



Teachers' emotional labor and occupational commitment: Teaching efficacy as a mediator and perceived COVID-19 crisis strength as a moderator

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Scholars have previously established a link between emotional labor and teachers' occupational commitment, but the mechanisms underlying this relationship remain largely unexplored. Guided by social cognitive theory, event system theory, and the job demands–resources model, in this study we explored the mediating effect of teaching efficacy and the moderating effect of perceived COVID-19 crisis strength on the relationship between teachers' emotional labor and their occupational commitment. The participants were 889 primary and secondary school teachers, who completed measures of emotional labor, occupational commitment, teaching efficacy, and perceived COVID-19 crisis strength. The results showed that deep acting, but not surface acting, was significantly associated with teachers' occupational commitment. Furthermore, this relationship was partially mediated by teaching efficacy. Perceived COVID-19 crisis strength moderated the direct and indirect relationships between deep acting and teachers' occupational commitment. These findings offer valuable implications for developing effective interventions to bolster teachers' occupational commitment.

Keywords

occupational commitment, emotional labor, teaching efficacy, perceived COVID-19 crisis strength, deep acting, surface acting

Article Highlights

- Deep acting was found to be positively associated with teachers' occupational commitment.
- Teaching efficacy partially mediated the link between deep acting and teachers' occupational commitment.
- Perceived COVID-19 crisis strength moderated the direct and indirect relationships between deep acting and teachers' occupational commitment.

Teaching is a profession that can be highly stressful, especially during events such as the COVID-19 pandemic, as teachers faced significant challenges related to changes in teaching methods (Vargas Rubilar & Oros, 2021). Additionally, the detrimental effect of the pandemic on teachers' mental state and professional situation has been documented in numerous studies (Jakubowski & Sitko-Dominik, 2021; Şimşir et al., 2022; Stang-Rabrig et al., 2022), which have consistently reported an increase in teachers' professional burnout, leading to a diminished intention to remain in their profession. In light of these challenges, teachers' *occupational commitment*, defined as the individual's intention to remain in a particular occupational role (Hackett et al., 2001), has emerged as a matter of increasing

concern for society and researchers. For example, research conducted with healthcare workers in the United States revealed that COVID-19-related stress negatively affected their job commitment (Sinsky et al., 2021). It is important for teachers to have occupational commitment because of the demonstrated positive relationships between their commitment and variables related to aspects of teaching attitude, such as professional identity and job satisfaction (Feryok & Askaribigdeli, 2019). Thus, it is of theoretical and practical significance to investigate the factors that may have contributed to teachers' occupational commitment during the COVID-19 pandemic.

Emotional labor, which refers to “the management of feeling to create a publicly observable facial and bodily display” (Hochschild, 2012, p. 7), is divided into two strategies: deep acting and surface acting (Grandey, 2003). *Deep acting* represents the modification of inner feelings to match organizationally required emotional displays, whereas *surface acting* is the faking of emotional displays without any modification of inner feelings (Hochschild, 2012). Teaching is a profession that demands high levels of emotional labor (Hui Wang et al., 2021). Zheng et al. (2020) found that deep acting is positively correlated with occupational commitment, whereas the correlation with surface acting is negative. However, little empirical research has been conducted to explore the mechanisms underlying the relationship between emotional labor and teachers' occupational commitment.

According to social cognitive theory (Bandura, 1977), teaching efficacy can be influenced by emotion-related factors such as emotional labor. *Teaching efficacy* refers to teachers' feelings of competence and successful achievement in their teaching work (Tschannen-Moran & Woolfolk Hoy, 2001). It serves as a motivational factor, influencing the amount of effort teachers will expend and their persistence in the occupation (i.e., occupational commitment). In other words, although teaching efficacy has not been directly examined in the existing research, it may play a mediating role in the relationship between emotional labor and teachers' occupational commitment. Furthermore, recent studies have indicated that perceived COVID-19 crisis strength plays a moderating role in the relationship between personal factors, such as a positive attitude toward one's chosen occupation (i.e., occupational calling), and work performance (Haibo Wang et al., 2022). Whether and how perceived COVID-19 crisis strength moderates the relationship between emotional labor and teachers' occupational commitment is worth further investigation. To explore these aspects of teachers' commitment to their profession and the emotional labor that they expend, we proposed a model linking emotional labor to teachers' occupational commitment through the mediating role of teaching efficacy, and further explored the moderating effect of perceived COVID-19 crisis strength on this relationship. This model will contribute to a better understanding of how and when emotional labor was associated with occupational commitment among teachers during the COVID-19 pandemic.

