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The Effect Of Digital Training On Teacher Performance : The Mediating Role Of Digital Self-Efficacy Among Teachers At SMA Negeri 1 Selesai

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ABSTRACT

This study examines the effect of Digital Training on Teacher Performance with Digital Self-Efficacy as a mediating variable. The research is based on the increasing need for teachers to adapt to digital learning environments and to improve their professional performance through technology-based competencies. A quantitative approach was employed using survey data collected from teachers and analyzed with Partial Least Squares Structural Equation Modeling (PLS-SEM). The measurement model was evaluated through outer loading, Cronbach's Alpha, Composite Reliability, Average Variance Extracted, Fornell-Larcker criterion, cross-loading, and HTMT, while the structural model was assessed using R-square, direct effects, and indirect effects. The results show that Digital Training has a positive and significant effect on Teacher Performance. Digital Training also has a positive and significant effect on Digital Self-Efficacy. Furthermore, Digital Self-Efficacy positively and significantly affects Teacher Performance. The mediation test confirms that Digital Self-Efficacy partially mediates the relationship between Digital Training and Teacher Performance. The model explains 54.1% of the variance in Digital Self-Efficacy and 78.3% of the variance in Teacher Performance, indicating moderate to substantial explanatory power. These findings suggest that digital training contributes not only to teachers' technical competence but also to their confidence in using digital technologies. Therefore, educational institutions should develop continuous digital training programs supported by mentoring and practical implementation to enhance teacher performance in digital learning settings.

INTRODUCTION

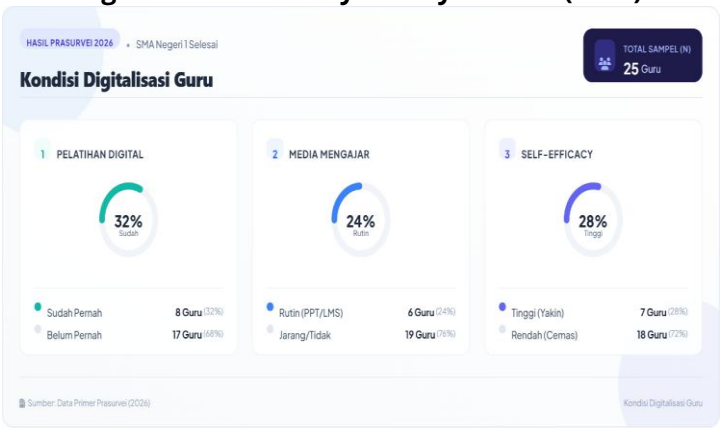
The rapid advancement of digital technology has fundamentally reshaped educational practices, requiring schools to transform traditional teaching and learning processes. In Indonesia, the implementation of the Merdeka Curriculum further reinforces the importance of technology integration as a key component of educational innovation. Consequently, teachers are expected to move beyond their conventional instructional roles and serve as learning facilitators capable of utilizing diverse digital tools and platforms to foster interactive classroom environments. This transition has altered the criteria used to evaluate teacher performance, with greater emphasis placed on digital pedagogical competence and the effective management of technology-enhanced learning activities (Sudarsana et al., 2020) As a result, strengthening teachers' capacity to adopt and utilize digital technologies has become an essential objective for educational institutions seeking to remain relevant in an increasingly technology-driven environment.

To address these emerging challenges, educational stakeholders have invested considerable resources in professional development initiatives focused on digital competency enhancement. Such programs are intended to develop teachers' technical and pedagogical skills, including the use of Learning Management Systems (LMS), digital content development, and the integration of artificial intelligence into assessment and evaluation processes (Anugrahana, 2020). Previous studies suggest that comprehensive and systematically designed training programs can contribute positively to improvements in teacher performance and instructional effectiveness (Pradana & Susanty, 2021). Nevertheless, practical implementation often reveals a discrepancy between training objectives and actual classroom practices. Despite participating in digital training programs, many teachers continue to rely on traditional instructional approaches, largely due to perceptions that digital technologies are complex, time-consuming, and challenging to apply consistently in educational settings.

