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Noticing the unnoticed: Teacher self-efficacy as a mediator between school context and teacher burnout in developing regions

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ABSTRACT

Teacher burnout is a phenomenon permeating the education sector. Teachers in developing regions are more likely to experience burnout due to specific school contexts, which may be mediated by teacher self-efficacy. Yet the burnout experiences of high school teachers teaching English as a foreign language (EFL) in developing regions remain under-researched. This study examined the mediating effect of teacher self-efficacy on the relationships between school context variables (supervisory support, relations with colleagues, and time pressure) and teacher burnout. Questionnaire data were collected from 802 high school EFL teachers in China and analyzed using structural equation modeling. The results showed that supervisory support directly predicted personal accomplishment, and relations with colleagues and time pressure directly predicted the three dimensions of burnout. Self-efficacy significantly mediated the effects of the contextual variables on emotional exhaustion and personal accomplishment. Theoretical and practical implications for reducing high school teachers' burnout for the sake of promoting educational equality in developing regions are finally addressed.

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Observando lo inadvertido: la autoeficacia docente como mediador entre el contexto escolar y el agotamiento docente en regiones en desarrollo

RESUMEN

El agotamiento docente es un fenómeno notablemente presente en el sector educativo. El profesorado en regiones en desarrollo tiene más probabilidades de experimentar agotamiento debido a los contextos escolares específicos donde se desempeñan, lo cual puede ser mediado por la autoeficacia docente. A pesar de esta realidad, las experiencias de agotamiento en docentes de secundaria de inglés como lengua extranjera (ILE) en regiones en desarrollo permanecen insuficientemente investigadas. En este artículo, se examina el efecto mediador de la autoeficacia docente en las relaciones entre las variables del contexto escolar (apoyo de supervisores, relaciones con compañeros y compañeras de trabajo y presión de tiempo) y el agotamiento docente. A través de cuestionarios, se han recopilado datos de 802 docentes de ILE de secundaria en China y se han analizado mediante modelos de ecuaciones estructurales. Los resultados muestran que el apoyo de supervisores actúa como un predictor directo del logro personal, y que las relaciones con compañeros y compañeras de trabajo junto a la presión de tiempo funcionan como predictores directos de las tres dimensiones del agotamiento. Asimismo, la autoeficacia media de manera significativa los efectos de las variables contextuales sobre el agotamiento emocional y el logro personal. Finalmente, se establecen implicaciones teóricas y prácticas para reducir el agotamiento de los docentes de secundaria con el objetivo de fomentar la igualdad educativa en regiones en desarrollo.

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Palabras clave:

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Introduction

Teaching is considered a profession characterized by high levels of stress (Skaalvik & Skaalvik, 2020). This is attributed to various job demands, such as work overload, lack of supervisory support, and disruptive pupil behaviors (Hakanen et al., 2006). These factors can collectively exacerbate the emotional burden on teachers. For instance, when dealing with anger caused by students' misbehavior, teachers often need to perform emotional labor to maintain a positive educational environment (Peng et al., 2023). In doing so, teachers have to manage privately their frustration and negative emotions, a process that can be both demanding and isolating. Hence, the emotional demands of a teacher, according to Chang (2009), are salient compared to other professions.

Burnout, among the negative emotions frequently observed among teachers, deserves particular attention. Teacher burnout is defined as “exhaustion, negative self evaluation (non-accomplishment) and negative attitudes towards students” (Friedman, 1993 p. 1036). It can negatively affect teachers and students by reducing teachers' job satisfaction and impairing students' academic performance (Van Droogenbroeck et al., 2021). Language teachers may be more prone to burnout due to the difficulties inherent to this profession, such as the demand for teachers' high proficiency in the target language (Nayernia & Babayan, 2019) and the intricate confluence of personal, social, and psychological factors in learning a new language, alongside structural differences between L1 and L2 (Ellis, 2015). This is particularly evident among senior high school English-as-a-foreign-language (EFL) teachers, like those in China, who are under pressure of preparing teenage students for the highly competitive national college entrance examination (Liu & Chu, 2022). Furthermore, EFL teachers in developing regions often confront additional hardships such as outdated teaching equipment, limited resources, and oversized classes (Gao & Xu, 2014; Zhang et al., 2023). These constraints can inhibit the teachers' capacity to develop students' language skills. Therefore, understanding the burnout experiences of EFL teachers necessitates the examination of the unique contextual challenges faced in different educational environments.

An important individual internal factor that may offset teacher burnout is teachers' self-efficacy. Self-efficacy refers to “beliefs in one's own capability to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 3). It has been reported that self-efficacy was negatively correlated with EFL teachers' burnout (Khani & Mirzaee, 2015). According to Bandura (1997), self-efficacy can be cultivated through observing others' successes (i.e., vicarious experiences) and receiving positive reinforcement (i.e., social persuasion). This indicates that contextual factors may have direct associations with teacher self-efficacy, which implies that the relationship between contextual factors and teacher burnout may be mediated by teacher self-efficacy. In light of these theoretical considerations, it becomes imperative to test such relationships between contextual factors, self-efficacy, and burnout, particularly among EFL teachers in developing regions, as insights gleaned are pivotal in mitigating teacher burnout. When teachers are less stressed and more empowered, they are better able to deliver teacher support and quality English education to students from these regions, thereby promoting educational equality. The phrase ‘developing regions’ in this study was used to denote areas where the local economy has lagged behind other developed regions in the same province due to geographical constraints or sociohistorical factors.

