

The Effect of Teacher Certification and Professional Competence on Elementary School Teacher Performance in Bantargebang District with Motivation as a Mediating Variable

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Abstract: This study aims to analyze the effect of teacher certification and professional competence on elementary school teacher performance in Bantargebang District, Bekasi City, with motivation as a mediating variable. The study was motivated by a declining trend in the average teacher performance over the past three years, although performance remains within the “good” category, thereby necessitating an empirical investigation into the determinants of teacher performance. The research employed a quantitative survey approach and was analyzed using Structural Equation Modeling (SEM) based on Partial Least Squares (SmartPLS 4.0.9.9) through a bootstrapping technique.

The results indicate that teacher certification has a positive and significant effect on teacher performance ($\beta = 0.330$; $t = 2.470$; $p = 0.014$). Motivation also has a positive and significant effect on teacher performance ($\beta = 0.343$; $t = 2.726$; $p = 0.006$). Professional competence similarly shows a positive and significant effect on teacher performance ($\beta = 0.271$; $t = 2.572$; $p = 0.010$). Furthermore, teacher certification has a positive and significant effect on motivation ($\beta = 0.533$; $t = 5.656$; $p = 0.000$), and professional competence also significantly influences motivation ($\beta = 0.421$; $t = 4.468$; $p = 0.000$).

The Adjusted R-Square value indicates that motivation is explained by teacher certification and professional competence by 80.5%, while teacher performance is explained by teacher certification, professional competence, and motivation by 78.4%. The Q^2 values of 0.492 for motivation and 0.499 for teacher performance indicate strong predictive relevance of the model. The findings also confirm that motivation serves as a mediating variable that strengthens the effect of teacher certification and professional competence on teacher performance. Therefore, improving teacher performance is not solely influenced by formal recognition through certification and mastery of professional competence, but is also strongly determined by teachers' level of work motivation. This study concludes that teacher certification and professional competence are strategic determinants in enhancing teacher performance, both directly and indirectly through motivation as a mediating mechanism.

Keywords: teacher certification, professional competence, motivation, teacher performance.

1. Introduction

Education constitutes a fundamental foundation in national development. The quality of education is influenced by various factors, one of which is teacher performance. Teachers, as the frontline actors in the learning process, play a central role in shaping future generations who are qualified, competent, and possess strong character. In facing competition in the era of globalization, teachers are required to work more effectively and efficiently. Therefore, improving teacher performance has become a primary concern in efforts to improve overall educational quality.

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Bantargebang District, as one of the regions in Bekasi City, presents unique educational dynamics characterized by diverse school environments and teacher profiles. In practice, schools establish annual performance targets for teachers as a basis for evaluating the effectiveness of educational programs. Performance recap data for the period 2022–2024 (Table 1.1) indicates a declining trend, although teacher performance remains within the “Good” category.

Table 1: Recapitulation of Teacher Performance in Bantargebang District, 2022–2024

| Year | Target Performance | Average performance | Percentage of Achievement (%) |
|------|--------------------|---------------------|-------------------------------|
| 2022 | 4.5 | 4.65 | 103 |
| 2023 | 4.5 | 4.47 | 99.3 |
| 2024 | 4.5 | 4.42 | 98.2 |

| | | | |
|---|----|----|----------------|
| 1 | sd | <2 | VeryNot enough |
| 2 | sd | <3 | Not enough |
| 3 | sd | <4 | Enough |
| 4 | sd | <5 | Good |
| 5 | | | Very good |

Table 1.1 presents the teacher performance in Bantargebang District during the period from 2022 to 2024. During this period, a declining trend in the average teacher performance can be observed from year to year. In 2022, the average teacher performance reached 4.65, exceeding the target at 103.3%. However, in 2023, the average performance decreased to 4.47 with an achievement rate of 99.3%, and it further decreased in 2024 to 4.42 with an achievement rate of 98.2%. Although the performance remains within the “Good” category, this downward trend warrants serious attention, as it has the potential to reduce educational quality if it continues.

