

Research article

Understanding the influencing factors of foreign language teachers' work engagement: A meta-analytic structural equation model

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ABSTRACT

The work engagement of foreign language teachers enhances both their performance and the quality of instruction. Recent studies have highlighted the pivotal roles of emotional intelligence, job burnout, and self-efficacy in fostering teachers' work engagement. Despite this, the complex interactions between these factors in the context of foreign language teaching remain underexplored. This study conducts a meta-analytic review to examine the connections among work engagement, emotional intelligence, burnout, and self-efficacy among foreign language educators. Utilizing a chain mediation model, it probes the mechanism through which emotional intelligence impacts work engagement, based on an analysis of 49 scholarly articles. Results from the meta-analysis robustly validate the hypothesized model. Specifically, emotional intelligence contributes to work engagement via four distinct routes: direct mediation through self-efficacy, direct mediation through job burnout, and chain mediation involving self-efficacy and job burnout. Of the evaluated factors, emotional intelligence had the most significant impact on enhancing work engagement. Implications of these findings may facilitate the training and ongoing professional development of foreign language teachers.

1. Introduction

The recent progress in humanism and positive psychology has led to a transformative shift in international educational psychology. While scholarly focus was initially on the negative emotions experienced by educational professionals, this has now expanded to a balanced interest in both teachers' and students' positive and negative emotions. As a result, work engagement among teachers is recognized as a beneficial individual trait and has attracted attention from scholars (e.g., Ref. [1,2]). Defined by Schaufeli et al. [3] as a positive, satisfying, work-related mental condition marked by energy, commitment, and concentration, work engagement may noticeably improve job satisfaction, organizational loyalty, teaching quality, and overall effectiveness among educators. Engaged educators demonstrate elevated motivation and dedication towards their roles, as evidenced by studies examining the positive impacts of work engagement [4–8].

Research on foreign language teacher education has predominantly concentrated on the detrimental consequences of burnout on teachers' performance and efficacy [9–11]. However, this focus on negative emotions has created a research void concerning the beneficial effects of work engagement for foreign language educators. Insights into this overlooked area are recently offered by

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Faskhodi and Siyyari [12] and Greenier et al. [13], who highlight the need for greater attention to the positive dimensions of teacher engagement.

The work engagement of foreign language teachers enhances both their performance and the quality of instruction. Highly engaged teachers demonstrate significant commitment, characterized by a strong sense of professional belonging [14,15], and increasingly exhibit resilience to work-related challenges [16,17]. Identifying the determinants of work engagement among these educators is crucial for refining teacher training initiatives and fostering an improved educational climate. As such, it is imperative to explore the factors that impact work engagement in foreign language educators and shed light on their effects. This study aims to adopt an integrative research strategy by incorporating findings from current literature via meta-analytic structural equation modelling (MASEM). The goal is to uncover the mechanism through which various factors influence work engagement, with a particular focus on the self-efficacy, job burnout, and emotional intelligence of foreign language teachers.

2. Literature review

2.1. Work engagement

Teachers' work engagement plays a pivotal role in their educational delivery and professional growth. It serves as a crucial indicator for assessing teacher effectiveness and ultimately influence the trajectory of their careers [13,18,19]. Klassen et al. [7] highlighted three key aspects evidencing the critical role of teacher engagement: (1) highly engaged teachers can enhance teaching effectiveness and students' learning outcomes; (2) highly engaged teachers can better overcome work stress, occupational burnout, and psychological health problems; (3) highly engaged teachers work more proactively and efficiently, make more contributions to the school, and are more willing to undertake additional responsibilities.

Initial research into teacher engagement primarily viewed the concept through the lens of general work engagement. Kahn [20] first proposed the notion of work engagement, describing it as the harmonious relationship between an individual's sense of self and their role within an organization. Christian et al. [5] describe work engagement as a complex concept that involves individuals' self-directed application of resources to fulfil job demands. This engagement is manifested in actions, feelings, and thoughts that are part of a teacher's professional duties. Schaufeli et al. [3] articulated work engagement as a positive, enduring affective-cognitive condition experienced by workers, characterized by three key components: vigor, dedication, and absorption, which respectively correspond to the behavioral, emotional, and cognitive aspects of engagement. In particular, vigor refers to the passion and effort individuals exhibit in their work, thus is related to the behavioral dimension. Dedication refers to the positive energy individuals feel and the sense of pride from achieving personal values, corresponding to the emotional dimension. Finally, absorption represents the investment of cognitive resources and the maintenance of attention in work, linked with the cognitive dimension [21]. Based on this conceptual foundation, Schaufeli et al. [3] formulated the Utrecht Work Engagement Scale (UWES), which has emerged as the predominant instrument for assessing work engagement. This scale is extensively adopted among a diverse range of professions, notably teachers, for its effectiveness in measuring engagement.

Klassen et al. [22] further acknowledged the interactive and communal aspects of the teaching profession. The authors conceptualized teacher work engagement as the eagerness of educators to independently invest their behavioral, emotional, and cognitive energies during participation in teaching-related tasks. They noted the failure of UWES, crafted initially to assess work engagement within the corporate sector, to accurately capture the unique work environment of teachers, thus questioning the validity of the scale for directly evaluating teacher work engagement. They pointed out that teaching is unique because teachers spend considerable time and energy interacting and communicating with their students, leading to lasting and meaningful relationships uncommon in other professions. Good teacher-student relationships can promote student engagement and learning outcomes, improve teachers' well-being, and reduce emotional stress and burnout. Consequently, they posited that the essence of teaching lies in the interpersonal engagement between students and teachers, underscoring the necessity of incorporating a social aspect into the assessment of teacher work engagement alongside the behavioral, cognitive, and emotional facets. Klassen et al. [22] went on to create the Engaged Teacher Scale (ETS), a tailored instrument for gauging teacher engagement that encompasses four dimensions: behavioral, cognitive, emotional, and social. Here, cognitive and behavioral engagement refers to the dedication of teachers to their professional tasks, emotional engagement to their positive feelings towards their job, and social engagement to the connections and attentiveness among teachers, their peers, and students. Perera et al. [8] highlighted that the UWES assesses individuals' perceived state during the engagement, whereas ETS measures individual performance during the engagement. The latter aligns more with Kahn's [20] original definition of engagement, making it more suitable for assessing work engagement in the teaching profession.

Distinct from other academic disciplines, learning a foreign language represents a unique and potentially intimidating challenge [23]. Educators in this field must exhibit considerable vigor, passion, and commitment, whereas these demands can precipitate burnout, job dissatisfaction, and intentions to leave the profession, adversely affecting educational quality and teacher well-being [3, 24,25]. Hence, investigating the factors that affect the work engagement of foreign language teachers is essential.

2.2. Work engagement and its influencing factors

Studies have examined the complex nature of work engagement among foreign language teachers, frequently employing quantitative techniques to collect empirical evidence. These investigations aim to uncover the links between the work engagement of foreign language teachers and various socio-psychological factors, including well-being (e.g., Ref. [26,27]), persistence in language learning or L2 grit (e.g., Ref. [28]), resilience or immunity (e.g., Ref. [29,16]), confidence in teaching abilities or teacher self-efficacy (e.g.,

Ref. [30,31,32]), exhaustion or burnout (e.g., Ref. [12,33]), and the ability to understand and manage emotions or emotional intelligence (e.g., Ref. [13,34]). Recent findings also suggest a positive correlation between flow, proactive personality, and work engagement among Chinese EFL teachers [35]. These studies into the connections between work engagement and socio-psychological attributes in foreign language educators mainly explore how these elements interact within varied socio-cultural and educational settings. However, many of these studies failed to elucidate the underlying mechanism driving teacher work engagement.

It is well-documented that teachers possessing greater emotional intelligence tend to exhibit more engagement in language teaching [36]. Emotional intelligence, a psychological construct, emerges from the dynamic interplay between emotions and intellect, highlighting the crucial interaction between thoughts and feelings. Salovey and Mayer [37] were pioneers in conceptualizing emotional intelligence, describing it as the capacity to effectively identify, evaluate, regulate, and influence one's and others' emotions. Cherniss [38] pointed out that emotional intelligence, pertaining to the discernment and management of emotions, operates as a facet of social intelligence, with emotional regulation skills impacting social competencies. Roudi and Asefi [39] explored the linkage between emotional intelligence and work engagement among foreign language educators, finding that emotional intelligence is a distinct personal asset that bolsters engagement across various facets of their professional activities. This view is echoed by researchers such as Greenier et al. [13] and Yang [32], who also affirm the positive influence of emotional intelligence on teacher engagement.

Furthermore, from Bandura's [40] viewpoint, self-efficacy is an individual's belief in their capacity to execute behaviors necessary to specific performance attainments, reflecting confidence in the ability to exert control over one's motivation, behavior, and social environment. This belief can transform an individual's external actions by influencing their internal states. For educators, self-efficacy involves assessing their competence to facilitate student learning and foster positive development [41,42]. Self-efficacy has been demonstrated to influence work engagement among foreign language teachers positively [43,44]. Kong [26] discovered that the engagement of foreign language teachers at the higher education level is profoundly affected by their psychological health and sense of self-efficacy. Teachers who possess a firm conviction in their professional abilities are more likely to be deeply involved in their teaching duties. Furthermore, Yang [45] employed a structural equation modelling approach to examine the connections among work engagement, collective efficacy, and individual self-efficacy among foreign language educators. The findings indicated that both efficacy forms markedly enhance teachers' engagement. The study by Liu et al. [46] also revealed that teacher self-efficacy can directly and indirectly influence online EFL teacher work engagement through the mediation of teacher buoyancy.

Many research efforts have documented a negative correlation between job burnout and work engagement in foreign language teaching [47,48]. Schaufeli et al. [3] argue that job burnout is the antithesis of work engagement, originating from the gradual depletion of an individual's engagement with their work. Maslach and Jackson [49] view job burnout as a condition marked by emotional fatigue, a sense of depersonalization, and diminished feelings of achievement in individuals engaged in professions that involve interaction with others. Teachers who experience intense occupational burnout cannot deal with work anxiety, improve social relationships, regulate physical fatigue, nor enhance professional interests [50]. The research conducted by Faskhodi and Siyyari [12] revealed a markedly negative relationship between job burnout and the three facets of work engagement in foreign language teachers. Similarly, Xu and Jia's [33] study surveyed 295 foreign language teachers from 21 provinces in China and found that emotional exhaustion in burnout significantly reduced teachers' work engagement.

