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# School-Based Management and Pedagogical Competence as Predictors of Teacher Performance

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**Abstract:** This study examines the influence of school-based management and teachers' pedagogical competence on teacher performance in a rural public elementary school context, where systemic support and professional development are often constrained. A quantitative correlational design was employed at SD Negeri 2 Tugumulyo, Belitang Madang Raya District, OKU Timur Regency, South Sumatra. The population comprised 86 teachers from two public elementary schools, with a sample of 44 teachers from SD Negeri 2 Tugumulyo selected through purposive sampling. Data were collected using Likert-scale questionnaires, supported by observation and documentation. Instruments measured school-based management, pedagogical competence, and teacher performance. Analyses included validity and reliability tests, assumption tests, simple regression, and multiple regression using SPSS. School-based management positively and significantly influenced teacher performance ($R = 0.806$; $R^2 = 0.649$; $t = 15.142$; $p < 0.001$), as did pedagogical competence ($R = 0.875$; $R^2 = 0.766$; $t = 20.159$; $p < 0.001$). Simultaneously, both variables explained 81.2% of the variance in teacher performance ($R = 0.901$; $R^2 = 0.812$; $F = 265.744$; $p < 0.001$). This study uniquely integrates school-based management and pedagogical competence as joint predictors of teacher performance within a rural Indonesian elementary setting, an underexplored combination in existing literature. Findings emphasize that school autonomy and participatory management must be accompanied by sustained pedagogical capacity-building to optimize teacher effectiveness. This research contributes empirical evidence that teacher performance is substantially strengthened when institutional autonomy and instructional competence are developed synergistically, offering actionable insights for school leaders and policymakers in similar rural contexts.

**Keywords:** Educational Management, Pedagogical Competence, Rural Elementary School, School-Based Management, Teacher Performance

## A. Introduction

Teacher performance remains a central issue in educational management because the quality of schooling is ultimately experienced by students through teachers' daily work (Picardal et al., 2024). In elementary schools, teachers are responsible not only

for delivering subject content, but also for planning instruction, managing classrooms, assessing learning, communicating with school leaders and parents, and supporting children's character development. When teacher performance is weak, instructional quality becomes inconsistent, classroom discipline may decline, and school improvement programs are less likely to reach students. This issue becomes more serious in rural elementary schools, where teachers often work with limited facilities, limited professional development access, and heavier administrative responsibilities. Therefore, teacher performance should be examined not only as an individual professional matter, but also as an outcome shaped by the management system and the competence structure within the school (Usman & Morris, 2025).

School-based management is one management approach that is expected to improve the quality of teacher work. In the school-based management perspective, schools are given greater autonomy to plan programs, organize resources, implement activities, coordinate school members, and evaluate results based on local needs. This autonomy is important because school leaders and teachers understand their own school context more directly than centralized authorities. School-based management also emphasizes participation, transparency, accountability, and community involvement. When these elements function properly, teachers can be more involved in school planning, professional development, curriculum implementation, and decision-making. Such involvement can increase responsibility and strengthen work commitment. Previous studies have shown that school management and school-based management are associated with teacher performance because they shape work direction, resource use, communication, and professional support in schools (Senyametor et al., 2024).

However, school-based management alone is not sufficient to guarantee strong teacher performance. Teachers also need pedagogical competence, which refers to their ability to understand learners, design learning, implement teaching strategies, use learning media, manage classroom interaction, and evaluate learning outcomes. Pedagogical competence is directly related to teachers' daily classroom practice. A teacher may work in a well-managed school, but if he or she has limited ability to design lessons, diagnose student needs, use suitable instructional methods, or conduct formative assessment, teacher performance will still be limited. Conversely, pedagogically competent teachers are more likely to prepare learning tools, use varied teaching strategies, provide feedback, and adjust instruction according to students' learning conditions. This makes pedagogical competence an essential internal factor for teacher performance (Hektoen, 2025; Niemi & Kangas, 2026).

The relationship between school-based management and pedagogical competence is also important because both variables can support each other. Effective school-based management can provide opportunities for teacher development through in-house training, peer discussion, classroom supervision, and collaborative evaluation. At the same time, teachers with stronger pedagogical competence are more able to

participate meaningfully in school planning and curriculum development (Chibambo & Divala, 2023; Nga et al., 2025). In this sense, teacher performance is influenced by both organizational and professional dimensions. The organizational dimension is represented by school-based management, while the professional dimension is represented by pedagogical competence. Studies on teacher performance have frequently emphasized leadership, supervision, school culture, organizational climate, professional competence, and work motivation, but fewer studies focus specifically on the combined role of school-based management and teachers' pedagogical competence in a rural public elementary school context.

