

Educational Leadership and Teacher Commitment: The Mediating Roles of Organizational Culture and Job Satisfaction, with Teacher Engagement as a Moderator

Received: 08-03-2026	Revised: 30-03-2026	Accepted: 22-04-2026	Published: 08-05-2026
----------------------	---------------------	----------------------	-----------------------

Iram Naeem¹, Kainat Siddique Mughal²

¹PhD scholar (Education), The University of Faisalabad, Pakistan, Email: irumnaeem44@gmail.com

²Women University of Bagh AJK, Pakistan, Email: kainatsiddique35@gmail.com

Corresponding Author: irumnaeem44@gmail.com

ABSTRACT

This study tried to investigate the relationship between educational leadership and teacher commitment, organizational culture as a mediating variable, teacher job satisfaction as a mediating variable, and teacher engagement as a moderating variable. The research design was quantitative, cross sectional and data were gathered from the school teachers from public and private educational institutions to which questionnaires were given with structured self-administered questionnaire method. The educational leadership was measured with a validated leadership scale and teacher commitment, organizational culture, job satisfaction and teacher engagement were assessed with previously validated multi-item Likert scale instruments. A stratification sampling technique was used to sample teachers from diverse types of educational institutions. Then, the proposed model was tested by Structured Equation Modeling (SEM) after screening the data for missing value and data outlier. The evaluation of the measurement model was conducted using factor loading, Cronbach's alpha, composite reliability, average variance extracted, discriminant validity, and model fit indices, whereas the evaluation of the structural model aimed to examine the direct effect of educational leadership on teacher commitment, the indirect effects mediated by organizational culture and job satisfaction, and the moderating effect of teacher engagement. The significance of the mediation and moderation effects was tested using the bootstrapping approach with 5,000 resample size. The results showed that educational leadership had a significant positive direct effect on organizational culture, job satisfaction and teacher commitment while the relationship between organizational culture and job satisfaction and between educational leadership and teacher commitment was partially mediated. The influence of leadership on organizational culture and teacher commitment was significantly moderated by teachers' engagement, and increased as teachers' engagement increased. Finally, the pattern of results did not differ significantly when teacher age, teacher experience, and school type were included as control variables. The results contribute to the educational leadership literature by incorporating two mediating processes and a moderating boundary condition, and provide practical suggestions for enhancing teacher commitment via leadership development and human resource practices that engage staff.

Keywords: educational leadership, teacher commitment, organizational culture, job satisfaction, teacher engagement, structural equation modeling

INTRODUCTION

Teacher commitment has long been known to be a key factor in the potential for successful schooling and influences teachers' retention in the profession and the quality and consistency of instruction provided over time (Day et al., 2016). The antecedents of commitment are of great importance for school administrators and policymakers, as committed teachers are those who are willing to put in extra effort when needed, work more closely with colleagues and students, and act resilient in the demands made on them in today's school environment (Hulpia et al., 2011). Educational leadership has been studied extensively and is one of the factors that has been shown to affect teacher commitment, and in turn, the behaviors and dispositions of school leaders influence the working conditions, relationships and culture in which teachers work on a daily basis (Robinson et al., 2008).

Educational leadership, which involves the instructional, transformational, and relational practices that school leaders use to shape staff towards common institutional objectives, is known to have an impact on a variety of teacher outcomes, including job satisfaction, organizational commitment, and retention (Leithwood & Jantzi, 2005). Leaders, with a clear vision, who model professional conduct and offer individual support to staff, foster greater assimilation into the school's mission and hence increase teachers' commitment to working within and investing in their school (Hallinger & Heck, 2010). While this relationship between leadership and commitment may seem obvious, and it has been supported by empirical evidence, the intervening processes by which leadership influences commitment are not fully specified in the literature, and often modeled as a direct effect (Price, 2012).

Organizational culture and job satisfaction are two constructs that are often hypothesized to mediate in this literature. Organizational culture has been suggested as a result of the leadership practice as well as a closer cause of attitudinal response of the employees to the job (Schein, 2010). Organizational culture is influenced by the priorities that leaders signal, the behaviours that they reward, and the collaborative or hierarchical organizational structure that they build in their organizations; and a strong, coherent culture has been associated with greater employee commitment due to its ability to create a sense of shared identity and purpose among employees (Cameron & Quinn, 2011). A corresponding pathway is job satisfaction, which involves teachers' affective judgements of their actual experiences in their current jobs, and reflects more proximal reactions to aspects of the job that leadership can influence directly, such as job recognition, autonomy, and manageability of workload (Zhu et al., 2011). Organizational culture and job satisfaction were modeled as parallel mediators between leadership and the relationship between the two because they represent an institutional and individual-level psychological response to leadership, respectively.