2.3. Relationships among influencing factors

Regarding the interconnections between emotional intelligence, self-efficacy, and burnout among foreign language teachers, research conducted by Ali and Mehdi [51] and Motalebzadeh et al. [52] documented the beneficial role of self-efficacy in mitigating job burnout. A recent systematic review and meta-analysis revealed that among six psychological correlates of self-efficacy, teachers' job burnout was particularly prominent, demonstrating a large effect size. This finding was supported by a substantial number of studies and a large sample size [53]. Additionally, emotional intelligence plays a pivotal role in moderating self-efficacy and burnout. On the one hand, some studies demonstrated that teachers' emotional intelligence is positively associated with self-efficacy [54,55]. Anwar et al. [56] carried out research examining the mediating role of emotional intelligence in enhancing the teaching effectiveness of foreign language educators. They found that emotional intelligence directly enhances teaching effectiveness. However, emotional intelligence had a more substantial predictive effect on self-efficacy. Its direct effect on teaching effectiveness is mainly mediated by self-efficacy. Kostić [57] also indicated that developing emotional intelligence in foreign language teachers is an intentional and positive investment process, which can significantly enhance self-efficacy and increase teachers' experiences with success.

On the other hand, the relationship between emotional intelligence and burnout has already evidenced by many researchers [54, 58–60]. A systematic review by Mérida-López & Extremera [61] further confirmed that teachers with higher levels of emotional intelligence exhibited lower levels of burnout. Heiran and Navidinia [62] explored the current state of emotional intelligence and burnout among foreign language educators in public and private language centers. Their findings indicated a significant negative relationship between teachers' emotional intelligence and job burnout across different educational institutions, with this correlation being more pronounced in public school teachers. The authors emphasized the critical role of developing emotional intelligence for the psychological well-being of foreign language teachers and highlighted the need to investigate additional factors influencing job burnout. Similarly, the studies carried out by Vaezi and Fallah [63] in Iran and Alavinia and Ahmadzadeh [64] in Azerbaijan demonstrated that emotional intelligence is a significant predictor of job burnout. However, to the best of our knowledge, no studies have yet investigated the role of foreign language teachers' emotional intelligence in addressing burnout challenges, particularly when self-efficacy is also considered a significant factor influencing work engagement.

2.4. Current study

This research sought to comprehensively delineate the structural interrelations among work engagement of teachers within the context of foreign language instruction and its three most commonly examined determinants - teachers' emotional intelligence, self-efficacy, and burnout - by utilizing a meta-analytic structural equation modelling (MASEM) methodology.

Notably, this study differs from previous research using a simple mediation or direct effect testing approach (e.g., Ref. [45,56]). The chain mediation effect model adopted in the study has greater explanatory power than previous methods and is better suited to identifying the importance of target variables. Furthermore, structural equation modelling (SEM) is a widely utilized statistical technique for examining the structural connections among variables. However, as Cheung [65] noted, results from a single SEM analysis might not offer sufficient proof. Employing a meta-analytic structural equation modelling (MASEM) strategy to address this issue is advisable, which requires a substantial dataset from prior research. Thus, this research seeks to broaden the understanding of the structural links between work engagement and the three specified factors by applying MASEM.

MASEM represents a methodology that merges the benefits of structural equation modelling and meta-analysis [65]. As a method for testing multivariate path relationships in complex theoretical models, it can help researchers test complex structures that cannot be fully measured in a single independent study [66]. The MASEM approach integrates empirical research literature and uses meta-analytic results for parameter estimation in the structural equation model. This approach allows for integrating inconsistent research results to validate existing conclusions and develop new theoretical models by calculating variable residuals. Therefore, the initial phase involves meta-analytically aggregating correlation matrices from prior empirical research to create a composite correlation matrix. Although not every study examines the correlation coefficients among all variable pairs, this method aids in compensating for missing data in the primary datasets. In the subsequent phase, the composite correlation matrix is utilized to fit the SEM model, thereby enabling the examination of the structure integrated by the variables. The specifics and complexities of the methodology will be elaborated in the methods section. In general, MASEM is the ideal method for fulfilling our research objective of exploring the dynamics influencing work engagement.

This study sought to transcend mere bivariate correlations by delivering an evidence-based view of the mechanism driving factors of work engagement, illustrating the causal connections between work engagement and its three key influencing factors. Drawing from path directions validated in the literature review, we formulated a model (Fig. 1) depicting how emotional intelligence among foreign language teachers influences work engagement through four distinct pathways, each corresponding to one of the following hypotheses.

- H1. Emotional intelligence directly influences work engagement (c);
- H2. Self-efficacy serves as a standalone mediator in the link between emotional intelligence and work engagement (a^*e);
- H3. Job burnout acts as a standalone mediator in the link between emotional intelligence and work engagement (b^*f);
- H4. A sequential mediation by self-efficacy and job burnout occurs in the link between emotional intelligence and work engagement (a^*d^*f).

3. Methodology

3.1. Literature Search

Empirical studies were systematically identified using keyword up to the year 2023. The present study focuses on published journal articles in both English and Chinese. Empirical studies were methodically sourced using English keywords and their Chinese translations. Several English databases (i.e., Scopus, ProQuest, Web of Science, Google Scholar), a Chinese database (i.e., CNKI), and relevant journals (e.g., *Studies in Second Language Acquisition*, *Applied Linguistics*, *Modern Language Journal*, *Language Learning*, *System*, *Language Teaching Research*, *Applied Linguistics Review*), were used with the combination of keywords for the abstract field: ["work engagement"] AND ["second language" OR "foreign language" OR "EFL"] AND ["burnout" OR "self-efficacy" OR "emotional intelligence"], resulting in 108 studies. It is important to mention that this study incorporated data from the CNKI database. This source provided access to extensive research on foreign language teacher studies in China, the nation hosting the world's largest population of

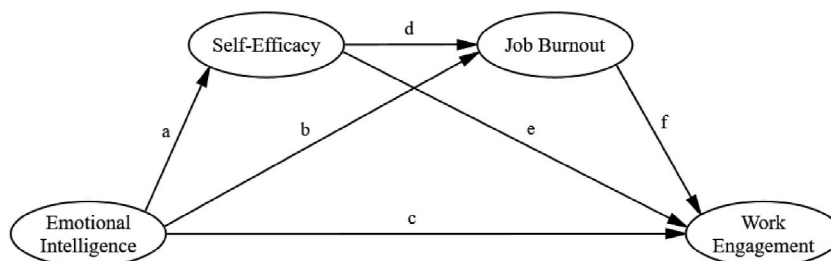


Fig. 1. The chain mediation hypothesis model.

foreign language learners and teachers. The following screening criteria were used: (1) studies must disclose raw correlation coefficients for any combination of the four focal variables or their components; (2) only one publication of duplicate data was included, with the more comprehensive report chosen; (3) sample sizes should be reported; and (4) the research must be situated within the context of second or foreign language education. An exhaustive examination was performed to ensure compliance with these criteria. Fig. 2 illustrates the steps conducted following the preferred reporting items for systematic reviews and meta-analyses [67]. After eliminating 59 studies for various reasons (12 unrelated to work engagement, 30 qualitative analyses on Willingness to Communicate (WTC) lacking correlation coefficients, and 17 devoid of the specified variables of interest), 49 studies were included in the analysis, encompassing 55 samples ($N = 11,123$).

3.2. Coding procedure

The information from the selected articles was compiled into a table based on the following information: article title (author and publication year), specified variable relationships, sample size (n), and correlation coefficient (r) among any of the four target variables. The final survey results were used to code the table for longitudinal studies. For articles reporting regression coefficients, the formula $r = \beta \times 0.98 + 0.05 (\beta \geq 0)$ was used to convert these coefficients into correlation coefficients for coding [68].

While the studies gathered predominantly examined teachers in foreign language learning contexts, variations were observed in how they defined and measured the target variables, which could encompass a diverse range of types. A significant portion of these studies (e.g., Ref. [12,26,30,33,39,45,69]) predominantly employed the UWES scale by Schaufeli et al. [3] as the principal tool for assessing teachers' work engagement. This scale consists of three elements: vigour, dedication, and absorption. Concerning self-efficacy, our review revealed a diversity of measurement approaches in the primary research, reflecting its status as one of the most extensively investigated constructs in the academic literature [70–72]. In the majority of pertinent studies, the Teachers' Sense of Efficacy Scale (TSES), crafted by Tschannen-Moran and Hoy [42], was the instrument of choice for assessing teachers' self-efficacy (e.g., Akbari & Tavassoli, 2011 [51]; Amirian & Behshad, 2016; [56,70,72]), primarily based on Teacher Self-Efficacy Scale of Bandura's [40] social cognitive theory. TSES is a scale with three factors and eight questions designed for each factor: (1) Efficacy in student engagement (ESE), (2) Efficacy in instructional strategies (EIS), and (3) Efficacy in classroom management (ECM). Additionally, other instruments such as the TEBS-Self (Teacher Efficacy Beliefs Scale-Self) by Dellinger et al. [73], as utilized in Mardani et al. [71], the

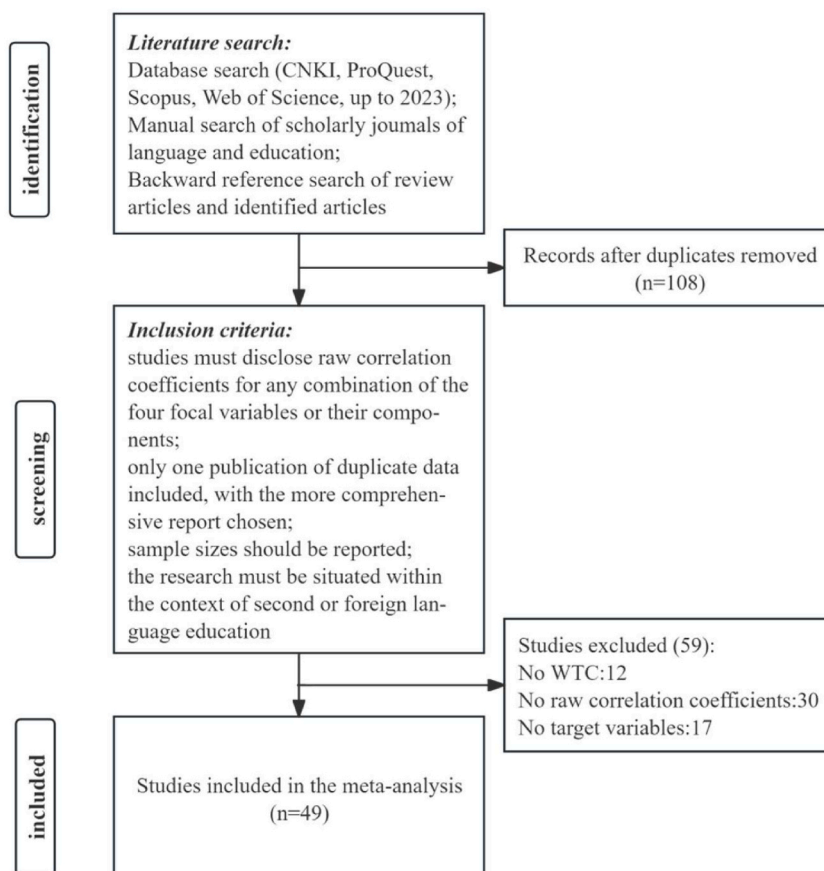


Fig. 2. PRISMA flow diagram.

