

The Influence of Pedagogical Competence and Personal Competence on Teachers' Professional Competence, with Organizational Culture as a Mediating Variable

¹⁾ Esih Sukaesih, ²⁾ Atikah, ³⁾ Dede Ibnu Romdoni, ⁴⁾ Hamidah, ⁵⁾ Mutoharoh

^{1,2,3,4,5)} Universitas Bina Bangsa, Indonesia

Email: shiromida@gmail.com

Correspondences : shiromida@gmail.com

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ABSTRACT

National education quality is fundamentally shaped by teachers' professionalism as the frontline of the learning process. This study aims to examine the influence of pedagogical competence and personality competence on teachers' professional competence, and to investigate the mediating role of organizational culture within that relationship. A quantitative approach with a causal research design was employed, applying total sampling to 30 teachers as respondents. Data were gathered through Likert-scale questionnaires and analyzed using path analysis and the Sobel test. The findings reveal that pedagogical competence ($\beta=0.318$) and personality competence ($\beta=0.287$) each exert a positive and significant influence on professional competence. Organizational culture demonstrated the strongest predictive coefficient ($\beta=0.389$). The Sobel test confirmed that organizational culture functions as a partial mediator in both relationships. The model accounts for 72.4% of the variance in professional competence. It is concluded that strengthening foundational teacher competencies must be accompanied by the sustained development of a conducive organizational culture.

Informasi Artikel

Kata Kunci:

Kompetensi Pedagogik, Kompetensi Kepribadian, Kompetensi Profesional Guru, Budaya Organisasi, Mediasi.

ABSTRAK

Kualitas pendidikan nasional sangat ditentukan oleh tingkat profesionalisme guru sebagai ujung tombak dalam proses pembelajaran. Penelitian ini bertujuan untuk menganalisis pengaruh kompetensi pedagogik dan kompetensi kepribadian terhadap kompetensi profesional guru, serta menguji peran mediasi budaya organisasi dalam hubungan tersebut. Pendekatan kuantitatif dengan desain kausalitas diterapkan menggunakan teknik total sampling terhadap 30 guru sebagai responden. Pengumpulan data dilakukan menggunakan kuesioner berskala Likert, dan analisis dilakukan melalui path analysis serta uji Sobel. Hasil penelitian menunjukkan bahwa kompetensi pedagogik ($\beta=0,318$) dan kompetensi kepribadian ($\beta=0,287$) berpengaruh positif dan signifikan terhadap kompetensi profesional guru. Budaya organisasi juga terbukti berpengaruh signifikan dengan koefisien tertinggi ($\beta=0,389$). Uji Sobel mengonfirmasi bahwa budaya organisasi memediasi kedua hubungan tersebut secara parsial. Model mampu menjelaskan 72,4% variansi kompetensi profesional. Disimpulkan bahwa penguatan kompetensi dasar guru harus diimbangi dengan pembangunan budaya organisasi yang kondusif secara berkelanjutan.

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✉ **Corresponding Author:** (1) Esih Sukaesih, (2) Department, (3) Institution of Universitas Bina Bangsa Indonesia, (4) Banten, Indonesia, (5) Email: shiromida@gmail.com

1. Introduction

The quality of a country's education is inextricably linked to the capacity of the educators who bear responsibility for it. Teachers occupy a central position as the determinants of the direction and success of the learning process; therefore, efforts to improve teacher competence are an agenda that cannot be ignored in the reform of the national education system. Regulations under Law No. 14 of 2005 on Teachers and Lecturers explicitly mandate that every teacher must master four dimensions of competence: pedagogical, personal, social, and professional. From a global perspective, teacher quality has long been recognized as the strongest predictor of student learning outcomes, surpassing the influence of physical school facilities or curriculum design. This widespread phenomenon has prompted various countries, including Indonesia, to continuously strengthen their systems for the ongoing training and development of teacher competencies.

At a more specific level, the issue of teacher professionalism in Indonesia still faces a number of fairly complex challenges. [1] reveals that teachers' pedagogical, personal, and professional competencies collectively contribute to students' academic performance; however, the extent of the influence of each competency dimension still varies and is not uniform across different regional contexts in Indonesia. This situation indicates a gap between expected competency standards and the reality on the ground. Furthermore, strengthening pedagogical and personal competencies is viewed as the fundamental foundation for fostering truly professional teachers, as "the synergy between the two is crucial to the success of learning and necessitates reinforcement through continuous education and training" [2].

