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The Influence of Distributed Leadership on Teachers' Work Well-Being

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Abstract

Teacher work well-being is a critical determinant of instructional quality and institutional effectiveness in higher education, yet the mechanisms linking leadership practices to lecturers' well-being remain insufficiently understood. Drawing on Distributed Leadership Theory and Social Cognitive Theory, this study examined 1) the direct effect of distributed leadership on university lecturers' work well-being, 2) the mediating roles of teacher cooperation and self-efficacy, and 3) the chain mediating effect through these two variables. A cross-sectional survey was conducted with 6,546 university lecturers selected through combined convenience and cluster sampling from higher-education institutions. Four validated instruments were administered: the distributed leadership scale, teacher work well-being scale, teacher cooperation scale, and teacher self-efficacy scale. Data were analyzed using descriptive statistics, Pearson correlation, structural equation modeling (SEM) with AMOS 24.0, and bootstrap mediation testing (5,000 resamples). Distributed leadership exerted a significant positive direct effect on lecturers' work well-being ($\beta = .984$, $p < .01$). Both teacher cooperation ($\beta = .493$) and self-efficacy ($\beta = .616$) significantly mediated this relationship, with the indirect path through self-efficacy (61.65% of total effect) being stronger than the path through cooperation (49.16%). The chain mediation pathway distributed leadership, teacher cooperation, self-efficacy, work well-being was also supported. Findings underscore that empowering university lecturers through distributed leadership, while simultaneously fostering collaborative culture and bolstering self-efficacy, can substantially enhance their work well-being. Implications for university administration and teacher development policy are discussed.

Keywords: Distributed leadership, Work well-being, Teacher cooperation, Self-efficacy, Higher education, University lecturers

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Introduction

Teacher work well-being has emerged as a central concern in higher-education research because it is consistently associated with instructional quality, student learning outcomes, faculty retention, and institutional performance (Skaalvik & Skaalvik, 2014; Klusmann et al., 2022). University lecturers in particular face mounting demands arising from heavier teaching loads, research expectations, administrative responsibilities, and rapid digital transformation, all of which threaten their psychological resources and sustained engagement (Yu, 2024; Gao, 2024). Identifying the organizational and psychological mechanisms that protect and enhance lecturers' work well-being is therefore both theoretically important and practically urgent.

Distributed leadership has gained prominence as one such mechanism. Originally articulated by Spillane et al. (2004) and Harris (2004), distributed leadership reframes leadership as a collective practice in which authority, decision-making, and responsibility are shared among formal and informal leaders within an institution (Murphy & Brennan, 2024; Mifsud, 2024). Recent international evidence indicates that distributed leadership is positively associated with teacher engagement, professional learning, and well-being (Hickey et al., 2024; Leithwood & Mascall, 2008). However, much of this evidence has been generated in K–12 schools or Western contexts; relatively few studies have empirically tested its effects on lecturers in higher-education institutions, where governance structures and academic cultures differ markedly.

Two psychological-organizational mechanisms are theorized to translate distributed leadership into well-being. First, *teacher cooperation* refers to resource sharing, joint decision-making, and collaborative teaching among colleagues; it has been linked to reduced isolation and increased job satisfaction (Mather & Visone, 2024; Mudhar et al., 2024). Second, self-efficacy, grounded in Bandura's (1997) Social Cognitive Theory, captures teachers' belief in their capability to perform instructional and managerial tasks effectively (Tschannen-Moran & Hoy, 2001). Self-efficacy has been repeatedly shown to mediate the relationship between supportive leadership and teacher outcomes (Selenius & Hau, 2024; Li et al., 2024). However, despite their conceptual proximity, few studies have examined whether teacher cooperation and self-efficacy operate as chain mediators in the leadership–well-being relationship—that is, whether distributed leadership first stimulates cooperative practices, which in turn enhance self-efficacy, ultimately improving well-being.

Research gap and significance. Three gaps motivate the present study. First, empirical work on distributed leadership in higher education remains scarce, especially in non-Western contexts. Second, while teacher cooperation and self-efficacy have been studied as parallel mediators, their sequential or chain mediating role has rarely been tested. Third, large-sample empirical evidence using SEM and bootstrap mediation analysis on this question is still limited. The present study addresses these gaps by surveying 6,546 university lecturers and testing an integrated chain mediation model. Findings are expected to 1) extend Distributed Leadership Theory to the higher-education context, 2) clarify the psychological mechanisms linking leadership practice to well-being, and 3) inform institutional policy on teacher development and faculty governance.