The inconsistency between the implementation of digital training programs and the expected improvement in teacher performance suggests the presence of an overlooked internal psychological factor, namely digital self-efficacy. Drawing on (Bandura, 1997) social cognitive theory, the possession of technical knowledge and skills alone is insufficient to produce meaningful behavioral change unless individuals believe in their capability to perform the required tasks successfully. Within the context of educational technology adoption, digital self-efficacy serves as a critical psychological mechanism that influences teachers' willingness to engage with and apply digital tools in instructional settings. Teachers with higher levels of digital self-efficacy are generally more inclined to experiment with new technologies, demonstrate greater resilience when encountering technical difficulties, and persist in integrating digital innovations into their teaching practices (Hatlevik et al., 2018). Conversely, a lack of confidence in digital competencies may limit the effectiveness of training initiatives, reducing them to procedural activities with minimal impact on instructional quality and professional performance.

This gap between technical training and psychological readiness is also evident at SMA Negeri 1 Selesai. Preliminary observations indicate that the school management has actively supported teacher participation in various seminars, workshops, and professional development programs related to educational digitalization. Despite these efforts, the level of digital performance among teachers remains inconsistent and has yet to reach its full potential. Senior teachers often experience digital anxiety, commonly referred to as technostress, which diminishes their confidence in independently operating contemporary learning technologies. Meanwhile, younger teachers frequently encounter challenges in aligning digital learning resources with evolving curriculum requirements. These circumstances suggest that psychological barriers, particularly insufficient digital self-efficacy, may play a pivotal role in limiting the translation of digital training outcomes into tangible improvements in teacher performance.

Figure 1. Preliminary Survey Results (2026)



Source: Authors' Compilation Based on Preliminary Survey Data (2026).

As illustrated in the figure above, the weak linkage between technical training and psychological readiness is not merely a theoretical concern but is clearly reflected in the instructional practices of teachers at SMA Negeri 1 Selesai. Preliminary findings obtained through a pre-survey involving 25 teachers revealed substantial evidence that the school's digital transformation initiatives have yet to achieve their intended outcomes due to underlying psychological barriers. The survey results indicated that 68% of respondents (17 teachers) had not participated in comprehensive and continuous digital training programs during the previous year.

This limited exposure to professional development opportunities appears to have influenced their pedagogical practices, as 76% of the teachers (19 respondents) reported rarely or never utilizing digital learning tools, such as Learning Management Systems (LMS), Canva, or interactive presentation platforms, during classroom instruction. Instead, most continued to rely on conventional lecture-based approaches supported primarily by printed teaching materials.

Further examination of the survey data suggests that the limited adoption of educational technology is closely associated with teachers' internal psychological conditions. A significant proportion of respondents, representing 72% of the sample (18 teachers), acknowledged experiencing low levels of digital self-efficacy. Many reported feelings of digital anxiety (technostress), uncertainty when dealing with unfamiliar technologies, and concerns about making technical mistakes while operating digital learning tools in front of students. These findings highlight that insufficient confidence in digital competencies constitutes a major obstacle preventing teachers from effectively translating the outcomes of digital training programs into innovative and productive teaching practices. Consequently, the issue extends beyond the availability of training itself and encompasses the psychological readiness required to apply newly acquired competencies in authentic educational settings.

Given these circumstances, examining the mechanisms through which digital training influences teacher performance has become increasingly important. Focusing solely on the direct relationship between training and performance may no longer provide an adequate explanation for the complexities observed in contemporary educational environments. A more comprehensive perspective requires the inclusion of digital self-efficacy as an intervening variable to determine whether teachers' confidence in their digital capabilities serves as the critical mechanism through which training initiatives generate meaningful performance improvements. Accordingly, this study seeks to investigate the influence of digital training on teacher performance, with digital self-efficacy functioning as an intervening variable, in the context of SMA Negeri 1 Selesai.

LITERATURE REVIEW

Digital Training

Digital training refers to a structured professional development process that utilizes digital technologies to enhance teachers' pedagogical and professional competencies. According to Human Capital Theory, investments in training contribute to the development of human resources and ultimately improve individual productivity (Becker, 1993). Within the educational context, digital training equips teachers with the knowledge and skills required to effectively utilize Learning Management Systems (LMS), interactive learning applications, and various digital instructional tools to support teaching and learning activities (Antonopoulou & Matzavinou, 2025).

The effectiveness of digital training is influenced by several factors, including the relevance of training content, the competence of trainers or facilitators, the availability of technological infrastructure, and teachers' motivation to engage in continuous learning (Kuo & Kuo, 2025). Previous studies conducted in Indonesia have emphasized the importance of systematic digital training programs in strengthening teacher professionalism and supporting educational transformation in the digital era (Ali, 2024; Darmilisani et al., 2024). Indicators of Digital Training : Relevance of training materials to teachers' professional responsibilities, Availability of supporting technological facilities and infrastructure, Quality of trainers and training facilitators, Duration and intensity of training activities, Application of acquired knowledge and skills in teaching practices.

