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Principal Leadership and Organization Culture: Determinants of Teachers' Pedagogic Competency at Inclusion Schools in Sleman Regency

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Abstract. Inclusive education requires teachers to possess adaptive pedagogical competencies. Based on in-depth observations and interviews, many teachers in high school/equivalent private level in Sleman Regency still face challenges in developing pedagogical competence, particularly in adapting learning strategies to students' diverse needs and preparing responsive teaching materials. This study aims to measure and analyze the partial and simultaneous effects of principals' leadership and organizational culture on teachers' pedagogical competence in private inclusive schools at the high school/equivalent private level in Sleman Regency. This study employed a quantitative method using a survey and explanatory approach, with a descriptive non-experimental correlational design and a causal-associative approach. The research was conducted in four private inclusive schools: SMA Gama Yogyakarta, SMK Bina Harapan, SMK Muhammadiyah 1 Tempel, and SMKS Budi Mulia Dua. The population consisted of 54 teachers, all of whom were included as the research sample based on Gay et al. (2019), who states that when the number of research subjects is fewer than 100, the entire population may be used as the sample. Data were collected using a closed questionnaire comprising 52 statements covering principals' leadership (14 items), organizational culture (22 items), and teachers' pedagogical competence (16 items). Data were analyzed using prerequisite tests, and simple and multiple linear regression with the assistance of SPSS version 26. The results showed that: (1) principals' leadership had a positive and significant effect on teachers' pedagogical competence (Sig. 0.000 < 0.05); (2) organizational culture had a positive and significant effect (Sig. 0.000 < 0.05); and (3) principals' leadership and organizational culture simultaneously had a positive and significant effect on teachers' pedagogical competence (Sig. 0.000 < 0.05). The coefficient of determination (R^2) was 0.500, indicating that the two independent variables jointly explained 50% of the variation in teachers' pedagogical competence.

Keywords: *Inclusive Education, Organizational Culture, Principals' Leadership, Teachers' Pedagogical Competence*

INTRODUCTION

Education is a fundamental pillar of national development and plays a crucial role in improving the quality of human resources. In the era of globalization, educational systems are expected not only to enhance academic achievement but also to ensure equitable learning opportunities for all students. Inclusive education has emerged as an important educational paradigm that promotes social justice by providing equal educational opportunities for all learners, including students with special needs. Therefore, inclusive education represents not only a policy framework but also a commitment to ensure that every child has access to equal education without discrimination.

Despite the growing recognition of inclusive education worldwide, its implementation remains challenging in many developing countries, including Indonesia. Previous studies have reported that inclusive education is often constrained by limited teacher preparedness, inadequate facilities, and insufficient pedagogical competence in addressing student diversity [18], [19]. These challenges may reduce the effectiveness of inclusive learning practices and hinder the achievement of inclusive educational goals. This issue is particularly significant in Law No. 20, 2003 on The National Education System, which guarantees every citizen's right to quality education. Consequently, identifying factors that can strengthen teachers' pedagogical competence is essential for improving inclusive educational practices.

The context of Sleman Regency reflects these challenges. In accordance with Governor Regulation of the Special Region of Yogyakarta No. 21 of 2013 concerning the Implementation of Inclusive Education, educational institutions are encouraged to provide inclusive education services. However, disparities between policy and practice remain evident. Many schools continue to face limitations in teacher professional development, accessibility, and learning support systems required to accommodate diverse student needs. In several cases, schools still experience difficulties in providing adequate instructional support and learning environments that fully reflect inclusive principles. These conditions indicate that

improving teachers' pedagogical competence remains a critical priority, particularly in the inclusive senior high schools.