Teacher Interpersonal Self-Efficacy Scale by Friedman & Kass [74] employed in the research of Mashhady et al. [75] and Mede [76], and the Teacher Efficacy Beliefs Scale by Praver [77] applied in Özkara’s [78] study, were also employed to assess teachers’ perceived self-efficacy.

Concerning emotional intelligence, our investigation revealed that the studies employed diverse instruments, all aimed at evaluating teachers’ emotional intelligence. For instance, Akbari and Tavassoli [79] applied the Emotional Intelligence Scale by Schutte et al. [80], which encompasses four dimensions: perception of emotions, managing own emotions, managing others’ emotions, and utilizing emotions. Moreover, Heiran and Navidinia [62] employed the Farsi 41-Revised Emotional Intelligence Scale (F41-REIS), a modified adaptation of Schutte et al. [80]. Additionally, Bar-On [81] introduced Bar-On’s Emotional Intelligence (EI) Test Scale, designed to assess individual competencies in Intrapersonal, Interpersonal, Adaptability, Stress Management, and General Mood. This scale was also adapted by Alavinia and Ahmadzadeh [64], Esmaili et al. [82], and Vaezi and Fallah [63] to measure foreign language teachers’ EI. Amirian et al. [83] utilized the Wong and Law Emotional Intelligence Scale (WLEIS) for assessing dimensions of emotional intelligence among teachers, including self-emotion appraisal, others’ emotion appraisal, the use of emotion, and the regulation of emotion. In the context of teachers’ job burnout, our review identified widespread use of the Maslach Burnout Inventory (MBI-ES) by Maslach et al. [84] and its various adaptations across the studies reviewed (e.g., [69,71,72,76,85,86]). This instrument measures teachers’ three core aspects of burnout: emotional exhaustion, depersonalization, and reduced personal accomplishment.

We recognize that synthesizing coefficients derived from diverse measurement tools might introduce challenges in interpretation, given the distinct emphases and psychometric characteristics of each measurement. Fortunately, MASEM mitigates this issue, as residual variances and disturbance terms in MASEM models account for variance in constructs that could be due to heterogeneity in sampling and measurement. As Quinn & Wagner [87] noted, different from traditional Structural Equation Modeling (SEM) which specifies latent variables to represent common variance across measures or items of the same construct, MASEM capture the common variance across different measurement constructs by integrating higher-order factors, as the data are represented as correlations and not as scores on a particular measure. Therefore, we opted to proceed in a manner consistent with prior meta-analytic structural equation modelling (MASEM) research (e.g., Ref. [87,88]), acknowledging the impracticality of exhaustively reviewing every distinct theoretical framework due to practical constraints [89]. As a result, we assembled our correlation matrices for the four targeted variables, employing raw coefficients derived from 55 distinct samples (N = 11,123). Furthermore, it is essential to highlight that this study did not investigate sample moderators as other meta-analyses might since our primary objective was to elucidate the structure and mechanism interlinking the four targeted variables.

3.3. Data analysis

The research began with a meta-analysis, leveraging the sample sizes from empirical investigations as a weighting mechanism to compute the mean effect size (r) across the four variables outlined in the hypothetical framework. The findings indicated that all six bivariate relationships essential for the analysis were statistically significant, forming a correlation matrix. Table 1 presents the un-adjusted correlation coefficients between the construct pairs being studied.

Next, the consistency of each effect size was tested using the I^2 statistic. All the correlation coefficients had significant heterogeneity ($I^2 > 75\%$), indicating that the correlation coefficients in each study did not come from the same population. The overall weighted correlation coefficient should be calculated using the random effects model. Publication bias was examined using two methods (see Table 2): (1) the fail-safe N, which indicates that there is no publication bias if the fail-safe number is more significant than $5k+10$ (k is the number of samples’ raw correlation coefficients in Table 1); all six pairs of variable relationships in this study had fail-safe numbers higher than the recommended value; and (2) Egger’s regression intercept, which indicates the absence of publication bias in the corresponding coefficient during the calculation process when its significance is below the 0.05 level. The results showed that the publication bias of all correlation coefficients was within an acceptable range. Finally, based on the previously established correlation matrix, a chain mediation analysis of the hypothetical model was conducted using AMOS to calculate the parameter values.

4. Results

Table 2 outlines aggregated correlations derived from the raw correlation coefficients across the 55 samples. The computation of average correlation coefficients took into account the varying sample sizes by applying appropriate weights [90]. The outcomes demonstrated that teachers’ work engagement exhibited a positive association with both self-efficacy and emotional intelligence, while showing a negative relationship with job burnout.

The findings from the MASEM (Meta-Analytic Structural Equation Modeling) approach are illustrated in Fig. 3 using the aggregated

Table 1
Number of correlation coefficients from previous studies.

	1.	2.	3.	4.
1. Emotional Intelligence	55(11,123)			
2. Self-Efficacy	12(1774)	55(11,123)		
3. Burnout	8(855)	22(4696)	55(11,123)	
4. Work Engagement	4(1230)	6(2042)	3(526)	55(11,123)

Note. Values in parentheses indicate total sample sizes for correlation coefficients collected from primary studies.

Table 2
Correlation coefficients and publication bias.

Correlation Pairs	Correlation		95 % CI		Heterogeneity	Publication Bias	
	r	SD	Lower	Upper	I2	Fail-safe N	Egger's p
EI & SE	0.56*	0.023	0.49	0.56	88.29	1853	0.15
EI & BO	-0.48*	0.040	-0.45	-0.34	88.72	360	0.22
EI & WE	0.55*	0.026	0.51	0.59	95.18	475	0.92
SE & BO	-0.44*	0.012	-0.47	-0.42	90.40	5412	0.65
SE & WE	0.52*	0.020	0.50	0.56	79.62	1023	0.48
BO & WE	-0.49*	0.046	-0.51	-0.37	88.13	97	0.20

Note: * indicates $p < 0.01$; EI represents emotional intelligence, SE represents self-efficacy, BO represents job burnout, and WE represents work engagement.

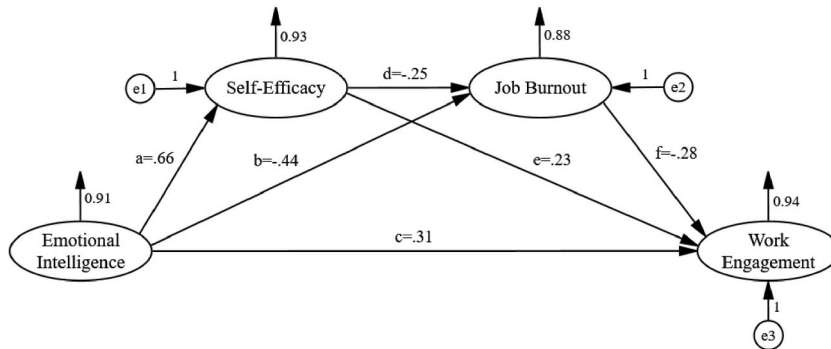


Fig. 3. Verified chain mediation hypothesis model.

correlation matrix. It is important to note that the chain mediation hypothesis model is a saturated structural model, making it unnecessary to evaluate model fit indices such as CFI (Comparative Fit Index), TLI (Tucker-Lewis Index), and RMSEA (Root Mean Square Error of Approximation).

The outcomes presented in Fig. 3 reveal that the three high-evidence factors, teachers' emotional intelligence ($\beta = 0.31, p = 00.001$), self-efficacy ($\beta = 0.23, p = 00.001$), and burnout ($\beta = -0.28, p = 00.001$) had statistically significant direct contributions to work engagement. Among these influencing factors, emotional intelligence significantly and directly affected self-efficacy and burnout ($\beta = 0.66, p = 00.001$; $\beta = -0.44, p = 00.001$), and self-efficacy predicted burnout ($\beta = -0.25, p = 00.001$) in a negative way.

Subsequent analyses scrutinizing the magnitudes of mediating effects (See Table 3) show that the overall impact of emotional intelligence on work engagement consists of a direct effect and three indirect effects. First, the significant direct effect of emotional intelligence on work engagement ($\beta = 0.31, p = 0.001$) confirmed the support for hypothesis H1. Second, emotional intelligence indirectly affected work engagement via self-efficacy ($\beta = 0.15, p = 0.001$), endorsing hypothesis H2. Third, emotional intelligence indirectly influenced work engagement through burnout ($\beta = 0.12, p = 0.001$), corroborating hypothesis H3. Finally, the results revealed a significant chain mediating effect of self-efficacy and burnout on the relationship between emotional intelligence and work engagement ($\beta = 0.05, p = 0.01$), thus supporting hypothesis H4. The proportions of the three mediating effects on the total effect were 23.81 %, 19.05 %, and 7.94 %, respectively, while the direct effect accounted for 49.21 %. This suggests that teachers' self-efficacy and burnout partially mediate the relationship between emotional intelligence and work engagement.

