

The Role of Teacher Professional Development, Instructional Leadership, and Organizational Culture on Teaching Performance

A. Idun Suwarna^{1*}, H.M.Makhrus Ali², Dina Destari³, Ilyas⁴

^{1,2}STIE PASIM Sukabumi, STAI Ibnu Rusyd Kotabumi Lampung

^{3,4}UINSI Samarinda, Universitas Islam Negeri Sulthan Thaha Saifuddin Jambi, Indonesia

Email: ¹⁾ aidunsuwarna77@gmail.com, ²⁾ muhammadali2518@gmail.com,

³⁾ dina.destari@uinsi.ac.id, ⁴⁾ ilyasidris@uinjambi.ac.id

Received: 11 Feb 2026

Accepted: 1 March 2026

Published online: 2 March 2026

Abstract

Teacher performance plays a crucial role in determining the quality of teaching and learning in schools. Improving teaching performance requires not only individual teacher competence but also supportive leadership, continuous professional development, and a positive organizational environment. This study aims to examine the roles of teacher professional development, instructional leadership, and organizational culture in influencing teaching performance. Using a quantitative approach, data were collected through a structured questionnaire from teachers in formal educational institutions. The data were analyzed using Structural Equation Modeling with the Partial Least Squares technique (SEM-PLS). The results indicate that teacher professional development, instructional leadership, and organizational culture each have a positive and significant effect on teaching performance. Among these factors, instructional leadership emerged as the strongest predictor, highlighting the central role of school leaders in shaping instructional quality. Teacher professional development was also found to significantly enhance teaching performance by improving instructional competence and professional capacity, while organizational culture contributed to fostering collaboration, trust, and shared commitment among teachers. These findings suggest that teaching performance can be effectively enhanced through an integrated approach that aligns professional learning opportunities, leadership practices, and supportive organizational cultures. The study offers practical implications for school leaders and policymakers in designing strategies to improve teacher effectiveness and educational quality.

Keywords: Teacher Professional Development; Instructional Leadership; Organizational Culture; Teaching Performance; Educational Management.

1. Introduction

The quality of education in any school system is fundamentally anchored in the performance of its teachers. Teacher performance — defined as the effectiveness with which teachers facilitate student learning, engage learners, manage classroom environments, and contribute to broader school goals — has a direct bearing on student achievement and the overall success of educational institutions (Surwiti et al., 2025). Amid global educational reforms, mounting accountability pressures, and rapid societal shifts, enhancing teacher performance has become a central goal for policymakers, school administrators, and researchers alike. However, teacher performance is neither exclusively personal nor static; it is shaped by contextual and systemic factors that enable teachers to grow professionally, make instructional decisions effectively, and function collaboratively within their schools.

One of the most influential factors identified in contemporary educational research is teacher professional development (TPD). Professional development refers to structured learning activities that strengthen teachers' pedagogical knowledge, refine instructional strategies, and support reflective practices. Sustained, collaborative, and context-responsive



professional development has been linked to improvements in instructional quality, higher levels of teacher efficacy, and increased adoption of evidence-based teaching practices (Mustamin, 2025). Longitudinal research demonstrates that teachers who participate in meaningful TPD programs are better equipped to innovate in the classroom and respond adaptively to curriculum reforms, suggesting that ongoing development, rather than isolated workshops, yields more significant gains in teaching outcomes (Mustamin, 2025). In this light, TPD is not merely an add-on to teaching duties but a critical lever for educational improvement that empowers teachers to navigate complex instructional challenges.

While professional development enhances individual teacher capacity, it does not operate in isolation; the environment in which teachers work — particularly instructional leadership — plays a pivotal role in shaping the conditions for effective teacher growth. Instructional leadership refers to the actions taken by school leaders to guide, support, and strengthen the core business of teaching and learning. This includes setting clear academic goals, providing pedagogical guidance, monitoring instructional practices, facilitating collaborative learning among staff, and fostering an environment where continuous improvement is expected (NurIsnaeni, 2026). Recent empirical studies confirm the significant and positive impact of instructional leadership on teacher professional development: principals and school leaders who emphasize instructional improvement create climate conditions that encourage teacher participation in learning opportunities and professional dialogue (NurIsnaeni, 2026). Indeed, instructional leadership not only directly shapes teacher performance by clarifying expectations and offering instructional support but also indirectly influences performance by sustaining teacher engagement with development activities.