In the context of public elementary schools, teacher performance needs to be understood as a multidimensional construct. It includes the quality of lesson preparation, accuracy in completing teaching duties, responsibility in implementing school programs, ability to solve classroom problems, and cooperation with school members. These dimensions are not achieved automatically. Teachers need an environment that gives direction and a professional capacity that enables them to act. A management system that is clear but not participatory may create compliance, yet it may not encourage innovation. Pedagogical competence without school-level support may also remain limited because teachers still need time, facilities, feedback, and collective commitment (Setiawan et al., 2025). For this reason, teacher performance requires both structure and capability. The present study treats these two elements as complementary rather than competing explanations.

School-based management is also relevant because it gives schools space to respond to local problems (Guha, 2021). Rural schools may face specific challenges such as limited infrastructure, distance from professional training centers, different community expectations, and dependence on local resources. Centralized programs may not always capture these specific conditions. Through school-based management, principals and teachers can identify school priorities, decide program strategies, use available resources, and involve stakeholders in school improvement. The value of school-based management therefore lies not only in decentralization, but also in the possibility of making school programs more responsive to local needs (Hajaroh & Purwastuti, 2020). This is why school-based management is a strategic variable in research on teacher performance in rural elementary schools.

Pedagogical competence is equally important because it determines whether management decisions become meaningful in the classroom. A school may plan a curriculum innovation, but the success of the program depends on teachers' ability to translate the plan into lesson activities. Teachers need to understand students' readiness, prepare appropriate materials, select methods, use assessment, and provide feedback. In elementary education, this competence is very important because students are still developing foundational literacy, numeracy, discipline, and learning habits. Teachers who lack pedagogical competence may rely heavily on routine instruction and may struggle to respond to students' difficulties. Teachers who

possess stronger pedagogical competence can create more active, contextual, and student-centered learning experiences (Wang & Manda, 2025).

The thesis that forms the basis of this article examined teacher performance at SD Negeri 2 Tugumulyo, Belitang Madang Raya District, OKU Timur Regency, South Sumatra. The school represents a rural public elementary school context in which the implementation of school-based management and teachers' pedagogical competence are both relevant to school improvement. The preliminary background in the thesis identified several problems, including the suboptimal implementation of school-based management, the need to improve overall teacher performance, insufficient pedagogical competence among some teachers, limited access and resources in the rural area, and inadequate educational facilities. These problems indicate that teacher performance is not only related to individual teacher effort, but also to the way the school is managed and the way teachers are supported to develop their pedagogical ability (Eryilmaz & Strietholt, 2025).

Previous research provides useful evidence, but also leaves a gap for the present study. Several studies have confirmed that school management, principal leadership, school facilities, and organizational climate influence teacher. Other studies found that pedagogical competence, professional competence, or teacher competence contributes to teacher performance. These findings are valuable, but many studies examine different school levels, broader school populations, or variables other than school-based management. The present study contributes by focusing on the specific combination of school-based management and pedagogical competence as predictors of teacher performance in a rural elementary school (Ghufron et al., 2024).

The novelty of this article lies in its contextual focus and its combined model. The article does not treat teacher performance as the result of one isolated variable. Instead, it examines how school-based management as an institutional management factor and pedagogical competence as a professional factor influence teacher performance both partially and simultaneously (Nga et al., 2025). This focus is relevant for rural elementary education because school improvement in such settings often requires practical strategies that are manageable at the school level. The findings may help principals, teachers, and education offices understand whether strengthening school management and pedagogical competence should be developed separately or as an integrated improvement agenda.

Based on the background above, this study aims to analyze three research questions: (1) Does school-based management influence teacher performance at SD Negeri 2 Tugumulyo? (2) Does teachers' pedagogical competence influence teacher performance at SD Negeri 2 Tugumulyo? and (3) Do school-based management and teachers' pedagogical competence simultaneously influence teacher performance at SD Negeri 2 Tugumulyo? The conceptual framework assumes that school-based management and teachers' pedagogical competence function as independent

variables that directly influence teacher performance. It also assumes that both variables have a simultaneous influence when analyzed together. The conceptual framework is presented in Figure 1.

