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ORIGINAL ARTICLE

A tripartite model of EFL teacher attributions, burnout, and self-regulation: toward the prospects of effective teaching

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Abstract The present study aims at delving into English as foreign language teachers' attributions by investigating the role of teacher attributions in teacher burnout and teacher self-regulation. This is accomplished by building a causal structural model through which the associations among these constructs are estimated. The results demonstrate that the proposed model has a good overall fit with the empirical data. It is also revealed that internal and controllable attributions positively predict teachers' self-regulatory skills, whereas teacher burnout is associated with external and uncontrollable attributions.

Keywords Attribution · Burnout · Language teachers · Self-regulation · Structural equation modeling

1 Introduction

Attribution theory is a pivotal cognitive theory of motivation that revolves around seeking explanations and formulating conceptions of the underlying causes of one's success or failure. It connects those conceptions to subsequent behavior, which ultimately governs our motivational disposition underlying future action. Within this theory are three constituents into which a person's attributions for causes of events can be classified: locus, stability, and controllability (Weiner 2000). Locus refers to causes that a person perceives to be inside or outside of the actor. Internal causes are those that lie inside the person, such as ability, effort, and mood. External causes are those that are outside the person, such as ease of the task or clear instructions. Stability refers to the duration of a cause. Stable causes, such as ability or aptitude, are those that are typically constant, whereas unstable causes, such as luck or chance, are those that are likely to change over time. Controllability describes the degree to which individuals perceive they are able to control the cause of failure or success. Causes

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such as effort and strategy are subject to volitional alteration, whereas others, such as luck or aptitude, cannot be willfully changed.

Largely influenced by Heider's (1958) *balanced states* and *attributions* and Rotter's (1966) *locus of control*, Weiner (1986) conceptualized the most comprehensive theory of attribution. Weiner (1986) contended that early attribution theorists confounded dimensions of causality. For instance, ability, in addition to being internal, is also perceived as relatively stable. On the other hand, luck, in addition to being external, is perceived as relatively unstable. Hence, ability and luck differ in both subjective stability and on the locus dimension of causality.

As a theory of causal explanations for success and failure, attribution research has found a natural context in the academic domain in recent decades. To survive this length of time, according to Weiner (2000), indicates that it not only has had strong empirical support but has been responsive to empirical challenges and has adapted to meet objections and problems. It is well documented that attributing academic outcomes to factors such as effort and the use of appropriate study strategies enhances academic achievement, while attributing success to luck or other uncontrollable factors tends to hinder academic achievement. In addition, perceiving oneself as low in ability has substantial negative effects on the grounds that low ability perception lowers individuals' expectations for future success (Weiner 1986; Graham and Folkes 1990; Weiner 2000; Pintrich and Schunk 2002). What is more, the uncontrollability aspect of ability causes individual to feel that they cannot alter the course of failure. Conversely, attributing failure to lack of effort is less debilitative since effort is changeable and under one's volitional control (Weiner 1986). Consequently, students who attributes failure on an examination to a lack of effort (e.g., they did not study enough the week before the exam) may be motivated to put forth additional effort when preparing for a subsequent exam. In contrast, students who ascribe failure on an examination to a lack of ability (i.e., they believe that they do not have adequate ability in the subject area) will be unlikely to exert effort in preparing for a subsequent examination.

The empirical attribution-related studies encompass many dimensions including, affective, cognitive, and metacognitive factors. These studies have consistently demonstrated that achievement is positively linked to learners' internal and controllable tendencies (e.g., Bempechat et al. (1996)1996; Williams et al. 2004). It also appears that learners' attributions are associated with self-efficacy (Hsieh and Kang 2010; Gaziel 2008), motivation (Anderson et al. 2005), and attitude (Smith 1997).

Likewise, more recently, the significance of learners' attributions in explaining behavior and achievement has attracted L2 (second language) researchers and educationalists. One of the early L2-related studies was conducted by Williams and Burden (1999), who sought to investigate the formation and variation of French language learners' attributions. Results showed that older learners tended to have more versatile and complicated attributions than their younger counterparts. In another study, Williams et al. (2004) analyzed different attributional patterns demonstrated by students who consider themselves normally successful in learning a language compared to those of students who perceive themselves as normally unsuccessful. They reported that effort, ability, strategy use, interest, the contribution of the teacher, and the nature of the learning task were the most commonly cited attributions for success, whereas rewards and luck had virtually no role.

Despite the bulk of research examining the linkage of learners' attributions with skills and factors conducive to effectiveness, teacher attributions, in particular English as a foreign language (EFL) teachers' attributions, remained an unchartered territory awaiting further research. Only recently have education scholars paid attention to teacher-related attributions. These sparse studies on teacher attributions (e.g., Ho 2004; Ding et al. 2008, 2010; Peacock

2010)—conducted within the current decade—studied teacher attributions of student behavior, in particular student misbehavior, by case studies, interviews, or slightly modified learner attribution questionnaires. For example, Ding et al. (2008) conducted interviews with 244 Chinese teachers (teaching diverse subjects, such as science, math, arts, and others) to assess teacher perceptions of student classroom misbehavior. The interviews focused on teachers' general concerns about classroom management, teachers' perceptions of the most frequent and troublesome types of misbehavior, and teachers' perceived needs for help with improving classroom management. The results indicated that the majority of Chinese teachers did not think that classroom management was a great concern. In contrast with prior studies in Western settings where talking out of turn has been reported as the biggest concern, their study reported that Chinese teachers perceived daydreaming to be the most frequent and troublesome misbehavior. In a related study, Ding et al. (2010) utilized the foregoing categories and correlated these attributions with teachers' coping strategies for classroom misbehavior. Results indicated that Chinese teachers first attributed misbehavior to student characteristics, such as being lazy, not making enough effort, and second to bad learning habits. A recent L2 teacher-related attribution study was carried out by Peacock (2010). Although the focus of his study was the attributions of EFL learners, he also examined teacher attributions as the secondary objective of the study to see if teacher attributions corresponded with those of students. In so doing, he did not employ any teacher-specific scale for examining teacher attributions; he utilized a student attribution scale constructed from student interviews and then slightly modified the statements to make it fit for teachers. As an example, the attribution "I paid attention in class" was altered to "They paid attention in class." The results demonstrated 15 statistically significant differences between teacher and student opinions about student attributions. As an illustration, teachers strongly attributed student success to effort, while students did not; teachers frequently attributed failure to anxiety plus a lack of confidence, while students did not.

