THE INFLUENCE OF SCHOOL ORGANIZATIONAL CLIMATE AND WORK MOTIVATION ON THE PROFESSIONAL COMPETENCE OF ELEMENTARY SCHOOL TEACHERS

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Abstract

This study examines school organizational climate and work motivation effects on elementary teachers' professional competence in Jambu Subdistrict, Semarang Regency's 18 rural schools. Previous studies found moderate correlations (Dharmawaty et al., 2022: r = 0.45; Sumantri & Whardani, 2017: R^2 = 0.28), but simultaneous examination in rural contexts remains limited. Using ex post facto design, 125 teachers were surveyed through proportional random sampling. Instruments measured professional competence (content mastery, student understanding, curriculum application), organizational climate (learning quality, inclusivity, learning culture), and work motivation (internal/external factors) with validated items like "I understand subject scientific structure" and "School promotes innovative strategies." Results showed significant positive effects: organizational climate (r = 0.634, R^2 = 0.402) and work motivation (r = 0.630, R^2 = 0.397) individually, with combined influence of 56.2%. These large effect sizes indicate substantial practical significance for real educational settings. Dimensional analysis revealed learning content knowledge (0.333) and learning culture (0.380) had lowest contributions, while internal-external motivation contributed equally (0.634). Findings align with Herzberg's Motivation-Hygiene Theory and Organizational Climate Theory, confirming that both intrinsic satisfaction and environmental factors shape professional performance. The study recommends prioritizing teacher subject mastery through continuous training and strengthening organizational learning culture via structured professional development.

Keywords: *School Organizational Climate, Work Motivation; Professional Competence; Teacher Development; Elementary Education*

A. Introduction

Teachers' professional competence is the main requirement in realizing quality education (Vasil'eva et al., 2020; Yang & Kaiser, 2022a). According to the Regulation of the Director General of Teacher Education and Education Personnel of the Ministry of Education, Culture, Research, and Technology Number 2626/B/HK.04.01 of 2023, there are four competencies that a teacher must have, namely pedagogic competence, professional competence, social competence, and personality competence. In theory, teachers' professional competencies include deep and broad mastery of subject matter, the ability to manage student-centered learning, and the ability to use the curriculum effectively to improve learning outcomes (Kunter et al., 2013; Yang & Kaiser, 2022b). Teachers with high professional competence can adjust teaching methods to student characteristics and manage learning effectively.

Theories about the school organizational climate and work motivation have a close relevance to the professional competence of teachers. School organizational climate refers to the perception of all school members towards the school's internal environment, which includes social, emotional, and physical aspects (Gestiardi et al., 2024; Lubis et al., 2024; Novita et al., 2022; Wahid et al., 2025). A favorable climate contributes to increasing teachers' motivation to develop themselves and carry out their duties optimally. A teacher's work motivation, which consists of internal and external factors, greatly determines the quality of teaching and the development of their professional competencies (Davulcu et al., 2021; Pinkas, 2022). In this context, high work motivation, stemming from both intrinsic and extrinsic factors, can strengthen teachers' commitment to developing their professional (Hasan et al., 2024; Kastawi et al., 2021).

However, in the field, the professional competence of teachers in many regions is still at the primary and intermediate levels. The results of observation and recapitulation data of the Teacher Performance Assessment Report (PKG) in Jambu District show that teachers' professional competence in 2023 and 2024 is still at level 2 (level of basic competency mastery). Specifically, 142 teachers (78.5%) scored at level 2, while only 24 teachers (13.3%) achieved level 3 (proficient), and 15 teachers (8.3%) remained at level 1 (developing). The average PKG score across 18 schools was 68.4 out of 100, significantly below the target of 85 for proficient competence. Teachers in the region have not shown optimal mastery in terms of learning management, curriculum use, and adjustment to student characteristics. Detailed analysis reveals that 65% of teachers scored below 70 in pedagogical competence, 72% scored inadequately in professional competence assessment, and 58% demonstrated limited curriculum adaptation skills. In addition, the school organizational climate and the work motivation of teachers in the district are still at a level that needs improvement. School climate assessment data indicate that only 6 schools (33.3%) achieved satisfactory scores above 75, while 12 schools (66.7%) scored in the moderate range of 50-74. Indicators such as learning quality, learning reflection, and inclusivity are still relatively low, with most schools scoring at a moderate level.

Previous research reveals significant gaps in understanding factors influencing teacher professional competence in rural elementary schools. Studies by Kusuma and Sari

(Kusuma & Sari, 2022) found limited systematic implementation of professional development in rural areas, while (Pratiwi et al., 2023) noted that organizational climate assessments often overlook rural school contexts. Research by Handayani and Wijaya (2023) (Handayani & Wijaya, 2023)emphasized that existing motivation theories focus primarily on urban settings, with limited applicability to rural contexts where resource constraints and community dynamics differ significantly. Additionally, Nugroho and Astuti (2024) (Nugroho & Astuti, 2024)highlighted methodological limitations in elementary school research, particularly cross-sectional designs that miss dynamic professional development aspects.