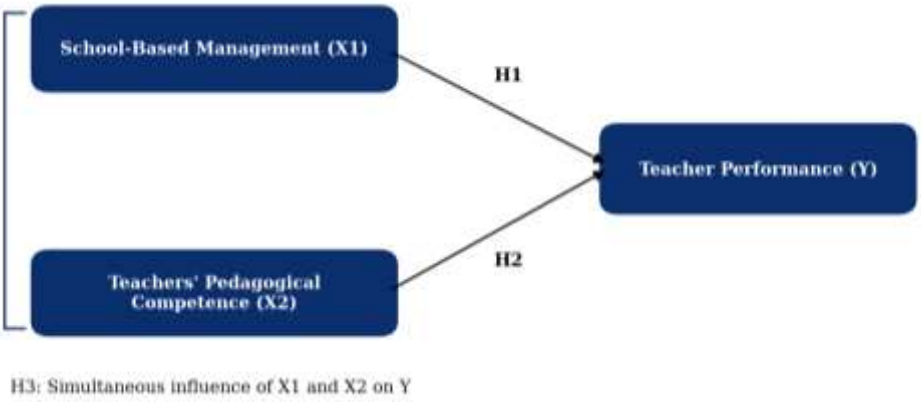


**Figure 1. Conceptual Framework of the Study**

**B. Methods**

This study used a quantitative method with a correlational design. This design was selected because the study aimed to examine the influence of two independent variables, namely school-based management (X1) and teachers' pedagogical competence (X2), on the dependent variable, namely teacher performance (Y). The study did not manipulate the research variables, but measured the existing conditions experienced by teachers and analyzed the statistical relationship among the variables. A correlational design is suitable for this study because the research questions focus on the strength, direction, and significance of relationships among measurable variables.

The research was conducted at SD Negeri 2 Tugumulyo, Belitang Madang Raya District, OKU Timur Regency, South Sumatra, Indonesia. The research was carried out during the 2025/2026 academic year. The population frame described in the thesis consisted of 86 teachers from SD Negeri 1 Tugumulyo and SD Negeri 2 Tugumulyo. The research sample involved 44 teachers who taught at SD Negeri 2 Tugumulyo. The sampling technique used was purposive sampling, because the respondents were selected based on their relevance to the research focus and their direct involvement in school-based management implementation, pedagogical practice, and teacher performance at the study site (Manirakiza et al., 2025).

Data were collected using questionnaires, observation, and documentation. The questionnaire was the main instrument because the study required quantitative data from teachers regarding school-based management, pedagogical competence, and teacher performance. The questionnaire used a five-point Likert scale ranging from strongly agree to strongly disagree. Observation and documentation were used to support the questionnaire data by providing contextual information about the school,

teachers, and research setting. This combination of techniques helped the researcher obtain both measurable responses and supporting evidence from the school context (Hadar & Vasel, 2026).
Three instruments were used in this study. The school-based management instrument measured planning, organizing, implementation, coordination, and evaluation. These indicators reflected how the school managed programs, involved school members, implemented decisions, coordinated activities, and evaluated outcomes. The teachers' pedagogical competence instrument measured teachers' ability to understand students' characteristics, design learning strategies, and conduct formative evaluation. The teacher performance instrument measured work quality, timeliness, responsibility, ability to complete tasks, and ability to build cooperation. Each instrument consisted of 30 statement items, so the study used 90 questionnaire items in total.

The operational definitions used in the article were aligned with the thesis variables (Andrade, 2021). School-based management refers to school-level management practices that include planning, organizing, implementing, coordinating, and evaluating school programs. Teachers' pedagogical competence refers to teachers' ability to understand learners, design learning strategies, and evaluate learning. Teacher performance refers to the quality of teachers' work in carrying out professional tasks, including work quality, timeliness, responsibility, task completion, and cooperation. These definitions were used to keep the questionnaire indicators consistent with the research questions and the statistical model (Saiful et al., 2021).

The hypotheses were formulated as follows. H1: school-based management has a positive and significant influence on teacher performance. H2: teachers' pedagogical competence has a positive and significant influence on teacher performance. H3: school-based management and teachers' pedagogical competence simultaneously have a positive and significant influence on teacher performance. These hypotheses were tested at a significance level of 0.05. The results were interpreted by considering the direction of the regression coefficients, the significance values, and the coefficients of determination.