According to Mangkunegara (2019:9), performance is defined as the quality and quantity of work achieved by an individual in accordance with the responsibilities assigned. Factors influencing performance include individual factors and organizational environmental factors (Mangkunegara, 2017). Simamora, as cited in Mangkunegara (2019:14), further emphasizes that performance is influenced by individual, psychological, and organizational factors. To identify the factors presumed to influence teacher performance in Bantargebang District, the author conducted a preliminary survey involving 30 elementary school teachers, the results of which are presented in Table 1.2.

| No | Variables | Statement | Yes | No |
|----|----------------------------------|---|-----|----|
| 1 | * Certification Educator | I have own certificate educator as formal recognition of competence | 12 | 18 |
| 2 | * Competence Professional | I am able use method learning in accordance need student | 13 | 17 |
| 3 | * Motivation | I always want to Work in a way maximum | 8 | 22 |
| 4 | Compensation | I accept reward Which in accordance with work | 16 | 14 |
| 5 | Environment Work | Condition place Work Iadequate For Work | 17 | 13 |
| 6 | Training & Development | I get training adequate Which support work | 16 | 14 |

Source: Pre-Survey Results (2025)

The preliminary survey results indicate that although most teachers already hold professional certification, not all perceive a positive impact of certification on improving teaching quality. In terms of competence, the majority of teachers consider themselves to possess adequate mastery of subject matter and instructional methods; however, a group of teachers still perceive their competence as less than optimal. From the perspective of motivation, approximately half of the teachers reported being encouraged to perform better, particularly when supported by recognition and incentives. Conversely, other factors such as compensation, work environment, and training and development were not perceived as dominant determinants by most respondents. These findings suggest that teacher certification, professional competence, and motivation are the primary factors that warrant further investigation in relation to teacher performance.

In the context of improving educational quality, teacher certification serves as an important instrument to enhance instructional quality while providing formal recognition of teachers' professional competence. Certification is expected to increase motivation and improve performance. Alawiah (2023) found that certified teachers tend to demonstrate better performance, accompanied by increased teaching motivation. This finding is consistent with Wiranata et al. (2023), who reported that professionalism and certification significantly influence teacher performance. Similarly, Sihombing and Kale (2022) emphasized that professional recognition

through certification can drive improvements in teacher performance.

In addition to certification, teachers' professional competence plays a crucial role. Teachers who demonstrate strong mastery of subject matter, instructional methods, and teaching strategies are more capable of enhancing the effectiveness of the teaching and learning process. Jaya (2022) found that teacher competence is closely associated with improved performance, highlighting professional competence as a key component in supporting educational quality.

Motivation is equally important, as it represents a psychological factor that determines the extent to which teachers are driven to optimize their potential. Motivation is defined as a particular psychological state within an individual that arises from the drive to fulfill certain needs (Damayanti et al., 2021). According to Giauque et al., as cited in Riyanto and Prasetyo (2021), motivation emerges when individuals strive to achieve optimal satisfaction of their needs. Several studies, such as Riyanto and Prasetyo (2021) and Febriyarso and Ruslan (2021), have demonstrated that motivation has a significant positive effect on performance. However, other studies, including Julianry et al. (2017) and Hasmalawati (2018), found no significant relationship between motivation and performance. These inconsistent findings indicate that the role of motivation requires further empirical examination, particularly within the context of elementary school teachers.

Based on the foregoing discussion, this study focuses on examining the effect of teacher certification and professional competence on elementary school teacher performance in Bantargebang District, with motivation positioned as a mediating variable. This study is expected to contribute theoretically to the development of educational management scholarship and to provide practical recommendations for local educational policymakers.

2. Research methods

This study employed a quantitative approach using a survey method. Data were collected through questionnaires distributed to 269 public elementary school teachers accredited A in Bantargebang District, Bekasi City. The research variables include Teacher Certification (X1), Professional Competence (X2), Motivation (Y1), and Teacher Performance (Y2). Data analysis was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 4.0.9.9. Model testing consists of outer model evaluation (convergent validity, discriminant validity, and reliability) and inner model evaluation (R^2 , Q^2 predictive relevance, and hypothesis testing of direct and indirect effects through bootstrapping). The significance criteria were set at $t > 1.96$ and $p < 0.05$.

