically identical. However, in order to corroborate the statistical results, both models are taken into account. For the purpose of exploring the unique contributions of the teacher self-efficacy and teacher emotional regulation, goodness of fit indices were employed in order to investigate the adequacy of the proposed models. The model evaluation indicated a good fit to the data



(Table 3). As can be seen in model A, the correlations among the three latent variables turned out to be significant. Teacher self-efficacy and emotional regulation had 6% of shared variance ( $R^2=.259$ ). Teacher self-efficacy and teaching stress demonstrated 22.1% common variance ( $R^2=.473$ ). Likewise, emotional regulation and teaching stress shared 14.2% of variance ( $R^2=.382$ ). Therefore, these findings indicated that teacher self-efficacy appeared to be a more powerful predictor of teaching stress than emotional regulation.

Afterwards, in order to investigate the unique effect of teacher self-efficacy and emotional regulation beyond and above each other,  $R^2$  increments were checked by comparing the percentage of variability in teaching stress demonstrated in models A and B. In model B, teacher self-efficacy and emotional regulation together accounted for 30% of the variance in teaching stress. Therefore, it can be concluded that emotional regulation explained for the extra amount of 8% of the variance of teacher teaching stress, beyond the single teacher self-efficacy predictive variable ( $\Delta R^2=.30-.22=.08$ ). Also, the unique effect of teacher self-efficacy in predicting teacher teaching stress above the teacher emotional regulation factor was 16% ( $\Delta R^2=.30-.14=.16$ ). According to these results, it is again revealed that the unique contribution of teacher self-efficacy was higher than emotional regulation in prediction of teacher teaching stress.

Table 3  
*Goodness of Fit Indices*

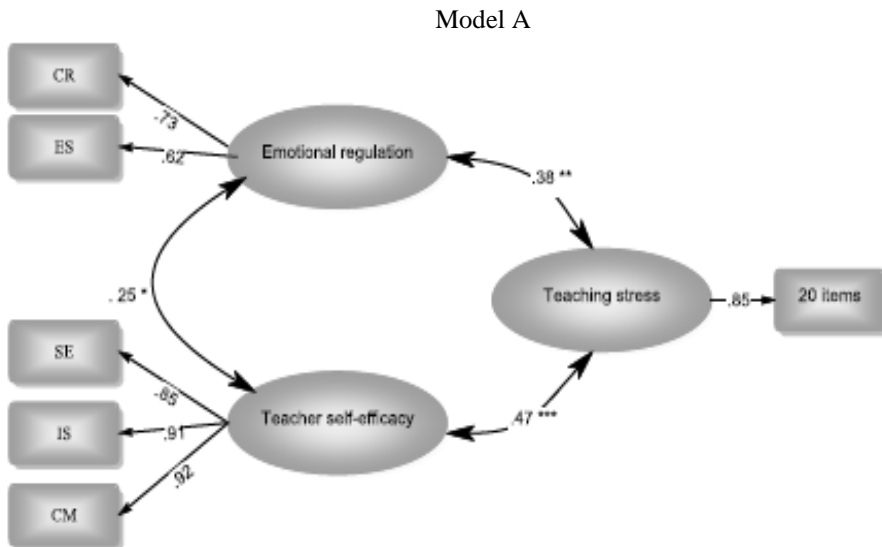
	$\chi^2$	$\chi^2/df$	GFI	TLI	CFI	RMSEA	$\Delta\chi^2$
Models A and B	6.21	1.96	.98	.97	.98	.05	
Model A1 ( $\beta$ ER = 0)	10.92	2.25	.97	.96	.98	.05	4.71*
Model A2 ( $\beta$ TSE = 0)	11.36	2.81	.97	.96	.98	.04	5.15*

Note. ER= emotional regulation; TSE= teacher self-efficacy.

\*  $p < .05$ .

## Teacher Self-efficacy ...

In the follow-up analysis, the unique impact of emotional regulation and teacher self-efficacy on teacher teaching stress was investigated by constraining every pertinent beta weights to zero and then their  $\chi^2$  differences were assessed in model B. In case constraining beta weights to zero led to substantial decrease in  $\chi^2$ , the unique impact of every construct in predicting teaching stress is considered to be significant. Table 3 indicates the fit indices for the models. Constraining beta weights to zero in both model A1 ( $\beta$  emotional regulation =0) and model A2 ( $\beta$  teacher self-efficacy =0) yielded significant chi-square changes (model A1 ( $\beta$  emotional regulation =0):  $\Delta\chi^2$  (1, N=256) = 4.71,  $p < .05$ ; model A2 ( $\beta$  teacher self-efficacy =0):  $\Delta\chi^2$  (1, N=256) = 5.15,  $p < .05$ ). These findings revealed the significant unique effect of emotional regulation and teacher self-efficacy as correlates and predictors of teaching stress.