In consideration of what was noted about the contributing role of teacher attributions in teaching practices as well as the existing gap in L2 teacher attribution research, the present study aims at exploring EFL teachers' attributions by examining their relationships with two rarely explored constructs in the domain of EFL teachers, i.e., teacher self-regulation and teacher burnout.

Self-regulation is defined as "self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals" (Zimmerman 2000, p. 14). In the realm of education, self-regulating skills have been found to be associated with student achievement and motivation (Zimmerman and Schunk 2001). According to Zimmerman et al. (1996), achieving self-regulation entails preparing students to assume the burden of learning for themselves and empowering them with the skills and abilities required for the demands of lifelong learning. Since research has indicated that students' use of self-regulatory behaviors is critical for academic achievement, it is plausible that teachers' use of self-regulating behaviors would positively influence teacher practices. Indeed, as Randi (2004) maintained, from a social cognitive perspective, effective teachers are self-regulated agents who can activate their beliefs to take appropriate actions leading to successful accomplishment of their professional tasks. Delfino et al. (2010) noted that learning to be self-regulated is crucial for teachers in order to deal with the complexity of the teaching role, which encompasses individual and social aspects. More recently, teacher self-regulation has found its way to EFL contexts. EFL teachers' self-regulation has been found to be associated with effective teaching (Monshi Toussi et al. 2011), teacher self-efficacy (Ghonsooly and Ghanizadeh 2013), and critical thinking (Ghanizadeh 2011).

Due to the compelling role of teacher self-regulation in the teaching and learning processes, it seems essential to explore the factors that may have some bearing on its develop-

ment. The researchers of the present study hypothesized a nexus between teacher attributions and their self-regulatory skills. They assumed this association based on existing self-regulation theories. According to Schraw et al. (2006), self-regulation encompasses three main components—cognition, metacognition, and motivation—which can be further subdivided into several subcomponents. The cognitive component includes simple strategies, problem solving, and critical thinking. The metacognitive component consists of two general components—knowledge of cognition and regulation of cognition, each including several subcomponents such as declarative, procedural, and conditional knowledge and planning, monitoring, and evaluation, respectively. Finally, the motivation component comprises two subcomponents: beliefs and perceptions. Accordingly, it can plausibly be hypothesized that teachers' beliefs and perceptions of the causes of success or failure represent a construct associated with teacher self-regulation. In addition, the hypothesized relationship between attributions and self-regulation can conceivably be explained from the perspective of developmental approaches to self-regulation. These approaches, though derived from various learning philosophies, share the standpoint that self-regulation can be conceptualized as a gradual transition from external control to internal and well-organized self-control (Schore 2000).

Another factor studied in the present study is teacher burnout. Burnout is defined as a state of physical, emotional, and mental exhaustion caused by long-term involvement in situations that are emotionally demanding or stressful (Jennett et al. 2003). It comes about when exhaustion replaces feeling energized, cynicism replaces being hopeful and involved, and ineffectiveness replaces feeling efficacious. According to Maslach (1976), a leading voice in teacher burnout research, teacher burnout is a multidimensional construct with three related constructs: emotional exhaustion, depersonalization, and diminished personal accomplishment. These three dimensions of burnout are generally used as the basis for any discussion on teacher burnout, along with the educator version of the Maslach burnout inventory (MBI) as the standard measurement tool (Maslach et al. 1996). Emotional exhaustion occurs when teachers feel their emotional resources being depleted and overextended by contact with other people, particularly their students. Depersonalization refers to impersonal and even dehumanized perception of others. Reduced personal accomplishment refers to a decline in professional competence and effectiveness (Bibou-Nakou et al. 1999). Factors that influence teacher burnout include intrapersonal, interpersonal, social, and organizational variables (Burk and Greenglass 1995; Papathanasiou and Hirsch 1997). From an intrapersonal perspective, there is an anecdotal evidence that teacher burnout is closely connected to beliefs and perceptions (Bibou-Nakou et al. 1999). Empirical studies have also demonstrated that teacher perceptions, attitudes, and attributions are important characteristics to consider in understanding teacher burnout. Vanheule and Verhaeghe (2004) contend that burnout is heavily influenced by teacher attitudes and expectations of achievable outcomes. Bibou-Nakou et al. (1999) examined the relation between teacher burnout and teachers' perceptions of school behavior problems. They found that external student-related ascriptions were associated with lower feelings of depersonalization, whereas internal student-related perceptions were linked to higher emotional exhaustion. Given the preceding theoretical and empirical assertions, the research reported here sets out to examine the relationship between teacher burnout and attributions among EFL teachers.

Taken together, the role of the constructs identified in the preceding discussion—teacher attributions, teacher burnout, and teacher self-regulation—in effective teaching has conclusively been demonstrated by education researchers (e.g., Ding et al. 2010; Vanheule and Verhaeghe 2004; Monshi Toussi et al. 2011). Nevertheless, these constructs were studied

in parallel, and to the researchers' best knowledge, no empirical study to date has examined these theoretically associated constructs within a single framework. Accordingly, it appears that some research should be carried out to examine how these motivational factors interact.

2 Purpose of study

The main purpose of this study is to delve into EFL teachers' attributions by investigating the role of teacher attributions in teacher burnout and teacher self-regulation. Viewed from a broader perspective, it seeks to examine and interpret the hypothesized relationships among several motivation-related attributes within a single framework. The findings are expected to pave the way to proposing a model for EFL teacher effectiveness.

As education scholars have posited, the beliefs teachers have about students and their causal attributions for student performance have significant implications for manifesting both teacher and student effectiveness (e.g., Rose and Medway 1981; Pajares 2002). It is also contended that studying these attributions should be a compelling priority for educationalists given that they are critical in teachers' perception of their own responsibility for students' performance as well as their subsequent attitude toward students (Tollefson 2000). In line with this, a number of prominent scholars in the domain of achievement motivation (e.g., Weiner 1986; Dörnyei 2005; Sharma 2005) have maintained that attribution theory is pivotal to the topic of achievement motivation. They believe that the classic question of *why* individuals achieve or not, which was answered originally in terms of feelings, is now viewed as a question of *how* individuals interpret events and attribute meaning to them (Sharma 2005).

The impetus behind conducting studies on the motivational characteristics of the language teacher, according to Dörnyei (2005), is twofold: first, the undeniable impact of teacher motivation on students' motivational disposition and, second, the exponential disillusionment of teachers in their profession resulting in growing resignation from their jobs (p. 115). Nevertheless, as noted by Dörnyei (2005), there appears to be a wide gap in research on teacher motivation, in particular on the motivation of language teachers.