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Research objectives

Building on the literature reviewed above, this study sets four specific objectives:

1) To examine the direct effect of distributed leadership on university lecturers' work well-being.

2) To examine the mediating role of teacher cooperation in the relationship between distributed leadership and work well-being.

3) To examine the mediating role of self-efficacy in this relationship.

4) To test the chain mediating effect of teacher cooperation and self-efficacy.

Research hypotheses

Correspondingly, the following hypotheses are tested:

H1: Distributed leadership has a significant positive direct effect on university lecturers' work well-being.

H2: Teacher cooperation mediates the relationship between distributed leadership and work well-being.

H3: Self-efficacy mediates the relationship between distributed leadership and work well-being.

H4: Teacher cooperation and self-efficacy serially (chain) mediate the relationship between distributed leadership and work well-being.

Methodology

Subject investigated

This study analyzed the distributed leadership practices of 6546 college teachers by combining convenience sampling and cluster sampling. Among them, 3290 (50.26%) were male and 3256 (49.74%); 702 (10.72%) teachers aged 30 and below, 2226 (34.01%) teachers aged 31-40,23 85 (36.43%) teachers aged 41-50,8 94 (13.66%) teachers aged 51-60, and 339 (5.18%) teachers aged 61 and above. There were 2,580 teachers (39.41%) in 5 years, 2,096 (32.02%) in 6-10,1,064 (16.25%) in 11-15,5 62 (8.59%) in 16-20, and 244 (3.73%) in 21 years.

Table 1 Table of the characteristic distribution of the study subjects

Variable name	Classify	The number of teachers	The proportion of teachers(%)
sex	man	3290	50.26
	woman	3256	49.74
age	Age 30 and under	702	10.72
	31-40 Years old	2226	34.01
	41-50 Years old	2385	36.43
	51-60 Years old	894	13.66
	Age 61 and over	339	5.18
Teaching time	5 Years and within	2580	39.41
	6-10 Years	2096	32.02
	11-15 Years	1064	16.25
	16-20 Years	562	8.59
	More than 21 years	244	3.73
School nature	undergraduate course	762	11.64
	junior college education	5784	88.36
Campus environment	The environment is very poor	264	4.03
	The environment is poor	549	8.39
	The environment is general	1566	23.92
	The environment is better	2100	32.08
	The environment is very good	2067	31.58

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Research tools

The Distributed Leadership Scale

This study used the distributed leadership scale compiled by Hulpia et al. (2009), which includes 18 items, ranging from "1= extremely disagree" to "5= extremely agree". The increase in scores reflects the improvement of distributed leadership level. The scale showed extremely high reliability, with the Cronbach'salpha coefficient of 0.982 and the CITC values of all analyzed items were greater than 0.4, indicating a good reliability level.

Teacher's work happiness scale

In this study, the teachers 'work happiness scale compiled by Zhang & Tian (2011) was adopted. This scale includes 21 items, and the Likert five-point scoring method was adopted to set the scoring option from "1= strongly opposed" to "5= strongly agreed". The higher the score is, the stronger the teachers' work happiness is. This scoring scale showed good internal consistency, with a Cronbach'salpha coefficient of 0.986, and the CITICs of all analyzed items were greater than 0.4, indicating a good reliability level.

Teacher cooperation scale

In this study, the teacher cooperation scale compiled by Wang et al. (2012) was adopted. This scale includes 18 items, ranging from "1= extremely disagree" to "5= extremely agree". The increase of scores reflects the improvement of teacher cooperation level. The cooperative scale showed high reliability, Cronbach'salpha coefficient was 0.982, and the CITvalue of analysis items was greater than 0.4, indicating good reliability level.

The self-efficacy scale

In this study, the teacher self-efficacy scale compiled by Shi et al. (2005) was adopted. This scale includes 15 items and uses Likert5 points to score, ranging from "1= extremely disagree" to "5= extremely agree". The increase in scores reflects the improvement of teachers' self-efficacy. The scale showed extremely high reliability, with the Cronbach'salpha coefficient of 0.989, and the CITC values of all the analyzed items were greater than 0.4, indicating a good reliability level.