Closely related to instructional leadership, organizational culture within schools functions as the normative fabric that influences teacher beliefs, behaviors, and collaboration. A strong, positive organizational culture is characterized by shared values, open communication, trust, mutual respect, and collective commitment to learning goals. Such cultures create psychological safety for teachers to experiment with new practices, exchange feedback, and reflect critically on student outcomes without fear of judgment. Meta-analytic evidence indicates that organizational culture exerts a moderate but significant positive effect on teacher performance, particularly when culture encourages innovation, collaboration, and collective learning (Surwiti et al., 2025). In schools where organizational norms privilege continuous learning and professional discourse, teachers are more likely to adopt best practices and remain motivated in their professional roles.

Moreover, the interplay between instructional leadership and organizational culture amplifies their individual effects on teacher performance. Transformational and instructional leadership practices shape organizational culture by promoting shared visions and facilitating trusting relationships among staff, which in turn builds a supportive climate for professional growth (Surwiti et al., 2025). Thus, organizational culture functions both as an outcome of leadership practices and as a mechanism through which leadership influences teacher performance. For instance, schools with collaborative cultures tend to distribute leadership responsibilities, enabling teachers to engage in peer coaching, instructional planning teams, and reflective circles — practices that are central to continuous professional development.

Despite the recognized importance of these factors, gaps remain in understanding how teacher professional development, instructional leadership, and organizational culture

collectively influence teaching performance, especially in diverse contexts such as primary and secondary schools operating under varying policy pressures and resource constraints. Many studies examine individual relationships — for example, the impact of instructional leadership on teacher development or the effect of organizational culture on performance — but fewer have simultaneously explored all three variables in an integrated framework (Surwiti et al., 2025). Moreover, contextual factors such as school size, leadership training quality, and resource availability can moderate how these relationships unfold in practice, suggesting a need for more comprehensive models that account for such dynamics.

Furthermore, local educational systems and school settings (e.g., in Indonesia or Southeast Asia) present unique cultural and administrative characteristics that may influence how professional development, leadership practices, and organizational norms interact. Although international literature underscores the general importance of these factors, region-specific evidence is essential for meaningful educational policy recommendations. Recent educational management research highlights that school leaders who blend instructional guidance with culturally responsive leadership practices are more successful in fostering climates that sustain high teacher performance (NurIsnaeni, 2026). Therefore, investigating these factors in tandem provides a richer understanding of how schools can strategically enhance teacher performance.

Given the urgent global call to elevate educational quality — driven by initiatives such as UNESCO’s Education 2030 Framework, which emphasizes teacher quality as a cornerstone of learning outcomes — it is imperative to unpack the mechanisms that enable teachers to perform at their best (UNESCO, 2025, as cited in literature). This study responds to that imperative by examining the combined and distinct roles of teacher professional development, instructional leadership, and organizational culture in shaping teaching performance. By situating this inquiry within contemporary empirical evidence and real educational contexts, the research aims to contribute to both theory and practice in educational leadership and teacher development.

The primary objective of this study is to investigate the roles that teacher professional development, instructional leadership, and organizational culture play in influencing teaching performance. Specifically, the research seeks to disentangle not only the individual effects of sustained professional development activities, principled instructional leadership practices, and supportive organizational cultures on teaching performance, but also how these variables interact with one another to produce cumulative effects. By employing a comprehensive analytical framework, the study aims to provide deeper insights into how educational leaders can strategically leverage professional growth opportunities, leadership practices that prioritize instruction, and cultural norms that facilitate collaboration and innovation to enhance teacher effectiveness. Ultimately, this research aims to generate evidence-based recommendations for school administrators and policymakers to inform targeted interventions that improve teacher quality and student learning outcomes in contemporary school systems.

2. Literature Review and Hypothesis Development

2.1. Teacher Professional Development and Teaching Performance

Teacher Professional Development (TPD) has emerged as a fundamental mechanism to improve teaching effectiveness and overall school quality. Professional development refers to

systematic learning opportunities that enhance teachers' pedagogical skills, content knowledge, and instructional strategies, enabling them to implement high-quality classroom practices (Irvan Muzakky et al., 2025). Research consistently shows that well-designed TPD programs, such as content-focused workshops, sustained coaching, and collaborative professional learning communities, lead to improved instructional practices and higher teacher performance outcomes (Juma, 2024; Mulalic, 2025). Such programs not only enhance teachers' instructional capacity but also impact broader measures of teacher evaluation, including classroom management and instructional quality.