Table 3
Analysis of effect sizes.

Type of Effect	Point Estimates	Standard Error	95 % CI		Effect Proportion
	β		Lower	Upper	
Total Mediation	0.32	0.028	0.27	0.39	50.79 %
Mediation(a*e)	0.15	0.027	0.11	0.21	23.81 %
Mediation(b*f)	0.12	0.021	0.09	0.17	19.05 %
Chain Mediation(a*d*f)	0.05	0.011	0.03	0.07	7.94 %
Direct Effect(c)	0.31	0.043	0.23	0.4	49.21 %

5. Discussion

5.1. The direct effect of emotional intelligence on work engagement

This research established that emotional intelligence positively and directly influences work engagement, aligning with the findings of Greenier et al. [13], Roudi and Asefi [39], and Yang [32]. It is evident that the direct effect of emotional intelligence on work engagement is the most significant ($\beta = 0.31$) among four pathways, accounting for nearly half of the total effect and approximately equal to the sum of all indirect effects. This suggests that foreign language educators with elevated emotional intelligence levels are more inclined to demonstrate enthusiastic, focused, and devoted work engagement. The notable link between emotion regulation and work engagement echoes the conclusions of several earlier studies within general education (e.g., Ref. [36,91]). For example, Mérida-López et al. [36,92] revealed that the emotional intelligence of educators enhances their engagement in work by alleviating job stress and fostering better relationships between teachers and learners. Butakor et al. [91] identified an indirect connection between teachers' emotional intelligence and academic engagement, with job satisfaction mediating this dynamic. Therefore, we can also infer that the influence of emotional intelligence on the work engagement of foreign language teachers may be attributed to the various mediators and moderators.

Conceptually, Petrides's [93] trait EI theory indicated that individuals with high emotional intelligence often possess four traits: sociability, self-control, emotionality, and a sense of well-being. Sociability emphasizes an individual's ability to communicate confidently and interact with others and their environment. This characteristic is the basis for teachers to show off the other three emotional intelligence traits. It is also a prerequisite for them to enter the workplace. From a social constructivist perspective, foreign language teachers construct meaning in their interaction with the teaching environment [13]. Social and cultural factors, teaching contexts, and organizational atmosphere influence their work engagement. These factors were attached to their communication and interaction with leaders, colleagues, and students [94]. They are essential sources for foreign language teachers to obtain teacher agency and social support.

In addition, emotionality represents an individual's capacity to recognize and convey positive emotions in the workplace. Teachers with solid emotionality are more likely to capture and amplify subtle emotional feelings, and positive emotions easily inspire them, showing enthusiasm and engagement in their work. Self-control focuses on those who can control their urges, tackle external pressures, and calmly deal with sudden problems. Therefore, teachers with this trait are good at concentrating and allocating cognitive resources in teaching, calling emotional regulation strategies when necessary, and devoting themselves wholeheartedly to teaching. Well-being represents a sense of fulfilment, corresponding to devotion in a teacher's work engagement [93,95]. Teachers with a strong sense of fulfilment are filled with positive energy and a sense of personal value. They find pride and belonging as foreign language teachers in their work and have legitimate reasons to work hard. Consequently, various cognitive, emotional, and behavioral characteristics required for work engagement are reflected in the development of emotional intelligence.

This study's results further revealed that emotional intelligence emerged as the most potent predictor of work engagement among the factors considered. This can be ascribed to the critical role of teachers' emotional intelligence as a primary variable that orchestrates all psychological variables. Hence, compared to the mediating roles of self-efficacy and job burnout, emotional intelligence's direct influence comprises nearly half the total effects. It stands as the most significantly investigated element affecting teachers' work engagement.

5.2. The mediating role of self-efficacy

Self-efficacy serves as a crucial mediator between emotional intelligence and work engagement, exerting a stronger mediating influence than job burnout ($\beta = 0.15 > 0.12$). This conclusion successfully integrates research findings from Fathi et al. [69], Kostić [57], and Wossenie [96], indicating that differences in emotional intelligence can lead to different beliefs in one's competence among foreign language teachers, which in turn affects work engagement. Similarly, studies have validated this conclusion for various groups, including Chinese language teachers [97], physical education teachers [98], and special education teachers [99]. Bandura [100] highlighted that 'somatic information, communicated through physiological and emotional states,' leads to the formation of beliefs about one's efficacy. Building on this, Sutton and Wheatley [101] suggested that variations in teacher efficacy can be attributed, in part, to differences in teachers' emotional experiences.

On the one hand, emotional intelligence has a positive predictive effect on self-efficacy. As the common independent variable of work engagement, burnout, and self-efficacy, the direct effect coefficient of emotional intelligence on self-efficacy is the largest ($\beta = 0.66$), highlighting its importance to self-efficacy theory. Bandura [102] posited that an individual's beliefs about self-efficacy primarily arise from four sources: vicarious experience, mastery experience, emotional and physiological states, and social persuasion. The latter two sources are relatively explicit and directly related to emotional intelligence. Firstly, the emotional and physiological state emphasizes the individual's physical and mental reactions when participating in new events. Strong emotional fluctuations can hinder individual performance, usually lowering self-efficacy. For foreign language teachers who require frequent interpersonal interaction, understanding and managing their own or others' emotions is essential for professional development [103]. High emotional intelligence means that teachers can fully mobilize their environmental adaptation abilities when facing complex teaching tasks, thereby maintaining a stable emotional and physiological state and effectively enhancing confidence and ability to complete teaching work. Secondly, social persuasion sources include others' evaluations, persuasion, and self-admonition. Foreign language educators possessing elevated levels of emotional intelligence tend to forge stronger relationships with others, garnering greater social support and positive assessments across different domains, such as emotions, resources, and information. Such teachers operate within

a congenial social environment, possess a robust sense of professional belonging, and excel at assimilating various positive or negative assessments for their benefit.

On the other hand, beliefs about self-efficacy further influence work engagement, aligning with the theory of planned behavior outlined by Ajzen et al. [104] and Lonsdale [105]. This theory holds that cognitive factors such as behavioral control influence purposeful and planned rational motivated behavior. Behavioral control cognition refers to the expected degree of execution of controllable behavior. When this type of cognition is enhanced, individuals will increase their behavioral expectations and promote specific actions. Therefore, foreign language teachers' self-efficacy is related to their control and judgment of teaching behaviors and outcomes; that is, subjective agency. The higher the teachers' self-efficacy, the more confidence they possess in stimulating students' interest in learning, managing classrooms efficiently, and employing suitable teaching methodologies, leading to greater engagement in their teaching activities. In addition, the social cognitive career theory model points out that teaching is a goal-oriented activity that requires teachers to invest in various aspects to achieve teaching goals [8]. Belief in ability determines how teachers perceive teaching opportunities and difficulties and affects their judgments of the degree of effort investment [100]. However, it must be noted that the beneficial influence of self-efficacy on enhancing teacher work engagement appears to be diminishing. This study revealed that the coefficient for path e is smaller than that for path f ($\beta = 0.23 < 0.28$). Notably, in contexts where emotional intelligence among teachers is relatively uniform, the detrimental impact of negative emotions such as job burnout on the work passion of foreign language teachers surpasses the restorative effects of self-efficacy.

5.3. The mediating role of job burnout

Studies by Alavinia and Ahmadzadeh [64] and Vaezi and Fallah [63] have successfully identified the 'diminishing' or 'buffering' effects of Azerbaijan and Iranian EFL teachers' emotional intelligence on burnout. Faskhodi and Siyyari's [12] correlation analysis provided evidence regarding the bivariate relationship between teachers' burnout and engagement. This study provides a more comprehensive theoretical framework. Job burnout serves as a mediator between emotional intelligence and work engagement, suggesting that the emotional intelligence of foreign language educators can elevate or mitigate levels of job burnout, and alleviating job burnout favorably impacts their work engagement.

Firstly, emotional intelligence is a factor that influences job burnout. According to the ability model of emotional intelligence, emotional intelligence is related to the ability to perceive and regulate emotions. Individuals with vital emotional intelligence can accurately perceive, evaluate, and regulate emotional states and express emotions appropriately at the right time [106]. Simultaneously, the influence of emotional intelligence on job burnout can be interpreted using the conservation of resources theory framework [107], where emotional intelligence is viewed as a personal resource. The smooth development of foreign language teaching work depends on teachers with sufficient internal emotional resources. High-resource teachers often adopt deep-acting strategies to change emotional cognition to comply with teaching norms.

In contrast, low-resource teachers prefer surface-acting strategies and invest fewer resources. Foreign language teachers with high emotional intelligence can effectively use and allocate emotional resources to cope with different sources of stress, such as promotion and performance assessment. However, when teachers cannot perceive and regulate their own or others' emotions accurately, they may encounter adverse effects such as personality shaking, amplification of setbacks, and a tendency to fall into a survival dilemma of learned helplessness. Eventually, this can lead to burnout due to the immense pressure they face.

Secondly, teacher burnout can negatively predict work engagement due to the two opposing concepts. With the advent of positive psychology, Maslach and Leiter [108] first defined work engagement from the reverse perspective of job burnout, viewing the two as two endpoints of a continuum of work health status. They believed that only by reversing the score on the job burnout scale could the degree of work engagement be measured, affirming the close relationship between the two at their core. Subsequently, Schaufeli et al. [3] discovered inconsistencies in the tri-dimensional oppositional relationship between burnout and engagement. Although they successfully integrated emotional exhaustion and vigor into 'energy' and cynicism and dedication into 'identification,' they could not determine the reverse relationship between low achievement and absorption. Therefore, although job burnout and work engagement share the exact core dimensions, they are not two absolute opposite concepts, resulting in a moderate negative correlation between the two dimensions among foreign language teachers in this study. The job demands-resources model, proposed by Demerouti et al. [109], indicates that teacher job burnout frequently arises from the disparity between high job demands and insufficient resources. A prolonged over-extension of emotional resources can result in a decline in teachers' motivation for professional development and their level of engagement.