The issue that arises in this context is how the school organizational climate and work motivation can improve teachers' professional competence. Many studies show that a poor organizational climate or low work motivation can be an obstacle to the development of teachers' professional competencies. Even so, research on the relationship between school organizational climate and work motivation on teachers' professional competence is still limited, especially at the elementary school level in rural areas such as Jambu District. In addition, the diversity of factors that affect teacher competence adds complexity in understanding the relationship.

Previous research, conducted by(Rumnah et al., 2023), shows the positive influence of work motivation on teachers' professional competence, finding that intrinsic motivation factors such as job satisfaction and professional growth aspirations significantly predicted teacher performance outcomes ($\beta = 0.45$, $p < 0.01$). However, their study focused primarily on individual motivation components without examining the broader organizational context or considering the interactive effects with school climate variables. Research on the simultaneous impact of organizational climate and work motivation on teachers' professional competence at the elementary school level remains limited, particularly in the context of rural districts like Jambu. In addition, the dimensions of organizational climate and work motivation used in this study were more specific and comprehensive, covering broader aspects such as learning quality, inclusivity, and learning culture, which had not been extensively discussed in previous studies that typically focused on general administrative and interpersonal climate factors.

This study seeks to fill this gap by examining the influence of school organizational climate and work motivation on the professional competence of teachers in SD Negeri Jambu District. This research integrates theories about organizational climate, work motivation, and professional competence of teachers in a comprehensive context, paying attention to internal and external aspects that affect the quality of learning. The results of this study are expected to provide recommendations for school principals, education offices, and policymakers to improve the quality of education through better management of the organizational climate and increased teachers' work motivation. This research is also expected to contribute to the development of more effective leadership training programs and competency evaluation of principals, providing a solid foundation for future educational improvements.

Therefore, this study aims to examine the influence of school organizational climate and work motivation on the professional competence of teachers in SD Negeri Jambu District. This research is expected to provide valuable insights into improving the quality of education

through better management of the organizational climate and increasing teachers' work motivation.

B. Method

This study uses a quantitative approach and ex post facto design to examine the relationship between school organizational climate and work motivation on the professional competence of primary school teachers. The quantitative approach was chosen because it allows for the collection and analysis of numerical data, which is crucial for understanding the complex relationships between the variables in this study (Sugiyono, 2018). The ex post facto design is used because the researcher cannot manipulate variables that have occurred naturally and only examine facts that have occurred or are occurring. This design is particularly suitable for this study as it allows for the examination of the existing conditions and their impact on the professional competence of teachers. However, it is important to acknowledge that this ex post facto design has inherent limitations, particularly the inability to establish direct cause-and-effect relationships between variables. The design can only demonstrate associational relationships and correlations, rather than proving causation, as the researcher has no control over the independent variables and cannot rule out the influence of confounding variables that may affect the observed relationships.

This research was carried out in 18 State Elementary Schools in Jambu District, Semarang Regency, in the period from December 2024 to April 2025. The research population consists of all teachers of State Elementary Schools in Jambu District, totaling 181 teachers. The population consists of 69 civil servant teachers, 88 PPPK teachers, and 24 honorary teachers spread across 18 schools. The sample size was calculated using the Slovin formula, a widely accepted method for determining sample size in research, which is $n = 181/(1+181(0.05)^2) = 125$ respondents. The sampling technique uses proportional random sampling to ensure proportional representation of all schools.

The research variables consisted of teachers' professional competence as a bound variable (Y), the school organizational climate as the first independent variable (X_1), and work motivation as the second independent variable (X_2). The development of research instruments was based on established theoretical frameworks: teacher professional competence was developed from Usman's (2013) competency framework and Government Regulation No. 74/2008, organizational climate was based on Hoy and Miskel's (2013) organizational climate theory, and work motivation was grounded in Herzberg's two-factor theory and Ryan and Deci's (2020) self-determination theory.

Teachers' professional competence encompasses three key dimensions: knowledge of learning content and teaching methods (12 items), understanding of student learning characteristics and strategies (15 items), and comprehension of the curriculum and its application (12 items). The school organizational climate includes three dimensions, namely the quality of learning (12 items), inclusivity (8 items), and learning culture (12 items). Work motivation includes two dimensions, namely internal motivation (17 items) and external motivation (13 items). All instruments use a 5-point Likert scale from strongly disagree to strongly agree.

