

RESEARCH ARTICLE

How instructional leadership shapes the implementation of Pancasila character education? Evidence from Indonesian secondary schools

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ABSTRACT

Background: The implementation of Pancasila Character Education is a strategic priority under Indonesia's Merdeka Curriculum, yet implementation varies across schools and requires coherent school-level leadership.

Purpose: This study examines the association between instructional leadership and teachers' implementation of Pancasila Character Education in Indonesian secondary schools.

Method: A quantitative cross-sectional survey was conducted with 238 teachers from public and private secondary schools selected through purposive sampling. The questionnaire measured instructional leadership (18 indicators) and Pancasila Character Education implementation (24 indicators). Data were analysed using partial least squares structural equation modelling in SmartPLS 4.

Findings: Instructional leadership was positively associated with Pancasila Character Education implementation ($\beta = 0.745$, $t = 25.134$, $p < 0.001$). The model explained 55.5% of the outcome variance ($R^2 = 0.555$), showed a large effect size ($f^2 = 1.246$), predictive relevance ($Q^2 = 0.548$), and acceptable approximate fit ($SRMR = 0.038$).

Implication: The findings indicate that principals' goal setting, instructional supervision, curriculum coordination, support for teacher learning, and cultivation of a positive learning climate are important organizational conditions associated with stronger character-education implementation. Because the design is cross-sectional and based on teacher reports, the results support association rather than causal inference. Leadership-development programmes should therefore strengthen these instructional practices, while future longitudinal and multilevel studies should test the direction and school-level mechanisms of the relationship.

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INTRODUCTION

Character education has become a strategic priority in educational systems worldwide because schools are expected to develop academic competence alongside ethical

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judgment, civic responsibility, and social-emotional capabilities. International frameworks increasingly frame education as preparation for responsible participation in complex, digital, and culturally diverse societies, with agency, collaboration, creativity, and respect for others treated as central learning outcomes (OECD, 2019; UNESCO, 2021). Accordingly, character formation is not an additional programme but part of the educational conditions through which students learn to act responsibly in school and society.

Indonesia has responded to this agenda by positioning Pancasila Character Education within the Merdeka Curriculum and the Pancasila Student Profile. Its six dimensions - faith and noble character, global diversity, mutual cooperation, independence, critical reasoning, and creativity - require school-level translation rather than policy endorsement alone. Principals and teachers must convert these dimensions into learning objectives, lesson design, assessment, co-curricular projects, extracurricular activities, routines, role modelling, and the wider school culture. This translation creates a management challenge: schools need shared priorities, coordinated curricula, teacher support, monitoring, and collaboration with families and communities so that the six dimensions are experienced consistently across instructional and non-instructional settings (Rindrayani, 2020; Zakso et al., 2021).

Despite strong governmental commitment, the implementation of Pancasila Character Education remains inconsistent across Indonesian schools. Previous studies have identified substantial disparities in implementation quality caused by differences in leadership capacity, teacher readiness, professional competence, school resources, monitoring systems, and stakeholder collaboration (Rindrayani, 2020; Zurqoni et al., 2018). Other studies have further reported that limited instructional supervision, inadequate professional development, insufficient digital infrastructure, and organizational resistance continue to hinder the effective integration of Pancasila values into classroom instruction and school culture (Anwar et al., 2026; Muhaemin et al., 2023; Zakso et al., 2021).

Among the organizational conditions that may support this translation, instructional leadership is especially relevant because it directs leadership attention to the core work of teaching and learning. Hallinger & Murphy, (1985) model defines instructional leadership through three domains: defining the school mission, managing the instructional programme, and promoting a positive school learning climate. Subsequent synthesis shows that leadership is associated with learning primarily through indirect organizational and instructional pathways, including goal alignment, teacher learning, curriculum coordination, and supportive working conditions (Hallinger, 2011). Applied to Pancasila Character Education, these functions may operate through a shared character vision, supervision of value-integrated lessons, development of teachers' pedagogical competence, coordination across curricular and co-curricular activities, cultivation of an exemplary school culture, and monitoring of students' character development. However, direct quantitative evidence

linking this leadership framework to teachers' implementation of Pancasila Character Education remains limited.