5.4. The chain mediating role of self-efficacy and job burnout

This study determined that foreign language teachers' self-efficacy negatively predicted job burnout, aligning with previous research conclusions that the higher the self-efficacy of foreign language teachers, the stronger their resistance to job burnout (e.g., Ref. [33,51,52]). According to the rule of coefficients product in mediation effect testing, when both independent mediators are significant, it further validates the relationship between the two variables, providing evidence for the existence of a chain mediation effect; that is, emotional intelligence is transmitted to work engagement through self-efficacy and job burnout, sequentially. Although the effect of the chain mediation is the smallest among the four paths, accounting for only 7.94 %, its two-tails significance still reaches a level of $p < 0.01$ within the 95 % confidence interval, indicating that the close relationship between self-efficacy and job burnout must be given significant attention.

Teacher burnout is closely related to work pressure. Kyriacou and Sutcliffe's [110] model of teachers' occupational stress can

explain the relationship between self-efficacy and teacher burnout. This model claims whether the source of stress can be transformed into actual stress depends on the individual's cognitive evaluation. As a core factor in cognitive motivation mechanism, self-efficacy determines teachers' teaching activity selection, teaching achievement attribution, and teaching emotion regulation. Therefore, self-efficacy can be seen as a 'weapon' that protects teachers from the adverse effects of various working conditions when facing stress. Strong professional competence, beliefs, and confidence in handling challenges can motivate foreign language teachers to adopt positive motivational strategies [111] and avoid giving up teaching due to excessive stress. On the contrary, teachers with low self-efficacy levels often amplify their shortcomings and the difficulty of facing challenges, easily affected by negative emotions such as anxiety and depression when facing difficulties [112]. They are also sceptical about their abilities and values, leading to emotional exhaustion and low personal achievement. They must always be more confident in their capability to teach students well and handle teacher-student relationships. Additionally, a study found that self-esteem serves as a partial mediator between teaching efficacy and job burnout among special education teachers [113]. Therefore, although self-esteem was not directly examined as an influencing factor in this study, it may contribute to reducing the likelihood of burnout through its enhancement of teacher self-efficacy.

In summary, positive emotional perception and regulation of foreign language teachers can alleviate job burnout by enhancing work efficacy, building identity recognition, and promoting work engagement. However, foreign language teachers with limited emotional regulation abilities might struggle to mitigate job burnout effectively due to poor self-efficacy. Consequently, they are more inclined to adopt avoidance behaviors or a perfunctory attitude when addressing work-related problems and challenges.

6. Implications and limitations

The research findings hold both theoretical and practical significance. Theoretically, prior studies have often been confined to exploring foreign language teachers' psychological or behavioral mechanisms within a single context. This study uses the advantages of SEM and meta-analysis to integrate complex causal relationships between multiple variables. A chain mediation model was constructed to establish the vital position of three factors in the work engagement mechanism and present a new model of foreign language teacher research. This finding corroborates Petrides's [93] assertion that emotional intelligence is a crucial personality trait for achieving success and adapting effectively in professional settings. Furthermore, the study contributes to understanding the pivotal mediating role of self-efficacy as delineated by social cognitive theory [102].

The essential difference between foreign language and non-foreign language teachers is that foreign language teaching revolves around language communication. Language is an essential medium for emotional expression. The effectiveness of teacher-student communication is constrained by emotional factors which determine the successful completion of teaching activities. Therefore, it is necessary to promote foreign language teachers' positive emotions, fully play the vital role of emotional intelligence and self-efficacy in their development, and assist them in navigating through challenges associated with negative emotions, such as job burnout. Specifically, emotional intelligence is not an inborn trait; it can be enhanced through a variety of training and professional development programs [34,114]. Given the unique professional attributes of foreign language teachers and the communicative demands of language instruction, emotional intelligence training can be incorporated into teachers' professional development, providing pre-service and in-service social skills and emotional management training programs to 'help teachers manipulate their emotions appropriately, shift undesirable emotional states to more productive ones, and understand the link between emotions, thoughts and actions' ([115], p. 710). Teacher educators may consider implementing mentoring programs designed to facilitate the acquisition of emotion management skills among novice teachers. Through these programs, experienced educators can offer teachers personalized support and tailored practical strategies to help them effectively handle emotional challenges in the classroom.

In addition, given the favorable effects of self-efficacy in regulating teachers' burnout and engagement, it is recommended that school leaders, educational administrators, and policymakers proactively arrange regular activities aimed at bolstering teachers' sense of subject identity and enhancing their language teaching capabilities. Such initiatives may inspire educators to explore and redefine their professional identities, addressing the existential questions of 'Who am I?' and 'Who do I want to be?' [116], thus enhancing their teaching efficacy, stimulating teaching enthusiasm, and reducing the risk of job burnout. Finally, interpersonal communication and sharing of teaching experiences in learning communities can be beneficial to teachers' emotional intelligence and self-efficacy [117]. It is necessary for school leaders to encourage foreign language teachers to participate in community activities. They can also introduce routine assessments of emotional well-being to aid teachers in identifying both their strengths and areas for improvement. Feedback from these assessments can then inform the development of personalized improvement plans. Additionally, policymakers should prioritize the establishment of supportive policies geared towards fostering a conducive work environment. This may entail recognizing indicators of job burnout, providing teachers with resources such as counseling services and stress management seminars.

Last, we noted some study limitations: (1) Owing to the scarcity of empirical research, the model confirmed through this study explained 51 % of the variance in work engagement observed in foreign language educators. The combined mediating effects of self-efficacy and job burnout, alongside the direct influence of emotional intelligence, were balanced, suggesting potential for further refinement and expansion of the model. With the gradual enrichment of relevant studies, we call for more detailed and in-depth research to explore the regulatory effects or dimensional relationships of other influencing factors on work engagement; (2) Due to variations in samples, measures, settings and the scarcity of reviewed empirical research, it was reasonable to question the heterogeneity of these correlation pairs in this study. Although random-effect models which allows for the generalization of findings to be outside of the studies included in a meta analysis, was adopted, it would be more convincing to include the measure type as a moderator to further validate the conclusions of this study; (3) The present study's employment of MASEM departed from conventional meta-analytic procedures which compares different groups of foreign language teachers. Consequently, the generalizability of the findings could be questioned. This issue may be addressed in future through the utilization of traditional meta-analytic methods to

investigate moderating variables, such as teachers’ cultural or educational backgrounds. Alternatively, as the number of studies increases, it may become feasible to validate the model of this study by utilizing specific samples of teachers; (4) During the process of literature collection and screening, we found that factors such as job stress and anxiety among foreign language teachers are also influential aspects of work engagement in many studies. As demonstrated in this study, MASEM verification prerequisite the construction of a correlation matrix, which is based on a sufficient number of empirical studies with correlation coefficients between pairs of variables. However, existing research on job stress and anxiety does not meet this requirement.

7. Conclusion

The current research developed a MASEM model by amalgamating empirical results from 55 independent samples (N = 11,123), aiming to examine the structural connections between work engagement and three high-evidence factors. Results show that the influence of emotional intelligence on work engagement is conveyed via four routes: direct mediation through self-efficacy, direct mediation through job burnout, and a chain mediation involving both self-efficacy and job burnout. This study enriches the literature on work engagement by offering an in-depth analysis of the intricate socio-psychological aspects of foreign language teachers’ work engagement, coupled with the empirically supported significance of emotional intelligence, self-efficacy, and job burnout. Findings provide the groundwork for subsequent empirical research to expand upon the work engagement framework examined in this research.

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Data availability statement

No research-related data are stored in publicly available repositories, and the data will be made available on request.

CRedit authorship contribution statement

Wei Huo: Writing – original draft, Methodology, Investigation. **Xuemei Wang:** Writing – review & editing, Supervision, Funding acquisition, Formal analysis, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix I

Table Ap1
Measures used in the original studies

Variables	Measures	Measure Construction	Author	Cited by
Work engagement	Utrecht Work Engagement Scale and Its Modifications	Vigour Dedication Absorption	Schaufeli et al. [3]	Xu & Jia [33]
Self-Efficacy	Teachers’ Sense of Efficacy Scale	Efficacy in student engagement Efficacy in instructional strategies Efficacy in classroom management	Tschannen-Moran & Hoy [42]	Ali & Mehdi [51]

(continued on next page)

Table Ap1 (continued)

Variables	Measures	Measure Construction	Author	Cited by
	Teacher Efficacy Beliefs Scale-Self	Self-efficacy Work-group collective efficacy Faculty collective efficacy	Dellinger et al. [73]	Mardani et al. [71]
	Teacher Interpersonal Self-Efficacy Scale	Classroom context efficacy School context efficacy	Friedman & Kass [74]	Mashhady et al. [75]
	Teacher Efficacy Beliefs Scale	Student engagement efficacy Instructional strategies efficacy Classroom management efficacy Dealing with superiors efficacy	Praver [77]	Özkara [78]
Emotional Intelligence	Emotional Intelligence Scale	Perception of emotions Managing own emotions Managing others' emotions Utilizing emotions	Schutte et al. [80]	Akbari & Tavassoli [79]
	Farsi 41-Revised Emotional Intelligence Scale	Optimismregulation Utilization of emotions Appraisal of emotions	Schutte et al. [80]	Heiran & Navidinia [62]
	Bar-On's Emotional Intelligence	Intrapersonal Interpersonal Adaptability Stress Management General Mood	Bar-On [81]	Esmaili et al. [82]
	Wong and Law Emotional Intelligence Scale (WLEIS)	Self-emotion appraisal Others' emotion appraisal Use of emotion Regulation of emotion.	Wong & Law	Amirian et al. [83]
Job Burnout	Maslach Burnout Inventory and Its Modifications	Exhaustion Depersonalization Personal accomplishment	Maslach et al. [84]	Safari [72]