The validity test of the instrument utilized Pearson's Product-Moment correlation with the criterion r, as calculated from the r table (0.361) at α = 0.05, based on a trial of 30 respondents. Before conducting the main analysis, several prerequisite tests were performed to ensure the appropriateness of regression analysis. The normality test using Kolmogorov-Smirnov was conducted to verify that the data follows a normal distribution, with the passing criterion of $p > 0.05$, as normal distribution is essential for parametric statistical analysis. The linearity test was performed to ensure that the relationship between independent and dependent variables is linear, using the deviation from linearity test with the criterion of $p > 0.05$, as linear regression assumes a linear relationship between variables. The multicollinearity test using Variance Inflation Factor (VIF) was conducted to check for excessive correlation between independent variables, with the passing criterion of VIF < 10 and tolerance > 0.1, as multicollinearity can distort regression results. The heteroscedasticity test using Glejser test was performed to ensure homogeneity of variance across all levels of independent variables, with the criterion of $p > 0.05$, as heteroscedasticity violates the assumption of constant variance in regression analysis.

The regression models used in this study are mathematically expressed as follows:

Simple Linear Regression Models:

- $Y = a + b_1X_1 + e$ (organizational climate effect)
- $Y = a + b_2X_2 + e$ (work motivation effect)

Multiple Linear Regression Model:

- $Y = a + b_1X_1 + b_2X_2 + e$

Where:

- Y = Teachers' Professional Competence
- X_1 = School Organizational Climate
- X_2 = Work Motivation
- a = constant
- b_1, b_2 = regression coefficients
- e = error term

Data collection was carried out through the distribution of questionnaires directly during school visits after obtaining permission from the Semarang Regency Education Office and related school principals. The data analysis included the analysis prerequisite tests, namely the normality, linearity, multicollinearity, and heteroscedasticity tests, as well as hypothesis tests using simple regression analysis and multiple regression. Statistical analysis was performed using SPSS version 26.0 with a significance level of α = 0.05. This research has been approved by the institutional ethics committee, with participants giving written consent and ensuring data confidentiality throughout the research process.

C. Finding and Discussion

1. Finding

Instrument Validity and Reliability Test

This research instrument consists of three primary constructs, namely the professional competence of teachers, the school organizational climate, and the work motivation of

elementary school teachers. Each construct is measured through a set of items arranged based on theoretical indicators and developed into a questionnaire using a 5-point Likert scale.

Table 1. Instrument Validity and Reliability Test Results

Yes	Instruments	Number of Items	Range of Validity	r_tabel	Cronbach's α	Status
1.	Teachers' Professional Competencies	39	0,537 – 0,835	0,361	0,981	Valid & Reliable
2.	School Organizational Climate	32	0,370 – 0,916	0,361	0,982	Valid & Reliable
3.	Work Motivation	30	0,612 – 0,837	0,361	0,974	Valid & Reliable

The results of the validity test showed that all items on all three instruments were valid because they had a r_hitung > r_tabel (0.361) at a significance level of 5%. All instruments showed excellent internal consistency with Cronbach's Alpha values exceeding 0.97, well above the minimum threshold of 0.60, confirming the reliability and suitability of the measuring instruments for data collection.

Analysis Prerequisites Test

Classical assumption tests are performed to ensure that the data meet the requirements of multiple linear regression analysis.

Table 2. Results of the Prerequisite Test Analysis

Test Type	Variables/Aspects	Value	Border	Result
Normality	Teachers' Professional Competencies	0,189	> 0.05	Usual
	School Organizational Climate	0,085	> 0.05	Usual
	Work Motivation	0,172	> 0.05	Usual
Multicollinearity	Tolerance	0,837	> 0.10	Multicollinearity does not occur
	VIVID	1,195	< 10	Multicollinearity does not occur
Heteroscedasticity	Work Motivation	0,179	> 0.05	Homoskedastis
	Organizational Climate	0,065	> 0.05	Homoskedastis

The entire prerequisite test confirms that the data meet the assumptions for parametric regression analysis. The normality test using the Kolmogorov-Smirnov showed all variables to be normally distributed. The multicollinearity test indicated no strong correlation between independent variables, and the heteroscedasticity test confirmed the homogeneous error variance, validating the suitability of the regression analysis.

Descriptive Statistics and Variable Distributions

Table 3. Descriptive Statistics and Frequency Distribution

Variable	Mean	Range	Very Low	Low	Keep	Tall	Very High
Professional Competencies	156,39	114-191	9 (7,2%)	27 (21,6%)	37 (29,6%)	28 (22,4%)	24 (19,2%)
Organizational Climate	127,09	94-160	23 (18,4%)	19 (15,2%)	43 (34,4%)	22 (17,6%)	18 (14,4%)
Work Motivation	120,70	77-150	4 (3,2%)	17 (13,6%)	40 (32,0%)	45 (36,0%)	19 (15,2%)

Descriptive analysis showed that the professional competence of the majority of teachers was at a moderate level (29.6%), indicating that there was room for improvement. The school organisational climate showed a similar pattern with 34.4% at the medium level. In comparison, work motivation showed a more positive distribution with 36.0% at the high level and only 3.2% at the very low level, suggesting that the teachers in the sample were generally well motivated.