The Mediating Role of Teaching Efficacy

According to social cognitive theory (Bandura, 1977), teaching efficacy can be influenced by emotional labor. In professional contexts emotional labor is defined as emotion regulation, and it influences not only teachers' physiological state but also their mastery experiences in coping with teaching challenges in the classroom (Grandey & Melloy, 2017). Researchers have shown that individuals who use effective emotion-regulation strategies are more likely than are their peers to report high self-esteem and positive emotions (Borrachero et al., 2013), which serve as mastery experiences and thus contribute to self-efficacy in a variety of life domains, including at school (Burić & Moè, 2020). Compared to teachers who engage in surface acting within the school setting, those who engage in deep acting often exhibit higher self-esteem, experience greater personal accomplishment, and report increased job satisfaction and pride in their work (Sloan, 2014). They may further interpret these positive emotional states as indicators of their success in managing the classroom effectively, which consequently enhances their teaching efficacy. Conversely, when teachers resort to surface acting, they tend to perceive themselves as less adept at managing emotions and addressing teaching challenges in the workplace, potentially leading to diminished teaching efficacy (Burić et al., 2020). Zheng et al. (2018) provided initial evidence for these views by suggesting that deep acting is positively correlated with teaching efficacy, whereas the correlation with surface acting is negative.

Teaching efficacy may contribute to teachers' occupational commitment. According to the job demands–resources model, self-efficacy, as a personal resource, is usually treated as intrinsic motivation for fostering occupational



engagement (Bakker et al., 2018). Teachers with high teaching efficacy are confident in their ability to handle teaching challenges and are, therefore, more inclined to stay in the profession. In other words, teachers who possess high teaching efficacy are likely to exhibit stronger occupational commitment (W. Kim et al., 2017). The empirical study by Zhang (2022) supported this speculation, but the focus in prior research has largely been on the relationship between efficacy and occupational commitment in nonteaching occupations. To our knowledge, few scholars have directly examined the relationship between teaching efficacy and occupational commitment among primary and secondary school teachers.

Moderating Effect of Perceived COVID-19 Crisis Strength

Although emotional labor may be significantly associated with occupational commitment via teaching efficacy, it may not impact all teachers equally. Thus, it is crucial to explore factors that may strengthen or diminish (i.e., moderate) the strength of the associations among emotional labor, teaching efficacy, and occupational commitment. Drawing from the integrated three-component model of emotional labor, which comprises antecedents, outcomes, and moderators, perception of the COVID-19 crisis might moderate the relationship between emotional labor and teachers' occupational commitment (Grandey & Gabriel, 2015). *Perceived COVID-19 crisis strength* refers to the degree to which an individual perceives the COVID-19 pandemic as impactful or severe and encompasses three attributes: novelty, disruption, and criticality. *Novelty* refers to how much an event differs from those in the past, *disruption* shows how an individual's daily activities change as a result of the event, and *criticality* reflects the level of priority and the resources that an event demands because of its significant impact on an individual's success (Liu et al., 2021). Haibo Wang et al. (2022) revealed the moderating effect of the specific attributes of the perceived strength of the COVID-19 crisis on the relationships between individual psychological factors (e.g., occupational calling) and work fatigue. However, whether and how perceived COVID-19 crisis strength as a whole moderates the relationship between psychological factors and work-related variables requires further investigation.

First, we anticipated that perceived COVID-19 crisis strength would moderate the indirect relationship between emotional labor and individuals' efficacy in teaching. According to social cognitive theory, teaching efficacy is determined by the interaction between individual and environmental factors (Bandura, 1999). Researchers have reported that teachers with higher (vs. lower) levels of perceived COVID-19 crisis strength experience burnout more frequently and are more likely to suffer from emotional exhaustion, which requires them to spend more energy and time on emotional regulation (Kotowski et al., 2022; Şimşir et al., 2022). In this case, for emotional regulation they are more likely to engage in surface acting than deep acting as surface acting consumes fewer cognitive resources (Edward et al., 2017). Cross-sectional studies have shown that individuals who experience highly stressful events tend to engage more in surface acting than they do in deep acting (Grandey et al., 2004). In a longitudinal study conducted with teachers, Philipp and Schüpbach (2010) also revealed that emotional exhaustion predicts increasing use of surface acting. Given that deep acting is positively related to teaching efficacy and surface acting is negatively related to teaching efficacy (Zheng et al., 2018), we thus proposed that teachers' perceived COVID-19 crisis strength would attenuate the strength of the relationship between deep acting and their teaching efficacy and would enhance the relationship between surface acting and their teaching efficacy.

Second, in addition to the indirect effect of perceived COVID-19 crisis strength on the relationship between emotional labor and teaching efficacy, we expected that perceived COVID-19 crisis strength would moderate the indirect relationship between teaching efficacy and occupational commitment. Drawing on social cognitive theory, employees' behavioral responses are influenced by the interaction between personal and social contextual factors (Bandura, 1999). The COVID-19 pandemic has had a severe economic impact globally, forcing large numbers of employers to lay off staff (Brynjolfsson et al., 2020). Those teachers who perceive the COVID-19 crisis to be more severe are more likely to view external employment opportunities as limited (Haibo Wang et al., 2022). As a result, these teachers might place greater importance on their teaching profession and might then utilize various psychological resources to address challenges associated with teaching during the pandemic (Deng et al., 2022). Teaching efficacy is an important job resource for coping with work demands (Bakker et al., 2007) and is closely linked with teachers' occupational commitment (Klassen & Chiu, 2011). Thus, it is reasonable to propose that the strength of the association between

teaching efficacy and occupational commitment would be stronger for teachers with high perceived COVID-19 crisis strength than for those with low perceived COVID-19 crisis strength. This speculation has been indirectly supported by findings in a prior study, demonstrating that employees reported a stronger sense of work meaningfulness and greater work effort when they perceived the COVID-19 crisis to be more severe (Bakker et al., 2007).