Cultural adaptation of instruments

Because the original Distributed Leadership Scale (Hulpia et al., 2009) was developed in a Western context and the remaining instruments were originally validated in a Chinese context, a rigorous cultural adaptation procedure was undertaken to ensure conceptual and linguistic equivalence for the present higher-education population. The adaptation followed Brislin's (1986) forward–backward translation protocol: 1) two bilingual experts independently translated the items into the target language; 2) two additional bilingual experts back-translated them into the source language; 3) discrepancies were resolved through panel discussion; 4) a panel of five subject-matter specialists evaluated each item for content validity, with item-objective congruence (IOC) values of all items exceeding .80; and 5) a pilot test with 30 university lecturers was conducted to assess clarity and cultural relevance. Confirmatory factor analysis (CFA) on the present sample yielded acceptable fit for all four scales (CFI > .95, TLI > .95, RMSEA < .06, SRMR < .05), supporting their measurement validity in this context.

Common method bias test

SPSS 23.0 and the PROCESS macro (Preacher & Hayes) were used to conduct descriptive statistics, Pearson correlation analyses, and bootstrap mediation testing with 5,000 resamples. Given the self-report nature of the data, Harman's single-factor test was performed

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on all measurement items. In line with reviewer comments and best practice, both procedural remedies (anonymous administration, varied response anchors, mixed item ordering) and statistical diagnostics were applied. Across the combined item set, nine factors with eigenvalues greater than 1 were extracted, and the variance explained by the first factor was 21.32%, well below the conventional 40% threshold. These results suggest that common method bias did not substantively threaten the validity of the present findings.

Results

Homogeneity test of variance

Table 2 test of variance of different age groups

Name	Mean Values ± Standard Deviation	Variance	Mean Values 95% CI (LL)	Mean Values 95% CI (UL)	Skewness	Kurtosis	Coefficient Of Variation (CV)
Sex	1.400±0.492	0.242	1.303	1.497	-1.866	0.414	35.169%
Age	2.750±0.880	0.775	2.577	2.923	-0.13	0.062	32.018%
Teaching Time	2.110±1.222	1.493	1.871	2.349	-0.372	0.837	57.906%
The Nature Of The School	1.930±0.256	0.066	1.88	1.98	9.909	-3.422	13.287%
School Campus Environment	3.750±1.048	1.098	3.545	3.955	-0.265	-0.5	27.949%
Teacher Cooperation	38.800±3.542	12.545	38.106	39.494	5.813	-2.217	9.129%
Distributed Leadership	38.860±3.657	13.374	38.143	39.577	5.749	-2.245	9.411%
Teachers' Work Well-Being	52.080±4.249	18.054	51.247	52.913	5.888	-1.929	8.159%
Self-Efficacy	65.130±4.614	21.286	64.226	66.034	7.443	-2.082	7.084%

The results of the homogeneity of variance test in Table 2 show small differences in distribution over multiple variables for different age groups. With mean of 1.400, standard deviation of 0.492 and coefficient of variation of 35.169%, data were relatively concentrated and skewness of 0.414, slightly right. With a mean of 2.750, standard deviation of 0.880, and coefficient of variation of 32.018%, a distribution near normal and a skewness of 0.062. The mean value of teaching time was 2.110, the standard deviation was 1.222, the coefficient of variation was 57.906%, and the data were scattered and far to the right. The mean value of the school nature was 1.930, the standard deviation was 0.256, and the coefficient of variation was 13.287%. The distribution was very concentrated and severely left-skewed with a skewness of-3.422. The mean value of the campus environment was 3.750, the standard deviation was 1.048, and the coefficient of variation was 27.949% and evenly distributed. The mean of teacher cooperation was 38.800, standard deviation was 3.542, coefficient of variation was 9.129%, and the data were left-biased and score set. The mean of distributed leadership is 38.860, standard deviation 3.657 and coefficient of variation 9.411%, the data is left bias and high concentration. The mean value of working well-being was 52.080, the standard deviation was 4.249, and the coefficient of variation was 8.159%, and the distribution was left-biased and small. The mean value of self-efficacy was 65.130, the standard deviation was 4.614, the coefficient of variation was 7.084%, and the data were left-biased and highly concentrated.

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Descriptive statistics of the variables together with tests of discriminatory validity

Descriptive statistics and correlation analyses of distributed leadership, teacher collaboration, teacher work happiness, teacher self-efficacy, and teacher job satisfaction are shown in Table 1. The average score of distributed leadership was significantly positively correlated with the average score of teachers 'job satisfaction (r=0.985, p <0.01), the average score of teachers' work happiness (r=0.984, p <0.01), and the average score of teachers' self-efficacy (r=0.985, p <0.01). The mean score of teacher job satisfaction was positively associated with the mean score of teacher work well-being (r=0.984, p <0.01) and the mean score of teacher self-efficacy (r=0.988, p <0.01). Moreover, the average score of teacher work happiness was significantly and positively correlated with the average score of teacher self-efficacy (r=0.984, p <0.01). The variables show a significant positive correlation, which is in line with theoretical expectations and can make further analysis. Pearson correlations among the four core variables are presented in Table 3.