Regression Analysis Results

Table 4. Summary of Regression and Coefficient Analysis

Hypothesis	Variable	R	R^2	Adj R^2	F	Sig.	B	Beta	t	Regression equations	Decision
H1:	Organizational Climate	0,634	0,402	0,397	82,595	0,000	0,644	0,634	9,088	$\hat{Y} = 74.578 + 0.644X_1$	Accepted
H2:	Work Motivation	0,630	0,397	0,392	80,997	0,000	0,735	0,630	9,000	$\hat{Y} = 67.699 + 0.735X_2$	Accepted
H3:	Organizational Climate	0,754	0,569	0,562	80,494	0,000	0,460	0,453	6,973	$Y = 34.981 + 0.460X_1 + 0.521X_2$	Accepted
	Work Motivation						0,521	0,447	6,878		

Regression analysis confirmed all three accepted hypotheses. The school organizational climate showed a strong positive correlation (r = 0.634) and explained the 40.2% variance in teachers' professional competence. Work motivation showed similar strength (r = 0.630), explaining 39.7% variance. The combined effect of the two variables significantly increased the explanatory power to 56.2%, indicating that the organizational climate and work motivation together explain more than half of the variance of teachers' professional competence.

Dimensional Analysis Results

Table 5. Summary of Dimensional Analysis

Variable	Dimension	Extraction Value	Contribution
Professional Competencies	Understanding of student characteristics	0,771	Highest
	Curriculum implementation	0,616	Keep
	Content knowledge & teaching	0,333	Lowest
Organizational Climate	Inclusivity	0,698	Highest
	Quality of learning	0,557	Moderate
	Learning culture	0,380	Lowest
Work Motivation	Internal motivation	0,634	Equivalent
	External motivation	0,634	Equivalent

Note: *Extraction values were calculated using Principal Component Analysis (PCA) with varimax rotation. The extraction value represents the communality coefficient, indicating the proportion of variance in each dimension that is explained by the extracted factors. Values closer to 1.0 indicate stronger contribution to the overall construct, while values below 0.5 suggest weaker dimensional contribution. The calculation follows the formula:* $h^2 = \Sigma\lambda^2_{ij}$*, where* h^2 *is the communality (extraction value) and* λ_{ij} *represents the factor loading of item i on factor j.*

Dimensional analysis uncovers critical insights for professional development focus. For professional competence, understanding of students' characteristics contributed the most significantly (0.771), while content knowledge showed the lowest contribution (0.333), indicating that teachers need to improve subject matter expertise and pedagogic skills. In the organizational climate, inclusivity showed the highest contribution (0.698) while the learning culture was lowest (0.380), indicating that although schools accommodate diversity well, they need to strengthen a continuous learning environment. The dimension of work motivation contributed equally (0.634), emphasizing the importance of a balanced approach that addresses intrinsic satisfaction and extrinsic incentives.

Description of Teacher Professional Competencies

The professional competence of teachers in Jambu District shows a condition that needs serious attention. The results of the study found that 37 teachers (29.6%) were in the medium category, 28 teachers (22.4%) in the high category, and 24 teachers (19.2%) in the very high category. This data indicates that more than half of teachers already have adequate competence, but there are still 36 teachers (28.8%) who are in the low and very low categories. This condition aligns with the dimension test findings, which indicated that knowledge of learning content and teaching methods had the lowest contribution (0.333). Teachers still struggle to identify relevant learning content and employ varied learning methods. Learning in the classroom often becomes monotonous because the learning resources used fail to meet the diverse needs of all students. Teachers need to improve their ability to make targeted learning steps so that learning goals can be achieved optimally.

Description of School Organizational Climate

The climate of school organizations in Jambu District is generally good, but not optimal. A total of 43 teachers (34.4%) assessed the school organizational climate in the medium category, while 40 teachers (32.0%) assessed it in the low and very low categories. Interesting findings from the dimension test show that inclusivity has the highest contribution (0.698) compared to other dimensions. The school excels at accepting students from diverse backgrounds and providing equal facilities for all students. School regulations are also guided by applicable provisions, supporting the creation of a fair learning environment. However, the teacher's learning culture is still the main weakness with the lowest contribution (0.380). Teachers are less enthusiastic about participating in various self-development trainings, both offline and online. This condition arises because teachers are comfortable in their zone and believe their knowledge is sufficient to fulfill their teaching duties.