Digital Self-Efficacy

The concept of self-efficacy originates from Social Cognitive Theory, which posits that individuals' beliefs about their capabilities influence their motivation, behavior, and performance outcomes (Bandura, 1986).In the context of this study, digital self-efficacy refers to teachers' confidence in their ability to effectively utilize digital technologies to support instructional activities (Gal et al., 2025). Teachers with high levels of digital self-efficacy are generally more willing to experiment with emerging technologies, demonstrate greater creativity in instructional design, and exhibit stronger resilience when facing technical challenges.

Digital self-efficacy is shaped by four primary sources: mastery experiences, vicarious experiences, social persuasion, and psychological states such as anxiety or enthusiasm (Bandura, 1997; Kuo & Kuo, 2025). These factors collectively influence teachers' perceptions of their technological capabilities and their willingness to integrate digital tools into classroom practices. Indicators of Digital Self-Efficacy: Confidence in operating digital hardware and software, Confidence in integrating technology into instructional processes, Confidence in overcoming technical difficulties, Confidence in adapting to new and emerging technologies, Confidence in utilizing technology to enhance learning interactions.

Teacher Performance

Teacher performance refers to the extent to which teachers successfully fulfill their professional responsibilities, including lesson planning, instructional delivery, and learning assessment. (Robbins, 2006). argues that performance is primarily determined by an individual's ability, motivation, and opportunity to perform. In the digital era, teacher performance extends beyond traditional instructional competencies and encompasses the ability to integrate technology effectively to create innovative and engaging learning experiences (Ali, 2024; Andika, 2018; Yanti, 2022).

Several factors contribute to teacher performance, including professional competence, work motivation, organizational support, and technological proficiency (Antonopoulou & Matzavinou, 2025; S. Pratama et al., 2024). Teachers who demonstrate high performance are characterized by their ability to design technology-enhanced learning activities, facilitate

interactive classroom environments, and conduct assessments through digital platforms and applications. Indicators of Teacher Performance: Ability to design digital-based learning plans, Quality of technology-supported instructional implementation, Ability to utilize digital media for classroom interaction, Competence in assessing learning outcomes using digital applications, Innovation in developing and implementing instructional methods.

METHODS

This study employed a quantitative approach with an explanatory research design to examine the effect of digital training on teacher performance through the mediating role of digital self-efficacy. The population consisted of all teachers at SMA Negeri 1 Selesai, totaling 80 teachers. These teachers are actively involved in instructional activities across both general and specialized subject areas. The selection of this population was based on the school's ongoing digital transformation efforts in response to the demands of the Industry 5.0 era, where the integration of digital technologies and human-centered innovation has become increasingly important in educational practices. To support this transformation, various digital training programs have been implemented to enhance teaching quality and educational effectiveness (Batubara & Insan, 2022). Given the relatively manageable population size, this study employed a saturated sampling (census) technique, in which all members of the population were included as research respondents. Therefore, the sample consisted of all 80 teachers at SMA Negeri 1 Selesai. The use of census sampling ensured complete representation of the population and reduced the potential for sampling bias, thereby strengthening the accuracy and generalizability of the findings within the studied context.

Data were collected through a structured questionnaire using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The research model was analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS software. According to (Hair et al., 2022), SEM-PLS is particularly suitable for predictive and exploratory research involving complex relationships among latent variables, including mediation effects. Furthermore, (Ghozali, 2021), emphasizes that PLS-SEM can effectively analyze structural models with relatively small to moderate sample sizes and does not require strict assumptions regarding data normality. The analysis procedure consisted of two stages: evaluation of the measurement model (outer model) through tests of convergent validity, discriminant validity, composite reliability, and Cronbach's alpha, followed by evaluation of the structural model (inner model) through assessment of path coefficients, coefficient of determination (R^2), and hypothesis testing using the bootstrapping procedure. A significance level of 5% was applied, whereby hypotheses were accepted when the p-value was below 0.05.