References

- [1] B.L. Fredrickson, *Positivity*, Crown, New York, NY, 2009.
- [2] M.E. Seligman, *Flourish: A Visionary New Understanding of Happiness and Well-Being*, Simon and Schuster, 2011.
- [3] W.B. Schaufeli, M. Salanova, V. González-Romá, A.B. Bakker, The measurement of engagement and burnout: a two sample confirmatory factor analytic approach, *J. Happiness Stud.* 3 (1) (2002) 71–92, <https://doi.org/10.1023/A:1015630930326>.
- [4] A.B. Bakker, L.S. Albrecht, M.P. Leiter, Work engagement: further reflections on the state of play, *Eur. J. Work. Organ. Psychol.* 20 (1) (2011) 74–88, <https://doi.org/10.1080/1359432X.2010.546711>.
- [5] M.S. Christian, A.S. Garza, J.E. Slaughter, Work engagement: a quantitative review and test of its relations with task and contextual performance, *Person. Psychol.* 64 (1) (2011) 89–136, <https://doi.org/10.1111/j.1744-6570.2010.01203.x>.
- [6] M. Hernandez, C.L. Guarana, An examination of the temporal intricacies of job engagement, *J. Manag.* 44 (5) (2018) 1711–1735, <https://doi.org/10.1177/0149206315622573>.
- [7] R.M. Klassen, S. Aldhafri, C.F. Mansfield, E. Purwanto, A.F. Siu, M.W. Wong, A. Woods-McConney, Teachers' engagement at work: an international validation study, *J. Exp. Educ.* 80 (4) (2012) 317–337, <https://doi.org/10.1080/00220973.2012.678409>.
- [8] H.N. Perera, H. Granziera, P. McIlveen, Profiles of teacher personality and relations with teacher self-efficacy, work engagement, and job satisfaction, *Pers. Indiv. Differ.* 120 (2018) 171–178, <https://doi.org/10.1016/j.paid.2017.08.034>.
- [9] G.H. Khajavy, B. Ghonsooly, A. Hosseini Fatemi, Testing a burnout model based on affective-motivational factors among EFL teachers, *Curr. Psychol.* 36 (2) (2017) 339–349, <https://doi.org/10.1007/s12144-016-9423-5>.
- [10] K. Sadeghi, S. Khezrlou, The experience of burnout among English language teachers in Iran: self and other determinants, *Teach. Dev.* 20 (5) (2016) 631–647, <https://doi.org/10.1080/13664530.2016.1185028>.
- [11] K. Zhalah, B. Ghonsooly, R. Pishghadam, Effects of conceptions of intelligence and ambiguity tolerance on teacher burnout: a case of Iranian EFL teachers, *Journal of Research in Applied Linguistics* 9 (2) (2018) 118–140, <https://doi.org/10.22055/RALS.2018.13796>.
- [12] A.A. Faskhodi, M. Siyyari, Dimensions of work engagement and teacher burnout: a study of relations among Iranian EFL teachers, *Australian Journal of Teacher Education (Online)* 43 (1) (2018) 78–93, <https://doi.org/10.14221/ajte.2018v43n1.5>.
- [13] V. Greenier, A. Derakhshan, J. Fathi, Emotion regulation and psychological well-being in teacher work engagement: a case of British and Iranian English language teachers, *System* 97 (2021) 102446, <https://doi.org/10.1016/j.system.2020.102446>.
- [14] H. Jia, A. Derakhshan, Chinese English teachers' professional identity and commitment and their associations with their professional success, *Porta Linguarum* 41 (2023) 47–64, <https://doi.org/10.30827/portalin.vi2023c.29625>.
- [15] Z. Pourtousi, A. Ghanizadeh, Teachers' motivation and its association with job commitment and work engagement, *Psychol. Stud.* 65 (2020) 455–466, <https://doi.org/10.1007/s12646-020-00571-x>.
- [16] Y. Wang, A. Derakhshan, M.A. Noughabi, The interplay of EFL teachers' immunity, work engagement, and psychological well-being: evidence from four Asian countries, *J. Multiling. Multicult. Dev.* (2022) 1–17, <https://doi.org/10.1080/01434632.2022.2092625>.
- [17] M. Azari Noughabi, B. Ghonsooly, S. Jahedizadeh, Modeling the associations between EFL teachers' immunity, L2 grit, and work engagement, *J. Multiling. Multicult. Develop.* (2022) 1–16, <https://doi.org/10.1080/01434632.2022.2088766>.
- [18] A.B. Bakker, M.P. Bal, Weekly work engagement and performance: a study among starting teachers, *J. Occup. Organ. Psychol.* 83 (1) (2010) 189–206, <https://doi.org/10.1348/096317909X402596>.
- [19] A. Derakhshan, V. Greenier, J. Fathi, Exploring the interplay between a loving pedagogy, creativity, and work engagement among EFL/ESL teachers: a multinational study, *Curr. Psychol.* (2022) 1–20, <https://doi.org/10.1007/s12144-022-03371-w>.
- [20] W.A. Kahn, Psychological conditions of personal engagement and disengagement at work, *Acad. Manag. J.* 33 (4) (1990) 692–724, <https://doi.org/10.5465/256287>.

- [21] A.B. Bakker, E. Demerouti, The job demands-resources model: state of the art, *J. Manag. Psychol.* 22 (3) (2007) 309–328, <https://doi.org/10.1108/02683940710733115>.
- [22] R.M. Klassen, S. Yerdelen, T.L. Durksen, Measuring teacher engagement: development of the engaged teacher's scale, *Frontline Learning Research* 1 (2) (2013) 33–52, <https://doi.org/10.14786/flr.v1i2.44>.
- [23] E. Piechurska-Kuciel, Foreign language teacher burnout: a research proposal, in: M. Pawlak (Ed.), *Extending the Boundaries of Research on Second Language Learning and Teaching*, Springer Berlin Heidelberg, 2011, pp. 211–223, https://doi.org/10.1007/978-3-642-20141-7_17.
- [24] M.L. Chang, An appraisal perspective of teacher burnout: examining the emotional work of teachers, *Educ. Psychol. Rev.* 21 (2009) 193–218, <https://doi.org/10.1007/s10648-009-9106-y>.
- [25] C. Kyriacou, J. Sutcliffe, Teacher stress: Prevalence sources and symptoms, *Br. J. Educ. Psychol.* 48 (2) (1978) 159–167, <https://doi.org/10.1111/j.2044-8279.1978.tb02381.x>.
- [26] X. Kong, Chinese English as a foreign language teachers' self-efficacy and psychological well-being as predictors of their work engagement, *Front. Psychol.* 12 (2021) 788756, <https://doi.org/10.3389/fpsyg.2021.788756>.
- [27] B. Li, G. Miao, On the role of Chinese English as a foreign language: teachers' well-being and loving pedagogy in their academic engagement, *Front. Psychol.* 13 (2022) 941226, <https://doi.org/10.3389/fpsyg.2022.941226>.
- [28] M.A. Noughabi, B. Ghonsooly, S. Jahedizadeh, Modeling the associations between EFL teachers' immunity, L2 grit, and work engagement, *J. Multiling. Multicult. Dev.* (2022) 1–16, <https://doi.org/10.1080/01434632.2022.2088766>.
- [29] M.A. Noughabi, S.M.R. Amirian, S.M.R. Adel, G. Zareian, The association of experienced in-service EFL teachers' immunity with engagement, emotions, and autonomy, *Curr. Psychol.* 41 (2020) 1–10, <https://doi.org/10.1007/s12144-020-01066-8>.
- [30] Y. Han, Y. Wang, Investigating the correlation among Chinese EFL teachers' self-efficacy, work engagement, and reflection, *Front. Psychol.* 12 (2021) 763234, <https://doi.org/10.3389/fpsyg.2021.763234>.
- [31] Y. Xiao, J. Fathi, F. Mohammaddokht, Exploring a structural model of teaching enjoyment, teacher self-efficacy, and work engagement, *Front. Psychol.* 13 (2022) 918488, <https://doi.org/10.3389/fpsyg.2022.918488>.
- [32] N. Yang, An investigation into the interplay between Chinese EFL teachers' emotional intelligence, ambiguity tolerance, and work engagement, *Front. Psychol.* 13 (2022) 929933, <https://doi.org/10.3389/fpsyg.2022.929933>.
- [33] R. Xu, X. Jia, An investigation into Chinese EFL teachers' self-efficacy and stress as predictors of engagement and emotional exhaustion, *Sage Open* 12 (2) (2022) 21582440221093342, <https://doi.org/10.1177/21582440221093342>.
- [34] J.M. Dewaele, C. Gkonou, S. Mercer, Do ESL/EFL teachers' emotional intelligence, teaching experience, proficiency, and gender affect their classroom practice? in: J.D. Agudo (Ed.), *Emotions in Second Language Teaching*, Springer, Cham, 2018, pp. 125–141, https://doi.org/10.1007/978-3-319-75438-3_8.
- [35] K. Dai, Y. Wang, Investigating the interplay of Chinese EFL teachers' proactive personality, flow, and work engagement, *J. Multiling. Multicult. Develop.* (2023) 1–15, <https://doi.org/10.1080/01434632.2023.2174128>.
- [36] S. Mérida-López, V.S. Carvalho, M.J. Chambel, N. Extremera, Emotional intelligence and teachers' work engagement: the mediating and moderating role of perceived stress, *J. Psychol.* 157 (3) (2023) 212–226, <https://doi.org/10.1080/00223980.2023.2169231>.
- [37] P. Salovey, J.D. Mayer, Emotional intelligence, *Imagin., Cognit. Pers.* 9 (3) (1990) 185–211, <https://doi.org/10.2190/DUGG-P24E-52WK-6CDG>.
- [38] C. Cherniss, Emotional intelligence: toward clarification of a concept, *Industrial and Organizational Psychology* 3 (2) (2010) 110–126, <https://doi.org/10.1111/j.1754-9434.2010.01231.x>.
- [39] A.E. Roudi, H. Asefi, Job engagement of Iranian English language teachers: examining the role of emotional intelligence as a personal resource, *The International Journal of Humanities* 25 (4) (2018) 77–93, <http://ejh.modares.ac.ir/article-27-44347-en.html>.
- [40] A. Bandura, Self-efficacy: toward a unifying theory of behavioural change, *Psychol. Rev.* 84 (2) (1977) 191–215, <https://doi.org/10.1037/0033-295X.84.2.191>.
- [41] S. Gibson, M.H. Dembo, Teacher efficacy: a construct validation, *J. Educ. Psychol.* 76 (4) (1984) 569–582, <https://doi.org/10.1037/0022-0663.76.4.569>.
- [42] M. Tschannen-Moran, A.W. Hoy, Teacher efficacy: Capturing an elusive construct, *Teach. Teach. Educ.* 17 (7) (2001) 783–805, [https://doi.org/10.1016/S0742-051X\(01\)00036-1](https://doi.org/10.1016/S0742-051X(01)00036-1).
- [43] M. Yidana, B. Acquah, Examining the influence of Economics teachers' engagement in professional learning communities on teaching self-efficacy: a structural equation modelling approach, *Cogent Social Sciences* 10 (1) (2024) 2334113, <https://doi.org/10.1080/23311886.2024.2334113>.
- [44] Y. Wang, Z. Pan, Modeling the effect of Chinese efl teachers' self-efficacy and resilience on their work engagement: a structural equation modeling analysis, *Sage Open* 13 (4) (2023) 21582440231214329, <https://doi.org/10.1177/21582440231214329>.
- [45] J. Yang, The predictive role of Chinese EFL teachers' individual self-efficacy and collective efficacy in their work engagement, *Front. Psychol.* 12 (2021) 752041, <https://doi.org/10.3389/fpsyg.2021.752041>.
- [46] H. Liu, B. Chen, X. Li, X. Zhou, Exploring the predictive role of self-efficacy in engagement among EFL teachers in online teaching: the mediation of buoyancy, *The Asia-Pacific Education Researcher* (2024) 1–10, <https://doi.org/10.1007/s40299-024-00820-x>.
- [47] V. Ormaghi, E. Conte, V. Cavioni, E. Farina, A. Pepe, The role of teachers' socio-emotional competence in reducing burnout through increased work engagement, *Front. Psychol.* 14 (2023) 1295365, <https://doi.org/10.3389/fpsyg.2023.1295365>.
- [48] M.K. Vincent, A.J. Holliman, D. Waldeck, Adaptability and social support: examining links with engagement, burnout, and well-being among expat teachers, *Educ. Sci.* 14 (1) (2023) 16, <https://doi.org/10.3390/educsci14010016>.
- [49] C. Maslach, S.E. Jackson, The measurement of experienced burnout, *J. Organ. Behav.* 2 (2) (1981) 99–113, <https://doi.org/10.1002/job.4030020205>.
- [50] C. Maslach, *Burnout: the Cost of Caring*, Prentice-Hall, New York, NY, 1982.
- [51] R. Ali, I. Mehdi, The relationship between burnout and self-efficacy among Iranian male and female EFL teachers, *Journal of Language and Education* 6 (21) (2020) 173–188, <https://doi.org/10.17323/jle.2020.9793>.
- [52] K. Motallebzadeh, H. Ashraf, M.T. Yazdi, On the relationship between Iranian EFL teachers' burnout and self-efficacy, *Procedia-Social and Behavioral Sciences* 98 (2014) 1255–1262, <https://doi.org/10.1016/j.sbspro.2014.03.541>.
- [53] S. Duan, K. Bissaker, Z. Xu, Correlates of teachers' classroom management self-efficacy: a systematic review and meta-analysis, *Educ. Psychol. Rev.* 36 (2) (2024) 43, <https://doi.org/10.1007/s10648-024-09881-2>.
- [54] A. Geraci, L. Di Domenico, C. Inguglia, A. D'Amico, Teachers' emotional intelligence, burnout, work engagement, and self-efficacy during COVID-19 lockdown, *Behav. Sci.* 13 (4) (2023) 296, <https://doi.org/10.3390/bs13040296>.
- [55] R. Zhi, Y. Wang, A. Derakhshan, On the role of academic buoyancy and self-efficacy in predicting teachers' work engagement: a case of Chinese English as a foreign language teachers, *Percept. Mot. Skills* 131 (2) (2024) 612–629, <https://doi.org/10.1177/0031512523122239>.
- [56] R.H. Anwar, S. Zaki, N. Memon, R. Thurasamy, Exploring the interplay of trait emotional intelligence and ESL teacher effectiveness: is self-efficacy the mechanism linking them? *Sage Open* 11 (4) (2021) 1–19, <https://doi.org/10.1177/21582440211061378>.
- [57] M. Kostić-Bobanović, Perceived emotional intelligence and self-efficacy among novice and experienced foreign language teachers, *Economic Research-Ekonomska Istrazivanja* 33 (1) (2020) 1200–1213, <https://doi.org/10.1080/1331677X.2019.1710232>.
- [58] M.A. Brackett, R. Palomera, J. Mojsa-Kaja, M.R. Reyes, P. Salovey, Emotion-regulation ability, burnout, and job satisfaction among British secondary-school teachers, *Psychol. Sch.* 47 (4) (2010) 406–417, <https://doi.org/10.1002/pits.20478>.
- [59] L. Sánchez-Pujalte, D.N. Mateu, E. Etchezahar, T. Gómez Yepes, Teachers' burnout during COVID-19 pandemic in Spain: trait emotional intelligence and socioemotional competencies, *Sustainability* 13 (13) (2021) 7259, <https://doi.org/10.3390/su13137259>.
- [60] A.M. Rogowska, H. Meres, The mediating role of job satisfaction in the relationship between emotional intelligence and life satisfaction among teachers during the COVID-19 pandemic, *European journal of investigation in health, psychology and education* 12 (7) (2022) 666–676, <https://doi.org/10.3390/ejihpe12070050>.
- [61] S. Mérida-López, N. Extremera, Emotional intelligence and teacher burnout: a systematic review, *Int. J. Educ. Res.* 85 (2017) 121–130, <https://doi.org/10.1016/j.ijer.2017.07.006>.