Teacher burnout

Burnout is conceptualized as a psychological syndrome resulting from chronic stress triggered in occupations especially those involving human service, including teachers. It is a multidimensional construct comprising three components: emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach et al., 1996). Emotional exhaustion refers to overwhelming feelings of languidness and being drained from work; depersonalization concerns cynical attitudes towards and detachment from work and surrounding people; and reduced personal accomplishment refers to a sense of inadequacy or low achievement involving belittling what one is doing (Van Droogenbroeck et al., 2021). Maslach et al. (2001) proposed sequential effects of the three components, maintaining that emotional exhaustion results in depersonalization, which then leads to reduced personal accomplishment. The three components are operationalized in Maslach et al.'s (1996) Maslach Burnout Inventory (MBI), an instrument that has been employed to measure burnout (Khajavy et al., 2017). Notably, these components are viewed as stand-alone constructs that cannot be added up as a single measure (Van Droogenbroeck et al., 2021). According to Hakanen et al. (2006), teacher burnout has a myriad of causes and profound consequences. Common stressors include low student motivation, time pressures, hefty workloads, challenging relationships with peers or administration, and lack of administrative support (Montgomery & Rupp, 2005). These organizational stressors, intertwined with individual aspects like personality traits and self-efficacy, contribute to teacher burnout (Chang, 2009). The aftermath of teacher burnout can be highly impactful. Teachers suffering from burnout may experience negative emotions, a lack of engagement and commitment, and a decline in classroom performance (Hakanen et al., 2006).

Previous research on EFL teachers has explored teacher burnout in relation to factors like self-perceived English proficiency (Nayernia & Babayan, 2019) or teaching motivation and emotions (Khajavy et al., 2017). However, the specific impact of school context and self-efficacy on burnout, which has captured prolific attention in general educational research (e.g., Huk et al., 2019; Skaalvik & Skaalvik, 2011), remains underexplored in the context of EFL teaching. A notable exception is Khani and Mirzaee's (2015) study which links contextual variables to burnout, both directly and via stressors and self-efficacy. However, Khani and Mirzaee's (2015) study, conducted among Iranian teachers in private language institutes, did not explore personal achievement, a crucial component of burnout. Further research is essential for a more substantial understanding of how self-efficacy may mitigate adverse effects of contextual variables on teacher burnout in other contexts.

School context

School context, also known as working conditions or situated factors (Skaalvik & Skaalvik, 2011), is a slippery concept that may be broadly understood as job demands and job resources in the educational context (Skaalvik & Skaalvik, 2020). Hakanen et al. (2006) confirmed that job demands such as work overload and pupil misbehavior cause teacher burnout, while job resources such as supervisory support and positive social climate can reduce teacher burnout and increase teacher engagement. The multifaceted nature of school context encompasses various aspects, such as school climate (Van Droogenbroeck et al., 2021), interpersonal relation-

ship, and work environment (Hsieh et al., 2022). In their earlier work, Skaalvik and Skaalvik (2011) delved into six contextual factors, namely value consonance, supervisory support, relations with colleagues, relations with parents, time pressure, and discipline problems. Their subsequent study (Skaalvik & Skaalvik, 2020) incorporated additional factors such as low student motivation and dissonant value context. This highlights the diversity and potentially non-exhaustive character of school context.

The present study concentrated on three variables of school context pertinent to the focal participants: supervisory support, relations with colleagues, and time pressure. This concentration on the particular variables is underpinned by the following rationale. Firstly, the three variables were found to be most saliently pertinent to high school EFL teachers in developing regions (Zhang et al., 2023). Secondly, while school context can embed numerous factors, prioritizing specific factors could enhance model parsimony (Hair et al., 2010). Given that contextual factors were treated as exogenous variables in our mediation effect analysis, focusing on a selective number of variables could help avoid undue model complexity. Thirdly, paralleling Khani and Mirzaee's (2015) study, which focused on only two contextual factors (i.e., time pressure and discipline problems), we probed into three factors of primary interest in the current research context. Supervisory support, as a significant factor influencing teacher burnout (Skaalvik & Skaalvik, 2020), was confirmed as crucial for offsetting resource constraints in the developing regions (Zhang et al., 2023). Additionally, relations with colleagues and time pressure are also notable factors for the high school EFL teachers in this study since they typically have to prepare lessons collectively and many also undertake the demanding role of homeroom teachers.

Prior research has presented mixed findings on the impact of supervisory support, relations with colleagues, and time pressure on teachers' burnout experiences or well-being. Among the three factors, supportive leadership and positive collegial relations constitute the social resources available in the immediate school context. Supervisory support has been identified as a negative predictor of emotional exhaustion (Skaalvik & Skaalvik, 2020), and administrative support was found to be inversely correlated with teacher burnout in US high schools (Huk et al., 2019). Conversely, the effects of time pressure on teachers' emotions seems less unequivocal. Perceived time pressure was a positive predictor of emotional exhaustion among Norwegian elementary and middle school teachers (Skaalvik & Skaalvik, 2011) and senior high school teachers (Skaalvik & Skaalvik, 2020). However, time pressure also consistently predicted higher job satisfaction among teachers (Skaalvik & Skaalvik, 2011, 2017). These findings underscore the necessity for further research to elucidate the nuanced effects of time pressure on teachers' experience of burnout.

Teacher self-efficacy

Originating from the social cognitive theory, self-efficacy underscores human agency in managing life circumstances (Bandura, 2006). Bandura (1997) delineated four sources of self-efficacy: enactive mastery experiences, vicarious learning experiences, verbal persuasion, and physiological and affective states. Building on Bandura's framework, Tschannen-Moran et al. (1998) introduced a teacher self-efficacy measure encompassing instructional strategies, classroom management, and student engagement. Self-efficacy in instructional strategies concerns teachers' beliefs in their

ability to use various teaching strategies effectively; self-efficacy in classroom management refers to beliefs in one's ability to regulate students' behavior during class; and self-efficacy in student engagement reflects teachers' beliefs in their ability to motivate students to embrace and participate in the learning process. This three-factor model has been endorsed in many previous studies (Khani & Mirzaee, 2015; Tschannen-Moran & Hoy, 2001; Wang et al., 2015; Xu & Jia, 2022).