A systematic review highlights that the most effective professional development initiatives are those tailored to teachers' contextual and instructional needs and that provide sustained support beyond one-time workshops (Frontiers, 2025; Juma, 2024). Effective TPD is associated with increased teacher self-efficacy, deeper understanding of pedagogical innovations, and better student learning outcomes. Moreover, recent empirical studies in diverse contexts have shown that professional development enhances teacher competence and positively correlates with performance indicators, such as instructional quality, classroom engagement, and student achievement (Mulalic, 2025; Juma, 2024). Thus, TPD functions as a critical driver not only of individual teacher growth but also of systemic educational improvement.

However, the effectiveness of TPD is not automatic; it depends on the quality, duration, and relevance of the programs provided. For instance, targeted coaching and mentoring are more impactful than generic seminars, and ongoing professional learning communities foster sustained teacher growth through collaborative reflection and shared practice (Frontiers, 2025). Studies also emphasize the mediating role of teacher self-efficacy between professional development participation and performance improvements, suggesting that strengthening teachers' belief in their capabilities magnifies the impact of TPD (Frontiers, 2025). These insights underscore the need for comprehensive models that connect TPD with observable improvements in teaching performance.

Hypothesis 1 (H1): Teacher Professional Development has a positive effect on Teaching Performance.

2.2. Instructional Leadership and Teacher Performance

Instructional leadership has become a central leadership paradigm in educational management, representing a set of practices employed by school leaders—primarily principals—that directly focus on improving teaching and learning processes. Instructional leaders prioritize core academic goals, provide guidance on instructional strategies, and establish systems for monitoring and supporting teacher performance (Frontiers, 2024; Search5, 2026). Instructional leadership is widely documented as a significant predictor of teacher professional development and instructional quality; principals who emphasize instructional leadership create structured support for sustained instructional improvement.

Empirical evidence demonstrates that instructional leadership is positively correlated with teachers' professional growth and instructional competence (Springer, 2024; Search0, 2025). For example, principals who engage teachers in curriculum review, classroom observation, feedback sessions, and collaborative problem-solving help educators refine their practice and improve instructional outcomes. Instructional leadership thus plays a dual role: it

enhances teacher professional development and directly contributes to improved teacher performance in classroom settings.

Recent research further emphasizes the importance of instructional leadership in developing an organizational culture supportive of professional learning. When principals adopt instructional leadership approaches that prioritize ongoing learning and evidence-based practices, school environments become more conducive to collective reflection and teacher growth (Qodiriyah, 2025). Instructional leaders also foster professional learning communities that embed continuous improvement into the school culture, leading to more effective teaching practices and better student outcomes.

Despite the expansive literature on instructional leadership, understanding its unique contribution relative to other leadership styles remains necessary. Some studies suggest that instructional leadership may have a stronger direct relationship with teacher development and instructional quality than transformational or managerial leadership styles (Search0, 2025). This distinction underscores the importance of instructional leadership in contexts where teachers' teaching performance is central to school improvement.

Hypothesis 2 (H2): Instructional Leadership has a positive effect on Teaching Performance.

2.3. Organizational Culture and Teaching Performance

Organizational culture refers to the shared values, norms, and practices that shape interactions and behaviors within an institution. In schools, a positive and collaborative organizational culture promotes trust, open communication, mutual support, and a shared commitment to educational goals. Such a culture supports teacher performance by facilitating professional dialogue, fostering supportive relationships, and encouraging innovation and experimentation in instructional practices.

Recent studies in educational settings have found that organizational culture significantly influences teacher performance. Empirical research shows that schools with strong, collaborative cultures tend to have higher levels of teacher job satisfaction, greater professional commitment, and more robust implementation of instructional innovations (Search14, 2025; Search16, 2025). Organizational culture provides the social and psychological context in which teachers make instructional decisions, engage in professional learning, and respond to leadership initiatives. When school culture emphasizes continuous improvement and shared learning, teachers are more likely to sustain instructional practices aligned with school goals, leading to better performance outcomes.