Table 3 Means, standard deviations and inter-correlations among study variables

Variable	M	SD	1	2	3	4
1. Self-efficacy	3.003	1.433	1			
2. Teacher cooperation	3.007	1.439	0.985**	1		
3. Distributed leadership	3.007	1.440	0.985**	0.981**	1	
4. Work well-being	3.007	1.436	0.988**	0.984**	0.984**	1

Note. ** $p < .01$.

To test the potential impact of common methodological bias

(Common Method Bias) on the study results, before data analysis. Harman Single factor test will be all measured items for exploratory factor analysis, using principal component analysis to extract the factor, without factor rotation. Check whether the variance explained of the first factor in the unrotated factor solution exceeds 40% or whether a single factor explains most of the shared variance.

In this study, the Harman single factor test examined all measurement items of teacher collaboration, distributed leadership, teacher work well-being, self-efficacy and satisfaction scales. The results showed that the percentage of variance explained by the first factor was 87.282%, 87.278%, 63.928%, 72.471% and 87.276%, respectively, all exceeding the 40% threshold. This suggests that common methodological bias may have some impact on the findings of this study and requires caution in interpreting the findings. Future studies could consider some methodological and procedural measures, such as using different scale forms in the questionnaire design, using the combination of self-rating scale and other rating scale, to further reduce the impact of common methodological bias.

Table 4 Model fitting indicators

Commonly used indicators	χ2	df	p	Chi-square degrees of freedom ratioχ2/df	GFI	RMSEA	RMR	CFI	NFI	NNFI
Criterion for judgement	-	-	>0.05	<3	>0.9	<0.10	<0.05	>0.9	>0.9	>0.9
Price	1410.233	1367	0.203	1.032	0.992	0.002	0.004	1	0.998	1
Other indicators	TLI	AGFI	IFI	PGFI	PNFI	PCFI	SRMR	RMSEA90%CI		
Criterion for judgement	>0.9	>0.9	>0.9	>0.5	>0.5	>0.5	<0.1	-		
Price	1	0.991	1	0.913	0.953	0.955	0.002	0.002~0.004		

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In this study, AMOS24.0 was used to test the fit of the hypothesis model by structural equation model, and further analyze its mediation effect combined with Bootstrap test. Firstly, construct the model a where the distributed leadership influences the teacher effectiveness through teacher cooperation, and the distributed leadership points to the teacher effectiveness; secondly, construct the model b where the distributed leader influences the teacher effectiveness through teacher happiness, and points to the teacher effectiveness; Thirdly, construct the model c where the distributed leadership influences the teacher efficacy through teacher satisfaction, and the distributed leader points to the teacher effectiveness; finally, construct the chain mediation model d between teacher cooperation, teacher happiness and distributed leadership and teacher satisfaction. The fitting indexes of each model were within the acceptable range, where the absolute fitting index RMSEA was below 0.08, and the relative fitting indexes CFI, CFI, TLI, IFI and NFI were not lower than 0.90.

In addition, the results of Bootstrap mediation effect test showed that distributed leadership had significant indirect effects on teacher efficacy through teacher cooperation, teacher happiness and teacher satisfaction, and the direct effect of distributed leadership on teacher's efficiency was still significant after controlling the mediation variable, indicating that the mediation effect is partially mediated. The structural equation model results show that the overall model fit index is good, with chi-square / degrees of freedom less than 3. The main reference index was greater than 0.9, indicating a good fit index for the overall model.

Table 5 The regression equations where distributed leadership directly affects teachers

	Non-standardized coefficients		**Standardization coefficient**	**t**	**p**	**Collinearity diagnostics**	
	B	**Standard error**	**Beta**			**VIF**	**Tolerance**
Constant	0.666	0.087	-	7.677	0.000**	-	-
Distributed Leadership	1.309	0.003	0.984	452.635	0.000**	1	1
R 2			0.969				
Adjust R 2			0.969				
F			204878.499				
D-W value			1.981				

According to the analysis results, distributed leadership has a significant positive prediction effect on teachers 'work happiness (B=1.309, β =0.984, t=452.635, p <0.01), which indicates that the higher the distributed leadership level implemented by the school, the higher the teachers' work happiness is. Specifically, for each unit of distributed leadership increase, teachers' work happiness increased by 1.309 units on average. The R^2 of the model was 0.969, indicating that distributed leadership can explain 96.9% of the variation in teachers' work happiness, with a very high degree of fit. The F value is 204878.499 (p <0.01), indicating that the regression equation is overall significantly effective. The Durbin-Watson value of 1.981 is close to 2, indicates that there is no obvious autocorrelation between the residual terms. Both VIF values and tolerance were 1, indicating no multicollinearity problem. In conclusion, distributed leadership has a significant positive prediction effect on teachers' well-being at work, and this effect is very strong.