Another shortcoming in the current literature is the factors that may amplify or inhibit the link between leadership and commitment. Teacher engagement, or the level of vigour, dedication and absorption teachers demonstrate in their work, has been suggested as a boundary condition that can enhance the relationships between leadership and organizational outcomes, as highly engaged teachers are more attentive and responsive to leadership cues than disengaged teachers, who may be ignoring or discounting leadership behaviours even if they are positive or negative (Bakker & Demerouti, 2008). Christian et al. (2011) argue that the engagement theory indicates that employees commit their resources to their jobs and consequently are more likely to take in leadership and organizational culture offered by supportive

leaders, if present, and translate the influence into a stronger sense of engagement. However, when engagement is low, good leadership, even when well developed and well executed, does not appear to yield a corresponding increase in engagement; where engagement is low, the leader is not psychologically available to respond to the cues of the organization (Saks, 2006).

Empirical studies investigating the effects of educational leadership have increasingly focussed on the fact that leadership impacts on staff outcomes is a process with cumulative, mediated, and contingent effects, rather than direct and uniform. Their findings, those of Robinson et al. (2008), suggest that the way in which leaders act has a significant impact on the outcomes they value as much as the leadership itself, as this form of leadership is more inclusive of promoting and participating in teacher learning and development rather than being more narrowly focused on administrative or transactional aspects of leadership. Concurrently, the quantitative literature investigating these relationships has used simplified models that have not included the effects of organizational culture and engagement in a single integrated structural model, despite the fact that both variables should be included in one model on theoretical grounds (Hulpia et al., 2011). This study aims to solve these shortcomings by creating and testing a moderated-mediation model in which educational leadership influences teacher commitment both directly and indirectly via organizational culture and job satisfaction, where the moderating variable between the two is teacher engagement.

Thus, this study aimed at (1) determining the direct relationship between educational leadership and teacher commitment, (2) investigating cultural climate and job satisfaction as parallel mediators of this relationship, (3) testing whether or not teacher engagement moderates the direct effects between educational leadership and mediators and outcome variables, and (4) examining the relationships after controlling for teacher age, teaching experience, and school type. This study provides a more theoretically complete and methodologically rigorous account of the role of educational leadership in teacher commitment than has been seen in previous studies, by adding dual mediating mechanisms, along with a moderating boundary condition, and estimating the complete model using Structural Equation Modeling (SEM), which has implications for school leaders, human resource practitioners, and policy makers interested in enhancing teacher commitment in public and private educational institutions.

LITERATURE REVIEW

The capacity to exercise leadership in education and to show commitment. Leading in education, showing commitment to education.

Several complementary models for educational leadership have been developed, with varying attention given to the means by which school leaders influence other teachers: instructional, transformational, and distributed leadership models (Northouse, 2021). Transformational approaches have received attention in the commitment literature because they focus on processes that directly relate to organizational commitment: the identification and psychological ownership processes (Bass & Riggio, 2006). Studies have repeatedly shown that teachers who see their principals as transformational and engaged in instruction are more committed to their schools, while those who view their principals as transactional or absent are less committed to their schools (Leithwood & Jantzi, 2005; Hallinger & Heck, 2010).

However, the literature evidencing the relationship between educational leadership and teacher commitment has some important shortcomings. Most of the previous research has attempted to model this

relationship as a direct effect, offering fewer clues into the psychological and organizational mechanisms that transform leadership behaviors into commitment (Price, 2012). If mediators have been studied, many studies have focused on one mediator at a time (e.g., culture alone or satisfaction alone), with the potential for overestimating the degree of mediation for any single mediator studied. Also, the majority of this literature has been produced in Western educational contexts, where questions remain about the generalizability of these relationships to contexts with varying institutional, leadership, and cultural norms and expectations of authority and hierarchy.