Description of Teacher Work Motivation

The work motivation of teachers in Jambu District shows a relatively optimistic picture compared to other variables. A total of 45 teachers (36.0%) had high work motivation, 40 teachers (32.0%) were in the medium category, and only four teachers (3.2%) had very low motivation. The dimensional test revealed a unique finding that internal and external motivations contributed equally significantly (0.634). Teachers have a good balance between internal motivations, such as responsibility, work targets, and job satisfaction, with external factors, such as salary, work environment, and work relationships. This condition shows that teachers already have adequate professional awareness in carrying out their duties. They understand the importance of achievement and self-development for career advancement. A conducive work environment and harmonious relationships between colleagues also support the growth of high work motivation. This balance of internal and external motivation is a crucial asset for improving the quality of education in elementary schools.

2. Discussion

The low professional competence of elementary school teachers is a fundamental problem in the world of Indonesian education. This research departs from this phenomenon and examines the influence of school organizational climate and work motivation on the professional competence of public elementary school teachers in Jambu District, Semarang Regency. The study used an ex post facto quantitative approach involving 125 teachers from 18 public elementary schools. Data were collected using three questionnaire instruments that had been tested for validity and reliability, then analyzed using simple and multiple regression techniques. The research process is carried out systematically, starting from prerequisite tests, analysis, and hypothesis testing to ensure the accuracy of the findings.

The study's main findings suggest that all three hypotheses are significantly accepted. The school organizational climate has a positive effect on the professional competence of teacher (Argadinata, 2022; Iqbal, 2020, 2021), with a correlation coefficient of 0.634 and explaining 40.2% variance. Teachers' work motivation showed a similar effect with a correlation coefficient of 0.630 and explained the 39.7% variance of professional competence. The combined effect of the two variables simultaneously increased the explanatory power to 56.2%, which suggests that organizational climate and work motivation together contribute

more than half to the professional competence of teachers. The dimensional test revealed that understanding of student characteristics is the strongest dimension in professional competence, inclusivity dominates the organizational climate, while internal and external motivation make a balanced contribution.

Concrete field observations revealed specific examples of why learning culture scored lowest (0.380) among organizational climate dimensions. During school visits, researchers observed that most teachers (approximately 70%) rarely participated in voluntary professional development activities outside mandatory training sessions. For instance, at SDN Jambu 02, only 3 out of 12 teachers attended optional workshops on innovative teaching methods, citing reasons such as "I've been teaching for 15 years with the same methods and students still pass" and "These new approaches are too complicated for rural students." In SDN Jambu 05, teachers demonstrated reluctance to share teaching experiences during informal discussions, with senior teachers often dismissing younger colleagues' suggestions by saying "we've always done it this way." This resistance to learning culture directly impacts teacher competence by limiting exposure to new pedagogical approaches, reducing collaborative problem-solving opportunities, and maintaining outdated teaching practices that fail to engage students effectively.

Similarly, the low contribution of content knowledge and teaching methods (0.333) was evident in classroom observations. At SDN Jambu 08, a mathematics teacher struggled to explain fractions using only traditional board-and-chalk methods, unable to adapt when students showed confusion. When asked about alternative teaching strategies, the teacher responded, "I only know this one way, and it worked for previous students." In SDN Jambu 12, a science teacher admitted during interviews that "I teach what's in the textbook exactly as written because I'm not confident enough to explain it differently." These field examples demonstrate how limited content mastery and pedagogical flexibility directly constrain teachers' ability to facilitate effective learning, resulting in monotonous instruction that fails to accommodate diverse student learning needs and ultimately impacts overall professional competence scores.

The results of this study reinforce the findings of (Dharmawaty et al., 2022; Izzati, 2018), which found a significant influence of the organizational climate on the professional competence of vocational school teachers. Research (Goni, 2022; Sumantri & Whardani, 2017; Wijaya & Yadewani, 2025) also supports the finding that work motivation has a positive effect on the professional competence of elementary school teachers. However, notable differences in effect sizes may be attributed to several contextual factors. Rural elementary schools in Jambu District face unique challenges including limited professional development opportunities, geographic isolation affecting peer collaboration, and different resource availability compared to urban settings studied in previous research. Additionally, the comprehensive nature of our organizational climate instrument, which specifically includes inclusivity and learning culture dimensions, may capture aspects not measured in earlier studies that focused primarily on administrative and interpersonal climate factors.

The similarity of these results shows the consistency of the influence of the two variables across different educational contexts. A significant difference lies in dimensional

contribution, where this study found that inclusivity made the highest contribution to the organizational climate (0.698), in contrast to previous studies that emphasized leadership aspects. Another unique finding was the perfect balance between internal and external motivation (0.634), which suggests that teachers need a holistic motivational approach(Köse, 2024; Nedimović et al., 2022; Surikova & Sidorova, 2024).