Figure 1 depicts our hypothesized model proposed based on the theoretical contentions discussed earlier (Fig. 1). Structural equation modeling (SEM) was selected to study the involved causal relations. In our proposed model, teacher attributions constitute the core of the study, and its role in the other two variables is investigated. The attributions measured in this study are as follows: (1) TC: teaching competency (internal, stable, uncontrollable; (2) TE: teacher effort (internal, unstable, controllable); (3) SE: student effort (external, unstable, uncontrollable); and (4) IS: the institutional supervision (external, stable, uncontrollable). These attributions were set as the exogenous (independent) variables. Each attribution comprises ten items, and each item is considered as an observed variable. The influence of each of these attributions on teacher self-regulation (SR) and teacher burnout (BR) was examined. Thus, SR and BR constitute the endogenous (dependent) variables. As discussed in the next section, SR as measured in the present study comprises nine subscales and BR consists of three factors. In other words, SR and BR are the latent variables comprising a number of observed variables. In this figure, the latent variables are enclosed in squares and the observed variables in ovals; endogenous variables are displayed in darker colors, while exogenous variables are in brighter colors. The arrows indicate the direction of the relationship.

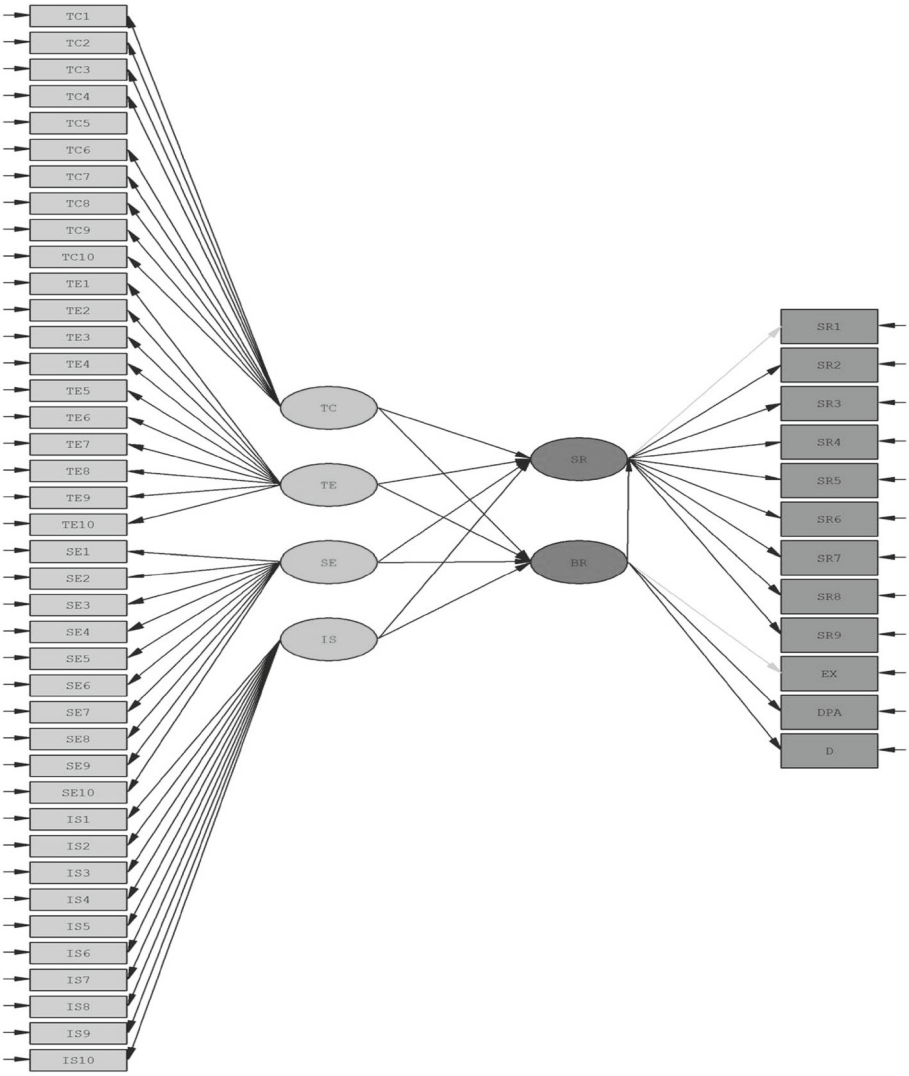

Fig. 1 Hypothetical model of teacher attributions, teacher burnout, and teacher self-regulation. *Note* Teacher attributions: *TC* teaching competence, *TE* teacher effort, *SE* student effort, *IS* institutional supervision, *SR* self-regulation, *BR* burnout

3 Method

3.1 Participants

The participants of the present study comprised 204 EFL teachers selected according to convenience sampling among EFL teachers teaching English in language institutes in Mashhad and Tehran, two cities in Iran. One of the researchers of the present study was teaching or had already taught at the institutes in Mashhad from which the participants were drawn (approximately 120 out of 204). As a colleague, she benefited from a cooperative attitude

on the part of the participants. Furthermore, a colleague of this researcher studying and teaching in Tehran kindly undertook data collection from the other participants. After a brief explanation of the purpose of the research, all participants received the *language teacher attribution scale, teacher burnout inventory*, and *teacher self-regulation scale* and then completed them at home and delivered then to the researchers at the next session. To receive reliable data, the researchers explained the purpose of completing the questionnaires and assured them that their responses would be kept confidential; moreover, the questionnaires were coded numerically and the participants were asked not to write their names on them. They were simply required to provide demographic information such as gender, age, teaching experience, and education level. As an incentive, the participants were given the opportunity to receive feedback about their performance on the instruments by presenting their codes.

The profile of the teachers is as follows. Their ages varied from 20 to 57 years old (mean = 33, standard deviation = 9.05), with 1–23 years of teaching experience (mean = 6.2, standard deviation = 3.20). Four participants did not specify their age, and two participants did not mention their teaching experience. Out of 204 teachers, 25 teachers were Ph.D. candidates, 95 held a master of arts (MA) degree or were MA students, and the rest had a bachelor of arts (BA) degree or were BA students. Eight participants did not specify their educational level. Female participates numbered 132, while 65 were male. Seven participants did not indicate their gender.