Research on Pancasila Character Education has likewise expanded rapidly over recent years. Existing studies have investigated curriculum integration, project-based learning, culturally responsive pedagogy, digital learning, local wisdom, assessment strategies, and collaborative management in strengthening the Pancasila Student Profile (Ruyadi et al., 2026; Harjanti et al., 2026; Oktaviani et al., 2024; Prasetyarini et al., 2025; Patras et al., 2025). Other scholars have demonstrated that character education positively contributes to students' tolerance, multicultural competence, civic responsibility, and moral development (Zakso et al., 2021; Tabrani et al., 2024; Siswanto et al., 2024). Nevertheless, these studies predominantly emphasize pedagogical innovation and curriculum implementation rather than examining the strategic role of principals in ensuring successful implementation across schools.

Although instructional leadership and Pancasila Character Education have both received increasing scholarly attention, important gaps remain in the existing literature. First, previous instructional leadership studies have primarily examined outcomes such as teacher performance, teacher self-efficacy, organizational commitment, professional development, job satisfaction, and school climate (Habibi et al., 2025; Ridwan et al., 2024; Kusumaningrum et al., 2025), whereas empirical evidence directly linking instructional leadership to the implementation of Pancasila Character Education remains limited. Second, studies concerning Pancasila Character Education have largely focused on curriculum design, instructional innovation, project-based learning, local wisdom, and character assessment (Harjanti et al., 2026; Patras et al., 2025; Siswanto et al., 2024), leaving the role of school leadership comparatively underexplored. Third, much of the available evidence has relied on qualitative case studies, conceptual discussions, or literature reviews, while quantitative investigations involving large samples of secondary school teachers remain relatively scarce (Lumban Gaol, 2023; Retnosari et al., 2023). Consequently, robust empirical evidence explaining how instructional leadership shapes the implementation of Pancasila Character Education in Indonesian secondary schools is still lacking.

To address these gaps, this study investigates how instructional leadership shapes the implementation of Pancasila Character Education in Indonesian secondary schools. Specifically, the study examines the direct influence of instructional leadership on teachers' implementation of Pancasila Character Education using Partial Least Squares Structural Equation Modeling (PLS-SEM). By positioning implementation as the primary educational outcome, this study extends instructional leadership literature into the context of Indonesia's national character education agenda.

This study contributes to the literature in three ways. First, it extends the application of instructional leadership theory to the implementation of Pancasila Character Education rather than limiting the outcome to teacher performance or school climate. Second, it provides quantitative evidence from Indonesian secondary schools using a reflective measurement model and PLS-SEM. Third, it clarifies the organizational practices through which principals may support teachers in translating national character-education policy into routine school practice.

Research question: To what extent is teachers' perception of instructional leadership positively associated with their reported implementation of Pancasila Character Education in Indonesian secondary schools?

Character education has become a strategic priority in educational systems worldwide because schools are expected to develop academic competence alongside ethical judgment, civic responsibility, and social-emotional capabilities. International frameworks increasingly frame education as preparation for responsible participation in complex, digital, and culturally diverse societies, with agency, collaboration, creativity, and respect for others treated as central learning outcomes (OECD, 2019; UNESCO, 2021). Accordingly, character formation is not an additional programme but part of the educational conditions through which students learn to act responsibly in school and society.

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Theoretical Framework and Hypothesis Development

Instructional Leadership

Instructional leadership is defined in this study as leadership practice that deliberately focuses school goals, coordination, supervision, and professional support on improving teaching and learning. The conceptual basis is [Hallinger & Murphy, \(1985\)](#) PIMRS model, which comprises three interrelated domains: defining the school mission, managing the instructional programme, and promoting a positive school learning climate. The first domain concerns framing and communicating goals; the second concerns supervision and evaluation of instruction, curriculum coordination, and monitoring student progress; and the third concerns protecting instructional time, maintaining visibility, supporting professional development, and providing incentives for teaching and learning. The model therefore differs from general administrative leadership because it specifies observable practices through which principals organize the instructional core. [Hallinger, \(2011\)](#) synthesis further emphasizes that these practices are context-sensitive and generally relate to educational outcomes through teachers, organizational routines, and school conditions.

Within the Indonesian educational context, instructional leadership has undergone significant transformation alongside educational decentralization and curriculum reform. Recent studies suggest that Indonesian principals increasingly integrate instructional leadership with local wisdom, religious values, distributed leadership, and collaborative school management to improve instructional quality and strengthen school effectiveness (Raihani, 2008; Sumintono et al., 2019; Lumban Gaol, 2023; Retnosari et al., 2023). This contextual adaptation enables principals to balance national educational policies with local cultural characteristics while maintaining a strong focus on instructional improvement.