Pedagogical competence refers to teachers' ability to understand student characteristics, design and implement effective learning processes, and evaluate learning outcomes appropriately [20]. As of April 2026, the Ministry of Basic and Secondary Education noted that the implementation of inclusive education continues to face a shortage of teachers possessing the specialized competencies required to support students with special needs. Within the inclusive education training equivalency program, only 2,663 participants have met the eligibility criteria, while there is a potential pool of an additional 5,129 prospective participants. These data indicate a significant ongoing need to enhance the competencies of inclusive education teachers. In inclusive education settings, this competence is essential because teachers are responsible for diverse learning needs and adapt instructional strategies accordingly. Teachers are expected to create learning environments that accommodate differences in ability, learning style, and educational needs while ensuring meaningful participation for all students. The successful implementation of inclusive education therefore depends on teachers' individual capabilities and the support provided by the school.

Among the organizational factors that may influence teachers; pedagogical competence, principal leadership and organizational culture have received considerable attention in educational research. Effective principal leadership provides direction, supervision, and professional support that can encourage teacher development [6], [14]. School principals also play an important role in establishing a vision, facilitating professional learning opportunities, and promoting continuous improvement within schools. Similarly, a positive organizational culture fosters collaboration, innovation, shared values, and commitment to educational goals [21]. These factors contribute to the creation of a supportive environment in which teachers can continuously improve their professional competencies and instructional practices.

Although, previous studies have examined the relationship between leadership, organizational factors, and teacher performance [14], [24], research specifically investigating the influence of principal leadership and organizational culture on teachers' pedagogical competence is a key determinant of successful inclusive education, yet evidence regarding the organizational factors that contribute to its development is still insufficient. Furthermore, more existing studies focus on general school settings rather than schools implementing inclusive education at the private high school level.

Therefore, this study aims to analyze the influence of principal leadership and organizational culture on teachers' pedagogical competence in private inclusive senior secondary schools in Sleman Regency. Specifically, the study examines both the individual and simultaneous effects of these variables on teachers' pedagogical competence. The findings are expected to provide evidence-based recommendations for school leaders, policymakers, and educational institutions seeking to strengthen teacher competence and improve the quality of inclusive learning practices.

METHODS

Study area

This study uses a quantitative method with a survey type and an explanatory approach to explain the causal relationship between principal leadership and organizational culture to teachers' pedagogical competence. The research design used is descriptive non-experimental correlation with a causal associative approach, which allows testing of relationships between variables without direct intervention on the research object. The research was carried out in four private inclusive schools at the high school/equivalent private level in Sleman Regency, namely SMA Gama Yogyakarta, SMK Bina Harapan, SMK Muhammadiyah 1 Tempel, and SMKS Budi Mulia Dua. The research population consisted of 54 teachers, and the entire population was used as the research sample. This sampling approach was based on Gay et al. [7], who states that when the research subject number fewer than 100, the entire population can be used as the research sample. Therefore, all 54 teachers were included as respondents in this study.

Procedures

Data collection was carried out through a survey using a closed questionnaire containing 52 statements, covering three main variables: the principal's leadership (14 items) and organizational culture (22 items) and teachers' pedagogical competence (16 items). The questionnaire was compiled based on relevant theories and indicators, then tested through expert tests, validity tests, and reliability tests using SPSS version 26. The validity test was carried out by Pearson's Product Moment correlation analysis which showed all valid statement items with a value of $r_{\text{values}} \geq 0.361$, while the reliability test using the Alpha Cronbach coefficient showed values above 0.70 on all variables, indicating that the research instrument was reliable and consistent. Thus, the questionnaire used has been proven to be valid and reliable to measure research variables.

Data analysis

Data analysis was carried out through several stages, starting followed by analysis of prerequisite tests such as normality, linearity, multicollinearity, and heteroscedasticity tests to ensure the feasibility of the regression model. After that, an inferential analysis was carried out using simple and multiple linear regression to test the influence of the principal's leadership and organizational culture on teachers' pedagogic competence, both partially and simultaneously. The F test is used to assess the effects together. In addition, the coefficient of determination (R^2) was calculated to determine the contribution of the two independent variables to the teacher's pedagogic competence. The entire analysis process is carried out with the help of the SPSS version 26 program so that the research results are accurate, objective, and accountable.