3.2 Instrumentation

A battery of three questionnaires was used in this study as follows.

3.2.1 English language teacher attribution scale (TAS)

To determine a teacher's attributions, the study employed the *English Language Teacher Attribution Scale (TAS)* designed and validated by Ghanizadeh and Ghonsooly (submitted). The scale comprised ten hypothetical situations, half of which described situations of success while the other half illustrated failure. It required the teachers to consider similar situations from their own teaching experiences and rate the statements on a six-point scale in light of their own beliefs, perceptions, and understanding of the cause of each situation. For each situation, four attributions were provided as follows: (1) teaching competency (TC) of teacher, (2) teacher effort (TE), (3) student effort (SE), and (4) institutional supervision (IS). This yielded a scale with 40 items (Appendix 1).

The causal explanations measured via the scale correspond to the three dimensions underlying Weiner's (1986) attribution theory, i.e., locus, stability, and controllability, as indicated in Table 1.

The validation process—conducted via SEM and confirmatory factor analysis (CFA)—substantiated the validity of the scale ($\chi^2 = 139$, $\chi^2/df = 2.9$, CFI = 0.96, NFI = 0.95, and RMSEA = .06). The cross-validation stage, aimed at further validation of the scale, consisted of the concurrent administration of the scale and another instrument assessing an inextricably associated attribute, i.e., *Teachers' Sense of Efficacy Scale*. The results of the SEM analysis substantiated the concurrent validity of the scale. It was revealed that internal attributions positively predicted teachers' self-efficacy beliefs. The total Cronbach's alpha estimate of the scale was found to be 0.88. The Cronbach's alpha estimates for each factor ranged from 0.86 to 0.92. (TC = 0.86, TE = 0.87, SE = 0.92, IS = 0.87). In the present

Table 1 Attribution explanations along with corresponding dimensions

Explanations	Dimensions		
	Locus	Stability	Controllability
Teacher competence (TC)	Internal	Stable	Uncontrollable (ISU)
Teacher effort (TE)	Internal	Unstable	Controllable (IUC)
Student effort (SE)	External	Unstable	Uncontrollable (EUU)
Institutional supervision (IS)	External	Stable	Uncontrollable (ESU)

Table 2 Nine factors of TSRS along with corresponding descriptions

Factor	Description
1. Goal setting	Process of establishing objectives to guide actions during instruction
2. Intrinsic interest	Beliefs concerning personal interest in the profession
3. Performance goal orientation	Goals to do better than others as a teacher and to have others believe in one's competence
4. Mastery goal orientation	Goals to improve competence in teaching and master teaching tasks against self-set standards
5. Self-instruction	Process of monitoring one's own performance in teaching and making instructional changes when necessary
6. Emotional control	Strategies for controlling and regulating affect, mood, and emotions
7. Self-evaluation	Process of evaluating current teaching performance by comparing it with previously established goals and past performance
8. Self-reaction	Affective responses following a teaching performance
9. Help seeking	Getting help from others to resolve problems encountered in teaching process

study, the reliability of each factor calculated via Cronbach's alpha was as follows: TC = 0.83, TE = 0.82, SE = 0.87, IS = 0.80.

3.2.2 Teacher self-regulation scale (TSRS)

To assess teacher self-regulation, the researcher utilized the *Teacher Self-Regulation Scale (TSRS)* designed and validated by Yesim et al. (2009). It was developed based on Zimmerman's self-regulation model and semistructured interviews with preservice and in-service teachers and consists of 40 items on a six-point Likert scale ranging from strongly disagree to strongly agree. One item was also included as a filler item that was not used in further analyses (Appendix 2). CFA yielded the following nine factors (Table 2).

Scores on the 40 items were averaged to form an overall indicator of the teachers' self-regulation, defined by Yesim et al. (2009) as "teachers' own self-regulated strategies, which they use during lessons" (p. 354). In this study, the total reliability of the scale, estimated via Cronbach's alpha, was 0.81.

3.2.3 Maslach burnout inventory

The *Maslach burnout inventory* is the most frequently used tool for assessing burnout. The educator version of the Maslach burnout inventory (MBI-ES) developed by Maslach

Table 3 Subscales of MBI-ES along with corresponding descriptions

Subscale	Definition	Alpha
Emotional exhaustion	Teachers' feeling they have little left to give, at a psychological level, to their work	0.76
Depersonalization	Teachers' development of negative and cynical attitudes toward students	0.63
Reduced personal accomplishment	Teachers' evaluation of themselves and their accomplishments negatively	0.73

Table 4 Descriptive statistics of teacher attributions, self-regulation and burnout

	N	Minimum	Maximum	Mean	SD
TC	204	19.00	56.00	41.11	8.76
TE	204	21.00	57.00	38.50	8.39
SE	204	22.00	60.00	37.42	8.75
IS	204	11.00	50.00	32.92	7.31
Self-regulation	204	120.00	240.00	179.20	22.67
Burnout	204	17.00	105.00	66.41	19.15

et al. (1996) was utilized in the present study to measure teacher burnout (Appendix 3). The scale comprises 22 self-report items measured on three subscales (Table 3).

The frequency of burnout symptoms is measured on a seven-point rating scale, ranging from never (0) to every day (6). Via this inventory, burnout is defined as the presence of high scores on the emotional exhaustion and depersonalization components but the presence of low scores on the personal accomplishment component. The inventory has high reliability and validity indices (Hastings and Bham 2003). The reliability coefficients for emotional exhaustion, depersonalization, and personal accomplishment are 0.76, 0.63, and 0.73, respectively (Maslach et al. 1996). In this study, the total reliability of the questionnaire was 0.71.

4 Results

Table 4 presents descriptive statistics of teacher attributions, teacher self-regulation, and teacher burnout.

To examine the structural relations, the proposed model was tested using the LISREL 8.50 statistical package. A number of fit indices were examined to evaluate the model fit: the χ^2 magnitude, which should not be significant, the Normed Fit Index (NFI), and the Comparative Fit Index (CFI) with a cut value greater than 0.90 or 0.95, and a root-mean-square error of approximation (RMSEA) of around 0.06 (Schreiber et al. 2006). The acceptable criteria for fit indices are presented in Table 5.