Empirical evidence consistently demonstrates that instructional leadership positively influences various organizational and instructional outcomes. Principals who actively supervise instruction, provide constructive feedback, support teachers' professional learning, and establish collaborative school cultures significantly enhance teacher self-efficacy, professional competence, organizational commitment, instructional quality, and school climate (Amzat et al., 2022; Sin, 2022; Habibi et al., 2025; Kusumaningrum et al., 2025). Consequently, instructional leadership is increasingly regarded as the principal's most strategic mechanism for improving educational quality through teacher empowerment and instructional excellence.

Implementation of Pancasila Character Education

Pancasila Character Education represents Indonesia's national strategy for cultivating students who demonstrate moral integrity, civic responsibility, and competencies required in the twenty-first century. Under the Merdeka Curriculum, this strategy is operationalized through the Pancasila Student Profile, which consists of six integrated dimensions: faith and noble character, global diversity, mutual cooperation, independence, critical reasoning, and creativity. Rather than functioning as a separate curriculum subject, these competencies are expected to be embedded across instructional activities, extracurricular programmes, school culture, assessment practices, and community engagement.

Successful implementation therefore requires systematic integration of Pancasila values into curriculum planning, instructional processes, teachers' pedagogical practices, school culture, assessment systems, and collaboration among schools, families, and communities (Adi, 2024; Aminu et al., 2026; Ruyadi et al., 2026). Several recent studies further demonstrate that project-based learning, culturally responsive pedagogy, local wisdom integration, digital learning, and collaborative management contribute significantly to strengthening the implementation of the Pancasila Student Profile ((Harjanti et al., 2026; Patras et al., 2025).

Nevertheless, implementation quality varies considerably among Indonesian schools. Differences in school leadership, teacher readiness, organizational support, professional development opportunities, monitoring systems, and stakeholder collaboration frequently

determine whether Pancasila Character Education becomes embedded in everyday educational practice or remains merely a policy aspiration (Anwar et al., 2026; Rindrayani, 2020; Zurqoni et al., 2018). These findings indicate that successful implementation depends not only on curriculum design but also on effective instructional leadership that enables teachers to translate educational policy into meaningful classroom practice.

Instructional Leadership and the Implementation of Pancasila Character Education

The relationship between instructional leadership and the implementation of Pancasila Character Education can be explained through instructional leadership theory, which emphasizes principals' responsibility for improving teaching and learning by creating organizational conditions that enable teachers to implement educational innovation effectively. Principals who articulate clear instructional goals, supervise classroom practices, coordinate curriculum implementation, monitor instructional quality, and support teachers' professional development establish organizational conditions that encourage teachers to integrate Pancasila values consistently into instructional activities, classroom management, and school culture.

Within Indonesia's educational context, instructional leadership also extends beyond classroom supervision by integrating local wisdom, religious values, collaborative management, and distributed leadership into school governance (Raihani, 2008; Lumban Gaol, 2023). Such leadership practices strengthen teachers' motivation, professional commitment, and instructional capacity while simultaneously creating a positive school climate that supports character education implementation (Habibi et al., 2025; Kusumaningrum et al., 2025). Furthermore, management frameworks such as POISE (Planning, Organizing, Implementing, Supervising, and Evaluating) emphasize that effective implementation of Pancasila Character Education requires systematic planning, instructional supervision, continuous evaluation, and collaboration among educational (Wibisono et al., 2026).

Previous empirical studies provide indirect support for this relationship. Instructional leadership has been shown to improve teacher self-efficacy (Adi, 2024; Jasman et al., 2024), teacher professional development (Amzat et al., 2022), organizational commitment (Sin, 2022; Sucitra et al., 2024), school climate (Habibi et al., 2025), and collaborative professional learning (Lessy et al., 2024). At the same time, studies on Pancasila Character Education consistently conclude that successful implementation depends upon leadership commitment, teacher competence, curriculum integration, and school-wide collaboration (Zakso et al., 2021; Harjanti et al., 2026). These complementary findings suggest that instructional leadership provides the organizational and instructional foundation necessary for implementing Pancasila Character Education effectively.

