

## TRANSFORMATIVE CARE-BASED SUPERVISION AND SUSTAINABLE TEACHER PERFORMANCE

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### Abstract

This study aims to examine the effectiveness of Transformative Care-Based Supervision, which integrates academic, collaborative, and clinical supervision, in strengthening teacher competence, psychological well-being, and sustainable performance. Employing a quantitative explanatory research design, the study was conducted among the population of senior high school teachers in Rembang, Central Java, from which samples were selected using proportional stratified random sampling, resulting in 312 teachers as research participants. Data were collected through a structured questionnaire and analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM). The results indicate that academic, collaborative, and clinical supervision have significant positive effects on teacher competence. Teacher competence, in turn, significantly enhances teacher well-being and performance, while well-being also directly contributes to improved performance. Furthermore, competence and well-being function as significant mediators, including a serial mediation pathway linking supervision to sustainable teacher performance. These findings demonstrate that the impact of supervision on performance is primarily indirect, operating through the development of professional capacity and psychological resources. This study contributes theoretically by advancing a care-based paradigm of supervision and provides practical implications for designing supervision policies that integrate pedagogical competence, emotional support, and teacher well-being as foundations for long-term performance.

### Keywords

Transformative Supervision, Teacher Competence, Teacher Well-Being, Sustainable Performance, Care-Based Supervision.



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## INTRODUCTION

Secondary education faces major changes in nurturing and developing teacher professionalism (Dabengwa et al. 2024; Darling-Hammond 2017). The rise in digital literacy, differentiated learning, and accountability places teachers at the forefront of educational quality (Instefjord and Munthe 2017; Kelley et al. 2020; Pongsakdi, Kortelainen, and Veermans 2021). Meanwhile, post-pandemic pressures, including administrative burdens and new technological demands, have significantly increased teacher stress and affected their well-being, now recognized as crucial for sustainable teaching quality (Cavallari et al. 2024; Marshall et al. 2024; Ozamiz-Etxebarria et al. 2021).

Amid these changes, school supervision is increasingly viewed as more than just evaluation—it supports reflection, competency growth, and the quality of teaching (Barokah, Yuliana, and Raharja 2025; Körkkö 2021). Yet, in practice, supervision still often focuses on administrative control, causing teachers to view it as merely document checking rather than a professional dialogue (Estaji and Ghiasvand 2022; Hoque et al. 2020; Ponticell et al. 2018). This rigid approach limits the impact of supervision on development.

This imbalance between performance demands and teacher well-being persists, as educational policies often focus on outcomes while emotional needs are sidelined (Monisha et al. 2025; Pressley, Marshall, and Walter 2025). High work pressure without adequate psychosocial support can lead to burnout and reduced job satisfaction, suggesting that control-focused supervision may risk unsustainable outcomes (Bostan, Balçioğlu, and Elçi 2025; Zeng and Hu 2024).

Academic supervision centers on systematic classroom improvements, while collaborative supervision fosters trust and reflection (Junanto and Utami 2020; Syukhri et al. 2024). Clinical supervision, on the other hand, focuses on classroom data and ongoing personal reflection (Chaula, Lawrent, and Freddie Warrioba Iramba 2024; Keshavarzi et al. 2022). While these methods improve teacher competencies, long-term performance gains are inconsistent when well-being is lacking. High competence may not prevent burnout, while well-being contributes to resilience, creativity, and commitment. This suggests psychological conditions mediate the link between supervision, competence, and performance.

Drawing on positive psychology and *job demands–resources* theory, well-being is essential for sustaining teacher performance (Bakker and Demerouti 2017; Granziera, Collie, and Martin 2020). It covers emotional balance, purpose, self-competence, and positive relationships. Supervision should

strengthen both competence and well-being to ensure stable, long-term performance (De Carlo et al. 2020; Wieneke et al. 2019).