RESULTS AND DISCUSSION

Prerequisite Analysis Tests

Based on the prerequisite analysis conducted on 54 respondents, the normality test using the One-Sample Kolmogorov-Smirnov test yielded an Asymp. Sig. (2-tailed) value of $0.200 > 0.05$, indicating that the data were normally distributed. The linearity test showed a Deviation from Linearity significance value of $0.170 > 0.05$ for the relationship between School Principals' Leadership (X1) and Teachers' Pedagogical Competence (Y), and $0.383 > 0.05$ for the relationship between Organizational Culture (X2) and Teachers' Pedagogical Competence (Y), indicating that both relationships were linear. Furthermore, the multicollinearity test showed a Tolerance value of $0.577 > 0.10$ and a VIF value of $1.733 < 10$ for both independent variables, indicating that there was no multicollinearity. The heteroscedasticity test, based on the scatterplot, showed that the data points were randomly distributed above and below the zero line without forming any specific pattern, indicating that there was no heteroscedasticity. Therefore, all prerequisite assumptions were satisfied, and the data were suitable for further regression analysis.

The Effect of School Principals' Leadership on Teachers' Pedagogic Competence in Inclusion Schools at the High School/Equivalent Private Level in Sleman Regency

To measure and determine some of the effect of the principal's leadership on teachers' pedagogical competence, a simple linear regression test is used, presented in Table 1 with the following details.

Table 1. Results of Simple Linear Regression Analysis of Principal's Leadership Variables (X1)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.641	5.699		3.972	.000
	Principals' Leadership	.681	.121	.616	5.642	.000

a. Dependent Variable: Kompetensi Pedagogik Guru (Y)

Empirical analysis using simple linear regression highlights a significant positive influence of principal leadership on teacher pedagogical competence in Sleman Regency's private inclusive high schools. Based on the regression model $Y = 22.641 + 0.681 X_1$, teacher pedagogical competence rises by 0.681 units for every unit enhancement in principal leadership, assuming all other conditions remain fixed. Given the calculated t-value of 5.642 with a significance of 0.000 (< 0.05) indicates that the influence is statistically significant, so an alternative hypothesis (H_1) is accepted. These outcomes affirm that advancing principal leadership capacity is an effective strategy for raising teachers' pedagogical competence in an inclusive learning environment.

The findings of this study confirm that school principal leadership plays a strategic role in enhancing teachers' pedagogical competence within inclusive schools. This is consistent with Sari et al. [15], who emphasize that principals, as top-level managers, play an important role in managing learning through decision-making, strengthening school vision and mission, and monitoring and evaluating teachers' learning implementation. Highly rated leadership across most respondents highlights the principal's success in managing resources, guiding teaching staff, and fostering an inclusive learning environment [4]. However, a segment of teachers categorized leadership performance as moderate, indicating that leadership practices are not yet fully or evenly distributed in addressing the diverse needs of inclusive education. In line with Bush [6] perspective, the effectiveness of educational leadership extends beyond administrative management to include a leader's capacity to navigate complexity and diversity. Consequently, these results highlight the necessity of strengthening leadership dimensions centered on personal support, inclusive communication, and responsiveness to individual teacher needs to ensure pedagogical competencies are developed fairly and sustainably.

Theoretically, these findings align closely with transformational leadership frameworks [3], [12], which underline the necessity of vision inspiration and staff empowerment in educational contexts. School heads in Sleman exhibit clear proficiency in visionary guidance, especially regarding strategic planning and the articulation of inclusive objectives, which is identified as foundational components of effective leadership [11]. Nevertheless, structural dimensions, such as organizational redesign, remain in areas requiring further attention. Under the distributed leadership framework [9], leadership efficacy relies not solely on the principal as a solitary figure, but on building collaborative networks involving teachers, vice principals, and inclusion coordinators [13], [17]. Thus, this study not only substantiates the casual link between leadership and pedagogical competence but also highlights the critical role of participatory and collaborative leadership in establishing a resilient inclusive education system.