RESULTS

Measurement Model (Outer Model)

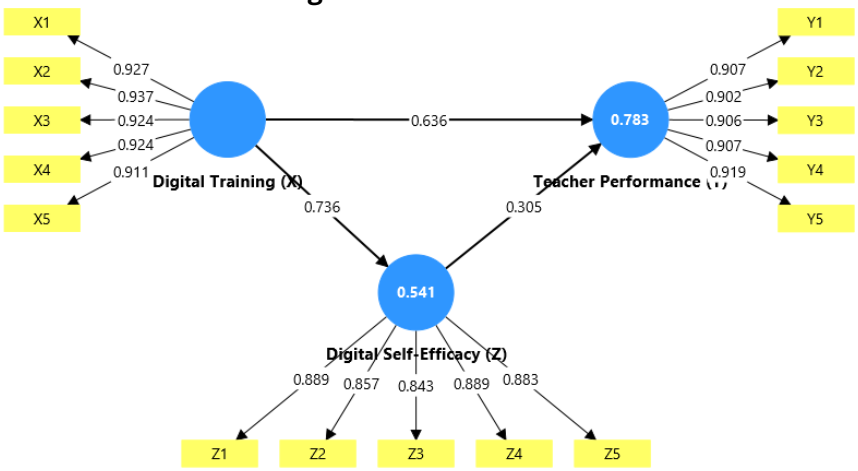
The measurement model (outer model) was evaluated to assess the quality of the research instrument in measuring the latent constructs under investigation. This assessment is essential to ensure that the indicators used in the study accurately and consistently represent their respective constructs. The evaluation of the outer model serves as a prerequisite for structural model analysis, as reliable and valid measurement instruments are necessary to produce trustworthy findings and conclusions.

Convergent Validity

Convergent validity was assessed to determine the extent to which the indicators of a construct share a high proportion of common variance. This evaluation is important because it verifies whether the indicators effectively measure the same underlying concept. Convergent

validity was examined through outer loading values and the Average Variance Extracted (AVE). Indicators with satisfactory loading values demonstrate a strong association with their respective latent variables and contribute to the overall validity of the measurement model.

Figure 2. Outer Model



Source: SmartPLS 4.1.1.2 (2026)

The validity assessment indicated that all indicators were valid, with outer loading values greater than the threshold value of 0.70, as shown in Figure 2.

Table 1. Outer Loading

	Digital Self-Efficacy (Z)	Digital Training (X)	Teacher Performance (Y)
DSE1	0,889		
DSE2	0,857		
DSE3	0,843		
DSE4	0,889		
DSE5	0,883		
DT1		0,927	
DT2		0,937	
DT3		0,924	
DT4		0,924	
DT5		0,911	
TP1			0,907
TP2			0,902
TP3			0,906
TP4			0,907
TP5			0,919

Source: SmartPLS 4.1.1.2 (2026)

The results reveal strong indicator reliability across all constructs. Digital Training exhibited the highest indicator loadings (0.911–0.937), suggesting a highly consistent measurement of the construct. Teacher Performance also demonstrated excellent loadings (0.902–0.919), while Digital Self-Efficacy showed slightly lower but still robust loadings (0.843–0.889). Since all loadings exceeded the recommended threshold of 0.70, no indicators required removal. These findings provide empirical evidence supporting the convergent validity of the measurement model.

Table 2. AVE

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Digital Self-Efficacy (Z)	0,921	0,922	0,941	0,761
Digital Training (X)	0,958	0,958	0,967	0,855
Teacher Performance (Y)	0,947	0,947	0,959	0,825

Source: SmartPLS 4.1.1.2 (2026)

The measurement model demonstrated excellent reliability and convergent validity. Cronbach's Alpha values ranged from 0.921 to 0.958, while Composite Reliability values ranged from 0.941 to 0.967, exceeding the recommended threshold of 0.70. Furthermore, AVE values ranged from 0.761 to 0.855, substantially above the minimum criterion of 0.50. These results confirm that all constructs exhibit strong internal consistency and explain a substantial proportion of indicator variance. Consequently, the measurement model is considered reliable and valid for subsequent structural model analysis.

Discriminant Validity

Discriminant validity was evaluated to ensure that each construct is empirically distinct from other constructs within the research model. This assessment is crucial because each variable should capture a unique theoretical concept and not overlap substantially with other variables. Establishing discriminant validity increases confidence that the observed relationships among constructs are meaningful and not the result of measurement redundancy.