Third, we proposed that perceived COVID-19 crisis strength would moderate the direct relationship between emotional labor and teachers' occupational commitment. According to the strong situation hypothesis, strong situational factors diminish or even mask the positive effects of psychological resources on work-related behaviors (Mischel, 2009). Deep acting serves as a psychological resource, aiding employees in coping with job demands and enhancing occupational commitment (Bakker, Demerouti, et al., 2018; Bakker, Hakanen, et al., 2007; Zheng et al., 2020). In contrast, surface acting is viewed as a job demand, leading to job burnout (J. S. Kim, 2020). Given that strong situational factors can diminish the effects of psychological resources, it is reasonable to speculate that perceived COVID-19 crisis strength may weaken the association between deep acting and teachers' occupational commitment. In line with this speculation, researchers have shown that individuals with higher perceived COVID-19 crisis strength experience more emotional problems, such as anxiety and depression, which increase the risk of job burnout and emotional exhaustion (Kotowski et al., 2022; Şimşir et al., 2022). Furthermore, Kinman et al. (2011) revealed that job burnout and emotional exhaustion lead to greater use of surface acting and less use of deep acting. These findings indicate that teachers with higher perceived COVID-19 crisis strength may engage more in surface acting and less in deep acting, which may lead to a decreased association between deep acting and positive outcomes.

The Current Study

To summarize, our aim in this study was to develop a moderated mediation model to explore the mechanisms underlying emotional labor and teachers' occupational commitment. We proposed the following hypotheses:

Hypothesis 1a: Deep acting will be positively correlated with teaching efficacy and surface acting will be negatively related to teaching efficacy.

Hypothesis 1b: Teaching efficacy will be positively associated with teachers' occupational commitment.

Hypothesis 1c: Teaching efficacy will mediate the relationship between teachers' emotional labor and their occupational commitment.

Hypothesis 2a: Perceived COVID-19 crisis strength will moderate the indirect relationship between emotional labor and teaching efficacy.

Hypothesis 2b: Perceived COVID-19 crisis strength will moderate the indirect relationship between teaching efficacy and teachers' occupational commitment.

Hypothesis 2c: Perceived COVID-19 crisis strength will moderate the direct relationship between emotional labor and teachers' occupational commitment.

The research model is shown in Figure 1.

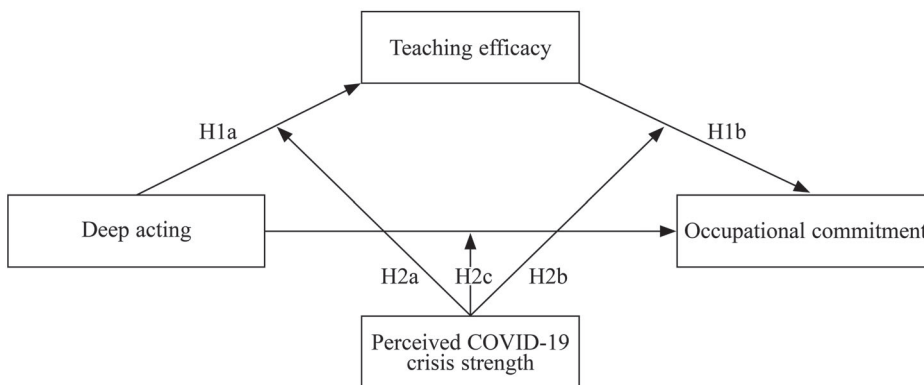


Figure 1. *Research Model with Teaching Efficacy as a Mediator and Perceived COVID-19 Crisis Strength as a Moderator*

Method

Participants

Participants were 889 primary and secondary school teachers who were recruited from Guangxi Province in China by a convenience sampling method. The sample included 583 (65.6%) women and 306 (34.4%) men. The mean age of the sample was 40.21 years ($SD = 10.24$, range = 22–55).

Procedure

This study was approved by the Guangxi Minzu University Ethics Committee for academic research. Informed consent was obtained before data collection. Participants completed the survey online in August 2022 using Questionnaire Star (<http://www.wjx.cn>), which is an online platform for questionnaire creation, distribution, and data analysis. The survey took approximately 20 minutes for participants to complete.

Measures

Emotional Labor

We used the Chinese version (Chen & Qin, 2011) of the Emotional Labor Strategies Scale (Grandey, 2003) to measure teachers' emotional labor. The scale has demonstrated good reliability and validity among Chinese populations (Chen & Qin, 2011; Fang et al., 2019). It includes 11 items in two dimensions: deep acting (six items, e.g., "I work hard to feel the emotions that I need to show to others") and surface acting (five items, e.g., "I just pretend to have the emotions I need to display for my job"). Each item is rated on a 5-point Likert scale ranging from 1 (*never*) to 5 (*always*). In this study Cronbach's alpha coefficients were .80 and .83 for the two subscales, and .84 for the total scale.