As demonstrated by Fig. 2, the χ^2 value (115.56), the χ^2/df ratio (1.58), and the RMSEA (.072) all reached the acceptable fit thresholds. The two fit indices that did not meet the acceptable fit thresholds (GFI = 0.86 and NFI = 0.88) were slightly below those thresholds. According to Tseng et al. (2006), in SEM it is normal for some indices not to conform to the

Table 5 Acceptable criteria for fit indices

Chi-square (χ^2)	Not significant
χ^2/df ratio	≤2 or 3
RMSEA	<0.06 or 0.08
CFI	≥0.90 or 95 %
NFI	≥0.90 or 95 %

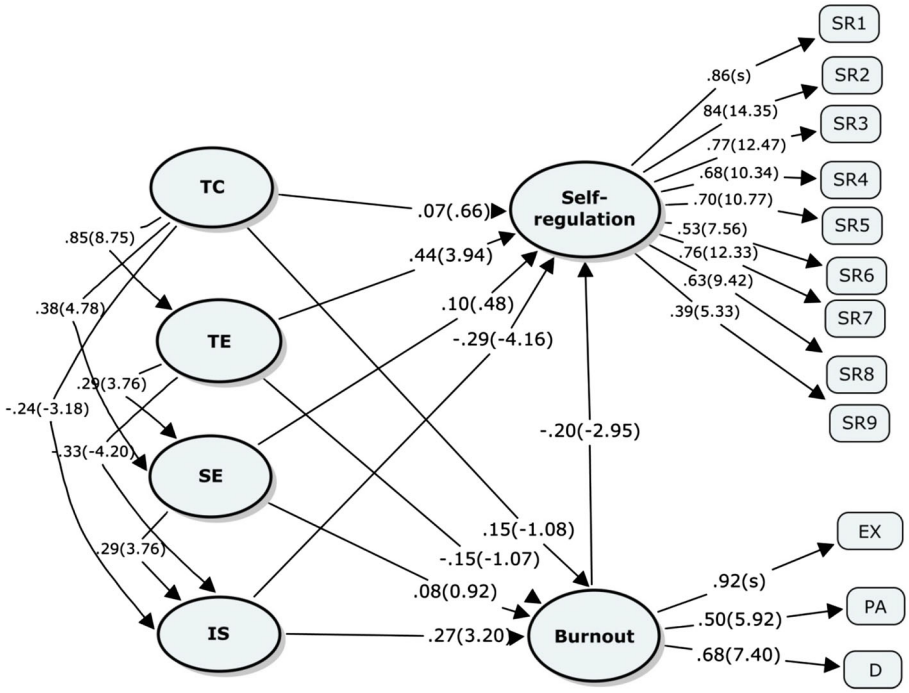

Fig. 2 Schematic representation of relationships among teacher attributions, teacher self-regulation, and teacher burnout. *Note TC* teaching competency, *TE* teacher effort, *SE* student effort, *IS* institutional supervision. (χ^2=115.56, df=73, p=.0.000, RMSEA=.072, GFI=.86, NFI=.88)

majority trend. Therefore, it can be concluded that the proposed model had a good overall fit with the empirical data.

To check the strengths of the causal relationships among the variables, the t values and standardized estimates were examined. As indicated in Fig. 2, two estimates are displayed on the paths. The first one is the standardized coefficient (β), which explains the predictive power of the independent variable and presents an easily grasped picture of effect size. The closer the magnitude is to 1.0, the higher the correlation and the greater the predictive power of the variable. The second measure is the t value (t); if $t > 2$ or $t < -2$, we call the result statistically significant. The results demonstrate that among teacher attributions, TE is a positive and significant predictor of teacher self-regulation ($\beta = 0.44, t = 3.94$) and IS is a negative and significant predictor of teacher self-regulation ($\beta = -0.29, t = -4.16$). Although the other two attributions had positive effects on teacher attributions (TC: $\beta = 0.07, t = -0.66$; SE: $\beta = 0.10, t = 0.48$), their magnitudes were not strong enough to reach significant levels.

Table 6 Correlation coefficients among teacher attributions, teacher self-regulation, and teacher burnout

	1	2	3	4	5	6
1. TC	1.00					
2. TE	0.846**	1.00				
3. SE	0.402**	0.283**	1.00			
4. IS	−0.202**	−0.327**	0.268**	1.00		
5. Self-regulation	0.554**	0.649**	0.184	−0.402**	1.00	
6. Burnout	−0.241**	−0.257**	−0.006	0.312**	−0.296**	1.00

** Correlation is significant at a level of 0.05

Table 7 Results of correlation between subscales of teacher self-regulation and TE

	TE
1. Goal setting	0.61**
2. Intrinsic interest	0.523**
3. Performance goal orientation	0.482**
4. Mastery goal orientation	0.445**
5. Self-instruction	0.488**
6. Emotional control	0.391**
7. Self-evaluation	0.424**
8. Self-reaction	0.411**
9. Help seeking	0.364**

** Correlation is significant at a level of 0.05

On the other hand, of all teacher attributions only IS made an independent contribution to the prediction of teacher burnout ($\beta = -0.27, t = -3.20$). It was also revealed that teacher burnout had a negative significant impact on teacher self-regulation ($\beta = -0.20$, $t = -2.75$).

The correlation coefficients among teacher attributions, teacher self-regulation, and teacher burnout are presented in Table 6. As indicated in the table, teacher self-regulation has the highest correlations with TE and TC, respectively. No significant correlation was found between teacher self-regulation and SE. A negative correlation was observed between teacher attribution to the IS and teachers' level of self-regulation. Teacher burnout is negatively and significantly associated with TC and TE but positively associated with IS. Teacher self-regulation has a significant but negative relationship with teacher burnout.

Since LISREL is not capable of estimating the relationships between exogenous variables and the observed components of the endogenous variables, SPSS was run to investigate the relationships between teacher attributions and the nine components that comprise teacher self-regulation. The yielded results for TE are as follows: TE and (1) goal setting ($r = 0.61, p < 0.05$), (2) intrinsic interest ($r = 0.523, p < 0.05$), (3) performance goal orientation ($r = 0.482, p < 0.05$), (4) mastery goal orientation ($r = 0.445, p < 0.05$), (5) self-instruction ($r = 0.488, p < 0.05$), (6) emotional control ($r = 0.391, p < 0.05$), (7) self-evaluation ($r = 0.424, p < 0.05$), (8) self-reaction ($r = 0.411, p < 0.05$), and (9) help seeking ($r = 0.364, p < 0.05$) (Table 7).