On a practical level, these outcomes provide key insights for enhancing inclusive schooling across Sleman Regency. Although school leadership drives pedagogical growth among teachers, sustainable progress requires complementary external infrastructure, including dedicated inclusion of training, modified training resources, and supportive policy frameworks. This mirrors the perspective of Avolio and Bass [2] and Hallinger [8], who frame the school rather than a routine manager. Furthermore, Rahman et al. [14] affirm this dynamic, demonstrating that transformational leadership enhances teacher effectiveness both directly and indirectly through organizational culture. By bridging visionary leadership with broader structural support, school leaders can foster collaborative professional environments, drive instructional creativity, and deepen teacher engagement with inclusive methods. In conclusion, this study expands current educational leadership literature while offering practical guidance for developing inclusive leadership models focused on teacher empowerment and sustained educational quality.

The Effect of Organizational Culture on Teachers' Pedagogic Competence in Inclusion Schools at the High School/Equivalent Private Level in Sleman Regency

To measure and determine some of the effect of the organizational culture on teachers' pedagogical competence, a simple linear regression test is used, presented in Table 2 with the following details.

Table 2. Results of Simple Linear Regression Analysis of Organizational Culture Variables (X2)

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	19.364	5.539		3.496	.001
	Organizational Culture	.480	.075	.664	6.399	.000

a. Dependent Variable: Kompetensi Pedagogik Guru (Y)

The results of simple linear regression analysis showed that organizational culture had a positive and significant effect on the pedagogic competence of teachers in inclusion schools at the high school/equivalent level in Sleman Regency. The regression equation obtained is $Y = 19.364 + 0.480X_2$, which means that every increase in one unit of organizational culture will increase the teacher's pedagogic competence by 0.480 units assuming other variables are constant. The calculated t-value of 6.399 with a significance of 0.000 (< 0.05) confirms that the influence is statistically significant, so the second hypothesis (H_2) is accepted. These findings indicate that the stronger the organizational culture applied in inclusive schools, the higher the pedagogic competence of teachers in carrying out their professional duties.

This study confirms that organizational culture plays a pivotal role in enhancing teachers' pedagogic competence within inclusive schools at the high school/equivalent private level in Sleman Regency. The findings indicate that a robust organizational culture does more than establish a stable working environment, it also nurtures teachers' commitment to ongoing professional growth in managing student diversity. Drawing on the frameworks of Robbins and Judge [21] and Schein [22], organizational culture functions as a shared system of values that shape collective behavior and mindset. Consequently, when values such as collaboration, openness, and innovation become genuinely embedded among all members of the school community, teachers are motivated to strengthen the planning, implementation, and reflection stages of inclusive learning. These findings demonstrate that schools with a positive culture possess greater adaptability in confronting the challenges of diversity-based instruction.

Moreover, these results reinforce the relevance of Senge's [16] Learning Organization theory, which highlights the importance of continuous learning within the workplace. An inclusive school in Sleman that has established a strong organizational culture shows considerable potential to evolve into a learning organization, one in which teachers do more than carry out routine duties, instead exchanging experiences and generating pedagogical innovations. The strong cultural emphasis on policy stability provides a crucial foundation for sustaining inclusion programs, however the relatively weak orientation toward teamwork suggests that collaborative practices have not yet reached their full potential. Consistent with Katzenbach

and Smith's [25] view, team effectiveness is shaped not merely by formal structures but by mutual trust and shared goals. Accordingly, although organizational culture contributes meaningfully to improving teachers' pedagogic competence, reinforcing collaboration remains a strategic priority so that the inclusive learning process can run more dynamically and sustainably.