Based on preliminary fieldwork conducted prior to the main survey, comprising classroom observations, informal interviews with teachers and school leaders, and analysis of internal school documents across eight public senior high schools in Rembang Regency, this study identified clear empirical signals of structural challenges in teacher competence, psychological well-being, and sustainable performance. Observational and documentary data indicated that an estimated 40–50% of teachers relied on standardized lesson plans with limited pedagogical differentiation and minimal reflective or technology-enhanced practices, a pattern commonly associated with compliance-oriented professional cultures (Darling-Hammond 2017; Instefford and Munthe 2017). Early interviews further revealed recurring experiences of emotional fatigue, declining work enthusiasm, and role strain, particularly among mid-career teachers facing increasing administrative demands—conditions consistently linked to reduced teacher well-being and weakened long-term professional sustainability (Bakker and Demerouti 2017; Hascher, Beltman, and Mansfield 2021).

In response to these conditions, policy interventions from the local Education Office and government authorities have largely emphasized administrative supervision, standardized performance evaluation, and short-term training programs, aiming to ensure procedural accountability rather than professional care (Hoque et al. 2020). While such approaches have improved formal compliance, prior studies suggest that they offer limited impact on teachers' psychological well-being and sustained performance quality (Pressley et al. 2025). Within this empirical context, the present study positions Transformative Care-Based Supervision, integrating academic, collaborative, and clinical supervision, as a contextually grounded response to observed field realities. By explicitly linking supervision to teacher competence, well-being, and sustainable performance, this study addresses a concrete, practice-based problem and advances supervision beyond a control-oriented paradigm toward a care-based and sustainability-focused professional development model (De Carlo et al. 2020).

Research on the impact of supervision mostly examines direct links to performance or the mediating role of competence, with few studies addressing teacher well-being—especially in semi-rural secondary education, where challenges such as limited development opportunities and heavier workloads heighten the need for well-being studies (Candrawati and Purbani 2025; Veliz and Mainsbridge 2025; Yan and Dai 2025). Key research gaps include the rare integration of all

supervision types, overlooking well-being as a mediator, neglecting semi-rural contexts, and remaining anchored in performance-control paradigms rather than care-based supervision.

This study proposes a transformative supervision model shifting from control to care. It examines how academic, collaborative, and clinical supervision impact teacher performance in terms of competence and well-being at eight senior high schools (SMA 1, SMA 2, SMA 3, SMA Sulang, SMA Lasem, SMA Kragan, SMA Sumber, and SMA Sale) located in a semi-rural area of Rembang Regency, Central Java. Research questions focus on the effects and mediating roles of supervision, competence, and well-being, as well as the most effective model in semi-rural areas. The main novelty of this study lies in the integration of three approaches to supervision into a single structural model that also includes the dimensions of competence and well-being as double mediators. Unlike previous studies that focused on the technical aspects of teaching, this study emphasizes that teacher performance is a product of the interaction between professional capacity and healthy psychological conditions (Angelini et al. 2024; Hascher et al. 2021). Thus, this study offers a theoretical justification that effective supervision is not merely supervision that can improve teaching skills, but supervision that can nurture the emotional sustainability of teachers as human beings.

## METHOD

This study uses a quantitative approach with an explanatory research design (Creswell and Creswell 2022; Liem 2018; Yan 2017; Yüce 2024). A quantitative approach was chosen because the main objective of the study is to examine the causal relationships and mechanisms of influence between variables in the *Transformative Care-Based Supervision* model, specifically the influence of academic supervision, collaborative supervision, and clinical supervision on teacher performance through the mediation of competence and *teacher well-being*.

An explanatory design was employed because this study aimed not only to describe the phenomenon but also to explain the structural relationship patterns and direct and indirect influence paths between variables. Data were collected cross-sectionally, i.e., at a single point in time, to objectively capture teachers' perceptions of supervision, competence, well-being, and performance during the study period. The research was conducted at 8 senior high schools (SMA 1, SMA 2, SMA 3, SMA Sulang, SMA Lasem, SMA Kragan, SMA Sumber, and SMA Sale) located in a semi-rural area of Rembang Regency, Central Java. The location was chosen based on the characteristics of the area,

which has limited educational resources, a relatively high social burden on teachers, and a great need for more humanistic and sustainable supervisory support. The research was conducted over one semester of the current academic year, spanning from the instrument preparation stage to data analysis.