Table 8 Results of correlation between subscales of teacher burnout and IS

	IS
1. Emotional exhaustion	0.349**
2. Personal accomplishment	−0.158**
3. Depersonalization	0.254**

** Correlation is significant at a level of 0.05

To examine the relationship between the three components of teacher burnout and IS, a correlation was applied to the study. The results were as follows: IS and (1) emotional exhaustion ($r = 0.349, p < 0.05$), (2) personal accomplishment ($r = -0.158, p < 0.05$), and (3) depersonalization ($r = 0.254, p < 0.05$) (Table 8).

5 Discussion

The present study aimed at investigating the role of teacher attributions in teacher burnout and teacher self-regulation. The results demonstrated that among teacher attributions, TE predicted teacher self-regulation positively and significantly and IS predicted teacher self-regulation negatively and significantly. In other words, teachers who believed that the causes of success and failure are within themselves, under their control, and prone to change tend to be more self-regulated. This corroborates models and theories of self-regulation development. According to Zimmerman's (2000) self-regulated learning theory, self-regulation develops across four levels, two of which—self-controlled and self-regulated levels—derive from internal factors. It has also been contended that self-regulated learners view knowledge acquisition as a controllable and internal process and accept greater responsibility for their achievement outcomes (Zimmerman and Kitsantas 1999). Furthermore, as demonstrated in the proceeding sections, various approaches to the development of self-regulation contend that self-regulation can be conceptualized as a gradual transition from external control to internal and well-organized self-control (Schore 2000). Skinner and Greene (2008) argued that control beliefs have two main functions in shaping control processes: (1) when a person is preparing to take on an activity, expectations of control have a *regulatory* function in that they shape how people approach and engage in the task; and (2) following an action-outcome episode, they have an *interpretative* function, in that they help translate the meaning of an experience for future control. So it seems reasonable to assume that teachers with internal and controllable attributions perceive themselves as being more responsible for students' learning; thus, they deem themselves as having an urgent need to plan and adjust their goals and actions to achieve desired outcomes.

Besides theoretical contentions, the aforementioned finding is in line with previous empirical studies. It has been demonstrated that teachers who believe that they are competent to effectively influence student achievement and performance are considered to have internal control, whereas teachers who believe that the environment has more influence on student learning than their own teaching abilities are considered to have external control (Murray and Staebler 1974; Rose and Medway 1981; Findley and Cooper 1983). Identical results have been reported in L2 contexts. In a recent study, Monshi Toussi and Ghanizadeh (2012) found a significant relationship between EFL teachers' self-regulation and locus of control. It was found that approximately 48 % of the variation in teacher self-regulation can be explained by taking teachers' internal locus of

control into account. Thus, based on existing theoretical contentions as well as empirical research, it is reasonable to believe that teachers who routinely exert effort to devise appropriate instructional materials and motivate students to do better are compelled to regularly monitor and regulate their actions and thoughts, in comparison with teachers who believe student achievement is attributable to external factors that are not under their control.

The results of correlation analysis indicated that among the components of self-regulation, *goal-setting* and *intrinsic interest* have the highest correlations with TE. With the significant correlation to goal setting—the process of establishing objectives to guide actions during instruction—it would appear that teachers who tend to explain success and failure events by internal factors are apt to set realistic goals for their teaching. Previous studies also pointed to the association between an internal locus of control and goal setting. For instance, Pintrich and DeGroot (1990) indicated that individuals who have clearly identified goals try to acquire knowledge to learn and increase their competence for self-development and believe that effort is the cause of success or failure. These individuals were also found to take more responsibility for their success or failure (Seifert 1995). In the domain of teachers, Bulus (2011) reported that prospective teachers' high level of internal ascriptions play a role in their goal setting as well as in their students' academic achievement.

The relationship between TE and *intrinsic interest*—beliefs concerning personal interest in the profession—implies that teachers who attribute success and failure to internal, controllable, and unstable factors exhibit higher levels of personal interest in their profession. This can plausibly be interpreted from an epistemological view, given that both of these constructs are intrinsically oriented: intrinsic interest is an intrinsically laden value or motive attached to task completion; similarly, TE is derived from people's internal judgments and perceptions. This finding is also consistent with the notion that individuals engage in attributional inference to judge their intrinsic motivation (Lindzey et al. 1998). Deci and Ryan (2000) believed that the extent to which individuals perceive events as being the result of their actions and under their control is partly associated with their intrinsic motivation, or sense of choosing to engage in that activity. In a similar vein, Elliot and Dweck (2005) noted that those with internal attributional patterns often use intrinsic motivation, which is person centered and comes from within an individual.

The SEM analysis also explored the association of teacher attribution and burnout. The researchers of the present study set out to investigate this relationship based on previous studies verifying the importance of teachers' personal perceptions and dispositions in accounting for their burnout level (Byrne 1991; Lunenberg and Cadavid 1992; Skaalvik and Skaalvik 2010). Vanheule and Verhaeghe (2004) contended that burnout is heavily influenced by teachers' attitudes and expectations of achievable outcomes. The results revealed that of all teacher attributions only IS made an independent contribution to the prediction of teacher burnout. In other words, teachers who attribute their success and failure to external, uncontrollable, and stable factors are more likely to face physical, emotional, and mental exhaustion. The results of correlation indicated that IS had positive correlations with emotional exhaustion and depersonalization and was negatively correlated with personal accomplishment. Contemplating the constituent constructs of teacher burnout and reconsidering the association of effectiveness with internal and controllable attributions, we may plausibly conclude that reduced achievement, as a construct of burnout, can be the result of external, uncontrollable attributions. This may also imply that teachers with external attributions that are less controllable and more stable are more susceptible to developing negative attitudes toward students and their profession.

This finding can also be explained from the standpoint of the *learned helplessness* syndrome, which refers to a state of depression or loss of hope that accompanies a belief that failure is inevitable irrespective of how hard you strive and when you have perceptions of uncontrollability that make you feel powerless to alter or modify a situation (Sharma 2005). Education scholars posit that the learned helplessness phenomenon happens when one repeatedly attributes failure to uncontrollable, stable causes, and this in turn contributes to feelings of despair, inefficiency, and frustration (Dweck 2006).