Teaching Efficacy

We used the Chinese version (Zheng et al., 2018) of the Sense of Teaching Self-Efficacy Scale–Short Form (Tschannen-Moran & Woolfolk Hoy, 2001) to measure teaching efficacy. The scale consists of 12 items with four items allocated to each of three dimensions: instructional strategies (e.g., "How well can you implement alternative strategies in your classroom?"), classroom management (e.g., "How well can you establish a classroom management system with each group of students?"), and student engagement (e.g., "How much can you assist families in helping their children do well

in school?"). Items are rated on a 9-point Likert scale (1 = *not at all*, 9 = *a great deal*). A higher average score across these items indicates a higher level of teaching self-efficacy. In this study Cronbach's alpha coefficients for the subscales were .80, .81, and .78, respectively, and for the total scale it was .82.

Occupational Commitment

Teachers' occupational commitment was measured using the Chinese version (Long & Li, 2022) of the Occupational Commitment Scale (Meyer et al., 1993). The revised scale consists of 16 items divided into three dimensions: affective commitment (six items, e.g., "I would be very happy to spend the rest of my career with this organization"), continuance commitment (five items, e.g., "Right now, staying with my organization is a matter of necessity as much as desire"), and normative commitment (five items, e.g., "This organization deserves my loyalty"). Each item is rated on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), with higher scores indicating higher levels of occupational commitment. In this study Cronbach's alpha coefficients for the subscales were .90, .83, and .83, respectively, and for the total scale it was .92.

Perceived COVID-19 Crisis Strength

The Perceived COVID-19 Crisis Strength Scale (Liu et al., 2021) was used to measure teachers' perception of the COVID-19 crisis. The scale has been used previously with a Chinese sample (Haibo Wang et al., 2022). It contains 11 items divided across three subscales: novelty (four items, e.g., "I had rules, procedures, or guidelines to follow when the COVID-19 crisis occurred"), disruption (four items, e.g., "The COVID-19 crisis requires me to change the way I do my work"), and criticality (three items, e.g., "The COVID-19 crisis is an important event for me"). Each item is scored on a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*). Responses across these 11 items are averaged, with higher scores indicating greater strength of perceived COVID-19 crisis. In this study Cronbach's alpha coefficients for the subscales were .88, .75, and .72, respectively, and for the total scale it was .90.

Data Analysis

First, we calculated Pearson correlation coefficients among the variables of interest (see Table 1). Second, the PROCESS macro (Model 4; Hayes, 2017) was used to examine the mediating effect of teaching efficacy in the relationship between emotional labor and occupational commitment (see Table 2). Third, the PROCESS macro (Model 59) was used to examine the moderating effect of perceived COVID-19 crisis strength on the direct and indirect relationships between emotional labor and occupational commitment (see Table 3). In the mediation and moderated mediation analyses, gender and age were included as covariates. All variables were standardized before data analyses.

Results

Bivariate Correlation Analysis

We conducted a bivariate correlation analysis of the relationships among the variables of interest. Results indicated that deep acting was positively correlated with both teaching efficacy and occupational commitment. Surface acting was not significantly correlated with teaching efficacy or occupational commitment. Thus, as we had hypothesized that there would be a positive correlation between deep acting and teaching efficacy and a negative correlation between surface acting and teaching efficacy, Hypothesis 1a was only partially supported. Teaching efficacy was positively correlated with occupational commitment, which supported Hypothesis 1b. Perceived COVID-19 crisis strength was negatively correlated with deep acting, but the correlation with both surface acting teaching efficacy was nonsignificant (see Table 1).

Table 1. Bivariate Correlations Among Study Variables

Variables	<i>M</i>	<i>SD</i>	1	2	3	4	5	6
1. Age	40.21	10.24	1.00					
2. Deep acting	3.50	0.78	.20***	1.00				
3. Surface acting	2.52	0.82	.01**	.28***	1.00			
4. Occupational commitment	3.81	0.56	.06	.31***	-.04	1.00		
5. Teaching efficacy	3.89	0.51	.06	.34***	-.01	.55***	1.00	
6. Perceived COVID-19 crisis strength	2.85	0.41	-.01	-.11**	.06	.01	-.01	1.00

Note. ** $p < .01$. *** $p < .001$.

Testing for the Mediating Effect of Teaching Efficacy

Since surface acting was not significantly correlated with either occupational commitment or teaching efficacy, we examined the mediating effect of teaching efficacy only on the relationship between deep acting and occupational commitment using the PROCESS macro (Model 4). Results indicated that deep acting was positively correlated with teaching efficacy (see Model 2 in Table 2), which was positively correlated with occupational commitment (see Model 3 in Table 2). In other words, teaching efficacy significantly mediated the relationship between deep acting and occupational commitment. A bootstrapping analysis using 5,000 resamples and 95% confidence intervals (CIs) showed that the indirect effect of deep acting on occupational commitment through teaching efficacy was significant, $ab = .17$, $SE = 0.03$, 95% CI [0.11, 0.24], and the direct effect was also significant, $c' = .14$, $SE = 0.03$, 95% CI [0.08, 0.20]. Thus, teaching efficacy played a partial mediating role in the relationship between deep acting and occupational commitment, accounting for 54.37% of the total effect, and Hypothesis 1c was supported.