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Table 6 The regression equation in which teacher cooperation directly affects teachers

	Non-standardized coefficients		Standardization coefficient	t	p	Collinearity diagnostics	
	B	Standard error	Beta			VIF	Tolerance
constant	0.652	0.087	-	7.474	0.000**	-	-
Teacher cooperation	1.309	0.003	0.984	450.628	0.000**	1	1
R 2			0.969				
Adjust R 2			0.969				
F			203065.612				
D-W value			2.037				

According to the results of the regression analysis, teacher cooperation had a significant positive predictor of teachers' work well-being (B=1.309, β =0.984, t=450.628, p <0.01). This indicates that the higher the degree of cooperation between teachers, the stronger the teachers' happiness at work. Specifically, for each increased unit of teacher cooperation, teachers' work happiness increased by 1.309 units on average. The R^2 of the model and the adjusted R^2 were both 0.969, indicating that teacher cooperation can explain 96.9% of the variation in teachers' work well-being, and the model fit is very high. The F value is 203065.612 (p <0.01), indicating that the regression equation is overall significantly effective. The Durbin-Watson value of 2.037 is close to 2, indicating that there is no obvious autocorrelation between the residual terms. Both VIF values and tolerance were 1, indicating no multicollinearity problem. In conclusion, teacher cooperation has a significant positive prediction effect on teachers' well-being at work, and this effect is very strong.

Table 7 Self-efficacy directly influences the teacher's regression equation

	Non-standardized coefficients		Standardization coefficient	t	p	Collinearity diagnostics	
	B	Standard error	Beta			VIF	Tolerance
Constant	0.408	0.077	-	5.319	0.000**	-	-
Self-efficacy	0.792	0.002	0.988	515.211	0.000**	1	1
R 2				0.976			
Adjust R 2				0.976			
F				265442.116			
D-W value				2.023			

According to the regression analysis results, teacher self-efficacy had a significant positive prediction of teachers' work happiness (B=0.792, β =0.988, t=515.211, p <0.01), indicating that the stronger their self-efficacy, the higher their work happiness. Specifically, for each unit of teachers 'self-efficacy, teachers' work happiness increased by 0.792 units on average. The R^2 of the model and the adjusted R^2 were both 0.976, indicating that teacher self-efficacy explained 97.6% of the variation in teachers' work well-being, and the model fit was extremely high. The F value is 265442.116 (p <0.01), indicating that the regression equation is overall significantly effective. The Durbin-Watson value of 2.023 is very close to 2, indicating that there is no autocorrelation between the residual terms. Both VIF values and tolerance were 1, indicating no multicollinearity problem. In conclusion, teachers 'self-efficacy has a significant positive prediction effect on teachers' well-being at work, and this effect is very strong.

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Analysis of the mediation effects of teacher cooperation and self-efficacy

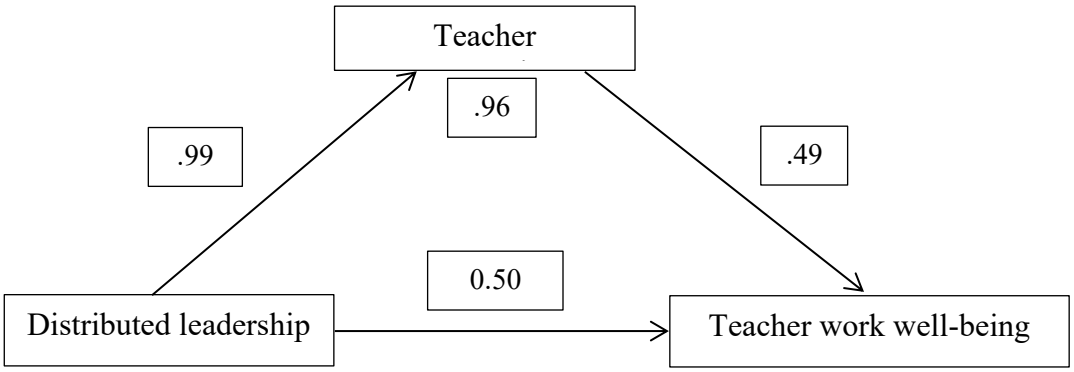


Figure 1 The mediation effect test of teacher cooperation

Table 8 Pathway coefficients of mediation effects for teacher collaboration

Path			Nonstandardized technique	S.E.	C.R.	Standardization
Teacher cooperation	←	Distributed leadership	0.982	0.002	417.017	0.982
Teacher work well-being	←	Teacher cooperation	0.655	0.013	51.053	0.493
Teacher work well-being	←	Distributed leadership	0.665	0.013	51.822	0.5