From a practical standpoint, these findings affirm that strengthening organizational culture is a critical step toward building an effective inclusive education ecosystem. A healthy organizational culture serves as a space for collective learning, through which the values of inclusion, innovation, and empathy are translated into concrete classroom practices. This aligns with Hallinger's [8] argument that a positive school culture enhances teacher motivation and professionalism while supporting knowledge management, as illustrated by Nonaka and Takeuchi's [23] SECI model. The findings also correspond with Amtu et al. [1], who found that school culture directly contributes to improved student learning outcomes through teacher performance as an intervening variable. By leveraging organizational cultural values as a mechanism for continuous learning, through mentoring, reflection, and collaboration, inclusive schools can strengthen teachers' pedagogic competence while fostering solidarity among educators. Organizational culture thus serves not merely as a normative framework, but as a collective driving force propelling the transformation of inclusive education toward sustainable quality and justice.

The Effect of School Principals' Leadership and Organizational Culture on Teachers' Pedagogic Competence in Inclusion Schools at the High School/Equivalent Private Level in Sleman Regency

To simultaneously measure and determine the influence of principal leadership and organizational culture on teacher pedagogical competence, a multiple linear regression test was used, as presented in Table 3, with the following details.

Table 3. Results of Multiple Linear Regression Analysis of Principal's Leadership Variables (X1) and Organizational Culture (X2)

		Coefficients ^a				
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.815	5.754		2.401	.020
	Principals' Leadership	.354	.144	.320	2.452	.018
	Organizational Culture	.329	.094	.456	3.494	.001

a. Dependent Variable: Kompetensi Pedagogik Guru (Y)

The results of multiple linear regression analysis showed that the principal's leadership and organizational culture had a positive and significant effect on the pedagogic competence of teachers at the inclusion school at the high school/equivalent private level in Sleman Regency. The regression equation obtained was $Y = 13.815 + 0.354X_1 + 0.329X_2$. In addition, the results of the analysis of Effective Contribution (SE) and Relative Contribution (SR) show that the three variables have different contributions to improving teachers' pedagogic competence. The principal's leadership variable provided an effective contribution of 19.71% and a relative contribution of 39%, while organizational culture provided an effective contribution of 30.28% and a relative contribution of 61%. These results show that although the two variables have a significant influence, organizational culture is the most dominant factor in improving teachers' pedagogic competence in inclusion schools at the high school/equivalent private level in Sleman Regency. In addition to using multiple linear regression tests, this study also uses the F test to measure and partially determine the influence of principals' leadership and organizational culture on teachers' pedagogic competence, as presented in Table 4 with the following details.

Table 4. Results of F Test Analysis

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	772.590	2	386.295	25.453	.000 ^b
	Residual	774.003	51	15.177		
	Total	1546.593	53			

a. Dependent Variable: Teachers' Pedagogical Competence

b. Predictors: (Constant), Organization Culture, Principals' Leadership

Based on the simultaneous F-test conducted using SPSS version 26 for Windows, the calculated Fcal value was 25.453 with a significant value of 0.000. Since $F_{cal} (25.453) > F_{table} 3.179$ at the 5% significance level ($\alpha = 0.05$) and the significance value of $0.000 < 0.05$, H_0 was rejected and H_a was accepted. Thus, the third hypothesis (H3), which states that principals' leadership and organizational culture simultaneously influence teachers' pedagogical competence, was accepted. These results indicate that principals' leadership and organizational culture simultaneously have a positive and significant effect on teachers' pedagogical competence in inclusive private high school/equivalent level in Sleman Regency. The findings also demonstrate that the regression model is appropriate for explaining variations in teachers' pedagogical competence. Therefore, improvements in teachers' pedagogical competence are influenced by the combined contribution of effective principals' leadership and a supportive organizational culture.

Furthermore, an R^2 value greater than 0.50 indicates that the regression model has strong explanatory power in predicting teachers' pedagogical competence based on the two independent variables.

The results of the determination coefficient (R^2) analysis in this study are shown in the following Table 5.

