

Role of Digital Training and Intrinsic Motivation in Improving Elementary Teachers' Performance in Cipicung

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Abstract

In Indonesia, efforts to digitalize education are reflected in the implementation of the Merdeka Belajar program and the use of the Platform Merdeka Mengajar (PMM). However, the increased participation in digital training has not been fully accompanied by optimal improvements in teacher performance. In addition to digital training, internal psychological factors such as intrinsic motivation also play an important role in determining teacher performance. This study aims to examine the role of digital training and intrinsic motivation in improving the performance of elementary school teachers in Cipicung Village. This research adopts a positivist paradigm with a quantitative approach, using survey methods for data collection. The data were analyzed using multiple linear regression. The findings reveal that both digital training and intrinsic motivation have a positive effect on the performance of elementary school teachers in Cipicung Village. Furthermore, intrinsic motivation is identified as the more dominant factor influencing teacher performance.

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1. Introduction

In Indonesia, efforts to digitalize education are reflected in the implementation of the Merdeka Belajar program and the use of the Platform Merdeka Mengajar (PMM), with participation in digital training reaching approximately 4.1 million teacher training activities throughout 2022–2023 (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi, 2023). Nevertheless, the rise in participation in digital training has not been fully accompanied by optimal improvements in teacher performance. Initial observations in elementary schools in Cipicung Village show that participation in digital training varies across schools, with teacher participation rates ranging from 11% to 100%. In addition, limited technological infrastructure remains a challenge, as only some schools have adequate internet access, and none have computer laboratories or fully integrated digital learning platforms.

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In addition to digital training, internal psychological factors such as intrinsic motivation also play an important role in determining teacher performance. Based on Self-Determination Theory by Deci & Ryan (2000), intrinsic motivation refers to an individual's internal drive to engage in activities based on interest, satisfaction, and a desire for growth. Observations indicate that, in general, the intrinsic motivation of teachers in Cipicung Village falls within the good to very good category, with most teachers demonstrating strong work enthusiasm and professional commitment. However, this condition has not been fully reflected in improved performance, particularly in the use of educational technology. Data show that 13 out of 37 teachers are still categorized as having "adequate" performance, especially in the aspect of utilizing technology-based learning media. This suggests a discrepancy between the relatively high level of intrinsic motivation and the less-than-optimal performance outcomes.

The urgency of this study is based on the importance of improving the quality of education in rural areas that still face a digital divide. If this condition is not immediately examined and addressed, the gap in education quality between urban and rural areas will continue to widen. In addition, the ineffectiveness of digital training without optimal intrinsic motivation may lead to the low utilization of technology in the learning process. Therefore, this study is important to provide empirical evidence regarding the influence of digital training and intrinsic motivation on teacher performance, as well as to serve as a basis for formulating more effective and contextual policies for the development of teachers' digital competencies.

Based on the background above, this study adopts the title "Role of Digital Training and Intrinsic Motivation in Improving Elementary Teachers' Performance in Cipicung."

2. Research Method

This study employs a positivist paradigm with a quantitative approach using a survey method. The research subjects consist of all 37 elementary school teachers in Cipicung Village, Culamega District, Tasikmalaya Regency. The study was conducted in five public elementary schools, including SDN Cipicung, SDN Lebaksiuh, SDN 1 Cibeunteur, SDN 2 Cibeunteur, and SDN Cileuweung. This research uses a census sampling technique or saturated sampling in which all members of the population are included as respondents.

Data were collected using a Likert-scale questionnaire (1-5) adapted from established theories, namely digital training (Noe, 2020), intrinsic motivation (Deci & Ryan, 2000), and teacher performance (Mangkunegara, 2019). Instrument validity was tested using the Pearson Product Moment correlation, while reliability was assessed using Cronbach's Alpha to ensure consistency of the instrument.