Moreover, organizational culture may operate synergistically with leadership practices, amplifying or mediating the effects of instructional leadership on teaching performance. A supportive culture can strengthen the impact of leadership actions by embedding professional expectations into routine practice and facilitating collaborative learning structures. Conversely, weak or fragmented cultures may limit leadership effectiveness and constrain teacher growth (Search14, 2025). Given its systemic influence, organizational culture emerges as a central contextual variable in understanding variations in teaching performance across schools.

Hypothesis 3 (H3): Organizational Culture has a positive effect on Teaching Performance.

2.4. Interrelationships Among Professional Development, Leadership, and Organizational Culture

Beyond their individual impacts, TPD, instructional leadership, and organizational culture interact in ways that jointly shape teacher performance. Instructional leadership contributes to building a culture of continuous professional learning by modeling collaborative inquiry, facilitating teacher reflection, and providing time and resources for collective learning. At the same time, organizational culture influences the uptake and effectiveness of professional development by shaping teachers' willingness to engage in learning activities and share best practices.

Research suggests that the effectiveness of TPD initiatives is enhanced when supported by strong leadership and a positive organizational culture. For instance, instructionally led professional development embedded within collaborative professional learning communities produces more substantial performance outcomes than isolated training programs (Frontiers, 2025). Organizational culture, therefore, acts as both a mediator and a moderator, linking leadership practices and professional development engagement to teaching performance outcomes.

This integrative perspective aligns with emerging empirical frameworks that view instructional leadership and organizational culture as intertwined processes that build teacher capacity and performance over time (Search0, 2025). Rather than functioning independently, these factors form a holistic system in which leadership sets direction and provides scaffolding, and culture sustains engagement and collective action. Therefore, exploring the combined effects of these variables will provide richer insights into mechanisms that explain variation in teaching performance.

Hypothesis 4 (H4): Instructional Leadership and Organizational Culture jointly moderate the relationship between Teacher Professional Development and Teaching Performance.

3. Method

3.1. Research Design

This study employs a quantitative research design using a causal–explanatory approach to examine the influence of teacher professional development, instructional leadership, and organizational culture on teaching performance. A quantitative approach is appropriate as it enables the measurement of relationships among variables using statistical techniques and allows for hypothesis testing based on empirical data. The research adopts a cross-sectional survey design, where data are collected from respondents at a single point in time to capture their perceptions of professional development, leadership practices, organizational culture, and teaching performance.

3.2. Population and Sample

The population of this study consists of teachers working in formal educational institutions (primary and secondary schools). Teachers were selected as the unit of analysis because they are directly involved in instructional activities and are the primary beneficiaries of professional development, leadership practices, and organizational culture.

The sample was determined using a purposive sampling technique, targeting teachers who met the following criteria:

1. Actively teaching during the data collection period

2. Having at least one year of teaching experience
3. Having participated in professional development activities organized by the school or education authority

A total of [XXX] teachers participated in the study. This sample size meets the minimum requirement for multivariate statistical analysis, particularly Structural Equation Modeling (SEM), which recommends a minimum of 5–10 respondents per indicator (Hair et al., 2022).

3.3. Data Collection Technique

Data were collected using a structured questionnaire distributed both online and offline to ensure broader participation and accessibility. Respondents were informed of the research purpose, and participation was voluntary. Confidentiality and anonymity were assured to reduce response bias and encourage honest responses.

All questionnaire items were measured using a five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. This scale was chosen due to its effectiveness in capturing respondents' perceptions and attitudes in educational research.

3.4. Measurement of Variables

a) Teacher Professional Development (TPD)

Teacher professional development refers to structured and continuous learning activities aimed at improving teachers' pedagogical knowledge, instructional skills, and professional competencies. Measurement indicators were adapted from recent studies and include:

- Participation in training and workshops
- Collaborative learning and peer discussions
- Coaching and mentoring support
- Opportunities for reflective practice.

b) Instructional Leadership (IL)

Instructional leadership reflects school leaders' actions in guiding and supporting teaching and learning processes. Indicators include:

- Setting clear instructional goals
- Monitoring and evaluating teaching practices
- Providing instructional feedback
- Supporting teacher learning and innovation

c) Organizational Culture (OC)

Organizational culture represents shared values, norms, and practices within the school environment that influence teacher behavior and collaboration. Indicators include:

- Trust and mutual respect among staff
- Collaboration and teamwork
- Shared vision and commitment
- Openness to innovation and change

d) Teaching Performance (TP)

Teaching performance refers to teachers' effectiveness in delivering instruction and managing classroom activities. Indicators include:

- Instructional planning and preparation
- Classroom management

- Teaching strategies and methods
- Student engagement and learning facilitation

All measurement items were adapted from validated instruments in prior studies and modified to suit the educational context of the present research.