Before hypothesis testing, the instruments were tested for validity and reliability. The validity test indicated that the questionnaire items met the validity criteria because the calculated item correlations were higher than the r-table value (Shimada & Katahira, 2023). The reliability test showed that the instruments had strong internal consistency. The Cronbach's alpha value for teacher performance was 0.968, the value for school-based management was 0.953, and the value for teachers' pedagogical competence was 0.929. These values indicate that the instruments were reliable and appropriate for measuring the intended variables.

The data were analyzed using SPSS. The analysis began with descriptive statistics to show the minimum score, maximum score, mean, median, mode, and standard

deviation for each variable. Assumption tests were then conducted before regression analysis. The normality test showed that the variables met the normality assumption, with significance values above 0.05. The homogeneity test also showed that the data met the required assumptions. After the assumption tests were completed, the hypotheses were tested using simple linear regression and multiple linear regression. Simple regression was used to test the partial influence of school-based management on teacher performance and the partial influence of teachers' pedagogical competence on teacher performance. Multiple regression was used to test the simultaneous influence of school-based management and teachers' pedagogical competence on teacher performance. The analysis focused on correlation coefficients, coefficients of determination, regression equations, t-tests, and F-tests (Janse et al., 2021).

**Table 1. Research Variables and Indicators**

| Variable | Role in the Model | Main Indicators |
|---|---|---|
| School-Based Management (X1) | Independent variable | Planning, organizing, implementation, coordination, and evaluation |
| Teachers' Pedagogical Competence (X2) | Independent variable | Understanding students' characteristics, designing learning strategies, and conducting formative evaluation |
| Teacher Performance (Y) | Dependent variable | Work quality, timeliness, responsibility, task completion, and cooperation |

## C. Results and Discussion

The results are presented in five parts: descriptive statistics, instrument quality, assumption testing, partial effects of each independent variable, and the simultaneous effect of school-based management and teachers' pedagogical competence on teacher performance (Güney, 2025). The descriptive results show that the mean score for teacher performance was 137.1, with a minimum score of 126 and a maximum score of 145. The mean score for school-based management was 128.6, with a minimum score of 118 and a maximum score of 141. The mean score for teachers' pedagogical competence was 123.8, with a minimum score of 113 and a maximum score of 138. These results indicate that the three variables were measurable and varied across respondents.

In addition to the hypothesis testing results, the descriptive statistics indicate that the respondents generally reported relatively high scores for teacher performance, school-based management, and pedagogical competence. However, the existence of score variation shows that improvement is still possible. The variation among teachers suggests that some teachers may experience stronger school management support or possess stronger pedagogical skills than others. This variation is useful for regression analysis because it allows the study to examine whether higher scores on the independent variables are associated with higher teacher performance (Kanya et al., 2021).

The validity and reliability results supported the use of the instruments for further analysis. All questionnaire items were reported as valid because their item correlation values exceeded the r-table value. The reliability values were also high, with Cronbach's alpha values above 0.90 for all three instruments. This means that the instruments were internally consistent and could be used to measure school-based management, pedagogical competence, and teacher performance. Strong reliability is important because weak measurement tools can produce misleading regression results, especially in studies that rely on self-report questionnaire data (Gothenburg et al., 2021).

The assumption tests showed that the data were appropriate for regression analysis. The normality test results showed significance values of 0.200 for teacher performance, 0.128 for school-based management, and 0.199 for teachers' pedagogical competence. These values were higher than 0.05, indicating that the data were normally distributed. The homogeneity test also indicated that the data met the assumption requirements. Based on these results, the study proceeded to correlation and regression analysis. The major statistical findings are summarized in Table 2.

**Table 2. Summary of Statistical Findings**

| Model | R | $R^2$ | Test Statistic | Regression Equation | Interpretation |
|---|---|---|---|---|---|
| School-Based Management (X1) -> Teacher Performance (Y) | 0.806 | 0.649 | t = 15.142, p < 0.001 | Y = 40.258 + 1.205X1 | Positive and significant |
| Teachers' Pedagogical Competence (X2) -> Teacher Performance (Y) | 0.875 | 0.766 | t = 20.159, p < 0.001 | Y = 43.114 + 1.282X2 | Positive and significant |
| School-Based Management (X1) and Teachers' Pedagogical Competence (X2) -> Teacher Perf | 0.901 | 0.812 | F = 265.744, p < 0.001 | Y = 27.460 + 0.913X1 + 0.495X2 | Simultaneously significant |