Despite these theoretical and empirical indications, quantitative evidence directly examining the relationship between instructional leadership and the implementation of Pancasila Character Education remains limited. Most existing studies investigate instructional leadership through teacher performance, organizational commitment, or school climate, while research on Pancasila Character Education predominantly focuses on pedagogical innovation, curriculum implementation, or local wisdom integration. Consequently, empirical investigation of the direct influence of instructional leadership on the implementation of Pancasila Character Education constitutes an important contribution to both educational leadership and character education literature.

Hypothesis Development

Instructional leadership provides strategic direction for schools by aligning instructional goals, curriculum implementation, teacher professional development, instructional supervision, and positive school climate toward achieving educational objectives. Through these mechanisms, principals create organizational conditions that encourage teachers to consistently integrate Pancasila values into classroom instruction, school culture, and students' daily learning experiences. Schools characterized by strong instructional leadership are therefore expected to demonstrate more effective implementation of Pancasila Character Education than schools with weaker instructional leadership.

This argument is supported by previous empirical studies demonstrating that instructional leadership enhances teacher self-efficacy, professional development (Amzat et al., 2022), organizational commitment (Sucitra et al., 2024), school climate (Habibi et al., 2025), and culturally responsive instructional practices (Werang et al., 2026). Simultaneously, successful implementation of Pancasila Character Education requires leadership commitment, instructional supervision, curriculum integration, teacher competence, and systematic school management (Wibisono et al., 2026; Adi, 2024; Harjanti et al., 2026). Therefore, stronger instructional leadership is theoretically expected to strengthen the implementation of Pancasila Character Education in Indonesian secondary schools.

Accordingly, the following hypothesis is proposed:

H1: Instructional leadership has a positive and significant effect on the implementation of Pancasila Character Education in Indonesian secondary schools.

METHODS

This study employed a quantitative research approach using a cross-sectional survey design to examine the influence of instructional leadership on the implementation of Pancasila Character Education in Indonesian secondary schools. A quantitative approach was considered appropriate because the objective of the study was to empirically test the structural relationship between latent variables using statistical modeling. Data were

collected at a single point in time through a structured questionnaire administered to teachers working in secondary schools.

The conceptual model proposes a direct relationship between Instructional Leadership as the independent variable and Implementation of Pancasila Character Education as the dependent variable. Structural Equation Modeling based on Partial Least Squares (PLS-SEM) was employed to estimate the proposed relationship because it is suitable for prediction-oriented research, latent constructs measured by multiple indicators, and complex measurement models.

The target population comprised teachers employed in Indonesian secondary schools, including junior secondary schools (SMP/MTs) and senior secondary schools (SMA/MA/SMK). The unit of analysis was the individual teacher because teachers directly enact Pancasila Character Education and observe principals' instructional leadership practices. Eligibility was not restricted to a particular subject; teachers from different subject areas could participate if they met the inclusion criteria.

A total of 238 teachers from public and private secondary schools participated. The survey did not collect a school identifier, consistent with the anonymity protocol; consequently, the exact number of participating schools and the clustering of teachers within schools cannot be reported. The retained dataset also does not contain a sufficiently complete demographic breakdown by gender, school sector, subject area, or teaching experience for valid subgroup reporting. These limitations are acknowledged because they constrain assessment of sample composition and school-level dependence. The sample nevertheless exceeded the minimum requirement for estimating the proposed PLS-SEM model; given one structural path directed at the endogenous construct, 238 observations provided substantially more cases than the heuristic ten-times minimum.

Participants were selected using purposive sampling based on the following inclusion criteria: (1) currently serving as a teacher in a secondary school; (2) having worked with the current principal for at least one academic year; (3) being directly involved in implementing the Merdeka Curriculum or Pancasila Character Education; and (4) voluntarily agreeing to participate in the study.

Data were collected using a structured questionnaire developed from established theories and Indonesian educational policy.

Instructional Leadership was measured with 18 items adapted from the Principal Instructional Management Rating Scale (PIMRS) developed by [Hallinger & Murphy, \(1985\)](#). The items represented the three reflective domains of defining and communicating the school mission, managing the instructional programme, and promoting a positive school learning climate. Six items were used for each domain. Wording was contextually adapted to Indonesian secondary schools and the Merdeka Curriculum, then reviewed by experts for

conceptual relevance, clarity, and contextual suitability. The available study documentation does not support reporting a separate back-translation or pilot-testing phase; this is therefore treated as an instrument-development limitation rather than inferred after the fact.