3. Results and Discussion

a. Description Variables

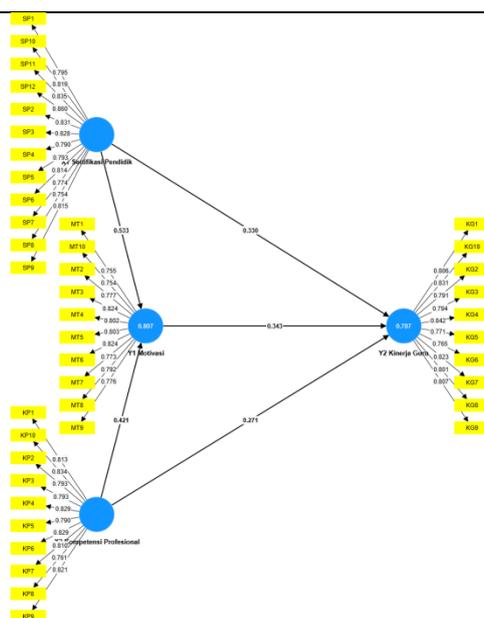
The descriptive results indicate that respondents' perceptions of all variables fall within the "good" category (mean values approaching 4). For Teacher Certification (X1), the overall mean score was 3.81, with responses predominantly in the agree and strongly agree categories. The highest-rated indicator was SP11 (3.97), while the lowest was SP8 (3.61). This suggests that certification is positively perceived as strengthening teachers' professional aspects, although certain dimensions still require improvement.

For Professional Competence (X2), the overall mean score was also 3.81. The highest indicator was KP1 (3.90), and the lowest was KP4 (3.72), indicating relatively strong subject mastery, although some aspects of competency standards varied among respondents. Regarding Motivation (Y1), the overall mean score was 3.80. The highest indicators were MT5 and MT6 (3.91), while the lowest was MT8 (3.68). This finding suggests that affective needs and social support are relatively strong, whereas certain aspects related to esteem require further enhancement. For Teacher Performance (Y2), the overall mean score was 3.77. The highest indicator was KG10 (3.94), and the lowest was KG8 (3.65). Overall, teacher performance is rated as good, although variations remain in certain aspects of effectiveness.

b. Measurement Model Testing (*Outer Model*)

All indicators for variables X1, Discriminant validity was also satisfied, as cross-loading analysis indicated that each indicator correlated more strongly with its respective construct than with other constructs. Furthermore, the Average Variance Extracted (AVE) values for all constructs exceed the threshold of 0.50: $X1 = 0.655$; $X2 = 0.652$; $Y1 = 0.622$; and $Y2 = 0.646$.

The reliability of the model was considered excellent, as the Cronbach's Alpha and Composite Reliability values for all variables exceeded 0.70:



Source: Analysis results use *SmartPLS 4.0.9.9* (2026)

Figure 1: Outer Loading Value

c. Inner Model Evaluation

The results of the coefficient of determination test show that the model has strong explanatory power.

Table 4.9 R Square (R²) Value of the Research Model

| Variables | R Square | R Square Adjusted |
|------------------------|----------|-------------------|
| Y1 Motivation | 0.807 | 0.805 |
| Y2 Teacher Performance | 0.787 | 0.784 |

Source: Analysis results use *SmartPLS 4.0.9.9* (2026)

Variable (Y1) has an **adjusted R² of 0.805**, meaning that 80.5% of the variation in motivation is explained by educator certification and professional competence. The **Teacher Performance variable (Y2)** has an **adjusted R² of 0.784**, meaning that 78.4% of the variation in performance is explained by educator certification, professional competence, and motivation. The **Q² values** for motivation (0.492) and performance (0.499) indicate that the model has strong **predictive relevance**.

d. Hypothesis Testing

Path tests show that all hypotheses are accepted.

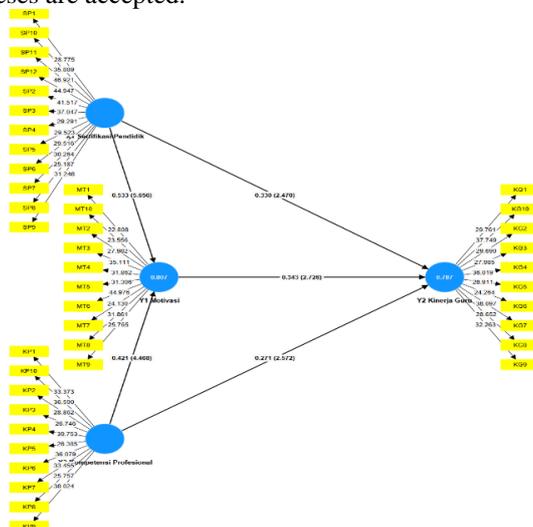


Figure 4.2: Coefficient model path and *t* Statistics Research Model

Influence direct effect:

- $X1 \rightarrow Y2: \beta=0.330; t=2.470; p=0.014$ (significant)
- $Y1 \rightarrow Y2: \beta=0.343; t=2.726; p=0.006$ (significant)
- $X2 \rightarrow Y2: \beta=0.271; t=2.572; p=0.010$ (significant)
- $X1 \rightarrow Y1: \beta=0.533; t=5.656; p=0.000$ (significant)
- $X2 \rightarrow Y1: \beta=0.421; t=4.468; p=0.000$ (significant)