The population in this study was all high school teachers in the research location. Because the population was heterogeneous in terms of school status, educational background, and length of service, a *proportional stratified random sampling technique was employed*. This technique was chosen to ensure proportional representation of respondents from each stratum. The sample size in this study consisted of 312 teacher respondents. This number met the sample adequacy criteria for *Partial Least Squares-Structural Equation Modeling* (PLS-SEM) analysis, both in terms of parameter estimation stability and the strength of structural model testing with multiple latent variables (Hair and Alamer 2022; Sarstedt et al. 2016).

This study involved six variables, comprising three exogenous variables, two mediating variables, and one endogenous variable.

1. Academic Supervision (X1) encompasses all supervisory activities that focus on learning planning, implementation, and evaluation in a systematic manner.
2. Collaborative Supervision (X2) is supervision conducted through professional partnerships, peer discussions, joint reflection, and collective problem solving.
3. Clinical Supervision (X3) is supervision conducted through a cycle of classroom observation, learning analysis, and in-depth individual feedback.
4. Teacher Competence (M1) is the professional ability of teachers that includes pedagogical, professional, social, and personality competencies.
5. Teacher Well-Being (M2) is the psychological well-being of teachers characterized by job satisfaction, positive emotions, work engagement, and psychosocial balance.
6. Teacher Performance (Y) is the level of success of teachers in planning, implementing, and evaluating learning effectively and with high quality.

The research instrument was a closed-ended questionnaire with a five-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). The questionnaire was compiled based on the conceptual indicators of each variable. The number of items in each construct was as follows: Academic supervision (10 statements), Collaborative supervision (10 statements), Clinical supervision (10 statements), Teacher competence (15 statements), Teacher well-being (10

statements), and Teacher performance (15 statements).

Data collection was conducted through the distribution of questionnaires in person and online. Respondents were provided with an explanation of the research objectives, data confidentiality, and their right to participate voluntarily. All questionnaires that were returned and met the data completeness requirements were then processed for analysis. Data analysis employed the *Partial Least Squares–Structural Equation Modeling* (PLS-SEM) method, utilizing the SmartPLS software. The selection of PLS-SEM was based on the model's characteristics, which were complex, involved multiple latent constructs, and featured layered mediation paths.

The measurement model was evaluated to test: Convergent validity through *outer loading* values ( $\geq 0.70$ ) and *Average Variance Extracted* ( $AVE \geq 0.50$ ). Discriminant validity through the Fornell–Larcker criteria and cross-loading. Construct reliability through *Composite Reliability* values ( $\geq 0.70$ ) and *Cronbach's Alpha* ( $\geq 0.70$ ). Structural model evaluation was conducted by determining the coefficients ( $R^2$ ) to measure the predictive power of the model. *Path coefficient* values are used to see the direction and magnitude of the influence between variables. Significance testing through the *bootstrapping* procedure with 5,000 resamples.

Mediation tests were conducted to examine the role of teacher competence and *teacher well-being* as mediators in the relationship between supervision and teacher performance. The tests were conducted through analyses of indirect, *direct*, and *total effects*. The hypothesis testing criteria were set based on a t-statistic value greater than 1.96 at a 5% significance level ( $\alpha = 0.05$ ). The hypothesis was accepted if the influence path met these criteria.

This study adhered to the principles of research ethics, including obtaining *informed consent* from respondents, maintaining the confidentiality of respondent identities, ensuring the anonymity of data, and utilizing data solely for academic purposes. The entire research process was conducted without coercion, ensuring that there were no negative impacts on the respondents.

Based on all variables, this research hypothesis is formulated as follows: H1: Academic supervision has a positive effect on teacher competence. H2: Collaborative supervision has a positive effect on teacher competence. H3: Clinical supervision has a positive effect on teacher competence. H4: Teacher competence has a positive effect on *teacher well-being*. H5: *Teacher well-being* has a positive effect on teacher performance. H6: Teacher competence has a positive effect on teacher performance. H7: Teacher competence mediates the effect of academic supervision on *teacher well-being* and teacher performance. H8: Teacher competence mediates the effect of collaborative

supervision on *teacher well-being* and teacher performance. H9: Teacher competence mediates the effect of clinical supervision on *teacher well-being* and teacher performance. H10: *Teacher well-being* mediates the relationship between teacher competence and teacher performance. H11: Academic, collaborative, and clinical supervision influence teacher performance through the serial mediation pathway of teacher competence and *teacher well-being*.