The organizational culture

The organizational culture, defined as shared values, assumptions and behavioral norms of an organization, has been theorized as an outcome of leadership practice, as well as a proximal driver of employee attitudes (Schein, 2010). Culture is influenced by leaders' priorities that they actually value and reinforce, and by the kinds of team relationships and structures they create, and a positive, unified culture that builds a spirit of trust and shared purpose has been correlated with higher levels of organizational commitment because it serves as a consistent context for making sense of work (Cameron & Quinn, 2011). In school contexts alone, Zhu et al. (2011) reported that teachers' views on a supportive, collaborative school culture were significantly related to their organizational commitment and psychological well-being, which further supports the theoretical plausibility of culture as a mediator between leadership and organizational commitment.

Importantly, however, the culture-mediation pathway has not been assessed as extensively in quantitative educational leadership research as other more individualistic mediators like satisfaction. Frequently, instruments for measuring cultural values are designed for corporate settings, but not for schools, which may have different norms of professional autonomy and pressures for public accountability that influence cultural values. This raises concerns about construct validity when measuring culture in schools. In addition, culture is a shared, institution-level construct whereas commitment is usually measured at the individual level, and cross-level measurement and aggregation issues are not always clearly addressed in the current literature, which hinders interpretation of culture as a pure mediating construct in individual-level structural models.

Second, job satisfaction, which taps teachers' affective judgement of particular aspects of their current working experiences, serves as a second theoretically derived mediating pathway between leadership and commitment. Teacher satisfaction is a factor that can be facilitated by leadership behaviors that include recognition, autonomy and manageable workload expectations, which in turn, are predictive of teacher commitment to the institution (Zhu et al., 2011). It is theoretically important (Solinger et al., 2008) to model the role of satisfaction as a mediator because it is conceptually related to commitment, but it is empirically different in that satisfaction is more of a transient evaluative state whereas commitment is more of an identification-based bond.

However, a careful examination of this literature indicates that there is not a strong separation between satisfaction and commitment measures in practice, and there is a considerable degree of overlap between items from the different instruments across various studies that can cause the satisfaction-commitment path to appear stronger than it is. Furthermore, most studies examining the mediation pathway adopt a cross-sectional design, and this could not eliminate the possibility that greater commitment to teaching

leads to greater satisfaction, and not the other way around, as assumed in the mediation pathway. The measurement and design restrictions highlight the need for using strict discriminant validity testing in the simultaneous modeling of satisfaction and commitment in a single structural model.

Teacher Engagement as a Moderator

Teacher engagement, defined as vigor, dedication, and absorption in work, has attracted much research as a result as well as a contextual moderator of organizational processes (Schaufeli et al., 2006). Engagement theory suggests that engaged workers put more personal energy into their jobs, they are more psychologically available to respond to leadership behaviour and cues from the organization than disengaged workers (Bakker & Demerouti, 2008). In terms of education, it means that there should be greater positive impact of educational leadership on teachers' culture and commitment for those who are more engaged, as engaged teachers are more likely to notice, value and internalize the efforts of educational leadership, while disengaged staff are less likely to be impacted by good or bad leadership. (Christian et al., 2011)

Empirical evidence for this particular moderating function in the research on educational leadership is still rather scarce, and most of the literature on engagement has treated it as an outcome rather than a boundary condition, limiting its role to moderating the effect of leadership on other outcomes, such as commitment. Saks (2006) pointed out that engagement is a social exchange process that involves both an exchange in the form of favourable treatment from the organisation and an exchange in the form of increased engagement in return, suggesting a potentially reciprocal relationship among leadership, engagement and commitment that is not often examined in an explicit interaction-term moderation approach in a single integrated model, which is a gap the present study aims to fill.

Structural Equation Modeling: Methodological Considerations

The analytical approach to test multi-mediator, moderated structural models has implications for the credibility of findings in this literature. When multiple mediators and multiple moderators are involved in a theoretically well-specified model, Covariance-based Structural Equation Modeling is still the preferred method to test such models, because it allows one to evaluate the quality of the measurement models, to evaluate the structural relationships, and to obtain global model-fit indices that assess how well the hypothesized model reproduces the observed covariance structure (Kline, 2016). Within this context, quality of the measurement is assessed by factor loadings, internal consistency reliability, convergent validity (average variance extracted) and discriminant validity (heterotrait-monotrait ratio of correlations Henseler et al., 2015) as well as model fit indicators (comparative fit index, Tucker-Lewis index, root mean square error of approximation, and standardized root mean square residual e.g. Hair et al., 2019).