Data analysis was conducted using multiple linear regression to examine the effect of digital training (X_1) and intrinsic motivation (X_2) on teacher performance (Y). Prior to hypothesis testing, the data underwent transformation using the Method of Successive Interval (MSI), followed by classical assumption tests, model testing, and t-tests for hypothesis testing. The hypotheses in this study are as follows:

H1: The effect of digital training on teacher performance

H2: The effect of intrinsic motivation on teacher performance

3. Results and Discussion

Results

Descriptive Analysis of Respondents

The data were obtained from questionnaires distributed to 37 elementary school teachers in Cipicung Village. To identify the characteristics of the data, a descriptive statistical analysis was conducted, including minimum, maximum, mean, and standard deviation values for each research variable, as presented in Table 1 below.

Table 1 Descriptive Analysis of Respondents

Variable	N	Minimum	Maximum	Mean	Std. Deviasi
Digital Training (X_1)	37	11,75	33,13	22,315	4,685
Intrinsic Motivation (X_2)	37	11,81	37,94	28,707	7,1104
Teacher Performance (Y)	37	14,1	40,22	29,3	6,961

Source: Processed Data, 2026

Based on the results of the descriptive statistics, the mean values of the digital training, intrinsic motivation, and teacher performance variables tend to fall within a relatively high category. In addition, the relatively small standard deviation indicates that the respondent data are fairly homogeneous, with no extreme differences between the minimum and maximum values.

Validity Test

The validity test was conducted to measure the accuracy of the research instrument in capturing the intended variables. With a total sample of 37 respondents, the r-table value at a significance level of 0.05 is 0.325.

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Table 2 Validity Test Summary

Variable	Number of Items	r-count Range	r-table	Result
Digital Training (X1)	8	0.545–0.774	0.325	Valid
Intrinsic Motivation (X2)	10	0.733–0.901	0.325	Valid
Teacher Performance (Y)	10	0.602–0.906	0.325	Valid

Source: Processed Data, 2026

The results show in Tabel 2 that all items for digital training (X1), intrinsic motivation (X2), and teacher performance (Y) have r-count values greater than r-table ($r > 0.325$) with significance values below 0.05. This indicates that all questionnaire items are valid and appropriate for measuring each research variable.

Reliability Test

The reliability test was conducted to assess the consistency of the research instrument using Cronbach's Alpha. The results in Table 3 show that all variables have Cronbach's Alpha values greater than 0.60, indicating good internal consistency. Digital training (X1) has a value of 0.820, intrinsic motivation (X2) 0.947, and teacher performance (Y) 0.941. Therefore, all variables are considered reliable and suitable for further analysis.

Table 3 Reliability Test Results

Variable	Cronbach's Alpha	Criteria	Result
Digital Training (X1)	0.820	> 0.60	Reliable
Intrinsic Motivation (X2)	0.947	> 0.60	Reliable
Teacher Performance (Y)	0.941	> 0.60	Reliable

Source: Processed Data, 2026

Classic Assumption Test

Classical assumption tests were conducted using normality, heteroscedasticity, and multicollinearity tests, as presented in Table 4 below.

Table 4 Classical Assumption Test Results

Test	Indicator	Result	Conclusion
Normality	Sig. = 0.058	> 0.05	Normal
Heteroscedasticity	Sig. > 0.05	-	Not detected
Multicollinearity	Tolerance > 0.10 , VIF < 10	-	Not detected

Source: Processed Data, 2026

The normality test was conducted using the Kolmogorov-Smirnov method to examine whether the residuals are normally distributed. The results show that the Asymp. Sig. (2-tailed) value is 0.058, which is greater than 0.05. This indicates that the residuals are normally distributed and the regression model meets the normality assumption.

The heteroscedasticity test was performed using the Glejser method. The significance values for digital training (X1) and intrinsic motivation (X2) are greater than 0.05. This indicates that there is no heteroscedasticity problem in the regression model. Therefore, the model satisfies the homoscedasticity assumption and is suitable for further analysis.

The multicollinearity test was conducted by examining tolerance and Variance Inflation Factor (VIF) values. The results show that all variables have tolerance values greater than 0.10 and VIF values below 10. This indicates that there is no multicollinearity among the independent variables. Therefore, the regression model is appropriate for further analysis.