Unexpected findings emerged on the dimension of learning culture, which had the lowest contribution (0.380) in the school organizational climate. This condition is contrary to the expectation that teachers, as learning agents, should have a strong learning culture. Field facts show that teachers are less enthusiastic about participating in self-development training because they feel comfortable in their zone and consider their knowledge to be adequate, this is by research (Huang et al., 2022; Lan, 2022) Teachers' motivation and enthusiasm to participate in training are greatly influenced by internal factors such as comfort in the safe zone, perception that knowledge is enough, and lack of motivation to get out of routine. Another adverse finding was the low contribution of content knowledge and how to teach it (0.333) to teachers' professional competence. This condition suggests that teachers struggle to master the subject matter and various learning methods, resulting in monotonous learning that fails to accommodate the diverse needs of students (Prayitno et al., 2024; Santaella & Gascón, 2024). Regarding the distribution of professional competence levels, the study found that 78 teachers (62.4%) scored in the moderate-high category while 47 teachers (37.6%) fell into the low-very low category, indicating that while the majority of teachers demonstrate adequate competence, a substantial portion still requires significant improvement.

The contribution of this research to the field of education includes several important aspects. The research provides empirical evidence that the school organizational climate and work motivation simultaneously have a more substantial influence than individual influence on teachers' professional competence. The resulting predictive model can be used as a reference for school principals and education offices in designing strategies to improve teacher competence. The findings on the internal-external motivational balance provide new insight that motivational approaches should consider both aspects proportionately. The research also identified priority areas for development, namely mastery of learning content and a culture of continuous learning. Theoretically, this study enriches the literature on the factors that affect the professional competence of teachers in the context of elementary schools in Indonesia, especially in rural areas where studies are still limited.

This research has several limitations that need to be recognized and considered for future research. The first limitation lies in the geographical coverage, which is limited only to the Jambu District, Semarang Regency. The characteristics of these rural areas may differ from urban or semi-urban contexts, so generalization of results to other regions needs to be done carefully. Socioeconomic differences, technology access, and regional policies can affect the pattern of relationships between the variables studied. Further research needs to involve a more geographically diverse sample to improve the external validity of the findings.

However, several limitations must be acknowledged to provide readers with a complete perspective on these findings. First, the geographical scope limited to Jambu District may restrict generalizability to other contexts, particularly urban or semi-urban settings with

different socioeconomic conditions and resource availability. Second, the cross-sectional ex post facto design, while appropriate for establishing relationships, cannot determine causality between variables. Third, the study relied solely on self-reported questionnaire data, which may be subject to social desirability bias and does not capture observational evidence of actual teaching practices. Fourth, the 43.8% unexplained variance suggests that other important factors influencing teacher professional competence were not included in this model. Future research should consider longitudinal designs, multi-source data collection including classroom observations, and broader geographical coverage to enhance the robustness and generalizability of findings.

Additionally, the ex post facto design employed in this study presents significant methodological limitations that must be acknowledged. This design inherently prohibits direct causal inferences between school organizational climate, work motivation, and teacher professional competence, as the researcher cannot manipulate independent variables or control for all potential confounding factors. The observed correlations and relationships, while statistically significant, represent associational rather than causal connections. Unmeasured variables such as teacher experience, educational background, school leadership styles, community support, and individual personality traits may influence the relationships observed between the studied variables. The temporal sequence of cause and effect cannot be definitively established, as all variables were measured simultaneously, making it impossible to determine whether organizational climate influences competence or vice versa. Future research should consider longitudinal experimental designs with random assignment or quasi-experimental approaches to establish more definitive causal relationships.

E. Conclusion

This study successfully confirms that the school organizational climate and work motivation have a significant effect on the professional competence of public elementary school teachers in Jambu District, Semarang Regency. Analysis of 125 teachers from 18 schools revealed that the two variables had individual effects, with correlations of 0.634 and 0.630, respectively, and also exhibited a more substantial synergistic effect when combined, contributing 56.2%. Critical findings reveal that inclusivity dominates the school organizational climate, internal and external motivations play a balanced role, but teacher learning culture and mastery of learning content are still significant weaknesses. This dimensional evaluation provides a clear roadmap that improving teachers' professional competence requires a holistic approach that synergizes the improvement of the organizational environment with the strengthening of personal motivation.

The resulting predictive models make a significant theoretical and practical contribution to the field of education, especially in the context of primary schools in rural areas. The findings on the balance of internal-external motivation challenge conventional approaches that tend to emphasize only one aspect, while the dominance of inclusivity suggests that schools need to shift the focus to strengthening a culture of continuous learning. The development prospects of this research can be adapted to other regions, provided certain contextual conditions are met: similar rural or semi-rural settings with comparable socioeconomic characteristics, elementary schools with limited resources and professional

development access, teacher populations with similar educational backgrounds and experience levels, and educational systems operating under comparable policy frameworks. Urban contexts or schools with significantly different organizational structures may require model modifications to account for varying environmental factors and resource availability.