This finding, nevertheless, contradicts Bibou-Nakou et al.'s (1999) research indicating a negative relationship between teachers' external ascriptions and depersonalization and a positive relationship between internal attributions and emotional exhaustion. The finding of the present study is also inconsistent with a recent study conducted by Manassero et al. (2006) and aimed at analyzing the relationships between the dimensions of burnout and stress causal attributions. They reported that the more stable, global, and internal stress causes are perceived to be, the higher the level of burnout. They also found that the controllability dimension corresponded significantly and negatively to emotional exhaustion and depersonalization and positively with personal accomplishment. The inconsistency between the findings of the present research and the two previously mentioned studies can be attributed to the fact that in these two studies teacher attributions to negative situations—student misbehavior in the former and causes of stress in the latter—were the focus of study, whereas in the present study positive and negative events were studied. The inclusion of success events in the present study is likely to weigh the results in favor of internal causes.

In our proposed model, it was also hypothesized that burnout plays a role in teachers' self-regulation. The results confirmed this hypothesis and indicated that teacher burnout is negatively and significantly associated with self-regulation. This suggests that teachers' feelings of exhaustion, ineffectiveness, and cynicism tend to discourage teachers from proactively devising goals and actions to achieve desired outcomes. This finding is not unexpected given that one of the determinants of self-regulation is the motivation component (Schraw et al. 2006). This in turn highlights the determining role of motivation-associated constructs in the development of self-regulation skills. Accordingly, burnout, which is typically regarded as a negative motivational force among educationalists (Schaufeli and Salanova 2007; Leung and Lee 2006), is likely to hinder teachers' motivation in adapting to changing situations. On the other hand and as indicated earlier, the detrimental effects of burnout encompass various intraindividual and interindividual domains. With the aim of unraveling the individual consequences of burnout, we came across a number of psychological and behavioral changes influencing effort exertion on the job. For instance, Wisniewski and Gargiulo (1997) reported that teachers who experience burnout are less task-oriented, attend less to instructional tasks, and are less motivated to set personal goals. It appears that all these effort-related effects fall adequately within one's capacity to generate self-regulated strategies.

6 Conclusion

Taken together, the findings of the present study put forward the prospect of developing a multidimensional understanding of teacher motivation and, accordingly, effectiveness in light of three motivation-related constructs. As Weiner (2000) contended, attribution theory must stand at the core of achievement motivation theories given that the subjective reasons

to which we attribute our past successes and failures largely shape our motivational disposition underlying future action. It has also been posited that the beliefs teachers have about students and their causal attributions for student performance have significant implications for manifesting teacher effectiveness (e.g., Rose and Medway 1981; Pajares 2002).

Our proposed model highlighted the role of internal, controllable, and unstable attributions in enhancing teachers' self-regulation skills and reducing teachers' level of burnout. Given that both of these constructs are influential in effective teaching (e.g., Delfino et al. 2010; Monshi Toussi et al. 2011; Evers et al. 2002; Skaalvik and Skaalvik 2010), it can be concluded that these attributions are conducive to teaching effectiveness. This in turn can have important implications for SLA research in general and EFL teacher education in particular. It should, in the first place, inform teachers of their debilitative or unrealistic attributions. This information in principle can incite them to alter these attributions to more positive and realistic ones that are in turn expected to facilitate the enhancement of their motivation as well as their effectiveness. In addition, teacher educators and authorities are urged to equip teachers with teacher education and preparation programs focusing on teachers' perceptions of their effectiveness and student achievement. They should also develop reattribution training courses to help teachers identify unrealistic attributions and change them to those that will lead to increased motivation and, subsequently, greater success. These programs are expected to pinpoint an effective path for raising teachers' intrinsic interest and enhancing their goal setting as well as their personal accomplishments.

The present study is limited in a number of ways. First, due to feasibility considerations, the participants were chosen according to convenience sampling. Second, the participants of the present study comprised EFL teachers in language institutes. Thus, the study should be replicated with samples from official schools and centers in different parts of the country and use procedures that ensure a higher degree of randomization and, ultimately, more generalizability. This can also set the groundwork for a cross comparison of findings. Third, in this research, the variables in question were assessed via questionnaires. The use of qualitative approaches such as interviews, case studies, and observations to investigate these constructs would allow prospective researchers to determine not only whether potential interrelationships exist among the constructs but also the processes by which these constructs develop. Fourth, in the present study, teachers' demographic variables were not controlled. This was largely due to feasibility considerations; the participants were selected from teachers of English at language institutes. If the sample had been restricted to any specific age or level group, the sample size would not have sufficed for a SEM analysis.

Appendices

Appendix 1: Teacher attribution scale

Directions: Please read the following situations. Consider similar situations from your own teaching experiences and rate the statements on a 6-point scale in the light of your own beliefs, perceptions and understanding of the cause of each situation. Your answers are confidential. Thanks in advance for your cooperation.

Years of teaching experience: Place of teaching:

Major: Degree: Age: Gender:

Situation 1.

Suppose the students in your class performed better on a standardized achievement test compared to other students in your institute. How would you rate the following causes of this event?

1) *your high competence as a teacher* (You are a competent teacher.)

1❑ strongly disagree 2❑ disagree 3❑ somehow disagree 4❑ somehow agree 5❑ agree 6❑ strongly agree

2) *your high effort* (You tried hard to encourage the students to do better or because you exerted enough effort to devise appropriate instructional materials.)

1❑ 2❑ 3❑ 4❑ 5❑ 6❑

3) *your students high effort* (The students in your class tried harder than students in other classes.)

1❑ 2❑ 3❑ 4❑ 5❑ 6❑

4) *the institution proper supervision* (The institute where you teach has properly supervised the institution toward the achievement of instructional aims.)

1❑ 2❑ 3❑ 4❑ 5❑ 6❑

Situation 2.

If your classroom atmosphere is interactive and cooperative, and if your students are actively involved in class activities, discussions, and decision-making, this is probably because of:

1) *your high competence as a teacher*	1❑	2❑	3❑	4❑	5❑	6❑
2) *your high effort*	1❑	2❑	3❑	4❑	5❑	6❑
3 *your students high effort*	1❑	2❑	3❑	4❑	5❑	6❑
4) *the institution proper supervision*	1❑	2❑	3❑	4❑	5❑	6❑

Situation 3.

Suppose half of a dozen of your students who are continually disruptive or negligent get calm and attentive at the end of the semester. How would you rate the following reasons for this event?

1) *your high competence as a teacher*	1❑	2❑	3❑	4❑	5❑	6❑
2) *your high effort*	1❑	2❑	3❑	4❑	5❑	6❑
3) *your students high effort*	1❑	2❑	3❑	4❑	5❑	6❑
4) *the institution proper supervision*	1❑	2❑	3❑	4❑	5❑	6❑

Situation 4.