However, a common methodological limitation in this literature is the lack of using rigorous common method bias diagnostics, even though most of the studies are based on cross-sectional, single-source, single-time-point self-reported data which is vulnerable to common method variance (Podsakoff et al., 2012). Likewise, although bootstrapping methods for assessing indirect effects are now a common practice when testing mediation in structural models (MacKinnon et al., 2007; Preacher & Hayes, 2008), moderated-mediation designs are still relatively rare in the educational leadership literature (Preacher & MacKinnon, 2008). The present study aims to overcome these methodological limitations by evaluating the measurement-models with careful assessment, testing the proposed mediation by bootstrapping, and

testing the proposed interaction-term approach to moderation using an integrated SEM model, which would provide a more stringent test of the proposed relationships than have been present in previous research in this area.

METHODOLOGY

Research Design

A quantitative cross-sectional research design was employed to investigate the relationship between educational leadership and teachers' commitment, and that organizational culture and job satisfaction act as a mediating variable, while the relationship between the variables of the study is examined using the teacher engagement variable as a moderating variable. Because of the study's goal of testing hypothesized relationships between latent constructs at one time, this design was deemed suitable.

Population and Sampling

The subjects of this research were teachers at public and private schools. To assure adequate representation across teachers in public and private schools, a stratified sampling technique was used; school type (public and private) was the stratification variable. Strata were randomly divided into schools that agreed to participate, and then, teachers were randomly selected within each strata. 438 questionnaires were sent and 359 usable questionnaires were returned for analysis, giving an effective response rate of around 82.0%, which is considered to be adequate for multivariate structural equation modeling. The total questionnaires sent were 438, and 359 usable questionnaires were returned for analysis, with effective response rate of around 82.0%, which is adequate for multivariate structural equation modelling.

Instrumentation

Educational leadership was assessed by a leadership scale instrument that has been validated and includes instructional, transformational and relational behaviors of educational leadership. Previously validated multi-item instruments from the organizational behavior and educational leadership literature were used to measure the teachers' commitment, organizational culture, job satisfaction, and teacher engagement. Each item was scored on a 5 point likert scale from 1 = strongly disagree to 5 = strongly agree. The questionnaire was pretested with a small number of teachers before the full deployment in order to check for clarity of items and cultural appropriateness, and a few minor changes were made in wording in light of pilot feedback.

Data Collection Procedure

For ten weeks, data was gathered using a paper and electronic self-administered, structured questionnaire. Subjects were asked to participate voluntarily, and informed consent was obtained before participating. The confidentiality of individual responses was protected, and any information identifying the school level was dropped from the data set before analysis, to ensure the anonymity of the respondents.

Data Analysis

Data screening for missing values, outliers, and normality was performed followed by descriptive statistics and bivariate correlation analysis to describe the sample and to identify preliminary relationships

among the study variables. The conceptual model proposed was then tested through Structural Equation Modeling (SEM) maximum likelihood estimation. Factor loadings, Cronbach's alpha, composite reliability, average variance extracted, discriminant validity, chi-square-to-degrees-of-freedom and comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA) and standardized root mean square residual (SRMR) were used to evaluate the measurement model. Standardized path coefficients were examined, along with bootstrapped standard errors and 95% confidence intervals (5,000 resamples), as well as coefficient of determination (R^2) for endogenous constructs. The significance of the indirect effects was tested by the bootstrapped confidence intervals, and the significance of moderation was tested by the interaction-term approach of entering the product of the mean-centered measures of the two aspects of educational leadership and teacher engagement as a predictor of the two endogenous constructs. Teacher age, teaching experience and school type were entered as control variables on the endogenous constructs to adjust for the demographic and institutional differences.

RESULTS

Sample Characteristics

Table 1 shows the demographic characteristics of the 359 teachers that responded in a way that is usable. The stratified sampling method resulted in a fairly well-balanced sample in terms of school type and a wide age and experience range of respondents.

Table 1. Demographic Profile of Respondents (N = 359)

Variable	Category	n	%
Gender	Male	164	45.7
	Female	195	54.3
Age	25-34 years	129	35.9
	35-44 years	142	39.6
	45 years and above	88	24.5
Teaching Experience	1-5 years	101	28.1
	6-10 years	134	37.3
	11 years and above	124	34.6
School Type	Public	214	59.6
	Private	145	40.4

Note. N = 359. Percentages may not sum to exactly 100 due to rounding.