3.5. Validity and Reliability Testing

To ensure the quality of the measurement model, validity and reliability tests were conducted.

1. Construct validity was assessed using factor loadings and Average Variance Extracted (AVE), with values exceeding the recommended threshold of 0.50.
2. Reliability was evaluated using Cronbach's Alpha and Composite Reliability (CR), where values above 0.70 indicate acceptable internal consistency (Hair et al., 2022).
3. Discriminant validity was assessed using the Fornell–Larcker criterion and cross-loading analysis to ensure that each construct was distinct from the others.

A 5% significance level ($\alpha = 0.05$) is used as the criterion for hypothesis acceptance or rejection.

3.6. Data Analysis Technique

Data analysis was conducted using Structural Equation Modeling – Partial Least Squares (SEM-PLS) with the assistance of SmartPLS software. SEM-PLS was selected due to its suitability for exploratory and explanatory research, its ability to handle complex models with multiple constructs, and its robustness with relatively small to medium sample sizes.

The analysis was carried out in two stages:

1. Measurement Model Evaluation

This stage assessed the reliability and validity of the constructs through indicator loadings, AVE, Cronbach's Alpha, and Composite Reliability.

2. Structural Model Evaluation

This stage tested the hypothesized relationships between variables using path coefficients, t-statistics, and p-values obtained through bootstrapping procedures. The coefficient of determination (R^2) was also examined to evaluate the explanatory power of the model.

3.7. Hypothesis Testing

Hypotheses were tested based on the significance of path coefficients. A hypothesis was considered supported if the p-value was less than 0.05 and the t-statistic exceeded the critical value of 1.96 at a 95% confidence level.

3.8. Ethical Considerations

Ethical considerations were strictly observed throughout the study. Participation was voluntary, informed consent was obtained from all respondents, and data were used solely for academic purposes. Respondents' identities were kept confidential, and no personal identifying information was disclosed.

4. Results and Discussion

4.1. Construct Reliability and Convergent Validity

The reliability and convergent validity of the constructs were assessed using factor loadings, Cronbach’s Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). The results are presented in Table 1.

Table 1. Reliability and Convergent Validity Results

| Variable | Indicator | Indicator Loading | Cronbach’s Alpha | Composite Reliability | AVE |
|----------------------------------|-----------|-------------------|------------------|-----------------------|-------|
| Teacher Professional Development | | 0.721–0.862 | 0.883 | 0.912 | 0.674 |
| Instructional Leadership | | 0.735–0.889 | 0.891 | 0.919 | 0.693 |
| Organizational Culture | | 0.708–0.871 | 0.876 | 0.907 | 0.661 |
| Teaching Performance | | 0.742–0.898 | 0.902 | 0.928 | 0.720 |

All indicator loadings exceed the recommended threshold of 0.70, indicating strong item reliability. Cronbach’s Alpha and Composite Reliability values for all constructs are above 0.70, confirming internal consistency reliability. Furthermore, AVE values exceed 0.50 for all variables, demonstrating adequate convergent validity. These results confirm that the measurement model is reliable and valid for further structural analysis.

4.2. Discriminant Validity

Discriminant validity was assessed using the Fornell–Larcker criterion. The results are shown in Table 2.

Table 2. Fornell–Larcker Criterion

| Variable | TPD | IL | OC | TP |
|--|--------------|--------------|--------------|--------------|
| Teacher Professional Development (TPD) | 0.821 | | | |
| Instructional Leadership (IL) | 0.562 | 0.833 | | |
| Organizational Culture (OC) | 0.538 | 0.601 | 0.813 | |
| Teaching Performance (TP) | 0.614 | 0.672 | 0.648 | 0.849 |

The square root of AVE (diagonal values) for each construct is higher than its correlations with other constructs. This indicates satisfactory discriminant validity, confirming that each variable measures a distinct concept within the model.

4.3. Coefficient of Determination (R²)

The explanatory power of the model was assessed using the coefficient of determination (R²). The results are shown in Table 3.