Table 2. Mediating Effect of Deep Acting on Occupational Commitment via Teaching Efficacy

Variables	Model 1: Occupational commitment				Model 2: Teaching efficacy				Model 3: Occupational commitment			
	β	<i>SE</i>	95% CI		β	<i>SE</i>	95% CI		β	<i>SE</i>	95% CI	
			<i>LL</i>	<i>UL</i>			<i>LL</i>	<i>UL</i>			<i>LL</i>	<i>UL</i>
Gender	.02	0.07	-0.02	0.03	.01	0.07	-0.14	0.14	.02	0.06	-0.10	0.14
Age	.01	0.01	-0.01	0.02	-.01	0.01	-0.01	0.01	.01	0.01	-0.01	0.01
Deep acting	.31***	0.03	0.26	0.41	.34***	0.03	0.27	0.40	.14***	0.03	0.08	0.20
Teaching efficacy									.50***	0.03	0.44	0.56
R^2	.09				.11				.32			
<i>F</i>	31.38***				37.37***				102.69***			

Note. Standardized coefficients are presented. CI = confidence interval; *LL* = lower limit; *UL* = upper limit. *** $p < .001$.

Testing for the Moderating Effect of Perceived COVID-19 Crisis Strength

To examine the moderating effect of perceived COVID-19 crisis strength, we performed a moderated mediation analysis using the PROCESS macro (Model 59). The results indicated that deep acting was positively correlated with teaching efficacy. The interaction between deep acting and perceived COVID-19 crisis strength was significant (see Model 1 in Table 3). Thus, perceived COVID-19 crisis strength moderated the indirect relationship between deep acting and teaching efficacy. Simple slopes tests (see Figure 2) showed that the relationship between deep acting and teaching efficacy was weaker for teachers with high perceived COVID-19 crisis strength ($\beta_{\text{simple}} = .28$, $p < .001$) than for those with low perceived COVID-19 crisis strength ($\beta_{\text{simple}} = .42$, $p < .001$). Thus, Hypothesis 2a was supported.

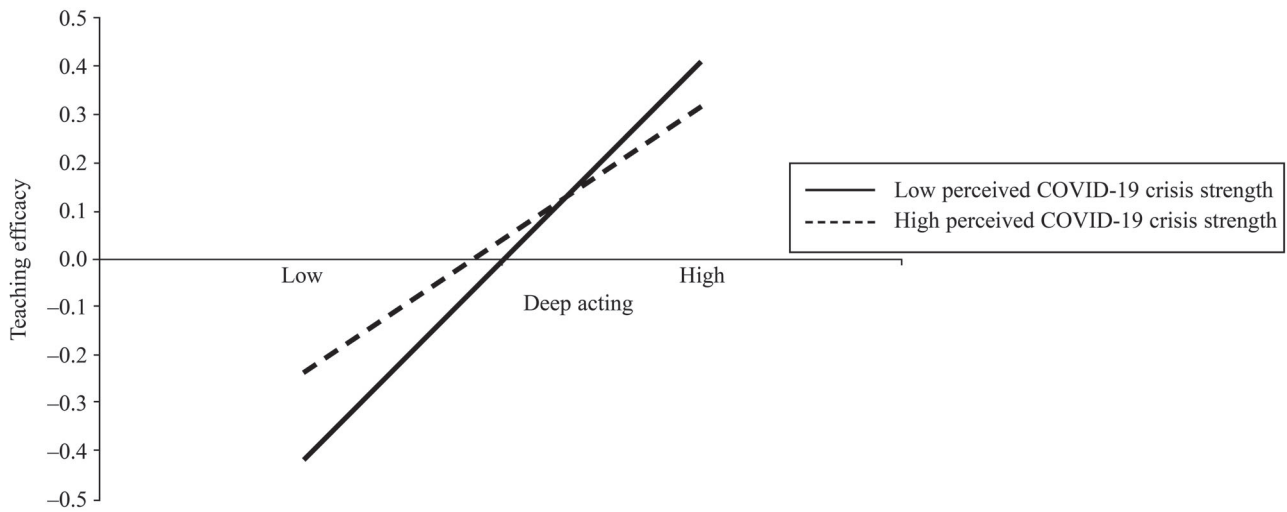


Figure 2. COVID-19 Crisis Strength as Moderator of the Indirect Relationship Between Deep Acting and Teaching Efficacy

Teaching efficacy was positively correlated with occupational commitment, and the interaction between teaching efficacy and perceived COVID-19 crisis strength predicted occupational commitment (see Model 2 in Table 3). In other words, perceived COVID-19 crisis strength moderated the indirect relationship between teaching efficacy and occupational commitment. Simple slopes tests (see Figure 3) showed that for teachers with high perceived COVID-19 crisis strength, the relationship between teaching efficacy and occupational commitment was stronger ($\beta_{\text{simple}} = .55, p < .001$), than it was for teachers with low perceived COVID-19 crisis strength ($\beta_{\text{simple}} = .44, p < .001$). Thus, Hypothesis 2b was supported.