Self-efficacy has been reported to be linked with contextual factors (Fackler et al., 2021; Khani & Mirzaee, 2015). It can be developed by witnessing others' achievements and through positive feedback, both of which are cued by the context (Bandura 1997). In Fackler et al.'s (2021) study synthesizing data from more than 30 countries, the principal's leadership style was found to be significantly related to teacher self-efficacy. Khani and Mirzaee's (2015) investigation showed that factors such as time pressure, discipline problems, and working relation were related to teacher self-efficacy, which in turn predicted teacher burnout. This suggests that teacher self-efficacy may serve as a significant mediator in the relationship between school context and teacher burnout. Extensive research has highlighted the significant impact of teacher self-efficacy on teachers' psycho-emotional experiences. Teachers with higher self-efficacy exhibit lower burnout levels (Huk et al., 2019) and higher resilience (Yada et al., 2021). Resilience generally denotes an individual's ability to adapt successfully or bounce back in the face of difficulties and obstacles (Gu & Day, 2007), which has been found to mitigate EFL teachers' burnout (Li, 2023). In the domain of EFL teaching, self-efficacy was identified as a negative predictor of teacher burnout (Khani & Mirzaee, 2015) and emotional exhaustion (Xu & Jia, 2022). Alibakhshi et al.'s (2020) study involving 20 Iranian EFL teachers affirmed the effects of teacher self-efficacy on teacher burnout, psychological well-being, and job satisfaction. Despite the burgeoning evidence, questions remain about the extent to which high school EFL teachers' self-efficacy is influenced by school contextual factors and how it mediates the relationship between contextual factors and teacher burnout.

Based on the literature reviewed above, this study, which was conducted among senior high school EFL teachers in less developed regions in China, set out to address the following research questions: (RQ1) How are the school context variables (i.e., supervisory support, relations with colleagues, and time pressure) related to teacher burnout?; (RQ2) How does self-efficacy mediate the relationship between the school context variables and teacher burnout?

Drawing on Bandura's (1997) theoretical propositions and prior empirical evidence, this study proposed a conceptual model (Figure 1) for testing. The three contextual variables were hypothesized to have direct effects on teacher burnout. The three dimensions of burnout were treated as separate constructs (Van Droogenbroeck et al., 2021). Teacher self-efficacy was postulated to mediate the relationship between school context and teacher burnout. Given the current research focus on the global construct of teacher self-efficacy and the established validity of its tri-dimension structure (Tschannen-Moran & Hoy, 2001), teacher efficacy was specified as a second-order construct, with its three dimensions as the first-order constructs, which is a common practice in previous studies (Huang et al., 2019; Khani & Mirzaee, 2015; Xu & Jia, 2022). In addition, emotional exhaustion was posited to predict depersonalization which adversely affects personal accomplishment (Maslach et al., 2001).

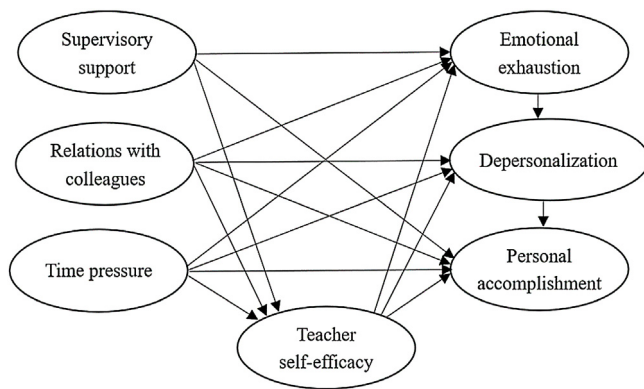


Figure 1. Conceptual model of the study.

Method

Participants

The sample of this study consisted of teachers from three developing regions in southern China. All of the senior high school EFL teachers participating in this study were native Chinese speakers and the majority of them held a Bachelor's Degree. This study initially recruited 862 teachers and all of them participated in the survey. Upon data screening, 802 valid cases were retained (presented later). Of the 802 participants, 81 were males (10.1%) and 721 were females (89.9%). In terms of the distribution of age, 85 (10.6%) were aged between 20 and 29, 417 (52.0%) between 30 and 39, 236 (29.4%) between 40 and 49, and 64 (8.0%) 50 or above. As to educational background, three (0.4%) of the participants held an Associate degree, 745 (92.9%) a Bachelor's degree, 52 (6.5%) a Master's degree, and two (0.2%) did not report holding any of the above degrees.

Measurement instruments

School context was measured by nine items adopted from Skaalvik and Skaalvik's (2011) study. This instrument comprises three scales (three items for each) measuring *supervisory support*, *relations with colleagues*, and *time pressure*. Responses to the items are given on a six-point scale from 1 = completely disagree to 6 = completely agree.

Teacher self-efficacy was captured by 12 items measuring three aspects: *efficacy in instructional strategies* (EIS), *efficacy in classroom management* (ECM), and *efficacy in student engagement* (ESE). Each of the three aspects was measured by four items adopted from Tschannen-Moran and Hoy (2001). Following Khani and Mirzaee (2015), the participants were asked to give their responses on a five-point scale anchored from 1 = nothing to 5 = a great deal to indicate their self-perceived capacities.