The adaptation preserved the theoretical meaning of the PIMRS domains while aligning item language with leadership practices relevant to curriculum implementation, instructional supervision, teacher development, and school climate in the Indonesian context.

Implementation of Pancasila Character Education was measured with 24 reflectively specified items developed from the official policy architecture of the Merdeka Curriculum and Pancasila Student Profile and from the whole-school character-education literature (Rindrayani, 2020; Zakso et al., 2021). Item generation followed a construct-mapping process: policy expectations and prior research were translated into observable teacher- and school-level implementation practices, redundant statements were consolidated, and four items were retained for each of six domains. The domains were curriculum planning and integration, value-based instructional implementation, role modelling and habituation, school culture and climate, character assessment and reflection, and school-family-community collaboration. Together, they represent implementation as a schoolwide practice rather than students' possession of particular character traits.

Before data collection, specialists in educational leadership, educational management, character education, and educational measurement examined both item sets for relevance, representativeness, clarity, and contextual suitability. Their review led to minor wording revisions. Construct quality was subsequently evaluated in the full sample through indicator loadings, Cronbach's alpha, rho_A, composite reliability, average variance extracted, HTMT, the Fornell-Larcker criterion, and collinearity statistics before the structural relationship was interpreted.

All questionnaire items used a five-point frequency scale: 1 = never, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always. Higher scores represented stronger perceived instructional leadership and more frequent implementation of Pancasila Character Education practices.

Higher scores indicate stronger instructional leadership practices and higher levels of Pancasila Character Education implementation.

Data were collected during the 2026 academic year using an online questionnaire distributed through school networks and teacher professional communities. Prior to participation, respondents received information regarding the study's objectives, voluntary participation, anonymity, confidentiality, and the use of research data exclusively for academic purposes.

Participation was entirely voluntary, and respondents provided informed consent electronically before completing the questionnaire. No personally identifiable information was collected during the survey.

The proposed model was analysed in SmartPLS 4 using partial least squares structural equation modelling (PLS-SEM), following [Hair et al., \(2023\)](#). PLS-SEM was selected because the study was prediction-oriented, used latent constructs measured by multiple indicators, and sought to estimate explained variance and out-of-sample predictive relevance. Both constructs were specified as reflective because the indicators were treated as manifestations of their respective latent variables and were expected to covary.

Analysis proceeded in two stages. First, the reflective measurement model was assessed using outer loadings, Cronbach's alpha, rho_A, composite reliability, average variance extracted (AVE), the heterotrait-monotrait ratio (HTMT), the Fornell-Larcker criterion, and variance inflation factors (VIF). Loadings of at least 0.70, reliability coefficients between approximately 0.70 and 0.95, AVE above 0.50, HTMT below 0.85, and VIF below 3.30 were used as diagnostic guidelines [Hair et al., \(2023\)](#). Reliability values above 0.95 were interpreted cautiously because they can indicate item redundancy.

Second, the structural model was evaluated using the standardized path coefficient, a nonparametric bootstrap with 5,000 subsamples, a two-tailed test at the 5% significance level, t statistics, p values, and 95% confidence intervals. Explanatory and predictive performance were examined through R², f², Q²_predict, and SRMR. As interpretive guidelines, f² values of 0.02, 0.15, and 0.35 indicated small, medium, and large effects; positive Q²_predict values indicated predictive relevance; and SRMR below 0.08 indicated acceptable approximate fit. These indices were used as complementary diagnostics rather than as proof of causality or global model validity. H1 was considered supported when the estimated coefficient was in the hypothesized positive direction and its bootstrap confidence interval excluded zero, consistent with the t statistic and p value.

This study complied with established ethical principles for educational research. Participation was voluntary, informed consent was obtained from all respondents before data collection, and participants retained the right to withdraw from the study at any stage without consequence. All responses were anonymized, treated confidentially, and analysed only in aggregated form. No personally identifiable information was collected, and the data were used solely for academic research purposes.

RESULT AND DISCUSSION

Measurement Model Assessment

Before testing the structural relationships, the measurement model was evaluated to examine indicator reliability, internal consistency reliability, convergent validity, discriminant

validity, and multicollinearity. The evaluation followed the recommendations for PLS-SEM measurement assessment.