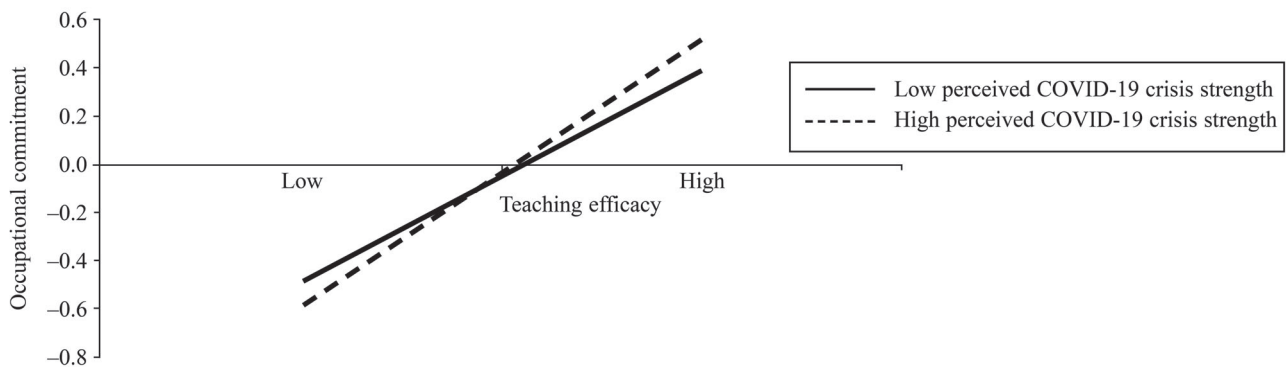


Figure 3. Perceived COVID-19 Crisis Strength as a Moderator of the Indirect Relationship Between Teaching Efficacy and Occupational Commitment

In addition, as shown in Table 3, deep acting was positively correlated with occupational commitment. The interaction between deep acting and perceived COVID-19 crisis strength negatively predicted occupational commitment (see Model 2). In other words, perceived COVID-19 crisis strength moderated the direct relationship between deep acting and occupational commitment. Simple slopes tests (see Figure 4) showed that for teachers with high perceived

COVID-19 crisis strength, the relationship between deep acting and occupational commitment was weaker ($\beta_{\text{simple}} = .07, p < .001$) than it was for teachers with low perceived COVID-19 crisis strength ($\beta_{\text{simple}} = .24, p < .001$). Thus, Hypothesis 2c was supported.

Table 3. Moderated Mediation Effect of Deep Acting on Occupational Commitment

Variables	Model 1: Teaching efficacy				Model 2: Occupational commitment			
	β	SE	95% CI		β	SE	95% CI	
			LL	UL			LL	UL
Gender	.01	0.07	-0.13	0.14	.01	0.06	-0.11	0.13
Age	-.01	0.01	-0.01	0.01	.01	0.01	-0.01	0.01
Deep acting	.35***	0.03	0.28	0.41	.16***	0.03	0.10	0.22
Perceived COVID-19 crisis strength	.03	0.03	-0.04	0.09	.01	0.03	-0.04	0.07
Deep acting \times Perceived COVID-19 crisis strength	-.07*	0.03	-0.13	-0.01	-.09**	0.03	-0.14	-0.04
Teaching efficacy					.50***	0.03	0.44	0.55
Teaching efficacy \times Perceived COVID-19 crisis strength					.05*	0.03	0.01	0.10
R^2	.12				.33			
F	23.75***				61.30***			

Note. Standardized coefficients are presented. CI = confidence interval; LL = lower limit; UL = upper limit.
 * $p < .05$. ** $p < .01$. *** $p < .001$.

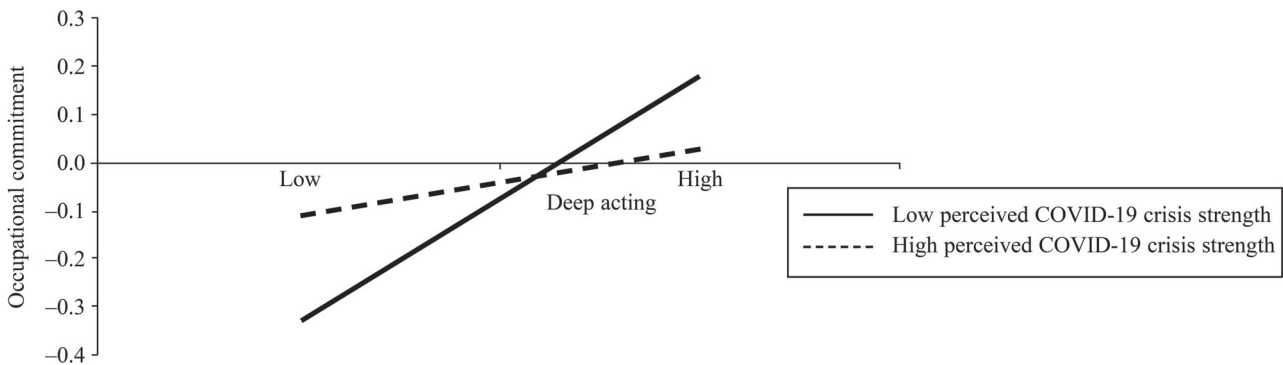


Figure 4. Perceived COVID-19 Crisis Strength as a Moderator of the Direct Relationship Between Deep Acting and Occupational Commitment