Teacher burnout was assessed by adapting the MBI (Maslach et al., 1996). This is a 22-item instrument tapping three dimensions: *emotional exhaustion* (nine items), *depersonalization* (five items), and *personal accomplishment* (eight items). The participants were asked to indicate their view of each item from completely disagree to completely agree on a six-point Likert scale (Skaalvik & Skaalvik, 2011). Upon testing the construct validity of this measure, one item from depersonalization ("I feel students blame me for some of their

problems") and two items from personal accomplishment ("I can easily understand how my students feel about things", and "I feel very energetic") were removed due to low loadings, resulting in 19 items.

Procedure

This study was conducted from July to November 2021, when the COVID-19 pandemic was still rampant. A questionnaire comprising the Chinese version of the scales was used. The Chinese version was generated based on the Chinese translation of these scales that have been widely applied in China and was then reviewed and verified by all the members of the research team, who were university faculty specializing in English. The survey was anonymous and administered via Wenjuanxing (www.sojump.com), the most frequently used online survey platform in China. Participants were mainly recruited in a training program designed for secondary school English teachers during the summer vacation, although invitations to participate were also sent to those who did not attend the program. Prior to this study, ethical approval was obtained from the university where this research project was based and from the administration of this university that organized the teaching training program. Detailed instructions were given at the beginning of the questionnaire, informing prospective participants of the research purposes, the optionality of their participation, and the confidentiality of their responses.

Data analysis

Data screening was performed to check for missing data, outliers, and distribution normality. The dataset contained no missing values. Univariate outliers were examined by computing Z-standardized values (Tabachnick & Fidell, 2014), and 50 cases were thus removed. The assumption of univariate normal distribution was met since the skewness and kurtosis values were within the recommended range between -2 and $+2$ (Kunnan, 1998). Multivariate outliers were detected by obtaining Mahalanobis distances at the level of .001 (Tabachnick & Fidell, 2014), which resulted in ten cases being removed. The resulting dataset contained a total of 802 cases.

Confirmatory factor analysis (CFA) was first conducted to examine the measurement validity of each variable. Thus, three maximum-likelihood CFAs were run using AMOS 24.0. Model evaluation was made by drawing on the goodness-of-fit indices including χ^2 statistics, χ^2/df , the Goodness-of-Fit Index (GFI), the Normed-Fit-Index (NFI), the Tracker-Lewis Index (TLI), the Comparative Fit Index (CFI), and the Root-Mean-Square Error of Approximation (RMSEA). The normed χ^2 with values lower than five are deemed to indicate a reasonable fit (Hair et al., 2010). GFI, NFI, TLI, and CFI with values above .90 and RMSEA with values below .08 were considered to indicate the goodness of fit of measurement models and the structural model being acceptable (Hair et al., 2010). Internal consistency reliability (Cronbach's α) and composite reliability (CR) values greater than .70, and average variance extracted (AVE) above .50 are considered acceptable (Hair et al., 2010).

Structural equation modeling (SEM) was employed to test the direct effects of the three school context variables on the three dimensions of teacher burnout and the mediation of teacher self-efficacy in the relationship between school context and teacher

Table 1
Cronbach's α , Omega, CR, and AVE

	α [95% CI]	ω [95% CI]	CR	AVE
1. Supervisory support	.864 [.847–.879]	.870 [.854–.886]	.862	.678
2. Relations with colleagues	.907 [.894–.918]	.909 [.898–.921]	.918	.792
3. Time pressure	.760 [.725–.792]	.760 [.710–.803]	.772	.631
4. Self-efficacy	.906 [.896–.915]	.906 [.896–.915]	.950	.615
5. -in instructional strategies	.780 [.753–.804]	.781 [.757–.806]	.793	.492
6. -in classroom management	.904 [.893–.915]	.906 [.895–.917]	.900	.691
7. -in student engagement	.871 [.855–.885]	.872 [.857–.886]	.887	.662
8. Emotional exhaustion	.884 [.872–.896]	.889 [.878–.901]	.857	.422
9. Depersonalization	.882 [.868–.895]	.887 [.874–.900]	.886	.668
10. Personal accomplishment	.868 [.853–.881]	.868 [.854–.882]	.872	.534

Table 2
Descriptive statistics and correlation matrix

	1	2	3	4	5	6	7	8	9	10
1. Supervisory support	1									
2. Relations with colleagues	.465**	1								
3. Time pressure	-.151**	.091*	1							
4. Self-efficacy	.392**	.380**	.092**	1						
5. -in instructional strategies	.319**	.327**	.106**	.841**	1					
6. -in classroom management	.257**	.360**	.073*	.828**	.547**	1				
7. -in student engagement	.411**	.272**	.056	.850**	.602**	.527**	1			
8. Emotional exhaustion	-.208**	-.156**	.442**	-.144**	-.073*	-.214**	-.073*	1		
9. Depersonalization	-.188**	-.301**	.120**	-.242**	-.211**	-.285**	-.115**	.690**	1	
10. Personal accomplishment	.424**	.443**	.094**	.631**	.523**	.529**	.536**	-.228**	-.384**	1
M	4.394	5.112	4.727	3.804	3.681	4.136	3.594	3.310	2.170	4.853
SD	1.013	0.704	0.825	0.471	0.522	0.577	0.582	0.916	1.128	0.649

Note. * $p < .05$. ** $p < .01$.

burnout. Bootstrapping was performed to calculate a 95% confidence interval (CI) with 5,000 bootstrap samples (Hayes, 2009) and test the indirect effects. If the 95% CI crosses zero, the indirect effects are non-significant.