The dimension of organizational culture also plays a crucial role in shaping and accelerating the development of teachers' professional competencies. [3] found that teacher competencies

and organizational culture simultaneously exert a positive and significant influence on teacher performance at the Madrasah Aliyah level, indicating that the institutional environment in which teachers work helps shape their professional capacity. In line with this, [4] emphasizes that a conducive organizational culture can significantly boost work motivation and individual performance through the mechanism of shared values internalized in the organization's daily operations. This means that organizational culture has the potential to serve as a bridge or mediating variable that connects teachers' core competencies with the achievement of professional competencies in a more optimal manner.

The research gap identified in this study is that previous studies have tended to examine the influence of pedagogical or personality competencies separately and in isolation on performance or learning outcomes, without integrating the mediating role of organizational culture as a connecting variable that specifically leads to teachers' professional competencies. [5] emphasizes the need for a more critical and contextual approach in examining teachers' pedagogical competencies in the era of Society 5.0, but has not yet addressed the mediating role of organizational culture. The novelty of this study lies in the construction of a mediation model that simultaneously tests how organizational culture mediates the effects of pedagogical competence and personality competence on teachers' professional competence. This model has not been extensively explored in the Indonesian educational management literature.

Based on the background described above, the research questions in this study are formulated as follows: (1) Do pedagogical competencies and personal competencies have a significant effect on teachers' professional competencies? (2) Does organizational culture have a significant effect on teachers' professional competencies? (3) Does organizational culture mediate the effects of

pedagogical competencies and personal competencies on teachers' professional competencies?

Referring to the research questions formulated above, this study has the following objectives: (1) To analyze and test the significance of the influence of pedagogical competence and personal competence on teachers' professional competence. (2) To analyze and test the significance of the influence of organizational culture on teachers' professional competence. (3) To analyze and test the mediating role of organizational culture in explaining the influence of pedagogical competence and personal competence on teachers' professional competence.

This study is expected to contribute at two main levels. First, theoretically, this study enriches the literature on educational management, particularly by developing a conceptual model that integrates pedagogical competence, personality competence, organizational culture, and teachers' professional competence within a single mediation framework. The findings of this study are also expected to serve as an academic reference for the development of human capital research within the context of educational institutions in Indonesia. Second, from a practical perspective, the results of this study provide benefits to three groups. For school principals and policymakers, these findings can serve as a basis for designing more integrated teacher competency development programs grounded in strengthening the school's organizational culture. For teachers, this research provides an understanding that pedagogical and personal competencies are the foundation of professionalism that must be developed continuously. For educational institutions, this research offers the perspective that building a conducive organizational culture is a strategic investment in promoting the growth of professional competencies among all educators systematically and sustainably.

2. Method

This study employs a quantitative approach with a causal research design, which is a research design aimed at examining the cause-and-effect relationships between variables in a structured and systematic manner. The choice of a quantitative approach is based on the study's objectives, which require statistical hypothesis testing as well as the numerical and measurable assessment of research variables. The variables in this study consist of three main components: the independent variables (independent variable), which include pedagogical competence (X_1) and personal competence (X_2); the dependent variable (dependent variable), which is teachers' professional competence (Y); and the mediating variable (mediating variable), which is organizational culture (Z). The framework of relationships among these variables was analyzed using path analysis, which allows for the simultaneous testing of both direct and indirect effects between variables within a single structural model.

The population in this study consists of all teachers working at the educational institution serving as the study site. Sampling was conducted using the total sampling technique, given that the total accessible population numbered 30 individuals; thus, all members of the population were included as research respondents. This approach was chosen to maximize data representativeness and minimize sampling error. [6] emphasizes that in quantitative research, the selection of a sampling technique must take into account the characteristics of the population, the research objectives, and existing resource constraints, so that the data obtained truly reflect the conditions of the population accurately and are scientifically valid.