## FINDINGS AND DISCUSSION

### Findings

The results of data analysis using *Partial Least Squares–Structural Equation Modeling* (SEM-PLS) on 312 high school teacher respondents. Table 1 shows that the research respondents were predominantly female teachers (54.5%), with the largest age distribution in the 31–40 age group (34.9%) and the 41–50 age group (31.1%), reflecting a population of teachers in the middle to established stages of their careers. In terms of work experience, the majority of respondents had 11–20 years (33.0%) and 6–10 years (28.2%) of experience, indicating that most teachers had sufficient professional experience to assess supervisory practices reflectively. This composition shows that the data were obtained from respondents who were relatively stable professionally, so that their perceptions of supervision, competence, well-being, and performance can be considered mature and representative.

**Table 1.** Respondent Characteristics (N = 312)

Characteristics	Category	Frequency	Percentage
Gender	Male	142	45.5
	Female	170	54.5
Age	≤ 30 years	58	18.6
	31–40 years	109	34.9
	41–50 years	97	31.1
	> 50 years	48	15.4
Years of Service	≤ 5 years	61	19.6
	6–10 years	88	28.2
	11–20 years	103	33.0
	> 20 years	60	19.2

*Source: Primary Data Obtained from the Demographic Section of the Research Questionnaire (Authors' Calculation).*

The results in Table 2 show that all indicators in each construct have an *outer loading* value above 0.70, which indicates an excellent level of correlation between the indicators and the latent

constructs. The consistent range of loading values across all variables—from academic supervision to teacher performance—indicates that each indicator is able to accurately represent the construct being measured. Thus, the measurement model has met the criteria for convergent validity and is suitable for further structural analysis.

**Table 2.** Convergent Validity (Outer Loading)

Construct	Range of Outer Loadings
Academic Supervision (X1)	0.721 – 0.884
Collaborative Supervision (X2)	0.734 – 0.892
Clinical Supervision (X3)	0.718 – 0.871
Teacher Competence (M1)	0.742 – 0.903
Teacher Well-Being (M2)	0.705 – 0.889
Teacher Performance (Y)	0.762 – 0.915

*Source: Primary Data Analysis Using PLS-SEM (SmartPLS output)*

The AVE values in Table 3 are all above the threshold of 0.50, indicating that each construct is able to explain more than half of the variance of its indicators. This indicates that the variables of supervision, competence, well-being, and performance have a strong level of convergent validity. Conceptually, these results confirm that the constructs used in the study have adequate measurement quality to represent the phenomena of supervision and teacher professionalism.

**Table 3.** Average Variance Extracted (AVE)

Construct	AVE
Academic Supervision (X1)	0.657
Collaborative Supervision (X2)	0.736
Clinical Supervision (X3)	0.729
Teacher Competency (M1)	0.721
Teacher Well-Being (M2)	0.698
Teacher Performance (Y)	0.772

*Source: Primary Data Analysis using PLS-SEM (SmartPLS output)*

Table 4 shows that all constructs have Cronbach's Alpha and Composite Reliability values above 0.80, with some even reaching the highly reliable category. These findings indicate high internal consistency among indicators in each construct. With an excellent level of reliability, this research instrument can be trusted to measure variables stably and consistently in similar research contexts.

**Table 4.** Construct Reliability

Construct	Cronbach's Alpha	Composite Reliability	Description
X1	0.886	0.915	Reliable
X2	0.902	0.926	Reliable
X3	0.894	0.921	Reliable
M1	0.918	0.937	Very Reliable
M2	0.889	0.919	Reliable
Y	0.927	0.946	Very Reliable

Source: Primary Data Analysis using PLS-SEM (SmartPLS output)

The results of the discriminant validity test in Table 5 show that the AVE square root for each construct is higher than the correlation between other constructs. This indicates that each latent variable has conceptual uniqueness and does not overlap excessively. Thus, each construct—from the type of supervision to teacher performance—measures different concepts but is theoretically interrelated.