Results

Construct reliability and validity, and descriptive statistics

The initial results of CFAs showed that the measurement models of school context and teacher self-efficacy reasonably fit the data. The measurement model of teacher burnout displayed fitness to the data after one item from *depersonalization* and two items from *personal accomplishment* were progressively removed due to low loadings. The fit indices for the three measurement models are as follows: school context ($\chi^2 = 70.138$, $\chi^2/df = 4.676$, GFI = .978, NFI = .983, TLI = .975, CFI = .987, RMSEA = .068 [90% CI .052 – .084]), teacher self-efficacy ($\chi^2 = 204.026$, $\chi^2/df = 4.534$, GFI = .957, NFI = .964, TLI = .958, CFI = .971, RMSEA = .066 [90% CI .057–.076]), and teacher burnout ($\chi^2 = 858.798$, $\chi^2/df = 6.091$, GFI = .893, NFI = .914, TLI = .912, CFI = .927, RMSEA = .080 [90% CI .075 – .085]). Table 1 shows Cronbach's α , Omega reliability coefficients with confidence intervals computed using JASP software (<https://jasp-stats.org/download/>), along with CR, and AVE. These metrics were generally acceptable although the AVEs for *efficacy in instructional strategies* and *emotional exhaustion* were slightly lower than .50.

Table 2 shows the descriptive statistic and correlation matrix. Of the three contextual factors, *relations with colleagues* had the highest mean score ($M = 5.112$, $SD = 0.704$), followed by *time pressure* ($M = 4.727$, $SD = 0.825$) and *supervisory support* ($M = 4.394$, $SD = 1.013$). As for teacher self-efficacy, the participants scored highest on *efficacy in classroom management* ($M = 4.136$, $SD = 0.577$), next on *efficacy in instructional strategies* ($M = 3.681$, $SD = 0.522$), and on *efficacy in student engagement* ($M = 3.594$, $SD = 0.582$). Regarding burnout, the positive dimension of this construct, i.e., *personal accomplishment* was most endorsed, with a mean score of 4.853 ($SD = 0.626$). The mean scores of the two negative dimensions, *emotional exhaustion* ($M = 3.310$, $SD = 0.916$) and *depersonalization* ($M = 2.170$, $SD = 1.128$), were lower with higher standard deviations.

The interpretation of the magnitude of the correlation coefficients in Table 2 was based on Field's (2013) criteria that values reaching .10, .30, and .50 signal small, medium, and large effect size (ES), respectively. The correlation matrix in Table 2 indicates that *emotional exhaustion* was significantly negatively correlated with *supervisory support*, *relations with colleagues*, and all dimensions of teacher self-efficacy with medium ES while positively correlated with *time pressure* ($r = .442$, $p < .01$, medium ES). Similarly, *depersonalization* was also positively correlated with *time pressure* ($r = .120$, $p < .01$, small ES), while its correlations with the other two factors of school context and the dimensions of self-efficacy were all negative and mostly with small ES. *Time pressure* was significantly correlated with all other variables except *efficacy in student engagement* ($r = .056$, $p > .05$). In addition, the three dimensions of teacher self-efficacy all had significant negative correlations with *emotional exhaustion* and *depersonalization* with negligible to small

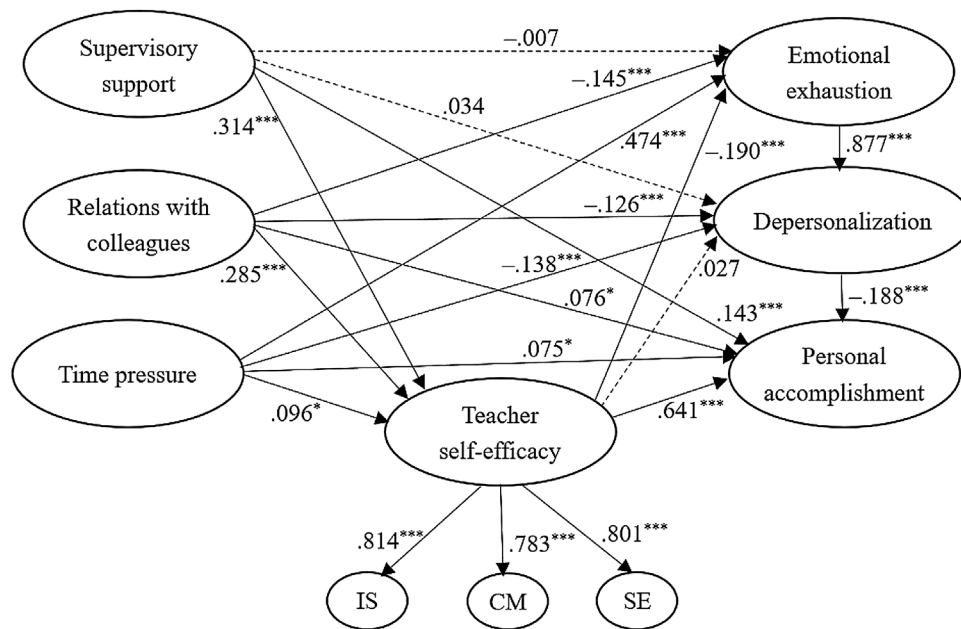


Figure 2. The SEM results of the study.

ES, while exhibiting significant positive correlations with *personal accomplishment* with large ES.

The structural model

The SEM results (Figure 2) showed that the model reasonably fit the data ($\chi^2 = 2022.618$, $df = 646$, $\chi^2/df = 3.131$, $GFI = .878$; $NFI = .907$; $TLI = .925$; $CFI = .934$; $RMSEA = .052$ [90% CI .049–.054]). The model explained 31.0% of the variance in *emotional exhaustion*, 71.2% of the variance in *depersonalization*, and 67.3% of the variance in *personal accomplishment*. Specifically, *supervisory support* was positively related to *personal accomplishment* ($\beta = .143$, $p < .001$), but had no significant direct relationship with *emotional exhaustion* or *depersonalization*. *Relations with colleagues* was significantly negatively related to *emotional exhaustion* ($\beta = -.145$, $p < .001$) and *depersonalization* ($\beta = -.126$, $p < .001$), and positively related to *personal accomplishment* ($\beta = .076$, $p < .05$). *Time pressure* was positively related to *emotional exhaustion* ($\beta = .474$, $p < .001$) and *personal accomplishment* ($\beta = .075$, $p < .05$) while negatively related to *depersonalization* ($\beta = -.138$, $p < .001$).