Model B

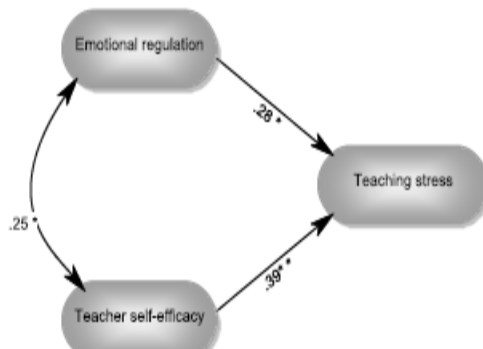


Figure 1. Teacher self-efficacy and teacher emotional regulation as predictors of teaching stress. CR= Cognitive Reappraisal; ES = Expressive Suppression; TE= Teacher efficacy; SE=student engagement; IS= instructional strategies; CM=classroom management. \* $p < .05$ . \*\*  $p < .01$ . \*\*\* $p < .001$ .

## 5. Discussion and Conclusions

The purpose of the study was set to investigate the role of teacher self-efficacy and emotional regulation as predictors of teaching stress among Iranian EFL teachers. The findings obtained from the examination of the structural model revealed that teacher self-efficacy could significantly predict teaching stress. This finding is consistent with those of numerous previously conducted empirical studies (e.g., Collie et al., 2012; Klassen & Chiu, 2010; Siu et al., 2005; Thompson & Gomez, 2014; Yu et al., 2014; van Dijk, 2009) which verified the influential role of teachers' sense of efficacy in predicting work stress. More particularly, this finding supports the results of Vaezi and Fallah (2011) who found that self-efficacy is negatively correlated with teaching stress among Iranian EFL learners. Moreover, it was found that emotional regulation could substantially predict teaching stress of EFL teachers. This finding concurs with a bulk of recent studies (e.g., Ghanizadeh & Royaei, 2015; Mérida-López et al., 2017; Palomera et al., 2010; Yahyihil

& İkiar, 2009) which corroborated the significant correlation between emotional regulation and teachers' level of stress and job satisfaction. It can be argued that monitoring one's emotions or emotional regulation is very likely to reduce unfavorable and stressful work experiences of teachers. Emotional regulation also enables teachers to deal with stressful factors and protects them against unpleasant repercussions of experiencing teaching stress (Myruski et al., 2018).

Finally, it was found that teacher self-efficacy turned out to be a more powerful predictor of teacher teaching stress than teacher emotional regulation. In fact, it was revealed that although each of the two variables (i.e., self-efficacy & emotional intelligence) had a unique impact on teaching stress, teacher self-efficacy outweighed emotional regulation as a predictor of teaching stress. This finding might be justified in the light of the fact that teacher self-efficacy is argued to be a key variable affecting teachers' psychological well-being including higher levels of teaching commitment and job satisfaction as well as lower degrees of burnout and teaching stress (Aloe, Amo, & Shanahan, 2014; Klassen & Chiu, 2011; Zee & Koomen, 2016). The construct of teacher self-efficacy is concerned with teachers' perceptions and judgements of their own ability in teaching and their potential role in fostering their students' learning. Lower levels of self-efficacy may inculcate in teachers a negative attitude of their teaching competence and educational context both of which increase the likelihood of feeling more stress and powerlessness (Khani & Mirzaee, 2015).

Overall, the findings of the study confirm the results of Kyriacou and Sutcliffe (1978) who maintained that personality factors were highly influential in stress perception. More particularly, the findings of this study revealed that teachers' psychological or affective factors such as self-efficacy and emotional regulation affected teachers' perceptions of their work stress.

Similarly, these findings suggest that individuals' cognitive perception and appraisal affect the extent to which they feel and react to stressful variables (Boyle et al., 1995).

The results of this study might have some implications for EFL researchers and teacher educators. Concerning the significant role of teacher self-efficacy in reducing teaching stress, as confirmed by the findings of this study, EFL teacher education programs should take the necessary initiatives in order to enhance EFL teachers' sense of efficacy so that they can deal with stressful situations more effectively. By so doing, Iranian English Language teaching community will be able to move towards more professionalism (Khani & Mirzaee, 2015), a situation which encourages teachers to acquire a professional identity which itself contributes to both improving self-efficacy and reducing stress among teachers (Beijaard, Meijer, & Verloop, 2004; Canrinus, Helms-Lorenz, Beijaard, Buitink, & Hofman, 2012). Moreover, teaching stress should take more precedence in Iranian EFL context. If teaching stress is not mitigated or well-addressed, teachers are very likely to get demotivated, lose their interest in teaching, feel much exhaustion and fatigue, as well as gain negative attitudes toward their pupils (Yu et al., 2015). Furthermore, foreign language policy makers and stake holders should not only make the adequate attempts to provide teachers with more comfortable and less threatening atmosphere in the L2 educational environments but also assign more freedom and agency to EFL teachers so as to help them gain higher self-efficacy perceptions in the world of classroom.

It should be noted that the results of this study might not be generalizable to most L2 teachers in various situations and educational contexts. Given the fact that the context of English instruction in state schools is radically different from the private language institute in which teachers are given with relatively further freedom to teach English more communicatively in less

crowded classrooms, further studies should empirically investigate the distinctive effects of self-efficacy and emotional regulation in predicating teaching stress in the two different contexts of state and private schools. These studies are likely to shed much light on the variables affecting stress of teachers in public or private language schools. Moreover, future researchers can generalize these findings by employing qualitative and mixed methods research designs so that they can gain more in-depth insight of the factors affecting teaching stress in EFL settings.

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