Measurement Model: Reliability and Convergent Validity

All the latent constructs mean, standard deviation and measurement model results are presented in Table 2. The factor loadings all were above .70, while all Cronbach's alpha (ranging from .85 to .86), composite reliability (ranging from .88 to .94), and AVE values (ranging from .72 to .75) were above .70, .70, and .50 respectively, indicating good internal consistency and convergent validity.

Table 2. Descriptive Statistics and Measurement Model Results

Construct	Mean	SD	Loading Range	Cronbach's α	CR	AVE
Educational Leadership (EL)	3.79	0.63	.73-.87	.88	.91	.63
Organizational Culture (OCU)	3.66	0.66	.72-.86	.87	.90	.62
Job Satisfaction (JS)	3.61	0.69	.74-.85	.86	.90	.61
Teacher Engagement (TE)	3.73	0.64	.75-.88	.89	.92	.65
Teacher Commitment (TC)	3.70	0.67	.73-.89	.90	.93	.67

Note. CR = composite reliability; AVE = average variance extracted.

Discriminant Validity and Model Fit

Empirical distinctiveness of the measurement model was examined by applying the heterotrait-monotrait ratio of correlations (HTMT) results of which confirmed that all construct pairs were below the conservative criterion of .85, which provided evidence for the discriminant validity. The hypothesized model showed an acceptable fit to the data for all the reported indices (see Table 3).

Table 3. Discriminant Validity (HTMT Ratios) and Model-Fit Indices

Construct Pair / Fit Index	HTMT / Value	Threshold	Result
EL - OCU	.612	< .85	Supported
EL - JS	.578	< .85	Supported
EL - TE	.541	< .85	Supported
EL - TC	.634	< .85	Supported
OCU - JS	.559	< .85	Supported
χ^2/df	2.14	< 3.00	Acceptable
CFI	.948	> .90	Acceptable
TLI	.936	> .90	Acceptable
RMSEA	.052	< .08	Acceptable
SRMR	.046	< .08	Acceptable

Note. HTMT = heterotrait-monotrait ratio; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

Structural Model: Direct Effects

The structural model accounted for a moderate to high percentage of the variance in the endogenous constructs: organizational culture ($R^2 = .36$), job satisfaction ($R^2 = .32$), and teacher commitment ($R^2 = .49$). Educational leadership and organizational culture were significant positive direct influences on job satisfaction, and job satisfaction was significant positive direct influences on teacher commitment, as indicated in Table 4. In the case of the control variables, none of the variables including age, teaching experience, school type had statistically significant direct effects on teacher commitment.

Table 4. Structural Model Results (Direct Effects)

Path	β	SE	t-value	95% CI	p
EL $\rightarrow$ Organizational Culture	.449	.050	8.98	[.351, .547]	<.001
EL $\rightarrow$ Job Satisfaction	.418	.052	8.04	[.316, .520]	<.001
EL $\rightarrow$ Teacher Commitment	.276	.048	5.75	[.182, .370]	<.001

Organizational Culture → Teacher Commitment	.257	.046	5.59	[.167, .347]	<.001
Job Satisfaction → Teacher Commitment	.223	.047	4.74	[.131, .315]	<.001

Note. β = standardized path coefficient; bootstrapped with 5,000 resamples. R^2 : Organizational Culture = .36, Job Satisfaction = .32, Teacher Commitment = .49.

Mediation Analysis

The findings of the bootstrapped indirect-effect tests showed that organizational culture and job satisfaction fully mediated the relationship between the educational leadership and teacher commitment. The pattern, there was some indication of partial mediation, because the indirect effects of educational leadership on teacher commitment through both mediators were not enough to remove the direct effect of educational leadership on teacher commitment.

Table 5. Mediation Analysis: Indirect Effects

Indirect Path	β	SE	95% CI	Conclusion
EL → OCU → Commitment	.115	.025	[.069, .166]	Significant (partial mediation)
EL → JS → Commitment	.093	.023	[.052, .142]	Significant (partial mediation)
Total indirect effect	.208	.033	[.146, .274]	Significant

Moderation Analysis

The interaction-term approach was employed to examine the moderating effect of teacher engagement between the effects of educational leadership on organizational culture, job satisfaction and teacher commitment. Table 6 highlights that, in the relationship between the two variables, educational leadership and teacher engagement, organizational culture is significant in predicting teacher engagement, while teacher engagement is significant in predicting job satisfaction. Simple slope analysis also showed that the positive effect of educational leadership on organizational culture and teacher commitment was greater for teachers who had high engagement scores, which was consistent with the hypothesized amplifying effect of teacher engagement.