Table 3. Fornell-Larcker Criterion

	Digital Self-Efficacy (Z)	Digital Training (X)	Teacher Performance (Y)
Digital Self-Efficacy (Z)	0,872		
Digital Training (X)	0,736	0,925	
Teacher Performance (Y)	0,773	0,860	0,908

Source: SmartPLS 4.1.1.2 (2026)

Discriminant validity was assessed using the Fornell-Larcker criterion. As presented in Table 3, the square root of the AVE for each construct exceeded its correlations with other constructs. Specifically, Digital Self-Efficacy (0.872), Digital Training (0.925), and Teacher Performance (0.908) demonstrated higher diagonal values than their corresponding inter-construct correlations. These findings indicate that each construct captures a unique phenomenon and is empirically distinct from the others. Therefore, the discriminant validity of the measurement model is established.

Table 4. Cross Loading

	Digital Self-Efficacy (Z)	Digital Training (X)	Teacher Performance (Y)
DSE1	**0,889**	0,679	0,652
DSE2	**0,857**	0,665	0,648
DSE3	**0,843**	0,614	0,657
DSE4	**0,889**	0,623	0,694
DSE5	**0,883**	0,629	0,720
DT1	0,672	**0,927**	0,792

DT2	0,727	**0,937**	0,826
DT3	0,657	**0,924**	0,784
DT4	0,672	**0,924**	0,800
DT5	0,672	**0,911**	0,775
TP1	0,691	0,762	**0,907**
TP2	0,689	0,778	**0,902**
TP3	0,708	0,834	**0,906**
TP4	0,719	0,771	**0,907**
TP5	0,701	0,759	**0,919**

Source: SmartPLS 4.1.1.2 (2026)

The cross-loading analysis was conducted to further assess discriminant validity. As shown in Table 4, each indicator exhibited the highest loading on its corresponding construct compared to the other constructs. Specifically, Digital Self-Efficacy indicators loaded between 0.843 and 0.889 on their intended construct, Digital Training indicators loaded between 0.911 and 0.937, and Teacher Performance indicators loaded between 0.902 and 0.919. Although several Teacher Performance indicators showed relatively high cross-loadings with Digital Training, their primary loadings remained substantially higher on their designated construct. Therefore, the results provide additional evidence supporting the discriminant validity of the measurement model.

Table 5. HTMT Ratio

	Heterotrait-monotrait ratio (HTMT)
Digital Training (X) <-> Digital Self-Efficacy (Z)	0,783
Teacher Performance (Y) <-> Digital Self-Efficacy (Z)	0,827
Teacher Performance (Y) <-> Digital Training (X)	0,902

Source: SmartPLS 4.1.1.2 (2026)

Discriminant validity was further evaluated using the Heterotrait-Monotrait Ratio (HTMT). The HTMT values ranged from 0.783 to 0.902. The HTMT values between Digital Training and Digital Self-Efficacy (0.783), as well as between Teacher Performance and Digital Self-Efficacy (0.827), were below the recommended threshold of 0.90. The HTMT value between Teacher Performance and Digital Training was 0.902, slightly exceeding the conservative threshold. However, considering the marginal deviation and the satisfactory results obtained from the Fornell-Larcker criterion, AVE, and indicator loadings, the discriminant validity of the constructs can be considered acceptable.

Structural Model (Inner Model)

The structural model (inner model) was evaluated to examine the relationships among the latent variables proposed in the research framework. This analysis is important because it determines the explanatory power of the model and assesses the extent to which the hypothesized relationships are supported by empirical data. Evaluating the structural model provides insights into the predictive capability and theoretical relevance of the proposed research model.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) was used to assess the proportion of variance in the endogenous variables that can be explained by the exogenous variables included in the model.

This measure is important because it reflects the explanatory power of the research model. Higher R^2 values indicate a greater ability of the independent variables to explain variations in the dependent variables.

Table 6. R-Square

	R-square	R-square adjusted
Digital Self-Efficacy (Z)	0,541	0,536
Teacher Performance (Y)	0,783	0,777

Source: SmartPLS 4.1.1.2 (2026)

The structural model assessment shows that Digital Training explains 54.1% of the variance in Digital Self-Efficacy (R^2 = 0.541), indicating a moderate predictive power. Furthermore, Digital Training and Digital Self-Efficacy jointly explain 78.3% of the variance in Teacher Performance (R^2 = 0.783), reflecting substantial explanatory power. The small differences between R^2 and adjusted R^2 suggest that the model is stable and free from substantial overfitting. These findings indicate that the proposed model has strong predictive relevance, particularly in explaining teacher performance.