When your students believe that they can do well in schoolwork, and when you can alter your students' debilitative attitudes toward language learning to more positives ones, it is more likely due to:

1) *your high competence as a teacher*	1❑	2❑	3❑	4❑	5❑	6❑

2) *your high effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

3) *your students high effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

4) *the institution proper supervision* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

Situation 5.

You have a feeling of professional confidence that you are making a difference in the lives of your students by empowering them and equipping them with higher-order thinking and learning skills. Please rate the role of each of the following causes involved in this situation:

1) *your high competence as a teacher* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

2) *your high effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

3) *your students high effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

4) *the institution proper supervision* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

Situation 6.

Imagine a number of your students are not getting much from your class. As a result, their performance appears to be continually deteriorating. How would you rate the following causes of this situation?

1) *your low competence as a teacher* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

2) *your low effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

3) *your students low effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

4) *the institution improper supervision* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

Situation 7.

Imagine, in a class, you cannot get the students who are not interested in the lesson to follow classroom rules. So they continually misbehave or sit sullenly. How would you rate the following reasons for this scenario?

1) *your low competence as a teacher* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

2) *your low effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

3) *your students low effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

4) *the institution improper supervision* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

Situation 8.

When the students in your class appear not to be motivated enough to participate in class activities and you fail to establish rapport between you and your students and among students, it is probably due to:

1) *your low competence as a teacher* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

2) *your low effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

3) *your students low effort* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

4) *the institution improper supervision* 1❑ 2❑ 3❑ 4❑ 5❑ 6❑

Situation 9.

Suppose in end-of-term teacher evaluation report, you find yourself rated relatively below in relation to other colleagues or with reference to your previous ratings. Please rate the role of each of the following causes involved in this situation:

1) *your low competence as a teacher*	1❑	2❑	3❑	4❑	5❑	6❑
2) *your low effort*	1❑	2❑	3❑	4❑	5❑	6❑
3) *your students low effort*	1❑	2❑	3❑	4❑	5❑	6❑
4) *the institution improper supervision*	1❑	2❑	3❑	4❑	5❑	6❑

Situation 10.

Suppose half a dozen of your students appear to resist using the second language in the class and are reluctant or even hostile to the topics pertinent to the target culture. As a result, their language proficiency and their intercultural competency do not seem to progress at all. How would you rate the following reasons involved in this scenario?

1) *your low competence as a teacher*	1❑	2❑	3❑	4❑	5❑	6❑
2) *your low effort*	1❑	2❑	3❑	4❑	5❑	6❑
3) *your students low effort*	1❑	2❑	3❑	4❑	5❑	6❑
4) *the institution improper supervision*	1❑	2❑	3❑	4❑	5❑	6❑

Appendix 2: Teacher self-regulation scale (TSRS)

Directions: this questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their teaching activities. Please indicate your opinion about each of the statements below. Your answers are confidential. **(1=strongly disagree. 2= disagree. 3= somewhat disagree. 4= somewhat agree. 5= agree. 6= strongly agree.)**	**1**	**2**	**3**	**4**	**5**	**6**
1. I prepare classes aligned with curriculum.						
2. While preparing classes, I identify goals to be achieved by students.						
3. I direct myself to use time effectively.						
4. I appreciate myself when everything goes according to the plan.						
5. Realizing that I am successful encourages me to study more.						
6. I stay calm when faced with a problem.						
7. While preparing classes, I decide on the instructional strategy appropriate for the topic.						
8. When a problem occurs in class, I first try to calm down.						
9. If the strategies I used do not work, I utilize alternative strategies.						
10. I get upset when I am negatively evaluated in my profession.						
11. While preparing classes, I take student characteristics (e.g. Prior knowledge, developmental level) into consideration.						
12. I learn from the mistakes I made in class.						
13. When I feel bad in a situation, I try to think positive.						
14. I ask for help from my colleagues when I encounter problems that I cannot solve.						
15. I pay attention to students' facial expressions during instruction.						
16. At the end of instruction, I try to determine whether I have met my goals or not.						
17. While preparing classes, I get help from my colleagues when needed.						
18. Realizing that I am not successful worries me.						
19. Before instruction, I decide on how to assess my students.						
20. During instruction, I adapt my instructional strategies based on students' needs.						
21. I discuss my positive and negative experiences with my colleagues after instruction.						
22. While preparing classes, I take available resources into consideration.						
23. I use student feedback to improve my instruction.						
24. While I am preparing classes, I take students' needs into account.						
25. When I encounter a problem, I take a deep breath.						
26. While evaluating myself at the end of instruction, I compare my performance against previous years.						
27. I do not panic when a problem occurs during instruction.						
Why is it important to be a successful teacher? 28. to get promotion						
29. to improve student learning						
30. to satisfy myself professionally						
31. to get appreciation from parents						
32. to be loved by my students						
33. to strengthen my authority						
34. to develop myself						
35. to please school principals						
36. to better prepare my students for life						
37. I like teaching profession.						
38. It makes me happy to see my students learn.						
39. I am proud of working as a teacher.						
40. I have been interested in teaching profession since my childhood.						
41. I attend classes enthusiastically.						

Appendix 3: Burnout inventory

Instruction: Please indicate your answer to each item by choosing the appropriate rate on the seven-point scale below. (**0** = never, **1** = a few times, **2** = once a month or less, **3** = a few times a month, **4** = once a week, **5** = a few times a week, **6** = every day).

Items	0	1	2	3	4	5	6
1. I feel emotionally drained from my work.							
2. I feel I treat some students as if they were impersonal objects.							
3. I can easily understand how my students feel about things.							
4. I feel used up at the end of the workday.							
5. I've become more callous toward people since I took this job.							
6. I deal very effectively with the problems of my students.							
7. I feel I'm positively influencing other people's lives through my work.							
8. I worry that this job is hardening me emotionally.							
9. I feel fatigued when I get up in the morning and have to face another day on the job.							
10 Working with people all day is really a strain for me.							
11. I don't really care what happens to some students.							
12. I feel very energetic.							
13. I can easily create a relaxed atmosphere with my students.							
14. I feel students blame me for some of their problems.							
15. I feel burned out from my work.							
16. I feel frustrated by my job.							
17. I feel exhilarated after working closely with my students.							
18. I feel I'm working too hard on my job.							
19. I have accomplished many worthwhile things in this job.							
20. Working with people directly puts too much stress on me.							
21. In my work, I deal with emotional problems very calmly.							
22. I feel like I'm at the end of my rope.							

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