A bias-corrected percentile bootstrapping analysis further indicated that the indirect effect of deep acting on occupational commitment via teaching efficacy was moderated by perceived COVID-19 crisis strength. For teachers with low perceived COVID-19 crisis strength, the indirect relationship between deep acting and occupational commitment was stronger, $\beta = .18, SE = 0.05, 95\% CI [0.10, 0.30]$, than for teachers with high perceived COVID-19 crisis strength, $\beta = .15, SE = 0.03, 95\% CI [0.09, 0.12]$.

Finally, the bias-corrected percentile bootstrapping analysis revealed that the direct effect of deep acting on occupational commitment was moderated by perceived COVID-19 crisis strength. For teachers with low perceived COVID-19 crisis strength, the direct relationship between deep acting and occupational commitment was stronger, $\beta = .24, SE = 0.04, 95\% CI [0.16, 0.33]$, than for teachers with high perceived COVID-19 crisis strength, $\beta = .07, SE = 0.04, 95\% CI [-0.01, 0.14]$. Therefore, perceived COVID-19 crisis strength moderated the direct relationship between deep acting and occupational commitment.

Discussion

The results of this study show that deep acting, but not surface acting, was significantly associated with teachers' occupational commitment, and this relationship was partially mediated by teaching efficacy. Perceived COVID-19 crisis strength moderated the direct and indirect relationships between deep acting and occupational commitment.

The Mediating Role of Teaching Efficacy

Consistent with our hypothesis, we found that teaching efficacy mediated the relationship between deep acting and occupational commitment. To the best of our knowledge, this is the first study to examine the mediating role of teaching efficacy in the relationship between deep acting and occupational commitment among primary and secondary teachers. The mediating effect of teaching efficacy can be explained by social cognitive theory (Bandura, 1977). According to this theory, teachers who engage in deep acting in the workplace will experience greater psychological well-being, such as positive emotions and job satisfaction (Grandey & Gabriel, 2015), which could contribute to their enhanced ability to cope with emotions and teaching challenges in the workplace, subsequently bolstering their teaching efficacy. This finding extends existing research by revealing why teachers who employ active emotional labor strategies, such as deep acting, in the workplace were more likely to report greater occupational commitment during the COVID-19 pandemic.

We also consider that the individual links in our mediation model are noteworthy. For the first link in the mediation process, the results show that the teachers' deep acting was associated with teaching efficacy. This finding is consistent with those reported in previous studies (Huang et al., 2019; Yin et al., 2019) and supports social cognitive theory (Bandura, 1977). According to this theory, teachers who engage in deep acting, rather than surface acting, are more likely to report positive emotions (Burić et al., 2020). These positive emotions serve as feedback on classroom performance because they indicate that the teachers have achieved favorable outcomes or experiences in their teaching. When teachers experience positive emotions in the classroom, it may signify that their teaching methods are effective, students are engaged in the lesson, or the teaching environment is pleasant. These positive emotions can be seen as affirmation and feedback on teachers' performance, reflecting success and satisfaction in the teaching process, thereby contributing to elevated teaching efficacy. Thus, use of adaptive emotional labor strategies can enhance their teaching efficacy.

For the second link of the mediation process, our results reveal that teaching efficacy was positively associated with teachers' occupational commitment, meaning that, compared with teachers with low teaching efficacy, those with high teaching efficacy may exhibit greater occupational commitment to the teaching profession. This finding can be explained by the job demands–resources model, in which it is proposed that self-efficacy is an important personal resource for work (Bakker, Demerouti, et al., 2018; Bakker, Hakanen, et al., 2007). Those possessing elevated teaching efficacy might exude greater confidence in addressing teaching challenges. Consequently, they are likely to be more invested in their role, leading to heightened occupational commitment (W. Kim et al., 2017; Mazzetti et al., 2023). This result is in line with that of a previous study (Klassen & Chiu, 2011) and extends findings with a sample of preservice teachers to the context of primary and secondary school teachers.

A result we found unexpected was the nonsignificant association between surface acting and teaching efficacy, which is inconsistent with the finding reported by Zheng et al. (2018). This discrepancy may arise from differences in the samples of teachers in the two studies. The aforementioned study was conducted primarily with primary teachers, whereas in this study we recruited teachers from primary and secondary schools. Primary school teachers' emotional labor strategies may be different from those of their secondary school counterparts (Huang et al., 2019). Jennings and Greenberg (2009) found that, compared with secondary teachers, primary teachers are more capable of coping with emotional demands from students. Primary school teachers report deriving more enjoyment from the emotional aspects of interacting with students and often express greater job satisfaction compared to secondary teachers (Marston et al., 2005). This suggests that primary teachers might adopt more adaptive emotional labor strategies than do secondary teachers, who might lean toward less adaptive methods in their professional setting. The heterogeneity of emotional labor strategies that teachers use may have led to the nonsignificant association between surface acting and teaching



efficacy observed in our study. Indeed, a study conducted with primary and secondary teachers supports this speculation with the finding that surface acting is not significantly associated with teachers' satisfaction in teaching (Huang et al., 2019).