Hypothesis Testing (Bootstrapping)

Hypothesis testing was performed using the bootstrapping procedure in SmartPLS to evaluate the significance of the relationships among variables. Bootstrapping is widely recommended in PLS-SEM because it generates robust estimates of standard errors and significance values without requiring strict assumptions regarding data distribution. The results of this procedure were used as the basis for accepting or rejecting the proposed hypotheses.

Direct Effect

The direct effect analysis was conducted to examine the direct influence of one variable on another without the involvement of a mediating variable. This analysis is important because it provides evidence regarding the primary relationships proposed in the conceptual framework. Understanding direct effects enables researchers to evaluate the strength and significance of the direct paths among constructs.

Table 7. Direct Effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Digital Self-Efficacy (Z) -> Teacher Performance (Y)	0,305	0,305	0,077	3,946	0,000
Digital Training (X) -> Digital Self-Efficacy (Z)	0,736	0,736	0,051	14,346	0,000
Digital Training (X) -> Teacher Performance (Y)	0,860	0,860	0,027	32,469	0,000

Source: SmartPLS 4.1.1.2 (2026)

The direct effect analysis revealed that all hypothesized relationships were positive and statistically significant. Digital Self-Efficacy had a significant positive effect on Teacher Performance (β = 0.305, t = 3.946, $p < 0.001$). Digital Training also had a significant positive effect on Digital Self-Efficacy (β = 0.736, t = 14.346, $p < 0.001$). Furthermore, Digital Training showed the strongest direct effect on Teacher Performance (β = 0.860, t = 32.469, $p < 0.001$). These findings

indicate that Digital Training plays a central role in enhancing both teachers' digital self-efficacy and their performance.

Indirect Effect

The indirect effect analysis was performed to determine whether the influence of an independent variable on a dependent variable occurs through a mediating variable. This assessment is particularly important in mediation studies because it reveals the underlying mechanism through which variables affect one another. By examining indirect effects, researchers gain a deeper understanding of the causal pathways represented in the research model.

Table 8. Indirect Effect

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Digital Training (X) -> Digital Self-Efficacy (Z) -> Teacher Performance (Y)	0,224	0,225	0,060	3,733	0,000

Source: SmartPLS 4.1.1.2 (2026)

The indirect effect analysis confirmed the mediating role of Digital Self-Efficacy in the relationship between Digital Training and Teacher Performance. The indirect effect was positive and statistically significant ($\beta = 0.224$, $t = 3.733$, $p < 0.001$). This indicates that Digital Training enhances Teacher Performance not only directly but also indirectly by strengthening teachers' Digital Self-Efficacy. Since the direct effect of Digital Training on Teacher Performance remained significant, Digital Self-Efficacy serves as a partial mediator in the proposed model.

DISCUSSION

The Effect of Digital Training on Teacher Performance

The findings indicate that Digital Training has a positive and significant effect on Teacher Performance. This result confirms that structured digital training programs enhance teachers' ability to adapt to technology-driven learning environments, which ultimately improves instructional effectiveness. The high path coefficient ($\beta = 0.860$) suggests that digital training is the strongest predictor in the model, emphasizing its strategic role in strengthening teacher competency.

This finding aligns with previous empirical studies in Indonesia. (Y. Pratama & Sari, 2023) found that teachers who participated in digital literacy training demonstrated significantly better classroom management and technology integration skills compared to those who did not. Similarly, (Wahyuni et al., 2022) reported that digital training positively influenced pedagogical innovation among Indonesian teachers, particularly in hybrid and online learning contexts.

From a practical perspective, this finding suggests that investment in digital capacity-building programs can directly contribute to improving teacher productivity, instructional quality, and student engagement.

The Effect of Digital Training on Digital Self-Efficacy

The study also reveals that Digital Training significantly improves Digital Self-Efficacy ($\beta = 0.736$). This indicates that when teachers are exposed to digital training, they become more confident in using digital tools for teaching activities. Training serves not only as a skill-building mechanism but also as a psychological reinforcement process that reduces technology anxiety.

This result supports Bandura's self-efficacy theory, which argues that mastery experiences are the strongest source of efficacy beliefs. In the context of education, repeated exposure to digital practices during training strengthens teachers' perceptions of competence.
Empirical evidence from Indonesia also supports this relationship. (Nugroho et al., 2021) found that participation in ICT workshops significantly increased teachers' confidence in using learning management systems. Likewise, (Rahmawati & Setiawan, 2024) highlighted that digital training was a strong determinant of digital self-efficacy among secondary school teachers in Java.
These findings imply that training programs should focus not only on technical knowledge but also on creating positive mastery experiences that foster confidence.