The data collection instrument used was a closed-ended questionnaire with a five-point Likert scale, developed based on the operational indicators of each research variable. Before the questionnaire was used for actual data collection, the instrument's quality was tested through two stages: validity testing and reliability testing. Validity testing was performed using the Pearson Product-Moment correlation technique, in which a statement item was deemed valid if the calculated r value was greater than the table r value at a 5% significance level. Meanwhile, reliability testing used Cronbach's Alpha, with the instrument deemed reliable if the coefficient value was ≥ 0.60 . [7] states that "validity and reliability have been proven to be two crucial

aspects that determine the quality of an instrument in measuring research variables” (p. 5608); thus, these instrument testing stages are an absolute prerequisite before the data can be analyzed further. The data analysis techniques in this study encompass several stages. First, classical assumption tests were conducted, including tests for normality, multicollinearity, and heteroscedasticity, to ensure that the prerequisites for regression analysis were met. Second, path analysis was performed to examine the direct and indirect effects among the research variables. Third, mediation analysis was performed using the Sobel test to determine the significance of organizational culture’s role as a mediating variable. The entire data processing and analysis process was conducted using the latest version of the Statistical Package for the Social Sciences (SPSS) software, ensuring that the results are methodologically and statistically sound.

3. Results and Discussion

Hypothesis testing was conducted using two path analysis sub-models. Model I tested the effects of pedagogical competence (X_1) and personal competence (X_2) on organizational culture (Z). Model II tested the effects of X_1 , X_2 , and Z on teachers’ professional competence (Y). Furthermore, the significance of the mediating effect of organizational culture was tested using the Sobel test.

Table 3. Results of Path Analysis and the Sobel Test

Path		Koeff. Beta (β)	t Cal	Sig.	Description
Model I					
Sub-Struktur 1	X ₁ → Z	0,412	3,847	0,001	Signifikan
	X ₂ → Z	0,374	3,512	0,002	Signifikan
	R ² Model I			0,631	—
Model II					

Sub-Struktur 2	$X_1 \rightarrow Y$	0,318	2,934	0,007	Signifikan
	$X_2 \rightarrow Y$	0,287	2,641	0,014	Signifikan
	$Z \rightarrow Y$	0,389	3,712	0,001	Signifikan
	R^2 Model II			0,724	—
Uji Sobel (Mediasi)		z Sobel	Sig.		
Mediation Effect	$X_1 \rightarrow Z \rightarrow Y$	2,847	0,004		Mediasi Parsial
	$X_2 \rightarrow Z \rightarrow Y$	2,613	0,009		Mediasi Parsial

Note: Significant at $\alpha = 0.05$. Path coefficients are presented as standardized betas (β). Based on Table 3, the results of the path analysis reveal the following findings:

Direct Effect. Pedagogical competence (X_1) has a positive and significant effect on teachers’ professional competence (Y), with $\beta = 0.318$ and sig. = $0.007 < 0.05$. Personal competence (X_2) also has a positive and significant effect on teachers’ professional competence (Y) with $\beta = 0.287$ and sig. = $0.014 < 0.05$. Organizational culture (Z) has a positive and significant effect on teachers’ professional competence (Y) with $\beta = 0.389$ and sig. = $0.001 < 0.05$. The R^2 value for Model II is 0.724, indicating that 72.4% of the variation in teachers’ professional competence can be explained by variables X_1 , X_2 , and Z simultaneously—mediation Effect (Sobel Test). The results of the Sobel test show that organizational culture significantly mediates the effect of pedagogical competence on teachers’ professional competence ($z = 2.847$; sig. = $0.004 < 0.05$). Similarly, organizational culture significantly mediates the effect of personal competence on teachers’ professional competence ($z = 2.613$; sig. = $0.009 < 0.05$). Given that the direct effects of X_1 and X_2 on Y remained significant after the mediating variable was included in the model, the type of mediation that occurred is partial

mediation (partial mediation), which means that organizational culture strengthens but does not completely replace the pathways through which pedagogical and personality competencies influence teachers' professional competence.

DISCUSSION

1. The Influence of Pedagogical Competence and Personal Competence on Teachers' Professional Competence

The results of the path analysis demonstrate that pedagogical competence has a positive and significant effect on teachers' professional competence, with a beta coefficient of 0.318 and a significance level of 0.007. At the same time, personal competence also contributes positively and significantly, with a beta coefficient of 0.287 and a significance level of 0.014. These findings imply that the higher a teacher's mastery of the pedagogical dimension and the greater their personal maturity, the stronger the foundation of professionalism that is established within them. Mastery of pedagogical knowledge—which encompasses the ability to design, implement, and evaluate learning effectively—is a fundamental prerequisite that is inseparable from an educator's professional capacity. In line with this, [8] emphasizes that teachers' pedagogical competencies contribute 66.2% to the quality of education in the "strong influence" category, confirming the strategic role of this dimension in shaping teachers' professionalism as a whole. From the perspective of personal competencies, the internalization of values such as integrity, emotional maturity, and moral exemplary behavior in teachers has proven to be a catalyst for the continuous strengthening of professional identity. [9] states that personal competencies, together with other competency dimensions, consistently contribute to improving teachers' professional performance, although the institutional context of each school moderates the degree of their influence. Thus, these two dimensions of competence are complementary and cannot be developed in isolation; rather, they must be integrated into a holistic and continuous teacher development program [10].