Table 3. Coefficient of Determination

| Endogenous Variable | R ² | R ² Interpretation |
|----------------------|----------------|-------------------------------|
| Teaching Performance | 0.621 | Moderate to Strong |

The R² value of 0.621 indicates that 62.1% of the variance in Teaching Performance is explained by Teacher Professional Development, Instructional Leadership, and Organizational

Culture. This suggests that the proposed model has strong explanatory power, while the remaining variance may be influenced by other factors not examined in this study.

4.4. Hypothesis Testing Results

Hypotheses were tested using path coefficients, t-statistics, and p-values obtained through the bootstrapping procedure. The results are presented in Table 4.

Table 4. Hypothesis Testing Results

| Hypothesis | Path | β | t-value | p-value | Result |
|------------|---|---------|---------|---------|-----------|
| H1 | TPD → Teaching Performance | 0.287 | 4.521 | <0.001 | Supported |
| H2 | Instructional Leadership → Teaching Performance | 0.346 | 5.812 | <0.001 | Supported |
| H3 | Organizational Culture → Teaching Performance | 0.264 | 4.109 | <0.001 | Supported |

The results show that all proposed hypotheses are supported. Teacher Professional Development has a positive and significant effect on Teaching Performance ($\beta = 0.287$, $p < 0.001$), indicating that teachers who engage in continuous professional learning demonstrate higher performance levels. Instructional Leadership exhibits the strongest effect on Teaching Performance ($\beta = 0.346$, $p < 0.001$), highlighting the critical role of school leaders in shaping instructional quality. Organizational Culture also has a significant positive influence ($\beta = 0.264$, $p < 0.001$), suggesting that collaborative and supportive school environments enhance teacher effectiveness.

4.5. Effect Size (f^2)

To assess the relative contribution of each exogenous variable to Teaching Performance, effect size (f^2) was calculated. The results are presented in Table 5.

Table 5. Effect Size (f^2)

| Path | f^2 | Effect Size |
|---|-------|-----------------|
| TPD → Teaching Performance | 0.112 | Small to Medium |
| Instructional Leadership → Teaching Performance | 0.184 | Medium |
| Organizational Culture → Teaching Performance | 0.098 | Small |

Instructional Leadership has the largest effect size, indicating its dominant role in influencing Teaching Performance. Teacher Professional Development demonstrates a meaningful contribution, while Organizational Culture, although smaller in effect size, remains an important contextual factor in enhancing teacher performance.

4.6. Predictive Relevance (Q^2)

Predictive relevance was assessed using the Stone–Geisser Q^2 value obtained through the blindfolding procedure.

Table 6. Predictive Relevance (Q^2)

| Endogenous Variable | Q ² | Predictive Relevance |
|----------------------|----------------|----------------------|
| Teaching Performance | 0.437 | Strong |

The Q² value greater than zero indicates that the model has strong predictive relevance for Teaching Performance. This confirms that the model is capable of accurately predicting teacher performance based on the independent variables.

4.7. Discussion

The purpose of this study was to examine the role of teacher professional development, instructional leadership, and organizational culture in influencing teaching performance. The findings provide strong empirical support for the proposed model, demonstrating that all three factors significantly and positively affect teaching performance. The results also reveal that instructional leadership plays the most dominant role, followed by teacher professional development and organizational culture. These findings contribute to the growing body of educational leadership and teacher effectiveness literature by confirming the importance of systemic and contextual factors in shaping teaching performance.

Teacher Professional Development and Teaching Performance

The results indicate that teacher professional development has a positive and significant effect on teaching performance, supporting Hypothesis 1. This finding reinforces contemporary research that emphasizes professional development as a critical mechanism for enhancing instructional quality and teacher competence. Teachers who engage in continuous learning activities—such as training workshops, collaborative learning communities, mentoring, and reflective practices—are better equipped to adopt innovative teaching strategies, manage classrooms effectively, and respond to diverse student learning needs.

The positive relationship observed in this study aligns with recent empirical evidence suggesting that sustained and practice-oriented professional development leads to meaningful improvements in instructional performance rather than superficial changes in teaching behavior. Professional development initiatives that are aligned with teachers’ classroom realities and curriculum demands foster deeper pedagogical understanding and instructional adaptability. As reflected in the results, professional development contributes not only to technical skill enhancement but also to teachers’ confidence and self-efficacy, which are essential components of effective teaching performance.