Multiple Linear Regression Analysis

Table 5 Multiple Linear Regression Results

Variable	Coefficient (B)	Sig.	Effect Direction	Interpretation
Constant	3.829	-	-	Baseline teacher performance when X1 and X2 are constant
Digital Training (X1)	0.420	0.037	Positive	Significant positive effect on teacher performance
Intrinsic Motivation (X2)	0.561	0.000	Positive	Significant positive effect and more dominant influence

Source: Processed Data, 2026

Based on the coefficients output in Table 5, the multiple linear regression equation is formulated as follows:

$$Y = 3.829 + 0.420X_1 + 0.561X_2 + e$$

Where Y represents teacher performance, X₁ represents digital training, X₂ represents intrinsic motivation, and e represents the error term.

The constant value of 3.829 indicates that when digital training and intrinsic motivation are constant, teacher performance is at 3.829. The regression coefficient for digital training (X₁) is 0.420, indicating a positive and significant effect on teacher performance. This means that an increase in digital training leads to an improvement in teacher performance. Similarly, intrinsic motivation (X₂) has a coefficient of 0.561, showing a positive and significant effect, and it has a stronger influence compared to

digital training. This implies that higher intrinsic motivation leads to better teacher performance.

Hypothesis Testing

Hypothesis testing in this study was conducted using multiple linear regression analysis to examine the effect of digital training and intrinsic motivation on teacher performance. The decision criteria were based on the comparison between the p-value and the significance level of 0.05.

Table 6 Hypothesis Test Results

Hypothesis	Variable Relationship	Coefficient (β)	t-statistic	p-value	Decision
H1	Digital Training (X1) → Teacher Performance (Y)	0.420	2.167	0.037	Accepted
H2	Intrinsic Motivation (X2) → Teacher Performance (Y)	0.561	4.398	0.000	Accepted

Source: Processed Data, 2026

The results in Table 6 show that digital training (X1) has a coefficient value of 0.420 with a t-statistic of 2.167 and a p-value of 0.037 (< 0.05), indicating that H1 is accepted. This means that digital training has a positive and significant effect on teacher performance. Furthermore, intrinsic motivation (X2) has a coefficient value of 0.561 with a t-statistic of 4.398 and a p-value of 0.000 (< 0.05), indicating that H2 is also accepted. This shows that intrinsic motivation has a positive and significant effect on teacher performance and has a more dominant influence compared to digital training.

Coefficient of Determination Test

The coefficient of determination (R^2) is used to measure the extent to which the independent variables explain the variation of the dependent variable. A value close to 1 indicates that the independent variables provide almost all the information needed to predict the dependent variable.

Table 7 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.758	0.399	0.381	467.427

Source: Processed Data, 2026

Based on the results of the coefficient of determination test, the R Square value is 0.399. This indicates that 39.9% of the variation in teacher performance (Y) can be

explained by digital training (X1) and intrinsic motivation (X2). Meanwhile, the remaining 60.1% is influenced by other variables outside the research model that were not examined in this study.

Discussion

Effect of Digital Training on Teacher Performance

The results show that digital training has a positive and significant effect on teacher performance. Therefore, the hypothesis stating that digital training influences teacher performance is accepted. This finding indicates that improving the quality of digital training directly contributes to enhancing teachers' ability to carry out learning tasks.

From a theoretical perspective, digital training enhances the ability aspect as explained in Human Resource Management Theory (Dessler, 2020). Training facilitates the transfer of knowledge and technological skills, enabling teachers to more effectively design, implement, and evaluate digital-based learning. This improvement in competence contributes to work efficiency, teaching quality, and the ability to adapt to the demands of digital education.

These findings are consistent with previous studies indicating that technology-based training significantly contributes to performance improvement. Sarifudin et al. (2025) found that digital learning enhances learning outcomes, while Nurhikma (2025) emphasized that training improves performance through increased competence and motivation. In addition, Ogriansyah et al. (2025) also found that digital competence is an important factor in improving individual performance in educational organizations.