## Discussion

The first hypothesis tested the influence of school-based management on teacher performance. The results showed a correlation coefficient of 0.806 and a coefficient of determination of 0.649. This means that school-based management explained 64.9% of the variation in teacher performance in the simple regression model. The regression equation was Y = 40.258 + 1.205X1. The t-test showed a t value of 15.142 with a significance value below 0.001. These results indicate that school-based management had a positive and significant influence on teacher performance. The positive regression coefficient means that better implementation of school-based management is associated with higher teacher performance. This finding is consistent with previous studies showing that effective school management, leadership practices, school-based human resource management, and institutional support contribute to stronger teacher performance and school improvement (Ghufron et al., 2024; Senyametor et al., 2024; Usman & Morris, 2025).

The second hypothesis tested the influence of teachers' pedagogical competence on teacher performance. The results showed a correlation coefficient of 0.875 and a coefficient of determination of 0.766. This means that teachers' pedagogical competence explained 76.6% of the variation in teacher performance in the simple regression model. The regression equation was Y = 43.114 + 1.282X2. The t-test showed a t value of 20.159 with a significance value below 0.001. These results indicate that teachers' pedagogical competence had a positive and significant influence on teacher performance. The effect of pedagogical competence was stronger than the effect of school-based management in the simple regression model. This result supports previous studies emphasizing that pedagogical competence, instructional capability, curriculum understanding, and teachers' learning experience are closely related to teacher effectiveness and performance (Fabelico & Afalla, 2023; Nga et al., 2025; Wang & Manda, 2025).

The third hypothesis tested the simultaneous influence of school-based management and teachers' pedagogical competence on teacher performance. The results showed a multiple correlation coefficient of 0.901 and a coefficient of determination of 0.812. This means that the two independent variables together explained 81.2% of the variation in teacher performance. The F-test showed an F value of 265.744 with a significance value below 0.001. Therefore, the simultaneous model was significant. The multiple regression equation was Y = 27.460 + 0.913X1 + 0.495X2. In this model, school-based management and teachers' pedagogical competence both had positive regression coefficients, indicating that both variables contributed positively to teacher performance when analyzed together. This finding confirms that teacher performance is shaped by both organizational support and professional competence, as also indicated in previous studies on leadership, school management, professional learning communities, and teacher competence (Aboagye et al., 2026; Hektoen, 2025).

The simultaneous result shows that teacher performance should be understood as the outcome of both organizational support and professional capability. School-based management provides external support through planning, coordination, participation, evaluation, and school-level decision-making. Meanwhile, pedagogical competence provides the professional capacity teachers need to design lessons, manage learning, assess students, and respond to classroom needs. If school management is strong but teachers have limited pedagogical competence, school programs may not be translated effectively into classroom practice. Conversely, if teachers are pedagogically competent but school management is weak, teachers may not receive sufficient direction, coordination, or professional development support. Therefore, teacher performance improvement should integrate management strengthening and pedagogical competence development rather than treating them as separate improvement agendas. This interpretation is consistent with previous studies showing that leadership, school management, organizational support, and teacher competence are closely related to teacher (Ghufron et al., 2024; Mohamed et al., 2023; Usman & Morris, 2025).

The relatively stronger simple effect of pedagogical competence compared with school-based management deserves attention. Teacher performance in this study was measured through duties closely related to classroom work and professional responsibility. Because pedagogical competence is directly connected to lesson planning, teaching implementation, student understanding, and assessment, it is reasonable that the simple regression effect is large. This result does not reduce the importance of school-based management. Rather, it shows that management support becomes more effective when it strengthens the technical and professional work of teachers. School-based management should therefore be directed toward enabling teachers to improve pedagogical practice, not only toward completing administrative programs (Aboagye et al., 2026).

The simultaneous regression equation also provides useful managerial interpretation. The coefficient for school-based management remained positive when pedagogical competence was included in the model. This indicates that school management still has an independent contribution to teacher performance. The coefficient for pedagogical competence also remained positive, indicating that teachers' professional instructional ability contributes beyond management conditions. In practical terms, the result suggests that performance improvement programs should avoid one-sided solutions. Training teachers without improving school management may produce limited change, while improving school programs without strengthening teachers' classroom ability may also fail to affect instructional practice. Therefore, a balanced strategy is needed through participatory school management, continuous teacher development, supervision, and school-based professional support (Rukajat et al., 2024).