The Moderating Role of Perceived COVID-19 Crisis Strength

We found that perceived COVID-19 crisis strength moderated the indirect relationship between teachers' deep acting and their teaching efficacy. Specifically, the relationship between deep acting and teaching efficacy was weaker for teachers with stronger perceived COVID-19 crisis than it was for those with weaker perceived COVID-19 crisis. These results indicate that the perception of COVID-19 crisis strength could reduce the positive impact of teachers' deep acting on their teaching efficacy. It has been found that teachers with a stronger perception of COVID-19 crisis are more prone to experiencing emotional challenges in the workplace (Kotowski et al., 2022; Şimşir et al., 2022), increasing the likelihood of resorting to maladaptive coping strategies, such as surface acting, which could undermine their teaching efficacy in the classroom (Grandey et al., 2004; Philipp & Schüpbach, 2010).

Further, our findings reveal that perceived COVID-19 crisis strength moderated the indirect relationship between teaching efficacy and teachers' occupational commitment. The relationship between teaching efficacy and occupational commitment was stronger for teachers with stronger perceived COVID-19 crisis than for those with weaker perceived COVID-19 crisis. These findings indicate that the strength of teachers' perception of the COVID-19 crisis was a key contextual factor accentuating the beneficial effect of teaching efficacy on occupational commitment. Teachers who had a strong perception of the COVID-19 crisis might confront more significant challenges in their profession because of the abrupt pedagogical shift from traditional face-to-face teaching to online teaching with little to no training in this method (Pressley & Ha, 2011). In response to the challenges of the COVID-19 pandemic, these teachers might have prioritized their current teaching roles and integrated personal resources, such as teaching efficacy (Bakker, Demerouti, et al., 2018; Bakker, Hakanen, et al., 2007), by adopting new teaching methods like using Zoom (Pokhrel & Chhetri, 2021). In fact, a recent study showed that teaching efficacy for technology application significantly increased during the COVID-19 pandemic, because teachers were spending more time online when teaching (Ma et al., 2021).

Third, we found that teachers' perceived COVID-19 crisis strength moderated the direct relationship between deep acting and occupational commitment. Specifically, the relationship between deep acting and occupational commitment was weaker for teachers with a stronger perception of COVID-19 crisis than it was for those with weaker perception. These results can be explained by the strong situation hypothesis (Cooper & Withey, 2009; Mischel, 2009). According to this hypothesis, teachers with a strong perception of COVID-19 crisis would be more likely to suffer from severe adverse effects during the pandemic, including emotional exhaustion and job burnout (Kotowski et al., 2022; Şimşir et al., 2022), which leads to less use of deep acting and a decreased beneficial effect of deep acting on their occupational commitment.

Theoretical and Practical Implications

From a theoretical perspective, this study both confirms and builds upon prior research, elucidating the mediating role of teaching efficacy and the moderating role of perceived COVID-19 crisis strength, even after controlling for relevant variables (Haibo Wang et al., 2022; Zheng et al., 2020). These findings could contribute to a better understanding of how and when emotional labor was associated with teachers' occupational commitment during the COVID-19 pandemic. Given that the teachers' perception of the strength of the COVID-19 crisis exhibited both attenuating and amplifying effects on the association between their emotional labor and occupational commitment, researchers should remain cognizant of the paradoxical impacts of the pandemic on teachers' commitment to their profession (Deng et al., 2022).

From a practical perspective, to bolster teachers' occupational commitment during the COVID-19 pandemic, there could have been merit in training teachers to adapt emotional regulation strategies to better manage the myriad emotions that they were encountering in their professional setting. Furthermore, as our findings indicate that teachers with a

strong perception of the COVID-19 pandemic's impact might engage in less deep acting and this would also impact both their teaching efficacy and occupational commitment, it would have been beneficial to design assistance programs, such as team-building activities and mindfulness-based interventions, to aid teachers in navigating the challenges posed by the COVID-19 pandemic (Hülshager et al., 2013).

Limitations and Directions for Future Research

There are several limitations in this study that should be addressed. First, the cross-sectional research design limited our ability to infer causality between the variables. In future, researchers could use a two-wave longitudinal design to further examine our moderated mediation model. The present results are also culturally specific and might be applicable only to populations who share the same culture. We note, however, that controlling for covariates of gender and age did not impact the results, implying that they are likely applicable to a diverse group of teachers with varying ages and genders. Future studies could also utilize qualitative data to deepen comprehension of how emotional labor influences teachers' occupational commitment. We also relied on retrospective self-report measures, which are susceptible to common method bias, potentially compromising internal validity. Researchers might consider employing diverse measures in future studies, such as student- and colleague-reported measures, to offer a more nuanced understanding of the roles of teaching efficacy and perceived COVID-19 crisis strength in the relationship between emotional labor and teachers' occupational commitment.

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