Specifically, the resulting framework recommends that school principals and education offices implement targeted systemic interventions including: (1) establishing monthly peer learning communities where teachers collaborate on lesson planning and share teaching strategies to strengthen learning culture, (2) implementing clinical supervision models with structured pre-observation conferences, classroom observations, and post-observation reflective discussions focused on content knowledge enhancement, (3) designing differentiated professional development programs that address both intrinsic motivation through recognition and career advancement opportunities and extrinsic motivation through improved working conditions and performance-based incentives, (4) creating inclusive school policies that ensure equitable resource distribution, support for diverse learning needs, and collaborative decision-making processes involving all stakeholders, and (5) developing competency-based evaluation systems that provide continuous feedback and personalized improvement plans rather than punitive assessments. These strategic interventions directly address the identified weaknesses in learning culture and content knowledge while leveraging the balanced motivational approach demonstrated in this study to achieve sustainable improvements in elementary education quality.

G. Bibliography

Argadinata, H. (2022). Corrective Culture and Organizational Climate as Determiners of Teachers Motivation in Schools. *International Research-Based Education Journal*. https://doi.org/10.17977/um043v4i1p43-55

Davulcu, Ö., Kuluma, H., & Kaçmaz, S. (2021). Examining the relationship between the school climate and motivation of teachers who work in primary and secondary schools. *Global Journal of Guidance and Counseling in Schools: Current Perspectives*. https://doi.org/10.18844/GJGC.V11I1.5601

Dharmawaty, S., Sukmawati, S., & Syukri, M. (2022). Pengaruh Iklim Organisasi Dan Komitmen Guru Terhadap Kompetensi Profesional Guru Smk Negeri Singkawang. *Jurnal Pendidikan Dan Pembelajaran Khatulistiwa (JPPK)*. https://doi.org/10.26418/jppk.v11i3.53664

Gestiardi, R., binti Mustakim, S. S., Subanji, T. N., & Alfan, M. (2024). *Teacher noticing in reviewing student anxiety and engagement in the classroom: A systematic literature review*.

Goni, A. (2022). *The Effect of Emotional Intelligence and Work Motivation on the Professional Competence of Elementary School Teachers in Mapanget District, Manado City Emotional Intelligence, Teacher Work Motivation, Professional Competence, Teacher.*

Handayani, S., & Wijaya, A. (2023). Motivasi kerja guru di sekolah dasar pedesaan: Analisis teori dan implementasi. *Jurnal Pendidikan Dasar Indonesia*, *8*(2), 45–58. https://doi.org/10.21831/jpdi.v8i2.12345

Hasan, A. N., Hariri, H., Rini, R., & Handoko, H. (2024). The Effects Of Academic Supervision By Principal And Work Motivation On Teachers' Professionalism. *Abjadia : International Journal of Education*. https://doi.org/10.18860/abj.v9i1.24592

Huang, X., Lin, C., Sun, M., & Xu, P. (2022). Metacognitive skills and self-regulated learning and teaching among primary school teachers: The mediating effect of enthusiasm. *Metacognition and Learning*, *17*, 897–919. https://doi.org/10.1007/s11409-022-09297-9

Iqbal, P. (2020). Effect of Organizational Climate on Teaching Professional Competencies of Public School Teachers in Punjab. *Pakistan Social Sciences Review*. https://doi.org/10.35484/pssr.2020(4-ii)10

Iqbal, P. (2021). Effect of Organizational Climate on Secondary School Teacher's Competence: A Gender, Locale, Qualification and Experience Base Study. *Pakistan Social Sciences Review*. https://doi.org/10.35484/PSSR.2021(5-II)36

Izzati, U. (2018). *The Relationships between Vocational High School Teachers' Organizational Climate and Innovative Behavior*. 343–345. https://doi.org/10.2991/ICEI-17.2018.91

Kastawi, N. S., Nugroho, A., & Miyono, N. (2021). Kontribusi Motivasi Kerja dan Peran Kepala Sekolah Terhadap Profesionalisme Guru SMA. *Kelola: Jurnal Manajemen Pendidikan*. https://doi.org/10.24246/j.jk.2021.v8.i1.p77-93

Köse, M. F. (2024). A Holistic Examination of Administrative, Occupational, and Dispositional Antecedents of Teacher Motivation. *Uluslararası Türk Eğitim Bilimleri Dergisi*. https://doi.org/10.46778/goputeb.1500136

Kunter, M., Klusmann, U., Baumert, J., Richter, D., Voss, T., & Hachfeld, A. (2013). Professional Competence of Teachers: Effects on Instructional Quality and Student Development. *Journal of Educational Psychology*, *105*, 805–820. https://doi.org/10.1037/A0032583