Indicator Reliability

The outer loading values (see Table 1) indicate that all indicators adequately represent their respective latent constructs. The instructional leadership construct consists of eighteen indicators with standardized loading values ranging from 0.717 to 0.797, while the implementation of Pancasila Character Education construct comprises twenty-four indicators with loading values ranging from 0.707 to 0.799. Since all loading values exceed the recommended threshold of 0.70, no indicators were removed from the analysis. These findings demonstrate satisfactory indicator reliability for both constructs.

Tabel 1.

Outer Loadings

Construct	Range
Instructional Leadership	0.717–0.797
Pancasila Character Education	0.707–0.799

Internal Consistency Reliability

Internal consistency reliability was assessed using Cronbach's alpha, Composite Reliability (rho_a), and Composite Reliability (rho_c). As presented in Table 2, both constructs exhibit values substantially above the minimum threshold of 0.70.

Instructional Leadership achieved Cronbach's Alpha of 0.956, Composite Reliability (rho_a) of 0.957, and Composite Reliability (rho_c) of 0.960. Similarly, Pancasila Character Education demonstrated Cronbach's Alpha of 0.967, Composite Reliability (rho_a) of 0.968, and Composite Reliability (rho_c) of 0.970. These findings indicate excellent internal consistency reliability.

Tabel 2.

Reliability and Convergent Validity

Construct	Alpha	rho_A	CR	AVE
Instructional Leadership	0.956	0.957	0.960	0.574
Pancasila Character Education	0.967	0.968	0.970	0.570

Convergent Validity

Convergent validity was examined using the Average Variance Extracted (AVE). The AVE values for Instructional Leadership (0.574) and Pancasila Character Education (0.570) both exceeded the recommended cut-off value of 0.50. Therefore, each construct explains more than half of the variance of its indicators, confirming satisfactory convergent validity.

Discriminant Validity

Discriminant validity (see Table 3) was evaluated using the Heterotrait–Monotrait Ratio (HTMT) and the Fornell–Larcker criterion. The HTMT value between Instructional Leadership

and Pancasila Character Education was 0.769, which is below the recommended threshold of 0.85.

Furthermore, the square root of the AVE for each construct exceeded its correlation with the other construct. Specifically, the square root of AVE was 0.758 for Instructional Leadership and 0.755 for Pancasila Character Education, while the inter-construct correlation was 0.745. These findings indicate adequate discriminant validity.

Tabel 3.

Discriminant Validity

Method	Result	Decision
HTMT	0.769	Accepted
Fornell–Larcker	Satisfied	Accepted

Collinearity Assessment

Variance Inflation Factor (VIF) values ranged from 1.945 to 2.798, well below the conservative threshold of 3.30. These results indicate that multicollinearity is not a concern in the measurement model. Answer to the Research Question: Association Between Instructional Leadership and Pancasila Character Education Implementation. After confirming the adequacy of the measurement model, the structural model was evaluated to examine the proposed hypothesis.

Hypothesis Testing

Bootstrapping with 5,000 resamples was conducted to assess the significance of the structural relationship. The results reveal that Instructional Leadership has a positive and statistically significant effect on the implementation of Pancasila Character Education (see Table 4).

The standardized association was $\beta = 0.745$ ($t = 25.134$, $p < 0.001$); the 5,000-subsample bootstrap therefore supported H1 because the coefficient was in the hypothesized positive direction and statistically distinguishable from zero according to the reported test statistics. In answer to the research question, stronger teacher-reported instructional leadership was associated with stronger reported implementation of Pancasila Character Education. The archived output available for this revision did not contain the numerical bootstrap confidence-interval bounds, so no interval values are inferred or reported.

Tabel 4.

Hypothesis Testing

Hypothesis	β	t	p	Decision
H1: Instructional Leadership → Pancasila Character Education	0.745	25.134	<0.001	Supported

Coefficient of Determination (R^2)

The coefficient of determination (R^2) for Pancasila Character Education is 0.555. This indicates that 55.5% of the variance in the implementation of Pancasila Character Education is explained by Instructional Leadership, while the remaining 44.5% is attributable to other variables not included in the model. According to commonly used guidelines, this represents moderate to substantial explanatory power.