2. The Influence of Organizational Culture on Teachers' Professional Competence

Organizational culture was found to have a positive and significant influence on teachers' professional competence, with the highest beta coefficient among all predictor variables—0.389,

with a significance level of 0.001. The magnitude of this coefficient indicates that organizational culture is the variable with the strongest predictive power in this research model. An institutional environment built on the values of collaboration, openness to innovation, and a shared commitment to educational quality has been shown to accelerate the growth of professional competence among educators. [11] found that organizational culture significantly influences teacher competence by 61.4% and directly influences teacher performance by 72.9%, reinforcing the argument that the organizational climate is not merely a passive backdrop but an active agent in shaping teachers' professional capacity. Furthermore, [12] also confirmed that strengthening organizational culture is one of the key strategies for improving teacher performance and competencies in private vocational schools. This phenomenon can be explained through the mechanisms of social learning and normative pressure at work within the organizational ecosystem, where prevailing norms and collective expectations encourage each individual to continuously raise their standards of professionalism to meet the demands of their work environment [13].

3. The Role of Organizational Culture Mediation in the Influence of Pedagogical Competence and Personality on Teachers' Professional Competence

The results of the Sobel test revealed that organizational culture significantly mediates the effect of pedagogical competence on teachers' professional competence, with a z-value of 2.847 and a significance level of 0.004, and mediates the effect of personality competence on teachers' professional competence, with a z-value of 2.613 and a significance level of 0.009. The type of mediation identified is partial mediation, given that the direct effects of pedagogical and personality competencies on professional competence remain significant even after the mediating variables have been included in the model. This pattern of partial mediation indicates that organizational culture acts as an amplifier that strengthens and optimizes the transformation of teachers' basic capacities into more mature professional competencies, without

eliminating the existing direct pathways of influence. [14] found that within educational systems, organizational variables such as organizational commitment and organizational culture serve as bridges linking individual competencies to actual on-the-job performance. This finding is further reinforced by [15], who states that organizational culture plays a crucial role in shaping teachers' self-competency as a mediator of their professional performance. Overall, the structural model of this study explains 72.4% of the variance in teachers' professional competencies through the simultaneous contributions of pedagogical competencies, personality, and organizational culture, indicating that the improvement of teachers' professional competencies is the result of a dynamic interaction between individual capacities and the organizational ecosystem in which teachers develop.

4. Conclusion

This study successfully demonstrated that pedagogical competence and personal competence have a positive and significant influence on teachers' professional competence, with beta coefficients of 0.318 and 0.287, respectively. This means that the higher a teacher's level of mastery of the pedagogical dimension and personal maturity, the more solid the foundation of professionalism that is established within them. Organizational culture was found to be the variable with the most dominant predictive power regarding teachers' professional competence, as indicated by the highest beta coefficient of 0.389, which confirms that the institutional ecosystem is not merely a static backdrop but an active agent in accelerating the growth of educators' professionalism. Furthermore, the Sobel test confirmed that organizational culture significantly mediates the influence of pedagogical competence ($z = 2.847$) and personal competence ($z = 2.613$) on teachers' professional competence through a partial mediation pattern. The overall model explains 72.4% of the variation in teachers'

professional competence, indicating that the enhancement of professionalism is the product of a dynamic interaction between individual capacity and the organizational environment. Based on the research findings, school principals and policymakers are advised to design teacher professional development programs that integrate the strengthening of pedagogical and personal dimensions, as well as the development of organizational culture, synergistically and sustainably. Given that organizational culture has been shown to be a dominant variable, educational institutions need to prioritize the internalization of values such as collaboration, openness to innovation, and a shared commitment to quality as a long-term human capital investment strategy. Future research is encouraged to expand the sample scope across regions and explore additional mediating or moderating variables, such as organizational commitment and transformational leadership, to produce a more comprehensive model.

5. References

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