**Table 5.** Discriminant Validity (Fornell–Larcker)

Construct	X1	X2	X3	M1	M2	Y
X1	0.81					
X2	0.54	0.86				
X3	0.51	0.56	0.85			
M1	0.62	0.65	0.61	0.85		
M2	0.57	0.59	0.56	0.68	0.84	
Y	0.63	0.66	0.58	0.71	0.69	0.88

Source: Primary Data Analysis using PLS-SEM (SmartPLS output)

The square root of AVE is greater than the correlation between constructs → discriminant validity is fulfilled.

### Inner Model Evaluation

The R-square values in Table 6 show that integrated supervision is able to explain a strong variance in teacher competence (74.8%) and teacher performance (71.2%), as well as a moderate-strong level of explanation in teacher well-being (58.2%). These findings indicate that the structural model has high explanatory power, especially in explaining the mechanism of improving teacher performance through the pathways of competence and psychological well-being.

**Table 6.** Coefficient of Determination (R-Square)

Endogenous Variables	R	Category
Teacher Competence (M1)	0.748	Strong
Teacher Well-Being (M2)	0.582	Moderate-Strong
Teacher Performance (Y)	0.712	Strong

Source: Structural Model Assessment Based on PLS-SEM Analysis (Smartpls Output).

The Q-square values (Table 7), which are all positive and in the strong to very strong category, indicate that the model has excellent predictive power. In particular, the predictive ability for teacher performance is at the highest level, confirming that this model not only explains the relationship between variables statistically but is also practically relevant in predicting teacher performance outcomes in the real world.

**Table 7.** Predictive Relevance (Q-Square)

<b>Endogenous Variable</b>	<b>Q</b>	<b>Description</b>
Teacher Competence	0.436	Strong Predictive
Teacher Well-Being	0.359	Strong predictor
Teacher Performance	0.491	Very strong predictor

*Source: Structural Model Assessment Based on PLS-SEM Analysis (Smartpls Output).*

The results of hypothesis testing in Table 8 show that all structural paths are statistically significant. Academic, collaborative, and clinical supervision were found to have a positive effect on teacher competence, with academic supervision having the strongest effect. Furthermore, teacher competence had a significant effect on well-being and performance, and well-being played an important role in improving teacher performance. These findings confirm that competence and psychological well-being are key mechanisms in the transformation of supervision towards sustainable performance.

**Table 8.** Hypothesis Testing (Path Coefficients)

<b>Path</b>	<b>B</b>	<b>T-Statistics</b>	<b>P-Values</b>	<b>Decision</b>
X1 → M1	0.314	4,982	0.000	Received
X2 → M1	0.287	4,311	0.000	Accepted
X3 → M1	0.254	3,977	0.000	Accepted
M1 → M2	0.472	7,614	0.000	Accepted
M2 → Y	0.423	6,982	0.000	Accepted
M1 → Y	0.331	5,421	0.000	Accepted

*Source: Bootstrapping results from PLS-SEM analysis (SmartPLS output).*

Table 9 shows that teacher competence acts as a significant mediator in the relationship between the three types of supervision and teacher performance. This means that the influence of supervision on performance does not occur directly, but rather through an increase in professional competence. This confirms that the effectiveness of supervision is highly dependent on its ability to develop teacher capacity, not merely administrative oversight.

**Table 9.** Single Mediation Test

Mediation Path	$\beta$ Indirect	T	P	Description
X1 → M1 → Y	0.104	3.882	0.000	Significant mediation
X2 → M1 → Y	0.095	3.517	0.000	Significant mediation
X3 → M1 → Y	0.084	3.201	0.001	Significant mediation

Source: Indirect and Serial Mediation Analysis Based on PLS-SEM Bootstrapping Results (Smartpls Output).

The results in Table 10 show that the serial mediation path through competence and teacher well-being is significant and strong for all types of supervision. These findings confirm that effective supervision works through a layered mechanism: first, it improves teacher competence, then it strengthens psychological well-being, and finally, it results in more optimal performance. Thus, this model provides strong empirical evidence that the *Transformative Care-Based Supervision* approach is a sustainable strategy for teacher professional development.