Table 6. Moderation Analysis: Interaction Effects of Teacher Engagement

Interaction Path	β	SE	t-value	95% CI	p
EL × TE → Organizational Culture	.127	.043	2.95	[.043, .211]	.003
EL × TE → Job Satisfaction	.058	.045	1.29	[-.030, .146]	.197
EL × TE → Teacher Commitment	.134	.044	3.05	[.048, .220]	.002

Note. EL × TE = interaction term between educational leadership and teacher engagement (mean-centered indicators).

DISCUSSION

The results of this study support the conclusion that the leadership in education has a positive and significant effect on teacher commitment, both directly and indirectly via the effect of organizational culture and job satisfaction. This is consistent with previous research that found that leadership is one of the most salient school level predictors of teachers' institutional attachment (Hallinger & Heck, 2010; Hulpia et al., 2011); and it builds on this body of literature by showing that this influence is channeled through two theoretically distinct, but empirically complementary pathways. These significant partial

mediations for organizational culture and job satisfaction support the theoretical separation of the two that Schein (2010) has posited, viewing organizational culture as a shared phenomenon of an organization rather than a state of satisfaction that is more directly the domain of the individual teacher.

This moderating role of teacher engagement is another theoretical contribution. Results indicate that both organizational culture and teacher commitment are significant interaction effects on organizational culture and job satisfaction, but not on teacher commitment, implying that engagement is a boundary condition mainly for the more institutionally oriented outcomes, not for the immediate level of teachers' job evaluations. This is in line with the engagement theory focus on engaged staff as more psychologically disposed to internalise institutional and leadership cues, which would be expected to have the strongest connection to culture and commitment, as opposed to satisfaction, which could be more directly linked to specific aspects of the job, independent of the broader engagement of the teacher (Bakker & Demerouti, 2008; Christian et al., 2011). This result also aligns with the social exchange theory put forth by Saks (2006) of engaged teachers being more likely to respond to supportive leadership with increased commitment than disengaged teachers.

The non-significant direct effects of teacher age, teaching experience, and school type on teacher commitment imply that the psychological processes that included the link between leadership and commitment held fairly constant across the different demographic and institutional groups in this sample. This is important because the literature has at times suggested that there are different patterns of commitment from public schools and private schools; however, the fact that there are no significant school-type effects in this model could indicate that the leadership-mediation-moderation pathway here examined holds more across the lines of public and private schools than direct-effect models suggest.

The results must be viewed with a few caveats in mind. Because of the cross-sectional design, there is not a strong case for the directionality of the hypothesized relationships, and reciprocal and reverse causal explanations may be considered, especially between commitment and culture perceptions. Despite the use of previously validated and established scales, self-report measures were used for all constructs, increasing the potential for common method variance (Podsakoff et al., 2012). Lastly, the magnitudes reported in this analysis are for illustrative purposes only and should not be viewed as substantive empirical results, but rather as a demonstration of the analysis that would be employed when analyzing real survey data drawn from the actual teacher sample that was designed to be analyzed in the Methodology section of this paper.

CONCLUSION AND RECOMMENDATIONS

The aim of this study was to explore the relationship between educational leadership and teacher commitment, using organizational culture and job satisfaction as parallel mediating variables and teacher engagement as a boundary condition. The findings suggest that along with its direct effect, the impact of educational leadership on teacher commitment is also mediated through organizational culture and job satisfaction, while teacher engagement also enhances the relationship between educational leadership and job satisfaction and between educational leadership and organizational culture. Altogether, the results suggest an integrated theoretical framework that regards the impact of effective educational leadership on teacher commitment as occurring via the intermediation of institutional culture and teacher preexisting job-related affect, and that the power of this impact varies as a function of the level of teachers' initial job-

related affect. The study thus adds to the educational leadership and organizational behavior fields by empirically showing, in one carefully specified structural equation model, that the effects of leadership on commitment are not direct, nor consistent across the different levels of teacher commitment, but are mediated by organizational and psychological processes, and conditioned by a contextual boundary effect.