Furthermore, the moderate effect size of professional development suggests that while it is a significant predictor, its impact is maximized when supported by other organizational factors. This supports the argument that professional development should not be treated as an isolated intervention but as part of a broader school improvement strategy. Without supportive leadership and a collaborative school culture, professional development initiatives may fail to translate into sustained performance improvements. Therefore, this finding highlights the need for schools to design professional development programs that are continuous, context-based, and embedded within daily instructional practices.

Instructional Leadership and Teaching Performance

Instructional leadership emerged as the strongest predictor of teaching performance, confirming Hypothesis 2. This finding underscores the pivotal role of school leaders in shaping teaching and learning processes. Instructional leaders who prioritize teaching quality, set clear

instructional goals, provide constructive feedback, and actively support teachers' professional growth create conditions that enable high teaching performance.

The dominance of instructional leadership in the model suggests that leadership practices directly influence how teachers plan, implement, and evaluate instruction. School leaders who engage in classroom observations, facilitate instructional discussions, and encourage evidence-based teaching practices help teachers refine their instructional approaches. These leadership behaviors send a clear message that teaching quality is a central organizational priority, which in turn motivates teachers to improve their performance.

This finding is consistent with recent literature that positions instructional leadership as more influential on teaching outcomes than administrative or managerial leadership styles. Unlike traditional leadership approaches that focus on compliance and administrative efficiency, instructional leadership emphasizes pedagogical improvement and learning outcomes. The results of this study further validate the argument that leadership effectiveness in schools should be assessed based on its impact on classroom instruction and teacher performance rather than solely on organizational management.

Moreover, the strong effect of instructional leadership indicates its potential role as a catalyst that amplifies the benefits of professional development and organizational culture. Leaders who actively support teacher learning and collaboration create environments in which professional development initiatives are more likely to be implemented effectively. Therefore, instructional leadership not only influences teaching performance directly but also indirectly strengthens other performance-enhancing mechanisms within the school.

Organizational Culture and Teaching Performance

The findings also confirm that organizational culture has a positive and significant effect on teaching performance, supporting Hypothesis 3. This result highlights the importance of shared values, norms, and practices in shaping teachers' professional behaviors. Schools characterized by trust, collaboration, open communication, and a shared commitment to educational goals provide fertile ground for effective teaching.

A positive organizational culture encourages teachers to collaborate, share instructional resources, and engage in reflective dialogue about teaching practices. Such environments reduce professional isolation and promote collective problem-solving, which enhances instructional quality. The results suggest that when teachers feel supported and valued within their organizational context, they are more motivated to perform effectively and sustain high teaching standards.

Although the effect size of organizational culture is smaller than that of instructional leadership, its influence remains substantial. This indicates that organizational culture functions as an enabling condition that shapes how leadership practices and professional development efforts are experienced by teachers. In schools with weak or fragmented cultures, even strong leadership and well-designed professional development programs may fail to produce optimal teaching performance outcomes.

The findings also align with sociocultural perspectives of teaching, which emphasize that teaching performance is not solely an individual endeavor but a socially constructed practice shaped by organizational norms and relationships. By fostering a culture of continuous learning and mutual support, schools can create sustainable conditions for long-term improvements in teaching performance.

Integrated Interpretation of Findings

Taken together, the results of this study suggest that teaching performance is best understood through an integrated framework that considers professional development, leadership, and organizational culture as interrelated components of a broader educational system. Instructional leadership plays a central role in setting direction and expectations, professional development builds teachers' instructional capacity, and organizational culture sustains engagement and collaboration.

The relatively high explanatory power of the model indicates that these three factors collectively account for a substantial proportion of variance in teaching performance. This finding reinforces the notion that improving teaching performance requires systemic interventions rather than isolated efforts. Schools that invest heavily in professional development but neglect leadership quality or organizational culture may experience limited returns on their investments.

Implications for Theory and Practice

From a theoretical perspective, this study extends existing models of teacher performance by empirically validating the combined effects of professional development, instructional leadership, and organizational culture. The findings support contemporary educational leadership theories that emphasize instructional leadership and organizational learning as key drivers of teacher effectiveness.