- [62] A. Heiran, H. Navidinia, Private and public EFL teachers' level of burnout and its relationship with their emotional intelligence: a comparative study, *International Journal of English Language & Translation Studies* 3 (3) (2015) 1–10, <https://doi.org/10.5281/zenodo.34378>.
- [63] S. Vaezi, N. Fallah, The relationship between emotional intelligence and burnout among Iranian EFL teachers, *J. Lang. Teach. Res.* 2 (5) (2011) 1122–1129, <https://doi.org/10.4304/jltr.2.5.1122-1129>.
- [64] P. Alavinia, T. Ahmadzadeh, Toward a reappraisal of the bonds between emotional intelligence and burnout, *Engl. Lang. Teach.* 5 (4) (2012) 37–50. <https://eric.ed.gov/?id=EJ1079070>.
- [65] M.W.L. Cheung, Meta-analytic structural equation modeling, in: R.J. Aldag (Ed.), *Oxford Research Encyclopedia of Business and Management*, Oxford University Press, 2021, <https://doi.org/10.1093/acrefore/9780190224851.013.225>.
- [66] C. Viswesvaran, D.S. Ones, Theory testing: Combining psychometric meta-analysis and structural equations modeling, *Person. Psychol.* 48 (4) (1995) 865–885, <https://doi.org/10.1111/j.1744-6570.1995.tb01784.x>.
- [67] M.J. Page, J.E. McKenzie, P.M. Bossuyt, I. Boutron, T.C. Hoffmann, C.D. Mulrow, L. Shamseer, J.M. Tetzlaff, E.A. Akl, S.E. Brennan, R. Chou, J. Glanville, J. M. Grimshaw, A. Hrobjartsson, M.M. Lalu, T. Li, E.W. Loder, E. Mayo-Wilson, S. McDonald, D. Moher, The PRISMA 2020 statement: an updated guideline for reporting systematic reviews, *Br. Med. J.* 372 (71) (2021), <https://doi.org/10.1136/bmj.n71>. Article n71.
- [68] R.A. Peterson, S.P. Brown, On the use of beta coefficients in meta-analysis, *J. Appl. Psychol.* 90 (1) (2005) 175–181, <https://doi.org/10.1037/0021-9010.90.1.175>.
- [69] J. Fathi, S. Nourzadeh, A. Saharkhiz Arabani, Teacher individual self-efficacy and collective efficacy as predictors of teacher work engagement: the case of Iranian English teachers, *Journal of Language Horizons* 5 (2) (2021) 167–186, <https://doi.org/10.22051/lghor.2021.33184.1366>.
- [70] A. Ghorbanzadeh, G. Rezaie, The relationship between English language teacher perfectionism, efficacy, and burnout, *International Journal of Foreign Language Teaching and Research* 4 (14) (2016) 97–106. http://jfl.iaun.ac.ir/article_563447.html.
- [71] N. Mardani, E. Baghelani, R. Azizi, Exploring the relationship between self-efficacy and burnout: the case of Iranian EFL teachers, *Cumhuriyet Üniversitesi Fen Edebiyat Fakültesi Fen Bilimleri Dergisi* 36 (3) (2015) 3538–3548. <https://dergipark.org.tr/en/pub/cumuscij/issue/45132/564694>.
- [72] I. Safari, Relationship between Iranian EFL teachers' self-efficacy and their burnout level in universities and schools, *International Journal of Foreign Language Teaching and Research* 9 (35) (2021) 25–38. https://journals.iau.ir/article_679258.html.
- [73] A.B. Dellinger, J.J. Bobbett, D.F. Olivier, C.D. Ellett, Measuring teachers' self-efficacy beliefs: development and use of the TEBS-Self, *Teach. Teach. Educ.* 24 (3) (2008) 751–766, <https://doi.org/10.1016/j.tate.2007.02.010>.
- [74] I.A. Friedman, E. Kass, Teacher self-efficacy: a classroom-organization conceptualization, *Teach. Teach. Educ.* 18 (6) (2002) 675–686, [https://doi.org/10.1016/S0742-051X\(02\)00027-6](https://doi.org/10.1016/S0742-051X(02)00027-6).
- [75] H. Mashhady, N. Fallah, B. LotfiGaskaree, The role of foreign language teachers' self-efficacy in their burnout, *British Journal of Education, Society & Behavioral Science* 2 (4) (2012) 369–388, <https://doi.org/10.9734/BJESBS/2012/1636>.
- [76] E. Mede, An analysis of relations among personal variables, perceived self-efficacy and social support on burnout among Turkish EFL Teachers, *Inonu University Journal of the Faculty of Education* 10 (2) (2009) 39–52.
- [77] M. Praver, Japanese University English Language Teachers' Self-Efficacy Beliefs: A Mixed Methods Approach [doctoral Dissertation, Temple University], Philadelphia, PA, USA, 2014. <https://scholarshare.temple.edu/handle/20.500.12613/3423>.
- [78] B. Özkara, An investigation into the relationship between Turkish EFL teachers' self-efficacy and burnout level, *Journal of Family Counseling and Education* 4 (1) (2019) 12–24, <https://doi.org/10.32568/jfce.504499>.
- [79] R. Akbari, K. Tavassoli, Teacher efficacy, burnout, teaching style, and emotional intelligence: Possible relationships and differences, *Iranian Journal of Applied Linguistics (IJAL)* 14 (2) (2011) 31–61. <https://sid.ir/paper/55245/en>.
- [80] N.S. Schutte, J.M. Malouff, L.E. Hall, D.J. Haggerty, J.T. Cooper, C.J. Golden, L. Dornheim, Development and validation of a measure of emotional intelligence, *Pers. Individ. Differ.* 25 (2) (1998) 167–177, [https://doi.org/10.1016/S0191-8869\(98\)00001-4](https://doi.org/10.1016/S0191-8869(98)00001-4).
- [81] R. Bar-On, *Bar-On Emotional Quotient Inventory: Technical Manual*, Multi-Health Systems, Toronto, 1997.
- [82] R. Esmaili, L. Khojasteh, R. Kafipour, The relationship between emotional intelligence and burnout among EFL teachers teaching at private institutions, *Social Sciences and Humanities* 26 (3) (2018) 1595–1616, 987-363-853-176.
- [83] S.M.R. Amirian, H. Masjedi, S. Amirian, Reflections on English as a Foreign Language teacher burnout risk factors: the interplay of multiple variables, *Appl. Res. Engl. Lang.* 10 (1) (2021) 33–50, <https://doi.org/10.22108/ARE.2020.120509.1514>.
- [84] C. Maslach, S.E. Jackson, M.P. Leiter, *Maslach Burnout Inventory Manual*, third ed., Consulting Psychologist Press, 1996.
- [85] H. Bing, B. Sadjadi, M. Afzali, J. Fathi, Self-efficacy and emotion regulation as predictors of teacher burnout among English as a foreign language teachers: a structural equation modeling approach, *Front. Psychol.* 13 (2022) 900417, <https://doi.org/10.3389/fpsyg.2022.900417>.
- [86] N. Saber-Gigasari, J. Hassasakha, The effect of social comparison tendencies on EFL teachers' experience of burnout and instructional self-efficacy, *Cogent Psychology* 4 (1) (2017) 1327130, <https://doi.org/10.1080/23311908.2017.1327130>.
- [87] J.M. Quinn, R.K. Wagner, Using meta-analytic structural equation modeling to study developmental change in relations between language and literacy, *Child Dev.* 89 (6) (2018) 1956–1969, <https://doi.org/10.1111/cdev.13049>.
- [88] P. Peng, K. Lee, J. Luo, S. Li, R.M. Joshi, S. Tao, Simple view of reading in Chinese: a one-stage meta-analytic structural equation modeling, *Rev. Educ. Res.* 91 (1) (2021) 3–33, <https://doi.org/10.3102/00346543209641>.
- [89] S. Jin, H. Lee, Willingness to communicate and its high-evidence factors: a meta-analytic structural equation modeling approach, *J. Lang. Soc. Psychol.* 41 (6) (2022) 716–745, <https://doi.org/10.1177/0261927X221092098>.
- [90] S. Jak, M.W.L. Cheung, Meta-analytic structural equation modeling with moderating effects on SEM parameters, *Psychol. Methods* 25 (4) (2020) 430–455, <https://doi.org/10.1037/met0000245>.
- [91] P.K. Butakor, Q. Guo, A.O. Adebajji, Using structural equation modeling to examine the relationship between Ghanaian teachers' emotional intelligence, job satisfaction, professional identity, and work engagement, *Psychol. Sch.* 58 (3) (2021) 534–552, <https://doi.org/10.1002/pits.22462>.
- [92] S. Mérida-López, N. Extremera, L. Rey, Contributions of work-related stress and emotional intelligence to teacher engagement: Additive and interactive effects, *Int. J. Environ. Res. Publ. Health* 14 (10) (2017) 1156, <https://doi.org/10.3390/ijerph14101156>.
- [93] K.V. Petrides, Psychometric properties of the trait emotional intelligence questionnaire (TEIQue), in: C. Stough, D.H. Saklofske, J.D. Parker (Eds.), *Assessing Emotional Intelligence: Theory, Research, and Applications*, Springer, New York, NY, 2009, pp. 85–102, 85-102.
- [94] C. Kalina, K.C. Powell, Cognitive and social constructivism: developing tools for an effective classroom, *Education* 130 (2) (2009) 241–250.
- [95] E.S. Shahivand, S. Moradkhani, The relationship between EFL teachers' trait emotional intelligence and reflective practices: a structural equation modeling approach, *Innovat. Lang. Learn. Teach.* 14 (5) (2020) 466–480, <https://doi.org/10.1080/17501229.2019.1620241>.
- [96] G. Wossenie, Teachers' emotional intelligence and sense of self-efficacy beliefs: a study on second cycle public primary school EFL teachers in Bahir Dar Town, Ethiopia, *Sci. Technol. Arts Res. J.* 3 (2) (2014) 213–220, <https://doi.org/10.4314/star.v3i2.28>.
- [97] D.W. Chan, Burnout, self-efficacy, and successful intelligence among Chinese prospective and in-service school teachers in Hong Kong, *Educ. Psychol.* 27 (1) (2007) 33–49, <https://doi.org/10.1080/01443410601061397>.
- [98] A. Mouton, M. Hansenne, R. Delcour, M. Cloes, Emotional intelligence and self-efficacy among physical education teachers, *J. Teach. Phys. Educ.* 32 (4) (2013) 342–354, <https://doi.org/10.1123/jtpe.32.4.342>.
- [99] S. Li, Y. Wang, The effect of job stress on secondary school physical education teachers' work engagement: the mediating role of self-efficacy, *Psychol. Sch.* 61 (1) (2024) 364–379, <https://doi.org/10.1002/pits.23056>.
- [100] A. Bandura, *Self-efficacy: the Exercise of Control*, Freeman & Company, New York, 1997.
- [101] R.E. Sutton, K.F. Wheatley, Teachers' emotions and teaching: a review of the literature and directions for future research, *Educ. Psychol. Rev.* 15 (4) (2003) 327–358, <https://doi.org/10.1023/A:1026131715856>.
- [102] A. Bandura, *Social Foundations of Thought and Action: A Social Cognitive Theory*, Prentice-Hall, Englewood Cliffs, NJ, 1986.