Teacher self-efficacy was negatively correlated with *emotional exhaustion* ($\beta = -.190$, $p < .01$) and positively correlated with *personal accomplishment* ($\beta = .641$, $p < .01$). It had no significant relationship with *depersonalization* ($\beta = .027$, $p > .05$). In addition, of the three components of teacher burnout, *emotional exhaustion* was significantly positively related to *depersonalization* ($\beta = .877$, $p < .001$), while *depersonalization* was negatively related to *personal accomplishment* ($\beta = -.188$, $p < .001$).

Mediation analyses

Tables 3 to 5 present the mediating effect of teacher self-efficacy on the relationship between the three school context variables and teacher burnout. The effect size of the mediator is indicated by the point estimate of the indirect effect, and the indirect effects shown in these tables are unstandardized.

As seen in Table 3, while the direct effect and total effect of *supervisory support* on *emotional exhaustion* were non-significant, its indirect effect via teacher self-efficacy ($-.063$) was significant. Its effect on *personal accomplishment* was also significantly mediated by self-efficacy (0.125). *Supervisory support* was not significantly indirectly related to *depersonalization* (0.008).

Table 4 shows a negative mediating effect of teacher self-efficacy on the relationship between *relations with colleagues* and *emotional exhaustion* ($-.089$). Self-efficacy positively mediated the relationship between *relations with colleagues* and *personal accomplishment* (0.175). While *relations with colleagues* were negatively related to *depersonalization* ($-.0186$), this relationship was not significantly mediated by self-efficacy (0.011).

In the same vein, it can be seen in Table 5 that teacher self-efficacy exhibited a negative mediating effect on the relationship between *time pressure* and *emotional exhaustion* ($-.017$). In contrast, self-efficacy positively mediated the relationship between *time pressure* and *personal accomplishment* (0.033). Its mediating effect on the relationship between *time pressure* and *depersonalization* was non-significant (0.002).

Overall, some patterns appeared to emerge consistently from the mediation analyses. Teacher self-efficacy significantly negatively mediated the relationships between the three school context variables and *emotional exhaustion*, and positively mediated the relationships between the school context variables and *personal*

Table 3
Mediation of self-efficacy between supervisory support and burnout

Dependent variable	Path relationship	Point estimate	Bootstrapping 5000 times 95% CI			
			Bias-corrected		Percentile 95%	
			Lower	Upper	Lower	Upper
EE	Indirect effect					
	SS→TSE→EE	−0.063	−0.109	−0.031	−0.106	−0.029
	Direct effect					
	SS→EE	−0.008	−0.121	0.106	−0.125	0.103
	Total effect					
DP	SS→EE	−0.071	−0.181	0.037	−0.185	0.033
	Indirect effect					
	SS→TSE→DP	0.008	−0.011	0.029	−0.011	0.028
	Direct effect					
	SS→DP	0.032	−0.038	0.1	−0.038	0.1
PA	Total effect					
	SS→DP	0.04	−0.026	0.105	−0.025	0.106
	Indirect effect					
	SS→TSE→PA	0.125	0.079	0.175	0.079	0.175
	Direct effect					
	SS→PA	0.089	0.037	0.149	0.037	0.15
	Total effect					
	SS→PA	0.213	0.153	0.281	0.155	0.282

Note. EE = emotional exhaustion; DP = depersonalization; PA = personal accomplishment; SS = supervisory support; TSE = teacher self-efficacy.

Table 4
Mediation of self-efficacy between relations with colleagues and burnout

Dependent variable	Path relationship	Point estimate	Bootstrapping 5000 times 95% CI			
			Bias-corrected		Percentile 95%	
			Lower	Upper	Lower	Upper
EE	Indirect effect					
	RC→TSE→EE	−0.089	−0.160	−0.036	−0.159	−0.036
	Direct effect					
	RC→EE	−0.238	−0.378	−0.114	−0.377	−0.112
	Total effect					
DP	RC→EE	−0.328	−0.463	−0.201	−0.465	−0.202
	Indirect effect					
	RC→TSE→DP	0.011	−0.014	0.042	−0.015	0.041
	Direct effect					
	RC→DP	−0.186	−0.277	−0.099	−0.276	−0.097
PA	Total effect					
	RC→DP	−0.175	−0.265	−0.086	−0.263	−0.085
	Indirect effect					
	RC→TSE→PA	0.175	0.108	0.25	0.108	0.25
	Direct effect					
	RC→PA	0.073	−0.004	0.15	−0.005	0.149
	Total effect					
	RC→PA	0.249	0.159	0.34	0.159	0.34

Note. EE = emotional exhaustion; DP = depersonalization; PA = personal accomplishment; RC = relations with colleagues; TSE = teacher self-efficacy.

accomplishment. However, the effects of these school context variables on *depersonalization* were not mediated by teacher self-efficacy.