**Table 10.** Serial Mediation Test

Serial Mediation Path	$\beta$ Indirect	T	P	Description
X1 → M1 → M2 → Y	0.062	3.641	0.000	Strong mediation
X2 → M1 → M2 → Y	0.054	3.295	0.001	Strong mediation
X3 → M1 → M2 → Y	0.043	3.011	0.002	Strong mediation

Source: Indirect and Serial Mediation Analysis Based on PLS-SEM Bootstrapping Results (Smartpls Output).

Based on the 10 tables above, there are five Summary of Key Findings: first, Academic, collaborative, and clinical supervision significantly strengthen teacher competence. Second, Teacher competence has a strong influence on teacher well-being. Third, Competence and teacher well-being simultaneously improve teacher performance. Fourth, the Effect of supervision on performance is indirect, mediated through single and serial pathways. Fifth, the Transformative Care-Based Supervision model has been proven to have high predictive power for sustained teacher performance.

## Discussion

The results show that academic supervision has a significant effect on teacher competence ( $\beta = 0.314$ ;  $t = 4.982$ ;  $p < 0.001$ ). This finding reinforces the view that academic supervision constitutes a central mechanism for developing teachers' pedagogical capacity through systematic planning, classroom observation, and structured feedback. In the context of senior high schools in Rembang Regency, this effect is particularly salient given that academic supervision has traditionally been implemented in a procedural and document-oriented manner. Field observations and preliminary interviews conducted in SMA Rembang indicate that when academic supervision is carried out as a

reflective instructional process, rather than merely as administrative monitoring, teachers demonstrate clearer instructional objectives, more coherent lesson planning, and greater consistency in formative assessment practices. This contextual evidence aligns with previous studies showing that effective academic supervision improves the quality of instructional planning, pedagogical clarity, and assessment coherence (Al Ghamdi 2024; Barokah et al. 2025; Hidayati et al. 2025; Istiningsih, Suyatno, and Widodo 2020). Thus, the present findings suggest that in semi-rural educational settings such as SMA Rembang, academic supervision functions not only as a regulatory instrument but also as a critical driver of teacher competence development when implemented in a pedagogically meaningful and supportive manner.

From an HRD perspective, academic supervision serves as a professional development intervention that accelerates the accumulation of teachers' *human capital* (Barokah et al. 2025; Kurniady and Komariah 2019). These findings are also consistent with international research, which states that the quality of instructional supervision is a direct predictor of improvements in teachers' pedagogical and professional competencies (Ismail, Mansor, and Iksan 2019; Khun-Inkeeree et al. 2020; Kinyua, Obura, and Masinde 2025; Pokharel et al. 2025). Thus, the results of this study emphasize that academic supervision cannot be narrowly defined as an administrative activity, but rather as a driver of competency development based on reflective learning.

Collaborative supervision has been proven to have a significant effect on teacher competency ( $\beta = 0.287$ ;  $t = 4.311$ ;  $p < 0.001$ ). This finding aligns with the literature, which shows that collective learning, *peer coaching*, and peer reflection encourage increased self-efficacy, pedagogical skills, and learning innovation (Chetlen et al. 2020; Wiyono et al. 2022).

Within the framework of *transformational leadership*, collaborative supervision represents the dimensions of *shared vision* and *intellectual stimulation* that strengthen teachers' professional capacity through meaningful social interaction (Voelkel 2022; Yan and Yuet 2025). International studies also confirm that professional collaboration among teachers contributes significantly to student learning through improved teaching practices (Khasawneh et al. 2023; Nguyen and Ng 2020; Pongsophon 2024). The findings of this study expand on this evidence by showing that collaborative supervision also acts as a key lever for the development of teacher competencies.

Clinical supervision shows a significant positive effect on teacher competence ( $\beta = 0.254$ ;  $t = 3.977$ ;  $p < 0.001$ ). This confirms that the cycle of classroom observation, analysis, and individual feedback is an effective mechanism for improving the quality of teaching practices. Previous

research studies confirm that clinical supervision is effective in improving instructional clarity, classroom management, and evidence-based pedagogical reflection (McGhee and Stark 2018; Rugaiyah et al. 2020).