Table 5. Results of Determination Coefficient Analysis (R^2)

Model	Model Summary ^b			
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.707 ^a	.500	.480	3.896
a. Predictors: (Constant), Organization Culture, Principals' Leadership				
b. Dependent Variable: Teachers' Pedagogical Competence				

The results of the determination coefficient (R^2) analysis showed that the R^2 value was 0.500 or 50%, which means that the variables of principal's leadership, and organizational culture together were able to explain 50% of the variation in teachers' pedagogic competence in inclusion schools at the high school/equivalent private level in Sleman Regency. Meanwhile, the remaining 50% was influenced by other factors outside of this research model. The findings reveal that principal leadership and organizational culture exert a significant influence on the pedagogic competence of teachers in inclusive schools at the senior high school or equivalent level in Sleman Regency. This confirms that teachers' pedagogic competence is shaped not solely by individual capacity but also by systematic support originating from the school environment. Within Bush's [6] theoretical framework, effective principal leadership occupies a central position in driving the performance of educational organizations, as it functions to articulate vision, build communication, and cultivate a productive learning culture. Principals who succeed in embedding the values of collaboration, fairness, and inclusivity encourage teachers to develop their pedagogical competencies in a more reflective manner. This is in line with Hoy and Miskel's [10] theory, which positions leadership and organizational culture as structural and cultural subsystems that interact directly with the technical subsystem of instruction. The influence of principal leadership on teachers' pedagogical competence is better understood as operating through the shaping of instructional conditions, rather than through direct intervention in teachers' classroom practices. Within inclusive schools, principals set strategic priorities by allocating resources for inclusive learning, organizing sustained professional development, promoting collaborative lesson planning, and establishing monitoring systems that foster reflective teaching. Such leadership practices open opportunities for teachers to gain new pedagogical knowledge and continually adjust their instructional strategies to accommodate students with diverse learning needs. Leadership therefore shapes pedagogical competence indirectly, by generating organizational conditions conducive to professional growth and instructional improvement. More importantly, the findings suggest that these two variables should not be viewed as independent determinants but rather as mutually reinforcing components.

Principal leadership sets the strategic direction by formulating an inclusive vision, allocating resources, and facilitating opportunities for professional learning. Organizational culture then converts this vision into shared norms, collaborative practices, and a sense of collective responsibility among teachers, who internalize these values and consistently apply inclusive pedagogical practices in the classroom. As a result, teachers' pedagogic competence develops through a dynamic interplay in which leadership shapes the organizational environment, reinforces professional behavior while teachers' motivation sustains ongoing improvement in instructional practice. This interplay is especially relevant in inclusive schools, since teachers are expected not only to master subject content but also to differentiate instruction, accommodate students with diverse learning needs, collaborate with special education teachers and parents, and continuously monitor individualized learning progress. These multifaceted demands call for organizational support that goes beyond individual professional competence alone. Effective school leadership and a supportive organizational culture therefore act as enabling conditions that allow teachers' intrinsic motivation to manifest as observable pedagogical competence. This points to a sequential relationship among the variables, principal leadership initiates organizational change by articulating an inclusive vision and putting supportive policies in place. Improvements in pedagogical competence are thus unlikely to emerge from leadership alone, unless accompanied by a collaborative organizational culture.

In addition, organizational culture functions as a central variable in sustaining adaptive pedagogical practices over time. A strong organizational culture fosters collaboration, reflection, and continuous learning, as captured by Senge's [16] concept of the learning organization. From Bush's [6] perspective, a healthy school organizational culture emerges as the outcome of leadership capable of embedding moral values and professionalism within the work system. This aligns with Black and Wiliam's [5] theory, which underscores the role of formative feedback in strengthening reflective and collaborative learning practices. The relevance of these findings is further supported by Nurrohman et al. [24] research, which found that principal leadership and organizational culture positively affect teachers' pedagogic competence. Taken together, the findings from Sleman confirm that Bush's visionary leadership, combined with Hoy and