Discussion

The relationships between school context variables and burnout

The SEM results indicated that supervisory support was related significantly to personal accomplishment. This result implies that supervisory support from the school administration could boost teachers' sense of personal accomplishment. It attests to [Hakanen et al.'s \(2006\)](#) research result that supervisory support as a type of job resources functioned to stimulate personal devel-

opment. In contrast, this study found that supervisory support did not significantly predict emotional exhaustion and depersonalization. Coincidentally, in [Skaalvik and Skaalvik's \(2011\)](#) study, supervisory support and emotional exhaustion were also not correlated. These findings seem to suggest that managerial influences from school administration may not be able to directly reduce teachers' negative emotions or cynical attitudes in their workplace. As [Van Droogenbroeck et al. \(2021\)](#) cautioned, there is "much less room for school-specific policies to address burnout at the collective level" because burnout is "first and foremost an internal psychological phenomenon" (p. 308) that depends on how individual teachers appraise job demands and resources. This proposition supports, to some extent, the mediation of teacher self-efficacy in the relationship between school context

Table 5
Mediation of self-efficacy between time pressure and burnout

Dependent variable	Path relationship	Point estimate	Bootstrapping 5000 times 95% CI			
			Bias-corrected		Percentile 95%	
			Lower	Upper	Lower	Upper
EE	Indirect effect	-0.017	-0.044	-0.002	-0.042	-0.001
	TP→TSE→EE					
	Direct effect					
	TP→EE					
	Total effect					
DP	TP→EE	0.439	0.351	0.543	0.347	0.54
	TP→EE	0.422	0.339	0.523	0.334	0.515
	Indirect effect	0.002	-0.002	0.012	-0.003	0.01
	TP→TSE→DP					
	Direct effect					
PA	TP→DP	-0.114	-0.17	-0.063	-0.171	-0.064
	Total effect	-0.112	-0.166	-0.062	-0.166	-0.063
	TP→DP					
	Indirect effect					
	TP→TSE→PA	0.033	0.002	0.071	0.002	0.071
	Direct effect	0.04	0.004	0.081	0.004	0.081
	TP→PA					
	Total effect					
	TP→PA	0.073	0.026	0.126	0.027	0.128

Note. EE = emotional exhaustion; DP = depersonalization; PA = personal accomplishment; TP = time pressure; TSE = teacher self-efficacy.

and burnout identified in this study (a point we will return to later).

The second contextual variable, relations with colleagues, was found to have direct effects on the three dimensions of burnout, indicating that supportive colleagues can mitigate burnout symptoms and enhance a sense of achievement. This compares favorably with Skaalvik and Skaalvik's (2011) finding that positive collegial relations boost teachers' sense of belonging, thereby reducing emotional exhaustion. Similar benefits on EFL teachers' well-being have been noted by Gregersen et al. (2023) and Liu and Chu (2022). Given that teachers interact with colleagues more frequently than with administrators, the quality of these relations greatly shapes the school's social climate that directly influences teachers' emotions and attitudes. Van Droogenbroeck et al. (2021) affirmed that a collaborative school climate, underpinned by peer support, was linked to lower emotional exhaustion and depersonalization, and higher personal accomplishment. This is crucial for senior high school EFL teachers because they are often engaged in team teaching that necessitates collaborative relationships with colleagues (Yuan & Zhang, 2016). In brief, the present evidence underscores the pivotal role of collegial relations in addressing burnout among senior high school EFL teachers, which resonates with broader educational research on the role of school social climate in teacher burnout (Grayson & Alvarez, 2008; Skaalvik & Skaalvik, 2011, 2017; Van Droogenbroeck et al., 2021).

The effects of time pressure on the three dimensions of burnout warrant closer attention. This study found that time pressure had the strongest effect on emotional exhaustion than on the other two dimensions. The regression weight of the path from time pressure to emotional exhaustion was high ($\beta = .497$) and comparable to the coefficient ($\beta = .48$) reported in Skaalvik and Skaalvik (2011). Likewise, time pressure alone (Skaalvik & Skaalvik, 2017, 2020) or as an indicator of school context (Khani & Mirzaee, 2015) has been consistently found to predict symptoms of burnout. Grounded in these findings, it can be inferred that lack of time is a salient factor causing teachers' emotional exhaustion. This is especially true for EFL

teachers, the majority of whom are females (Peng, 2020), as was the case in this study. Since females are usually the primary bearer of family duties, teaching and/or service workloads in school may often compete for their time and energy, which can easily lead to emotional exhaustion.

This study revealed that time pressure negatively predicted depersonalization and positively predicted personal accomplishment (Figure 2), which contrasts with previous findings where time pressure is seen as an adverse factor (e.g., Skaalvik & Skaalvik, 2011). For example, Khani and Mirzaee's (2015) study indicated that time pressure was associated with increased teacher burnout. However, the current results suggested that teachers with limited time were less likely to exhibit depersonalization and had a stronger sense of achievement. This discrepancy might stem from differing construct treatments between studies. Specifically, time pressure and depersonalization were treated as indicators of the latent construct of burnout in Khani and Mirzaee's (2015) study but as stand-alone constructs in the present study. Another reason may be that although lack of time can cause stress, teachers who value their job may nonetheless adopt coping strategies and enlist support from others (Chan & Hui, 1995; Kyriacou, 2001). This aligns with Chang's (2009) proposition that dedicated workers, despite being susceptible to burnout, tend to pursue their ideals, attain achievement, and nurture positive interpersonal connections, which could explain the unexpected role of time pressure observed in this study.