Teacher cooperation significantly enhanced self-efficacy (β = .985), which in turn predicted work well-being (β = .620). Bootstrap analysis (5,000 resamples) confirmed that the chain indirect effect distributed leadership → teacher cooperation → self-efficacy → work well-being was significant, with 95% bias-corrected confidence intervals not containing zero. The chain indirect path through self-efficacy accounted for approximately 62% of the total effect of teacher cooperation on well-being. Hypothesis 4 was supported.

Discussions

This study examined how distributed leadership shapes university lecturers' work well-being and tested teacher cooperation and self-efficacy as parallel and chain mediators. The four hypotheses were supported by the data. Below, each finding is discussed in light of previous empirical work, theoretical perspectives, and the local higher-education context. Throughout this section, findings are interpreted critically and linked to prior studies, in line with reviewer feedback.

Direct effect of distributed leadership on lecturers' work well-being

Consistent with H1, distributed leadership directly and positively predicted work well-being (β = .984, p < .01). This converges with findings reported by Hickey et al. (2024) in Irish post-primary schools and by Murphy & Brennan (2024) on Irish primary school principals, both of whom found that distributed leadership enhances staff engagement and resilience. It also extends the work of Leithwood & Mascall (2008), originally focused on student

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achievement, by demonstrating that the benefits of collective leadership extend to teachers' subjective well-being. A reasonable explanation, grounded in Distributed Leadership Theory (Spillane, 2006), is that decentralizing decision-making increases lecturers' sense of agency and procedural justice; in line with Self-Determination Theory, this satisfies the need for autonomy and thereby fosters positive affect at work. However, our effect size is larger than that reported in Western studies (where β values typically range from .25 to .50), which may reflect the distinctive collectivist culture of higher education in the present context, where shared leadership resonates strongly with collegial norms.

Mediating role of teacher cooperation

Consistent with H2, teacher cooperation partially mediated the leadership–well-being relationship, accounting for 49.16% of the total effect. This finding aligns with Mather & Visone (2024), who reported that peer-observation programs strengthen collective teacher efficacy and morale, and with Mudhar et al. (2024), who linked collegial collaboration to teacher emotional support. However, our results contrast with Kaniuka (2012), who found that during reform-driven contexts cooperation can become superficial and fail to translate leadership into well-being; the difference may lie in the genuine, voluntary nature of cooperation in the institutions surveyed here. Theoretically, the result supports the social-capital interpretation of distributed leadership: shared authority cultivates trust and reciprocity, which manifest as cooperative practice and ultimately enhance well-being.

Mediating role of self-efficacy

In line with H3, self-efficacy partially mediated the relationship, accounting for 61.65% of the total effect, surpassing the cooperation pathway. This pattern is consistent with Bandura's (1997) Social Cognitive Theory, which positions efficacy beliefs as a proximal psychological resource for sustained engagement, and with Skaalvik & Skaalvik (2014), who linked self-efficacy to job satisfaction and reduced emotional exhaustion. Selenius & Hau (2024) similarly emphasized that efficacy beliefs are critical mediators in inclusive education contexts. Our finding that self-efficacy is the stronger mediator highlights the central importance of empowering individual lecturers — not only redistributing authority structurally — to translate leadership into well-being.

Chain mediation: from cooperation to self-efficacy

Consistent with H4, the data supported a chain mediation pathway in which distributed leadership shapes cooperation, which in turn enhances self-efficacy and finally improves work well-being. This integrated mechanism extends prior research that has tested either mediator in isolation (Li et al., 2024; Ross, 1994) by demonstrating their sequential operation. The pattern is consistent with Bandura's notion of vicarious experience: by observing colleagues' successful collaborative practice, lecturers internalize confidence in their own teaching capability. The result has practical force — interventions that build collaborative culture not only have direct value but also serve as a vehicle for raising individual efficacy and well-being.