Miskel's [10] social systems framework, forms an interdependent educational ecosystem, leadership provides direction while culture provides meaning, together driving improvement in teachers' pedagogical competence. Although broadly consistent with earlier studies, the present research also makes a distinctive contribution. Previous studies have largely focused on the direct effects of principal leadership and organizational culture on teacher performance within general educational settings. By contrast, this study shows that within inclusive secondary schools, these variables interact specifically in response to the distinctive instructional demands generated by student diversity. Pedagogical competence in inclusive schools therefore depends on not only on effective school management but also on teachers' capacity to continually adapt instructional strategies for learners with heterogeneous educational needs.

Within inclusive schools, organizational culture strengthens pedagogical competence by normalizing collaborative problem solving and ongoing professional learning. Because teachers routinely face instructional challenges that cannot be resolved individually, a culture that emphasizes knowledge sharing, peer discussion, and collective reflection allows them to exchange effective practices and develop more adaptive pedagogical approaches, explaining why organizational culture shapes teacher competence well beyond what formal training alone can achieve. These findings are also closely tied to the characteristics of inclusive schools in Sleman Regency. The enactment of Regional Regulation of Sleman Regency Number 5 of 2022 has pushed schools toward inclusive policies centered on equal access, collaboration with parents and communities, and learning environments that accommodate student diversity. Yet the schools involved in this study vary in institutional status (public, private, and Islamic), organizational resources, and teachers' experience with inclusive education. Given this variation, principal leadership becomes especially important for ensuring that inclusive policies are implemented consistently across schools, principals who actively support professional development, promote interdisciplinary collaboration, and build a culture of shared responsibility help teachers respond more effectively to diverse learners despite gaps in institutional capacity. Such contextual features set this study apart from earlier research conducted in conventional schools, as inclusive settings demand greater instructional flexibility multidisciplinary collaboration, differentiated assessment, and stronger partnerships with parents and support professionals, making the relationships among leadership, organizational culture, and pedagogical competence considerably more complex than those typically found in mainstream educational contexts.

Theoretically, these findings extend Bush's [6] model of educational leadership by showing that leadership shapes teachers' pedagogical competence primarily through organizational culture and work motivation, rather than through direct administrative control alone, they likewise reinforce Hoy and Miskel's [10] social systems theory by demonstrating that structural, cultural, and individual dimensions operate simultaneously within inclusive schools. In practical terms, this suggests that improving teachers' pedagogical competence should not rely solely on technical training but should also prioritize strengthening principals' instructional leadership and cultivating collaborative organizational cultures that support teachers in inclusive settings. Whereas prior research has largely reported statistical associations among organizational variables, the present study offers a fuller account of the mechanisms behind those relationships in inclusive schools, by integrating leadership theory with organizational culture, it shows that gains in teachers' pedagogical competence arise from the interaction between organizational support and teachers; professional engagement. This explanatory approach extends the existing literature beyond correlational findings toward a more conceptually grounded understanding of how pedagogical competence develops within inclusive education, ultimately indicating that such competence is generated through an interconnected organizational process rather than through isolated organizational factors.

CONCLUSION

Based on the findings and discussion, it can be concluded that principals' leadership and organizational culture jointly constitute an important framework in shaping teachers' pedagogical competence in inclusive schools at the high school/equivalent private level in Sleman Regency. Visionary, participatory, and resource-oriented leadership contributes to enhancing teachers' capacity to manage learning processes that effectively respond to students' diverse needs. At the same time, an organizational culture characterized by collaboration, openness, and inclusive values creates a supportive work environment that encourages professional reflection and pedagogical innovation.

The practical implications of these findings highlight the need to strengthen principals' leadership capacities through professional development programs that focus on transformative and inclusive leadership practices. Furthermore, schools should foster an organizational culture that promotes collaboration and continuous learning to establish a work environment that encourages teachers to engage in ongoing reflection, professional development, and pedagogical innovation.

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