The mediating effect of teacher self-efficacy

This study confirmed that teacher self-efficacy significantly mediated the relationships between school context and emotional exhaustion and personal accomplishment, but not between school context and depersonalization. First, the three contextual variables were all significantly positively related to self-efficacy, indicating that institutional contexts play essential roles in boosting teachers' self-efficacy. The results resonate with Skaalvik and Skaalvik's

(2017) finding that supportive social climate predicted teachers' self-concept. Similarly, interpersonal relationships (Hsieh et al., 2022) have been found to have significant impacts on teacher self-efficacy. In addition, self-efficacy negatively predicted emotional exhaustion and positively predicted personal accomplishment. These significant relationships conform to the findings of Wang et al.'s (2015) study among teachers from elementary schools, secondary schools, and junior colleges in Canada. Xu and Jia's (2022) study among 295 Chinese EFL teachers also demonstrated a negative effect of self-efficacy on emotional exhaustion. Hence, it may be inferred that efficacious EFL teachers are inclined to benefit from contextual influences to alleviate their emotional exhaustion and acquire personal accomplishment. On the contrary, this study showed that depersonalization was not directly predicted by self-efficacy nor indirectly by contextual variables. This may be because depersonalization was a less salient phenomenon among the participating teachers (see its low mean value in Table 1), and thus was not substantially accounted for by the contextual variables and self-efficacy.

The current findings highlight the significance of self-efficacy among EFL teachers. As previously discussed, teaching English in an EFL setting presents numerous challenges. EFL teachers need to possess sufficient English proficiency, but in the meantime often have to grapple with students' limited English skills or insufficient contextual resources. Moreover, the practice of livestream EFL teaching triggered by the COVID-19 outbreak has been found to induce considerable anxiety among high school EFL teachers in China (Liu et al., 2022). Given that this study was conducted amidst the pandemic, the participating teachers' responses to the questionnaire may have been influenced by their experience with online teaching. In addition, efficacious teachers might have higher levels of resilience (Li, 2023; Yada et al., 2021), and thereby were able to withstand challenges and experience less burnout (Li, 2023). In brief, when situated in a school environment possibly disadvantaged by a less developed local economy, teachers' self-efficacy levels (e.g., in managing teaching and engaging students) could greatly influence how they acted on contextual affordances or constraints, which in turn led to different levels of burnout.

The result indicates a highly positive correlation between time pressure and self-efficacy, suggesting that teachers feeling time-constrained tend to exhibit higher self-efficacy. This may be because, as addressed above, feelings of time pressure may often be experienced by teachers who are engaged in teaching and have the ambition to excel in work. Besides, given the strong link between self-efficacy and personal accomplishment ($\beta = .636$, Figure 2), time pressure had a significant indirect effect on personal accomplishment. This echoes Lee and McGrath's (1995) insightful argument that "time pressure should not always be viewed as a negative undesirable experience—it can in fact be a spur to accomplishment and enjoyment" (p. 85). Although high job demands may induce time pressure, successful task completion could enhance self-efficacy, boosting personal accomplishment and reducing emotional exhaustion. These results could be interpreted with regard to specific contexts. Zhang et al. (2023) elucidated how teachers in developing regions enacted their agency to visit students' families and garnered support from the students' parents. Although such activities consumed the teachers' time, they could engender significant job satisfaction. This indicates that perceived time pressure caused by teachers' dedication to their job may, in turn, can boost their confidence in managing educational responsi-

bilities, which may help increase a sense of accomplishment. Hence, the interplay between time pressure and the psycho-emotional states of the participants in this study necessitates a contextual interpretation.

In summary, this study has shed light on the mediation of self-efficacy in the relationship between school context and teacher burnout among high school EFL teachers. A particular novel finding is that time pressure is not necessarily a troublesome factor, whose effects could be mediated by teacher self-efficacy to induce different psychological experience. Besides, in this study, the mediation analysis was conducted using SEM instead of the oft-used path analysis. This allows researchers to estimate measurement errors of latent variables simultaneously when testing mediating effects, which can render statistical estimations more valid.

Notwithstanding new insights, this study has a couple of limitations. First, given the regional differences in a vast country like China, the current results which offer only a preliminary understanding of high school EFL teachers cannot be generalized to wider populations. In addition, the highly unequal male and female samples, while mirroring the gender ratio of EFL teaching profession in China (Peng et al., 2023), may limit the applicability of the current findings to more gender-diverse educational contexts. Finally, the correlational nature of this cross-sectional study precludes causality inference. Future studies may consider including other variables to further understand the causes and effects of EFL teachers' burnout, and to this end, longitudinal research is mandated.

Conclusion

This study addresses secondary EFL teachers' burnout, a relevant concern because of English's global standing and EFL teachers' significant presence in education. The findings offer insights for administrators and teachers on navigating contextual and individual factors to alleviate burnout and foster professional development in developing regions. Administrators can bolster supervisory support to promote teachers' personal accomplishment through timely responses and recognition of exemplary work. Given the expectations for high school EFL teachers to engage in activities like open classes or teaching competitions (Dai, 2016), administrative support in policy and resources is vital for skill enhancement and self-efficacy growth. Encouraging collaboration over competition among staff can foster a supportive community, helping them cope with challenges and mitigate negative emotions.

Time pressure's association with emotional exhaustion, self-efficacy, and personal accomplishment necessitates a tailored approach in workload assignment which considers the varying circumstances of teachers. For instance, EFL teachers are often disproportionately females. Female teachers are more likely to experience time pressure due to role conflicts related to work and family duties (Peng, 2020). Hence, these conditions should be registered by administrators when arranging workload of teaching and pastoral care. In other words, policies need to aim to harness the potential of time pressure in promoting personal accomplishment without causing teachers' emotional exhaustion by overwhelming job demands.

Improving EFL teachers' self-efficacy is crucial. Training for both pre-service and in-service teachers can enhance teaching skills and student management capabilities. Encouraging responsiveness to students' motivation and emotions can elevate self-efficacy in student engagement. Additionally, leveraging digital resources can

compensate for local resource scarcity, helping improve material preparation and enhance self-efficacy in engaging students. In summary, guiding EFL teachers on resource utilization can augment self-efficacy, mitigate burnout, and ultimately empower students in developing regions, granting them equitable access to English, a global communication medium.

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