The rural context of SD Negeri 2 Tugumulyo makes this interpretation more important. In many rural schools, improvement is often limited by facilities, training access, and distance from institutional support. Under such conditions, principals and teachers need to make the best use of internal resources. School-based management can help identify realistic priorities, such as strengthening teacher meetings, improving classroom supervision, developing school-based training, or organizing peer learning. Pedagogical competence can help teachers use available resources creatively (Rukajat et al., 2024). For example, teachers can use local materials, community experiences, and simple media to make learning more meaningful. These school-level efforts may be more realistic than waiting for large-scale external support. The findings also have practical implications for principals. Principals need to strengthen school-based management by involving teachers in planning, program implementation, coordination, and evaluation. Teacher involvement should not be formal only. It needs to be meaningful, so that teachers understand school goals and feel responsible for achieving them. Principals also need to use school evaluation results as a basis for professional development (Meyer et al., 2025). If a school evaluation shows that teachers need support in lesson planning, assessment, or classroom management, the school can organize in-house training, peer mentoring, or

focused supervision. This approach connects school-based management directly with the improvement of pedagogical competence.

From the teacher development perspective, the results suggest that pedagogical competence should become a continuous improvement priority. Teachers need support in understanding student characteristics, designing learning strategies, selecting learning media, using formative assessment, and reflecting on teaching practice. In rural elementary schools, professional development does not always need to depend on large external programs. Schools can develop teacher working groups, collaborative lesson planning, classroom observation, peer feedback, and focused supervision as practical school-level strategies. These activities can be aligned with school-based management because they connect teacher development with school planning, implementation, and evaluation. Previous studies also emphasize that teacher competence development, professional learning communities, supervision, and school-based support are important strategies for improving teacher performance and instructional quality (Aboagye et al., 2026; Hektoen, 2025; Meyer et al., 2025; Rukajat et al., 2024).

The study also needs to be interpreted carefully. The coefficients of determination are high, especially the simultaneous model that explains 81.2% of teacher performance. In educational research, high R2 values can indicate a strong relationship, but they can also be influenced by conceptual overlap among questionnaire items, similar response patterns, or the use of self-report instruments. School-based management, pedagogical competence, and teacher performance are conceptually related because all three are connected to teachers' professional work. Therefore, the findings support the hypotheses, but they should be interpreted within the local context of SD Negeri 2 Tugumulyo. Future studies should involve more schools, larger samples, and additional data sources such as classroom observation scores, principal assessment, and student learning outcomes (Sharma et al., 2026).

The findings also suggest that education offices should see school-based management as more than administrative decentralization. If school autonomy is not supported by capacity building, schools may simply receive more responsibility without enough ability to act. Therefore, district education offices should assist principals in planning, financial transparency, evaluation, and data-based decision-making. At the same time, teacher development programs should focus on practical pedagogical needs, such as differentiated instruction, formative assessment, classroom management, and learning media development. Such support can help school-based management become a real improvement mechanism rather than a formal policy label (Aturupane et al., 2022).

Another implication is the need to connect teacher performance evaluation with professional learning. Performance appraisal should not be treated only as a control instrument. It should become a source of feedback for teacher development. If a

teacher receives a low score in planning, the school can provide mentoring in lesson design. If a teacher struggles with assessment, the school can develop collaborative assessment workshops. If cooperation among teachers is weak, school management can create professional learning communities. In this way, school-based management and pedagogical competence development become an integrated cycle of planning, acting, evaluating, and improving (Hektoen, 2025).

The use of questionnaires as the main instrument also has implications for how the results should be read. Questionnaire responses show teachers' perceptions of management, competence, and performance. Perception is important because it reflects how teachers experience their school environment and professional duties. However, perception data should ideally be complemented by classroom observations, document analysis, and student outcome data. Future research could use a mixed-method design to examine whether teachers who report strong pedagogical competence also show strong classroom practice. This would make the evidence more comprehensive and reduce the risk of relying only on self-reported data.