Equality structural formation:

- $Y1 = 0.533X1 + 0.421X2 + e$
- $Y2 = 0.330X1 + 0.271X2 + 0.343Y1 + e$

Influence No direct (mediation /indirect effect):

- $X1 \rightarrow Y1 \rightarrow Y2: \beta=0.183; t=2.412; p=0.016$ (significant)
- $X2 \rightarrow Y1 \rightarrow Y2: \beta=0.144; t=2.265; p=0.024$ (significant)

Findings this confirm that **motivation play a role as a significant mediator** in connection certification educators and competencies professional to teacher performance.

e. Discussion

The findings indicate that improvements in teacher performance in A-accredited public elementary schools in Bantargebang District are determined by the strength of professionalism (teacher certification and professional competence) and driven by psychological factors (motivation). Empirically, teacher certification has a significant effect on teacher performance ($\beta = 0.330$). This suggests that certification is not merely an administrative formality, but rather a form of professional recognition that encourages teachers to perform their duties in a more disciplined, structured, and responsible manner. In practice, certification strengthens professional identity, leading teachers to maintain work standards, particularly in the planning and implementation of instruction.

Motivation has been shown to significantly influence performance ($\beta = 0.343$) and even demonstrates the relatively strongest coefficient in affecting performance compared to the direct effects of X1 or X2. This implies that teacher performance cannot be solely understood as a function of competence, but rather as a combination of being "capable" and being "willing." Teachers with high motivation tend to exhibit greater effectiveness, independence, and overall work quality. This finding further emphasizes that performance improvement strategies should incorporate psychological and managerial approaches aimed at sustaining teachers' work enthusiasm.

Professional competence also has a significant effect on performance ($\beta = 0.271$). This indicates that mastery of subject matter, the ability to develop instructional materials, the application of competency standards, and the utilization of information and communication technology (ICT) serve as essential foundations for achieving effective instructional performance. Competent teachers are better equipped to manage classrooms, adapt learning strategies, and meet instructional targets.

The influence of certification and professional competence on motivation is also substantial. Certification significantly affects motivation ($\beta = 0.533$), indicating that formal recognition enhances work drive through increased professional security and recognition. Likewise, professional competence significantly influences motivation ($\beta = 0.421$), suggesting that competence strengthens self-efficacy, thus increasing teachers' motivation to perform optimally.

A key finding of this study is the mediating role of motivation. The indirect paths $X1 \rightarrow Y1 \rightarrow Y2$ ($\beta = 0.183$) and $X2 \rightarrow Y1 \rightarrow Y2$ ($\beta = 0.144$) are both significant. This confirms that certification and professional competence enhance performance through motivational mechanisms. In other words, certification and competence are more effective in improving performance when accompanied by high levels of work motivation. Therefore, teacher performance improvement should ideally be approached holistically through the strengthening of professional policies (certification and competence development) alongside motivational reinforcement strategies, such as recognition systems, organizational support, positive work climate, career development opportunities, and psychological well-being.

4. Conclusion

This study demonstrates that teacher certification and professional competence have a positive and significant effect on elementary school teacher performance. Teacher certification not only functions as formal recognition of teachers' professionalism but also makes a tangible contribution to improving the quality of

instructional task implementation. Similarly, professional competence serves as a primary foundation in determining the effectiveness, quality, and achievement of teachers' work targets.

The findings also indicate that work motivation has a positive and significant influence on teacher performance and acts as a mediating variable that strengthens the relationship between teacher certification, professional competence, and teacher performance. This implies that improvements in teacher performance are not solely determined by structural aspects and technical competence, but are strongly influenced by internal drives that encourage teachers to actualize their capabilities.

Overall, the research model demonstrates strong explanatory power, indicating that the combination of teacher certification, professional competence, and work motivation constitutes a strategic determinant in enhancing teacher performance. Therefore, efforts to improve the quality of primary education should be undertaken holistically through strengthening teacher professionalism alongside the continuous development of work motivation.

5. Implications study

The findings of this study contribute to the advancement of educational management and organizational behavior literature within the context of primary education, particularly concerning the relationship between teacher certification, professional competence, work motivation, and teacher performance. The finding that motivation functions as a mediating variable reinforces the perspective that structural policies (certification) and individual capacity (professional competence) do not automatically lead to optimal performance outcomes without the presence of internal psychological mechanisms.

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