Effect Size (f^2)

The effect size of Instructional Leadership on Pancasila Character Education is 1.246, which substantially exceeds the threshold of 0.35 for a large effect. This indicates that Instructional Leadership makes a substantial contribution to explaining the implementation of Pancasila Character Education.

Predictive Relevance

The Stone–Geisser predictive relevance value (Q^2_{predict}) is 0.548, indicating that the model possesses strong predictive capability because the value is well above zero.

Model Fit

Model fit (see [Table 5](#)) was assessed using the Standardized Root Mean Square Residual (SRMR). The SRMR value for both the saturated and estimated models is 0.038, which is below the recommended threshold of 0.08. This indicates that the proposed model demonstrates a satisfactory overall fit with the observed data.

Tabel 5.

Structural Model Evaluation

Indicator	Value	Interpretation
R^2	0.555	Moderate–Substantial
f^2	1.246	Large Effect
Q^2	0.548	High Predictive Relevance
SRMR	0.038	Good Model Fit

Discussion

The principal result is a strong positive association between instructional leadership and teachers' reported implementation of Pancasila Character Education ($\beta = 0.745$, $t = 25.134$, $p < 0.001$). Instructional leadership alone explained 55.5% of the variance in implementation ($R^2 = 0.555$), and its effect size was large ($f^2 = 1.246$). The model also showed predictive relevance ($Q^2_{\text{predict}} = 0.548$) and acceptable approximate fit ($SRMR = 0.038$). Taken together, these statistics indicate that instructional leadership is an important correlate and predictor within the estimated model; they do not establish temporal or causal effects because the data are cross-sectional and self-reported.

This association supports viewing Pancasila Character Education not only as a curriculum-content issue but also as an organizational and instructional-leadership issue. The Merdeka Curriculum specifies the policy direction, whereas school leaders help create

the goals, coordination, supervision, professional support, and routines through which teachers enact that direction. This interpretation is consistent with evidence that implementation varies with teacher readiness, organizational support, monitoring, and stakeholder collaboration (Rindrayani, 2020; Zurqoni et al., 2018). The present result adds a quantitative estimate of the relationship while remaining cautious about causal ordering.

The result is consistent with Hallinger & Murphy, (1985) framework, particularly its three domains of defining the school mission, managing the instructional programme, and promoting a positive learning climate. In the present context, a mission can communicate shared character priorities; management of instruction can align lesson planning, supervision, curriculum coordination, and assessment with Pancasila values; and a positive learning climate can support teacher development, modelling, habituation, and student participation. (Hallinger, 2011) synthesis proposes that leadership is connected with learning through such organizational and instructional pathways. The current model supports the relevance of that framework to character-education implementation, although it did not test the individual mediating pathways.

Teachers remain the immediate implementers of character education through lesson design, classroom interaction, modelling, feedback, and assessment. The large estimated association suggests that these practices are more likely to be reported where principals provide clear instructional direction and sustained professional support. This interpretation aligns with Indonesian evidence linking instructional leadership with teacher self-efficacy, professional development, commitment, and school climate (Amzat et al., 2022; Habibi et al., 2025; Jasman et al., 2024; Sin, (2022). Nevertheless, these variables were not measured as mediators in the present study and should not be treated as demonstrated mechanisms.

The study also contributes to Pancasila Character Education research by foregrounding leadership as an organizational correlate of implementation. Earlier work has emphasized curriculum integration, project-based learning, culturally responsive pedagogy, local wisdom, assessment, and digital learning (Harjanti et al., 2026; Patras et al., 2025; Ruyadi et al., 2026; Siswanto et al., 2024). The present findings complement that pedagogical literature by showing that variation in implementation is also systematically associated with how teachers perceive principals' instructional leadership.

The findings also align with recent studies emphasizing the importance of culturally responsive instructional leadership in Indonesia. Indonesian school leadership is inherently influenced by local wisdom, religious values, and collaborative social traditions that shape educational practice. Leadership philosophies such as *Ing Ngarso Sung Tulodo*, *Asta Brata*, and Islamic leadership values encourage principals to demonstrate exemplary behaviour, moral integrity, participatory decision-making, and collective responsibility. Such culturally grounded leadership strengthens teachers' motivation and reinforces the legitimacy of

character education because instructional practices become aligned with community expectations and national identity (Werang et al., 2026; Raihani, 2008; Bahzar, 2019). Accordingly, instructional leadership in Indonesia should not be interpreted merely as the technical supervision of classroom instruction but rather as a culturally embedded leadership approach that integrates professional management with ethical and civic values.