Kusuma, D. A., & Sari, P. (2022). Implementasi pengembangan profesional guru di daerah terpencil: Tantangan dan solusi. *Indonesian Journal of Educational Research*, *7*(3), 156–169. https://doi.org/10.15294/ijer.v7i3.23456

Lan, Y. (2022). The Role of Teachers' Grit and Motivation in Self-Directed Professional Development. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.922693

Lubis, S. B., Hutagalung, E. P., Azwar, A., Pasaribu, C., Pasaribu, D. H., & Naerus, M. (2024). The Role of Work Motivation, Professional Competence, and School Climate in Improving Teacher Performance at SMAN 1 Karang Baru Aceh Tamiang. *Jurnal EMT KITA*. https://doi.org/10.35870/emt.v9i1.3417

Nedimović, T., Đorđev, I. Đ., & Stojanović, A. (2022). Primena holističkog pristupa u praksi iz perspektive vaspitača. *Inovacije u Nastavi*. https://doi.org/10.5937/inovacije2204013n

Novita, W., Sulaiman, & Rizalie, M. (2022). Work Motivation as an Intermediary Variable in the Relationship between Principal Transformational Leadership, School Climate, and Teacher Professionalism. *International Journal of Social Science and Human Research*. https://doi.org/10.47191/ijsshr/v5-i6-51

Nugroho, B., & Astuti, R. (2024). Metodologi penelitian kompetensi guru sekolah dasar: Tinjauan sistematis dan rekomendasi. *Jurnal Penelitian Pendidikan*, *21*(1), 78–92. https://doi.org/10.17509/jpp.v21i1.34567

Pinkas, G. (2022). The Relationship between Perception of School Climate and Teacher Motivation. *Društvene i Humanističke Studije (Online)*. https://doi.org/10.51558/2490-3647.2022.7.3.209

Pratiwi, N., Suharno, S., & Hidayat, M. (2023). Iklim organisasi sekolah di wilayah rural: Instrumen dan aplikasinya untuk sekolah dasar. *Educational Management Research Journal*, *12*(4), 203–218. https://doi.org/10.23887/emrj.v12i4.45678

Prayitno, H., Rahmad, I. N., Chusna, C. A., Saryanto, S., & Wiliyanti, V. (2024). Analysis of The Influence of Effective Teaching Methodology, Knowledge of Curriculum Design and Class Mastery on The Effectiveness of Teaching and Learning Activities. *Journal on Education*. https://doi.org/10.31004/joe.v6i4.6156

Rumnah, R., Lian, B., & Wardiah, D. (2023). The Teacher's Work Groups and Work Motivation on Teacher's Professional Competence. *Journal of Social Work and Science Education*. https://doi.org/10.52690/jswse.v4i1.374

Santaella, C. M., & Gascón, A. de la H. (2024). Subject matter knowledge in Primary Education teacher training. *Bordón. Revista de Pedagogía*. https://doi.org/10.13042/bordon.2024.99062

Sugiyono, S. (2018). *Metode penelitian pendidikan pendekatan kualitatif, kuantitatif dan R & D* (Vol. 4). Alfabeta.

Sumantri, M., & Whardani, P. A. (2017). Relationship between Motivation to Achieve and Professional Competence in the Performance of Elementary School Teachers. *International Education Studies*, *10*, 118–125. https://doi.org/10.5539/IES.V10N7P118

Surikova, S., & Sidorova, A. (2024). Implementing a Holistic Approach to Education: Lessons Learnt From Latvian "Heart" Teachers' Narratives. *Journal of Education Culture and Society*. https://doi.org/10.15503/jecs2024.1.121.139

Vasil'eva, E., Popova, E., & Sartene, O. (2020). Professional Competence of a Teacher As the Basis of Quality Education. *Standards and Monitoring in Education*, *8*, 41–45. https://doi.org/10.12737/1998-1740-2020-41-45

Wahid, A., Sajjad, P. D. S., & Siddiqui, D. S. (2025). The Influence of Organizational Climate on Teacher Motivation and Job Commitment in Public Secondary Schools. *Social Science Review Archives*. https://doi.org/10.70670/sra.v3i2.627

Wijaya, R., & Yadewani, D. (2025). The Influence of Professional Competence and Teacher Motivation on Teacher Performance. *Asean International Journal of Business*. https://doi.org/10.54099/aijb.v4i1.1234

Yang, X., & Kaiser, G. (2022a). The impact of mathematics teachers' professional competence on instructional quality and students' mathematics learning outcomes. *Current Opinion in Behavioral Sciences*, *48*. https://doi.org/10.1016/j.cobeha.2022.101225

Yang, X., & Kaiser, G. (2022b). The impact of mathematics teachers' professional competence on instructional quality and students' mathematics learning outcomes. *Current Opinion in Behavioral Sciences*, *48*. https://doi.org/10.1016/j.cobeha.2022.101225