- [103] S. Samanvitha, P.D. Jawahar, Emotional intelligence as a predictor of job satisfaction: a study amongst faculty in India, *IUP J. Manag. Res.* 11 (1) (2012) 7–28, <https://ssrn.com/abstract=2145798>.
- [104] I. Ajzen, C. Czasch, M.G. Flood, From intentions to behavior: Implementation intention, commitment, and conscientiousness, *J. Appl. Soc. Psychol.* 39 (6) (2009) 1356–1372, <https://doi.org/10.1111/j.1559-1816.2009.00485.x>.
- [105] D. Lonsdale, Intentions to cheat: Ajzen's planned behavior and goal-related personality facets, *J. Psychol.* 151 (2) (2017) 113–129, <https://doi.org/10.1080/00223980.2016.1241737>.
- [106] P. Salovey, B.T. Bedell, J.B. Detweiler, J.D. Mayer, Coping intelligently: emotional intelligence and the coping process, in: C.R. Snyder (Ed.), *Coping: the Psychology of what Works*, Oxford Psychology Press, New York, 1999, pp. 141–164.
- [107] C. Brotheridge, R.T. Lee, Testing a conservation of resources model of the dynamics of emotional labor, *J. Occup. Health Psychol.* 7 (1) (2002) 57–67, <https://doi.org/10.1037/1076-8998.7.1.57>.
- [108] C. Maslach, M.P. Leiter, *The Truth about Burnout: How Organizations Cause Personal Stress and what to Do about it*, Jossey-Bass, San Francisco, CA, 1997, 1997.
- [109] E. Demerouti, A.B. Bakker, F. Nachreiner, W.B. Schaufeli, The job demands-resources model of burnout, *J. Appl. Psychol.* 86 (3) (2001) 499–512, <https://doi.org/10.1037/0021-9010.86.3.499>.
- [110] C. Kyriacou, J. Sutcliffe, A model of teacher stress, *Educational studies* 4 (1) (1978) 1–6, <https://doi.org/10.1080/0305569780040101>.
- [111] R. Schwarzer, S. Hallum, Perceived teacher self-efficacy as a predictor of job stress and burnout: mediation analyses, *Appl. Psychol.* 57 (2008) 152–171, <https://doi.org/10.1111/j.1464-0597.2008.00359.x>.
- [112] M. Song, Chinese English as foreign language teachers' self-efficacy and motivation as predictors of burnout, *Front. Psychol.* 13 (2022) 788756, <https://doi.org/10.3389/fpsyg.2021.788756>.
- [113] W. Fu, W. Tang, E. Xue, J. Li, C. Shan, The mediation effect of self-esteem on job-burnout and self-efficacy of special education teachers in Western China, *Int. J. Dev. Disabil.* 67 (4) (2021) 273–282, <https://doi.org/10.1080/20473869.2019.1662204>.
- [114] R. Bar-On, Emotional and social intelligence: Insights from the emotional Quotient Inventory, in: R. Bar-On, J.D.A. Parker (Eds.), *The Handbook of Emotional Intelligence*, Jossey-Bass, San Francisco, CA, 2000, pp. 363–388.
- [115] F. Moafian, A. Ghanizadeh, The relationship between Iranian EFL teachers' emotional intelligence and their self-efficacy in Language Institutes, *System* 37 (4) (2009) 708–718, <https://doi.org/10.1016/j.system.2009.09.014>.
- [116] D. Beijgaard, P.C. Meijer, N. Verloop, Reconsidering research on teachers' professional identity, *Teach. Teach. Educ.* 20 (2) (2004) 107–128, <https://doi.org/10.1016/j.tate.2003.07.001>.
- [117] R. Zonoubi, A.E. Rasekh, M. Tavakoli, EFL teacher self-efficacy development in professional learning communities, *System* 66 (2017) 1–12, <https://doi.org/10.1016/j.system.2017.03.003>.