The findings further suggest that coherent implementation requires coordination across planning, instruction, supervision, evaluation, and collaboration with families and communities. Instructional leadership can provide this coherence by aligning character goals with the school's instructional programme and professional learning. This is an interpretation of the observed association, not a tested mediation process, and future research should directly measure coordination and school culture as intervening variables.

Theoretically, the study extends the criterion domain of instructional leadership by treating teachers' implementation of national character-education policy as an educational outcome. The statistical results show that the Hallinger and Murphy framework remains relevant beyond conventional outcomes such as teacher performance and school climate. The contribution is bounded, however, to an association between two teacher-reported constructs; it does not establish that leadership independently causes implementation or that the same relationship holds uniformly across schools.

Practically, leadership-development programmes may usefully emphasize instructional goal setting, supervision, curriculum coordination, teacher coaching, professional learning, and school-culture development. Educational authorities may also align principal evaluation with evidence of support for value-integrated instruction rather than administrative compliance alone. These recommendations follow from the strength of the observed association, but implementation trials are needed before claims can be made about the effectiveness of particular leadership interventions.

Several limitations qualify the findings. The cross-sectional design does not establish temporal order, and common-source teacher reports may inflate associations despite anonymity and neutral survey instructions. The omission of school identifiers prevented reporting the number of participating schools, estimating within-school dependence, or conducting multilevel analysis. Incomplete demographic metadata prevented reliable subgroup description by gender, school sector, subject, and teaching experience. In addition, the documentation available for the adapted instrument does not permit a detailed account of back-translation or pilot testing, and the very high reliability coefficients warrant examination for possible item redundancy. Finally, the single-path model omitted plausible mediators and contextual moderators. These issues define the agenda for longitudinal, multisource, multilevel, and instrument-validation research.

CONCLUSION

This study found a strong positive association between teachers' perceptions of instructional leadership and their reported implementation of Pancasila Character Education in Indonesian secondary schools ($\beta = 0.745$, $p < 0.001$). The model explained 55.5% of implementation variance, with a large effect size and positive predictive relevance. These findings support the relevance of instructional goal setting, supervision, curriculum coordination, teacher learning, and a positive school climate for translating the Pancasila Student Profile into routine educational practice. They do not, however, demonstrate causality. For practice, principal-development and evaluation systems should give greater attention to these instructional functions and to evidence that character goals are embedded across curricular, co-curricular, extracurricular, assessment, and school-culture activities. Future research should use longitudinal or experimental designs, record school identifiers for multilevel analysis, report complete respondent demographics, collect data from principals and students as well as teachers, and test mediators such as teacher efficacy, professional learning, coordination, and school climate. Further validation should also document translation, cognitive interviewing or pilot testing, item redundancy, and measurement invariance across school types and respondent groups.

DECLARATIONS

Author Contribution

Ganeswara, G. M., Conceptualization, Methodology, Investigation, Formal analysis, Data curation, Validation, Visualization, Writing – Original Draft, Writing – Review & Editing, Project administration. **Kurniawaty, I.**, Investigation, Validation, Resources, Writing – Review & Editing. All authors have read and approved the final version of the manuscript and agree to be accountable for all aspects of the work.

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Conflict of Interest

The authors declare no conflict of interest.

Declaration of AI Use

Generative AI (ChatGPT, OpenAI) was used during the preparation of this manuscript solely to assist with language refinement, improving readability, and enhancing the clarity of academic writing under the full supervision of the authors. All conceptual development, research design, data collection, statistical analysis, interpretation of findings, and final editorial decisions were conducted entirely by the authors. The authors take full responsibility for the accuracy, originality, and integrity of the manuscript.

Additional Information

Data Availability Statement

The datasets generated and analyzed during the current study are available from the corresponding author upon reasonable request. The data are not publicly available because they contain information collected from participating teachers and are retained to protect participants' confidentiality.

Ethics Statement

This study was conducted in accordance with the ethical principles for research involving human participants. Participation was voluntary, informed consent was obtained from all respondents prior to data collection, and all responses were anonymized and treated confidentially. No personally identifiable information was collected, and the data were used solely for academic research purposes.

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Permissions

Not applicable.

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