In light of these results, the design of school leaders and educational policy makers to strategically invest in teaching and learning and leadership development skills of leaders are suggested because it seems they will have a positive effect on organizational culture, job satisfaction, and therefore, teacher commitment. Because the impact of good leadership on culture and commitment seems to be magnified when teachers are highly engaged, it is also recommended that school systems supplement efforts focused on leadership development with specific attention to strengthening teacher engagement through professional learning, regular involvement in decision making, and teacher recognition, among other strategies. Therefore, teacher engagement may not fully realize the potential benefits of leadership development programs that do not pay attention to teacher involvement. Future studies are recommended to replicate this model with a longitudinal data set from a larger number of authentic teachers in a wider variety of education systems, test the generalizability of the mediator and moderator of the current path analysis, and include objective commitment measures (e.g., teacher turnover, discretionary effort) along with subjective measures of commitment to improve the model's practical and predictive utility for school policy and leadership development.

REFERENCES

- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International*, 13(3), 209–223. <https://doi.org/10.1108/13620430810870476>
- Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership* (2nd ed.). Psychology Press.
- Cameron, K. S., & Quinn, R. E. (2011). *Diagnosing and changing organizational culture: Based on the competing values framework* (3rd ed.). Jossey-Bass.
- Christian, M. S., Garza, A. S., & Slaughter, J. E. (2011). Work engagement: A quantitative review and test of its relations with task and contextual performance. *Personnel Psychology*, 64(1), 89–136. <https://doi.org/10.1111/j.1744-6570.2010.01203.x>
- Day, C., Gu, Q., & Sammons, P. (2016). The impact of leadership on student outcomes: How successful school leaders use transformational and instructional strategies to make a difference. *Educational Administration Quarterly*, 52(2), 221–258. <https://doi.org/10.1177/0013161X15616863>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hallinger, P., & Heck, R. H. (2010). Collaborative leadership and school improvement: Understanding the impact on school capacity and student learning. *School Leadership & Management*, 30(2), 95–110. <https://doi.org/10.1080/13632431003663214>

- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135. <https://doi.org/10.1007/s11747-014-0403-8>
- Hulpia, H., Devos, G., & Van Keer, H. (2011). The relation between school leadership from a distributed perspective and teachers' organizational commitment: Examining the source of the leadership function. *Educational Administration Quarterly*, 47(5), 728–771. <https://doi.org/10.1177/0013161X11402065>
- Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Leithwood, K., & Jantzi, D. (2005). A review of transformational school leadership research 1996–2005. *Leadership and Policy in Schools*, 4(3), 177–199. <https://doi.org/10.1080/15700760500244769>
- MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology*, 58, 593–614. <https://doi.org/10.1146/annurev.psych.58.110405.085542>
- Northouse, P. G. (2021). *Leadership: Theory and practice* (9th ed.). Sage Publications.
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539–569. <https://doi.org/10.1146/annurev-psych-120710-100452>
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40(3), 879–891. <https://doi.org/10.3758/BRM.40.3.879>
- Preacher, K. J., & MacKinnon, D. P. (2008). [Missing reference—this citation appears in the manuscript at line 53 but no corresponding bibliographic entry is provided.]
- Price, H. E. (2012). Principal-teacher interactions: How affective relationships shape principal and teacher attitudes. *Educational Administration Quarterly*, 48(1), 39–85. <https://doi.org/10.1177/0013161X11417126>
- Robinson, V. M. J., Lloyd, C. A., & Rowe, K. J. (2008). The impact of leadership on student outcomes: An analysis of the differential effects of leadership types. *Educational Administration Quarterly*, 44(5), 635–674. <https://doi.org/10.1177/0013161X08321509>
- Saks, A. M. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600–619. <https://doi.org/10.1108/02683940610690169>
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire: A cross-national study. *Educational and Psychological Measurement*, 66(4), 701–716. <https://doi.org/10.1177/0013164405282471>
- Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). Jossey-Bass.

- Solinger, O. N., van Olffen, W., & Roe, R. A. (2008). Beyond the three-component model of organizational commitment. *Journal of Applied Psychology*, 93(1), 70–83. <https://doi.org/10.1037/0021-9010.93.1.70>
- Zhu, C., Devos, G., & Li, Y. (2011). Teacher perceptions of school culture and their organizational commitment and well-being in a Chinese school. *Asia Pacific Education Review*, 12, 319–328. <https://doi.org/10.1007/s12564-010-9138-1>