Findings in the local higher-education context

Interpretation of these findings benefits from situating them within the local higher-education context. Higher-education institutions in [PLACEHOLDER: please specify country/region — e.g., Thailand / China / Southeast Asia] are characterized by collectivist faculty cultures, hierarchical academic structures, and ongoing education-reform initiatives that emphasize quality assurance and faculty development. Three contextual features help explain the unusually strong effects observed. First, collegial norms in this context already valorize cooperation, providing fertile ground for distributed leadership to flourish. Second,

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the relative novelty of formal distributed leadership practices means that even modest implementation may yield large perceived gains. Third, recent national policies promoting teacher well-being and professional learning communities create institutional reinforcement of the mechanisms tested. These observations suggest that findings may be especially applicable to higher-education systems undergoing similar reforms, but should be interpreted with cultural sensitivity when generalized to other contexts.

Conclusion and suggestions

This large-sample study demonstrated that distributed leadership has a significant direct effect on university lecturers' work well-being (H1) and operates through two mediating mechanisms — teacher cooperation (H2) and self-efficacy (H3) — that further function as a serial chain (H4). The mediating pathway through self-efficacy was the strongest, suggesting that empowering lecturers psychologically is at least as important as restructuring leadership formally. Theoretically, the study extends Distributed Leadership Theory by articulating a chain mediation mechanism in higher education and integrates it with Social Cognitive Theory. Practically, it provides evidence-based guidance for university administrators seeking to enhance faculty well-being through leadership reform, collaborative culture, and efficacy-building practices.

Theoretical and Practical Contributions

Theoretical contributions

The study makes two theoretical contributions. First, it extends Distributed Leadership Theory (Spillane, 2006; Harris, 2004) by identifying a previously untested chain mediation pathway — distributed leadership → teacher cooperation → self-efficacy → work well-being — within higher education. Second, it integrates Social Cognitive Theory (Bandura, 1997) with leadership research, demonstrating that self-efficacy is not only an outcome of supportive leadership but also a mechanism that translates collective practices into individual well-being.

Practical and policy implications

1) Promote distributed leadership practices. University administrators should institutionalize structures that distribute decision-making authority — for example, faculty-led curriculum committees, departmental governance councils, and rotational coordinator roles — to enhance lecturers' sense of agency and belonging.

2) Foster a culture of teacher cooperation. Institutions should create platforms for joint projects, team teaching, peer observation, and professional learning communities, and should publicly recognize and reward cooperative behavior to sustain collaborative norms.

3) Strengthen self-efficacy. Continuous professional development, mentoring, and psychological support — including digital-pedagogy training, structured feedback, and peer coaching — should be provided to help lecturers build mastery experiences and resilience.

4) Establish feedback and support mechanisms. Transparent and responsive systems for lecturers to voice concerns and provide upward feedback strengthen trust between faculty and administrators.

5) Monitor and evaluate leadership impact. Institutions should regularly assess the effectiveness of distributed leadership using validated instruments and adjust practices based on data.

6) Inform national teacher well-being policy. Findings have direct relevance for ministries of education and accreditation bodies. Policies that mandate participatory governance, teacher development funding, and well-being indicators in institutional quality assurance can scale these benefits beyond individual institutions.

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New knowledge and the effects on society and communities

New knowledge

The study establishes a clear empirical model showing how distributed leadership not only directly enhances university lecturers' work well-being but also exerts indirect effects through the chain mechanism of teacher cooperation and self-efficacy. It is among the first large-sample SEM studies to test this chain mediation in the higher-education context, contributing both new measurement evidence on the validity of the four scales in this setting and new structural evidence on the sequential mechanism.

Effects on society and communities

Improving lecturers' work well-being has broad societal implications. Lecturers who experience higher well-being are more likely to engage deeply with students, foster positive learning environments, and contribute to research productivity, all of which advance educational quality at the system level. Strengthening cooperation cultivates institutional cultures of sharing and innovation, while bolstering self-efficacy supports long-term professional growth. Collectively, these dynamics contribute to a more competent and resilient academic workforce — a foundation for the knowledge-based development of society.

References

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W. H. Freeman.

Brislin, R. W. (1986). *The wording and translation of research instruments*. In W. J. Lonner & J. W. Berry (Eds.), Field methods in cross-cultural research (pp. 137–164). Sage.

Gao, W. (2024). *A third-party perspective on teacher well-being assessment: A study of German teacher classroom observation tools based on the PERMA model*. Education Guide.