However, in the local context of Cipicung Village, the effectiveness of digital training is not yet optimal. This is due to limited technological infrastructure, such as uneven internet access and the absence of supporting facilities such as computer laboratories in all schools. In addition, unequal participation in training among teachers creates a gap in digital competence. This condition shows that although digital training has a positive effect, its impact still depends on environmental readiness and supporting facilities. In other words, digital training in rural areas tends to be a necessary but not sufficient condition for improving teacher performance.

Effect of Intrinsic Motivation on Teacher Performance

The results show that intrinsic motivation has a positive and significant effect on teacher performance. Therefore, the hypothesis stating that intrinsic motivation influences teacher performance is accepted. This finding indicates that internal individual factors play an important role in determining performance quality.

From a theoretical perspective, intrinsic motivation operates through the fulfillment of basic psychological needs as explained in Self-Determination Theory

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(Deci & Ryan, 2000), namely autonomy, competence, and relatedness. Teachers with high intrinsic motivation tend to demonstrate higher levels of work engagement, show initiative in developing teaching methods, and are able to persist despite limited resources. Intrinsic motivation encourages individuals to work not because of external pressure, but due to internal satisfaction and professional commitment.

These findings are consistent with previous studies. Wibowo (2021) found that intrinsic motivation significantly affects teacher performance. Aulya & Sinaga (2025) also showed that work motivation is a dominant factor in improving performance. In addition, Nurhayati et al. (2022) demonstrated that intrinsic motivation strengthens the use of technology in learning, which ultimately improves teacher performance.

In the local context of Cipicung Village, intrinsic motivation appears to be a more stable factor compared to external factors. Despite limited technological infrastructure, most teachers still demonstrate strong commitment in performing their duties, reflected in teaching enthusiasm, professional responsibility, and independent efforts to develop their competencies. However, an interesting finding is that high intrinsic motivation has not been fully accompanied by optimal use of educational technology. This indicates a gap between motivation and competence, where internal drive is not yet fully supported by adequate technical capacity.

Synthesis of Findings

Overall, the results of this study confirm that teacher performance is the result of the interaction between ability and motivation. Digital training plays a role in improving teachers' technical skills, while intrinsic motivation acts as an internal driving force that optimizes the use of these skills.

Empirically, intrinsic motivation shows a more dominant influence compared to digital training. This indicates that under resource-limited conditions, internal factors become the main determinant of performance success. Teachers with high motivation are still able to demonstrate good performance despite limited facilities, whereas training without strong motivation tends not to produce significant improvement.

These findings strengthen the integration of Human Resource Management Theory and Self-Determination Theory, where optimal performance can only be achieved through a balance between competency development and strengthening internal motivation. In the context of rural education, strategies to improve teacher performance should not only focus on training but also consider psychological aspects and a supportive work environment.

4. Conclusions and Suggestions

Conclusion

Based on the analysis and discussion conducted, it can be concluded that digital training has a positive effect on the performance of elementary school teachers in Cipicung Village. Intrinsic motivation also has a positive effect on the performance of elementary school teachers in Cipicung Village and is the more dominant factor in improving teacher performance.

The findings show that teacher performance is shaped by the interaction between ability and motivation. Although digital training improves technical skills, its effectiveness is more optimal when supported by strong intrinsic motivation. In the context of rural education, intrinsic motivation becomes a key determinant in maintaining performance despite limitations in technological infrastructure.

Suggestion

This study uses a quantitative approach with a limited sample of elementary school teachers in Cipicung Village, which restricts the generalization of the findings to other regions or educational levels. Future research is recommended to expand the scope of the area and increase the sample size to obtain more representative results.

In addition, this study only examines two independent variables, namely digital training and intrinsic motivation, and therefore has not fully explained all factors influencing teacher performance. Future studies are suggested to include other variables such as principal leadership, work environment, or organizational support to provide a more comprehensive research model.

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