The Effect of Digital Self-Efficacy on Teacher Performance

The results show that Digital Self-Efficacy positively affects Teacher Performance (β = 0.305). Although the effect size is smaller compared to Digital Training, it remains statistically significant, indicating that teachers' belief in their ability to use technology contributes meaningfully to their professional performance.

Teachers with high self-efficacy tend to be more proactive in exploring new digital tools, solving technical challenges, and designing interactive learning experiences. This behavior strengthens teaching quality and responsiveness to students' needs.
This finding is consistent with research by (Yuliana et al., 2022), who found that self-efficacy significantly predicted teachers' adaptive teaching behavior during post-pandemic digital transformation. Similarly, (Putri & Hidayat, 2023) reported that teachers with higher digital confidence were more effective in delivering technology-enhanced instruction.
This indicates that beyond training, internal psychological readiness is also essential in determining successful teacher performance.

The Mediating Role of Digital Self-Efficacy

The mediation analysis confirms that Digital Self-Efficacy partially mediates the relationship between Digital Training and Teacher Performance (β = 0.224). This means that digital training improves teacher performance not only directly but also indirectly by strengthening teachers' confidence in using digital technology.

The partial mediation pattern suggests that while training itself has a direct operational impact, part of its effectiveness is transferred through psychological empowerment. This highlights that skill acquisition alone is insufficient unless teachers also develop confidence in applying those skills.

This finding is supported by empirical studies in Indonesia. (Firmansyah et al., 2023; Kurniawan et al., 2023) found that self-efficacy mediated the effect of professional development on teacher innovation capability. Likewise, (Fauziah et al., 2024) reported that digital competence and self-efficacy jointly mediated the impact of digital training on teaching effectiveness.

These results strengthen the argument that teacher development programs should integrate technical training with confidence-building strategies, such as mentoring, collaborative practice, and continuous feedback.

CONCLUSION

This study concludes that Digital Training plays a significant role in improving both Teacher Performance and Digital Self-Efficacy. The empirical findings demonstrate that Digital Training has a direct positive effect on Teacher Performance, indicating that well-designed digital capacity-building programs can strengthen teachers' ability to perform effectively in technology-based learning environments. At the same time, Digital Training significantly enhances teachers' Digital Self-Efficacy, showing that training not only develops technical competencies but also builds confidence in using digital tools.

Furthermore, the results confirm that Digital Self-Efficacy positively contributes to Teacher Performance. This suggests that teachers who have stronger confidence in their digital abilities tend to be more adaptive, innovative, and effective in implementing digital learning practices. In addition, the mediation analysis reveals that Digital Self-Efficacy partially mediates the relationship between Digital Training and Teacher Performance. This means that the impact of Digital Training on performance is not only operational but also psychological, as it strengthens teachers' confidence, which in turn improves their professional performance.

Overall, the findings highlight that improving teacher performance in the digital era requires a dual approach: strengthening technical skills through continuous digital training and fostering teachers' confidence in applying those skills. Therefore, educational institutions and policymakers should prioritize sustainable digital training programs integrated with mentoring and support systems to maximize teacher performance and accelerate educational transformation.

LIMITATION

This study has several limitations. First, the research only examined three main constructs, namely Digital Training, Digital Self-Efficacy, and Teacher Performance. Other relevant factors, such as school leadership, organizational support, digital infrastructure, teaching experience, and teachers' motivation, were not included in the model.

Second, the study used a quantitative survey approach, so the findings mainly reflect respondents' perceptions at a specific point in time. This limits the ability to explain deeper behavioral processes behind how digital training improves teacher performance.

Third, the data were collected through self-reported questionnaires. Therefore, the results may be influenced by response bias, such as respondents' tendency to provide socially desirable answers.

Fourth, the study applied a cross-sectional design, meaning that data were collected only once. As a result, the relationships among variables should be interpreted as statistical associations rather than long-term causal effects.

Finally, the study focused on a specific group of teachers, so the findings may not be fully generalizable to all educational levels, regions, or institutional settings. Future studies are encouraged to use broader samples, longitudinal designs, and additional variables to obtain a more comprehensive understanding of teacher performance in digital learning environments.

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