Different findings in previous studies also need to be considered. Some studies reported more moderate effects of leadership, school support, professional competence, or teacher-related factors on teacher performance than the effects found in the present study (Kanya et al., 2021; Picardal et al., 2024). This difference may be caused by differences in school level, sample size, questionnaire design, local school culture, and the number of variables included in the model. In this study, the rural elementary school context may have made school-based management and pedagogical competence appear particularly influential because teachers' daily work depends heavily on school-level coordination, direct principal support, peer cooperation, and personal instructional capacity. This contextual explanation is important so that the results are not generalized too broadly beyond SD Negeri 2 Tugumulyo and similar rural public elementary school settings.

The findings also contribute to educational management by showing that school improvement should be designed as an integrated system. Education offices and principals should not only assess teacher performance at the end of the year, but also build the conditions that enable teachers to perform well. School-based management can help schools identify priorities, allocate resources, and evaluate programs. Pedagogical competence development can help teachers translate school goals into classroom practice. When both dimensions are strengthened together, teacher performance improvement becomes more realistic and sustainable. This is particularly relevant in rural schools where access to training and resources may be limited, and where school-level initiatives can become the most practical route for improvement (Calvert et al., 2025).

Overall, the results indicate that school-based management and pedagogical competence are important predictors of teacher performance. The partial results show that both variables have positive and significant effects. The simultaneous result shows that the two variables together explain a large proportion of teacher performance. These findings answer the research questions and support the conclusion that teacher performance improvement requires both managerial strengthening and pedagogical development. The practical meaning is clear: schools need to manage programs more participatively and transparently, while also helping teachers improve their instructional skills through continuous support.

This study has several limitations. First, the research was conducted in one main school context, so the findings should not be generalized statistically to all public elementary schools. Second, the main data were collected through questionnaires, which may be influenced by respondents' perceptions and response patterns. Third, the study focused only on school-based management and pedagogical competence, while teacher performance may also be influenced by motivation, leadership style, salary, workload, school culture, technological readiness, and community support. Future research should involve more schools, larger samples, and mixed-method data. Interviews with principals and teachers could explain how school-based management is actually practiced and how pedagogical competence affects classroom performance. Future studies may also test mediation or moderation models to examine whether teacher motivation, organizational commitment, or school climate strengthens the influence of management and competence on teacher performance.

## D. Conclusions

Based on the comprehensive regression analysis conducted at SD Negeri 2 Tugumulyo, this study conclusively establishes that both school-based management and teachers' pedagogical competence exert positive and significant influences on teacher performance, both individually and collectively. Individually, school-based management contributes 64.9% to teacher performance, confirming that effective planning, organizing, implementation, coordination, and evaluation—when executed participatively and transparently create clearer work direction, enhance professional responsibility, and enable teachers to align their efforts with school priorities. More dominantly, pedagogical competence accounts for 76.6% of the variance, underscoring that teacher who deeply understand student characteristics, design appropriate learning strategies, conduct formative assessments, and adapt instruction to classroom needs demonstrate superior performance in lesson preparation, classroom delivery, task completion, and collaborative engagement. Crucially, their simultaneous influence explains 81.2% of teacher performance, proving that optimal outcomes emerge when managerial support and pedagogical capability are developed in tandem. School management furnishes the structural framework coordination, evaluation, and participatory decision-making while pedagogical competence empowers teachers to translate institutional goals into impactful

classroom practice. Practically, these findings mandate that principals actively strengthen school-based management by institutionalizing transparent program implementation, regular performance evaluations, and genuine teacher involvement in decision-making processes. Simultaneously, teachers require sustained professional development through pedagogical training, peer collaboration, structured supervision, and reflective practice communities. Education offices at the district level must play a catalytic role by providing management assistance, accessible teacher development programs, and robust monitoring systems tailored to rural elementary school contexts. Such integrated, multi-level support ensures that managerial structures and pedagogical skills reinforce each other, creating a sustainable ecosystem for continuous performance improvement and long-term educational quality enhancement. For future research, it is recommended to expand this investigation across multiple schools and districts to test the generalizability of these findings and identify contextual variations. Incorporating additional variables such as principal leadership style, school culture, teacher motivation, or infrastructure availability could account for the remaining variance and yield a more holistic model. Longitudinal designs would be valuable to track how sustained interventions in management and pedagogy influence performance trajectories over time. Furthermore, mixed-method approaches, combining quantitative surveys with qualitative interviews or classroom observations, could provide deeper insights into the lived experiences and specific challenges faced by rural teachers and principals, thereby informing more contextually responsive policies and practices for educational improvement across Indonesia's diverse rural landscapes.

## E. Acknowledgement

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