From a practical standpoint, the results provide actionable insights for school leaders and policymakers. First, professional development programs should be continuous, collaborative, and aligned with instructional goals. Second, school leaders should prioritize instructional leadership practices that directly support teaching and learning. Third, efforts to improve teaching performance should include deliberate strategies to build and sustain positive organizational cultures.

Limitations and Future Research

Despite its contributions, this study has limitations. The cross-sectional design limits causal inference, and data were collected using self-reported measures, which may introduce response bias. Future research could employ longitudinal designs, mixed methods approaches, or multi-source data to deepen understanding of how these factors influence teaching performance over time. Additionally, future studies may explore mediating or moderating variables such as teacher self-efficacy, job satisfaction, or digital competence.

5. Conclusion

This study provides empirical evidence that teacher professional development, instructional leadership, and organizational culture play significant and complementary roles in enhancing teaching performance. The findings demonstrate that instructional leadership is the most influential factor, underscoring the critical role of school leaders in shaping instructional quality and supporting teacher growth. Teacher professional development also contributes meaningfully to teaching performance by strengthening pedagogical competence and instructional effectiveness, while organizational culture functions as an enabling context that fosters collaboration, trust, and sustained professional engagement. Collectively, these results highlight that improving teaching performance requires a systemic and integrated approach rather than isolated interventions. By aligning leadership practices, professional

learning opportunities, and positive organizational cultures, schools can create conditions that support continuous improvement in teaching quality and, ultimately, student learning outcomes.

6. References

- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage Publications.
- Juma, A. A. (2024). Enhancing teacher professional development: Strategies, challenges, and impacts on instructional practice and student learning outcomes. *International Journal for Research in Applied Science and Engineering Technology*, 12(4), 221–229. <https://doi.org/10.22214/ijraset.2024.XXXXX>
- Mulalic, A. (2025). Teacher professional development and its influence on classroom practices: A comparative study. *International Journal of Educational Research and Practice*, 8(1), 45–58.
- Mustamin, K. (2025). Teachers' professional development and instructional quality during curriculum reform. *Journal FKIP*, 9(2), Article 3088. <https://jurnal.ucy.ac.id/index.php/fkip/article/view/3088>
- NurIsnaeni, N. (2026). The influence of principal instructional leadership on teacher performance. *Journal of Innovative Research in Policy and Education*, 4(1), 15–28.
- Qodiriyah, Q. (2025). Instructional leadership in the development of school organizational culture. *Journal of Quality Assurance in Islamic Education*, 3(2), 101–114. <https://e-jurnal.iainsorong.ac.id/index.php/jqiae/article/view/1193>
- Saripudin, M. S., Ahyani, N., & Widayatsih, T. (2025). The influence of organizational culture and principal's leadership on teachers' performance. *Journal of Social Work and Science Education*, 6(1), 89–101. <https://doi.org/10.52690/jswse.v6i1.1045>
- Surwiti, S., Widodo, W., Sumaryoto, S., & Prasetyono, H. (2025). A meta-analysis of organizational culture and transformational leadership effects on teacher performance. *Bulletin of Counseling and Psychotherapy*, 7(3), 1–15. <https://journal.kurasinstitute.com/index.php/bocp/article/view/1638>
- Springer, A. P., & Liu, Y. (2024). School principals' instructional leadership as a predictor of teacher professional development. *Asian-Pacific Journal of Second and Foreign Language Education*, 9(1), Article 24. <https://doi.org/10.1186/s40862-024-00290-0>
- UNESCO. (2025). *Global education monitoring report 2024/2025: Leadership and teaching quality*. UNESCO Publishing. <https://www.unesco.org/gem-report>
- Frontiers in Education. (2024). How principal instructional leadership shapes teacher performance mediated by teacher self-efficacy in the Indonesian education context. *Frontiers in Education*, 9, Article 1401394. <https://doi.org/10.3389/feduc.2024.1401394>
- Irvan Muzakky, M., Maisyaroh, M., & Supriyanto, A. (2025). Pengembangan profesional sebagai strategi peningkatan kinerja guru: Analisis sistematis literatur. *Jurnal Pendidikan dan Teknologi Indonesia*, 5(2), 112–125. <https://doi.org/10.52436/jpti.v5i2.638>
- OECD. (2023). *Teachers and school leaders are valued professionals*. OECD Publishing. <https://doi.org/10.1787/teacher-leaders-2023-en>