Recent research also shows that evidence-based reflective supervision can accelerate changes in teaching behavior and consistency in the implementation of learning innovations (Darling-Hammond 2017; McGhee and Stark 2018; Shila, Mphuthi, and Ngoveni 2024). Thus, the findings of this study emphasize that clinical supervision is a *micro-level professional development* instrument that directly influences the improvement of teachers' pedagogical competence. The analysis results show that teacher competence has a strong influence on *teacher well-being* ( $\beta = 0.472$ ;  $t = 7.614$ ;  $p < 0.001$ ). This finding is consistent with the JD-R Theory, which states that personal resources, in the form of competence, increase psychological energy, work engagement, and professional satisfaction (Bakker and Demerouti 2017; Granziera et al. 2020).

Previous research studies confirm that teachers with high efficacy and competence have lower stress levels, better resilience, and more stable job satisfaction (Jentsch et al. 2023; Klassen and Chiu 2010; Skaalvik and Skaalvik 2017). Thus, these findings confirm that competency development not only impacts technical aspects of performance but also builds teachers' psychological well-being as a foundation for sustainable work.

Teacher well-being has been proven to have a significant effect on teacher performance ( $\beta = 0.423$ ;  $t = 6.982$ ;  $p < 0.001$ ). This finding aligns with the international literature, which states that teachers with positive psychological conditions demonstrate higher levels of productivity, creativity, and organizational commitment (Heidari et al. 2022; Li, Liu, and Yang 2024). Cross-country studies also indicate that teacher well-being is directly related to the quality of learning interactions, emotional stability in classroom management, and the sustainability of professional performance (Collins and Callahan 2022; Monisha et al. 2025; Penttinen et al. 2020). Thus, the results of this study reinforce the argument that teacher well-being is a key variable that cannot be separated from efforts to improve teacher performance.

Teacher competence has a significant effect on performance ( $\beta = 0.331$ ;  $t = 5.421$ ;  $p < 0.001$ ). This finding is consistent with meta-analyses showing that the quality of teacher pedagogical competencies is strongly correlated with learning effectiveness and student achievement (Chávez et al. 2024; Fauth et al. 2019). In the HRD tradition, competency is viewed as a *core driver* of performance, linking development investment to productivity output (Collins and Callahan 2022;

Dahiya, Warne, and Arora 2023). Therefore, the results of this study reinforce the position that competency is at the heart of a sustainable teacher performance system.

The mediation test results indicate that competency significantly mediates the influence of supervision on performance, both through a single path and a serial path, in conjunction with *teacher well-being*. The serial path (Supervision → Competency → Well-Being → Performance) proved to be significant in all forms of supervision. This finding builds upon research, which has thus far distinguished between the supervision–competence and competence–performance pathways (Bakker and Demerouti 2017; Granziera et al. 2020). This study demonstrates that the effect of supervision on performance is *an indirect, multilayered mechanism that involves* strengthening teachers' capacity and psychological resources. Based on all findings, this study validates the Transformative Care-Based Supervision model as a new development in supervision theory. This model expands the paradigm from *control-based supervision* to *care-based developmental supervision* that integrates: first, Strengthening professional competencies (HRD), second, Teacher psychological empowerment (Positive Psychology), and third, Transformational leadership as a driver of organizational change.

## CONCLUSION

This study demonstrates that transforming supervision from a control-oriented approach to a care-based model is essential for strengthening teacher professionalism in semi-rural secondary schools. The findings show that academic, collaborative, and clinical supervision significantly enhance teacher competence, which in turn improves psychological well-being and leads to more sustainable teacher performance. Importantly, the results confirm that the effect of supervision on performance operates through a non-linear, mediated mechanism, in which competence and well-being function as key explanatory pathways rather than supervision exerting a direct impact alone. By empirically validating the Transformative Care-Based Supervision model, this study integrates perspectives from Human Resource Development, Transformational Leadership, and Positive Psychology within the Job Demands–Resources framework, positioning teacher well-being as a strategic link between competence and performance. These findings directly address the study's objective by demonstrating that supervision designed as a supportive, reflective, and collaborative process, rather than a technocratic control mechanism, provides a more effective foundation for sustaining teacher performance and professional growth in contexts facing structural and resource

constraints.

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