Harris, A. (2004). Distributed leadership and school improvement: Leading or misleading?. *Educational Management Administration & Leadership, 32*(1), 11–24. https://doi.org/10.1177/1741143204039297

Hulpia, H., Devos, G., & Rosseel, Y. (2009). Development and validation of scores on the Distributed Leadership Inventory. *Educational and Psychological Measurement, 69*(6), 1013–1034. https://doi.org/10.1177/0013164409344490

Kaniuka, T. S. (2012). Toward an understanding of how teachers change during school reform: Considerations for educational leadership and school improvement. *Journal of Educational Change, 13*, 327–346. https://doi.org/10.1007/s10833-012-9184-3

Klusmann, U., Aldrup, K., Roloff, J., Lüdtke, O., & Hamre, B. K. (2022). Does instructional quality mediate the link between teachers' emotional exhaustion and student outcomes? A large-scale study using teacher and student reports. *Journal of Educational Psychology, 114*(6), 1442–1460. https://doi.org/10.1037/edu0000703

Leithwood, K., & Mascall, B. (2008). Collective leadership effects on student achievement. *Educational Administration Quarterly, 44*(4), 529–561. https://doi.org/10.1177/0013161X08321221

Li, X., Liang, D., & Gao, F. (2024). *The influence of growth thinking on teachers' professional growth: Mediating effect of teaching efficacy and perseverance*. Teacher Education Forum. China.

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Hickey, N., Flaherty, A., & McNamary, P. M. (2024). Challenges to the sustainability of Irish post-primary school leadership: The role of distributed leadership. *Journal of Educational Administration, 62*(3), 341–354. https://doi.org/10.1108/JEA-05-2023-0108

Mather, B. R., & Visone, J. D. (2024). Peer observation to foster collective teacher efficacy: teachers' perceptions about collegial visits. *Journal of Professional Capital and Community*, *9*(2), 85–104. https://doi.org/10.1108/JPCC-08-2023-0057

Mifsud, d. (2024). A systematic review of school distributed leadership: Research purposes, concepts, and approaches in the field between 2010 and 2022. *Journal of Educational Administration and History, 56*(2), 154–179. https://doi.org/10.1080/00220620.2022.2158181

Mudhar, G., Ertesvag, S. K., & Pakarinen, E. (2024). Patterns of teachers' self-efficacy and attitudes toward inclusive education associated with teacher emotional support and collegial collaboration. *European Journal of Special Needs Education, 39*(3), 446–462. https://doi.org/10.1080/08856257.2023.2233297

Murphy, G., & Brennan, T. (2024). Enacting distributed leadership in Ireland: Assessing primary school principals' developmental needs using constructive developmental theory. *Educational Management Administration & Leadership, 52*(3), 666–685. https://doi.org/10.1177/1741143222108685

Ross, J. A. (1994). The impact of an in-service to promote cooperative learning on the stability of teacher efficacy. *Teaching and Teacher Education, 10*(4), 381–394. https://doi.org/10.1016/0742-051X(94)90020-5

Selenius, H., & Hau, H. G. (2024). A scoping review on the psychometric properties of the Teacher Efficacy for Inclusive Practices (TEIP) scale. *Scandinavian Journal of Educational Research, 68*(4), 792–802. https://doi.org/10.1080/00313831.2023.2185811

Shi, X., Jiao, X., & Jia, X. (2005). *Development of the Teacher Self-Efficacy Scale*. Psychological Development and Education. China.

Skaalvik, E. M., & Skaalvik, S. (2014). Teacher self-efficacy and perceived autonomy: Relations with teacher engagement, job satisfaction, and emotional exhaustion. *Psychological Reports, 114*(1), 68–77. https://doi.org/10.2466/14.02.PR0.114k14w0

Spillane, J. P. (2006). *Distributed leadership*. Jossey-Bass.

Spillane, J. P., Halverson, R., & Diamond, J. B. (2004). Towards a theory of leadership practice: A distributed perspective. *Journal of Curriculum Studies, 36*(1), 3–34. https://doi.org/10.1080/0022027032000106726

Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education, 17*(7), 783–805. https://doi.org/10.1016/S0742-051X(01)00036-1

Yu, H. (2024). *The impact of work pressure and work resources on rural compulsory education teachers' personal teaching efficacy*. Education Guide.

Wang, C., Chen, Z., & Yang, X. (2012). *Construction of the Teacher Cooperation Scale and reliability/validity test*. Teacher Education Research.

Zhang, L., & Tian, X. (2011). *Compilation and validation of the Teachers' Work Well-Being Scale*. Psychological Research.

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