

Developing a Learning Evaluation Management Model for Pancasila Education to Strengthen Character and Civic Literacy in Indonesian Secondary Schools

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HOW TO CITE:

Hairul Amren Samosir, Novi Juli Rosani Zulkarnain (2026). Developing a Learning Evaluation Management Model for Pancasila Education to Strengthen Character and Civic Literacy in Indonesian Secondary Schools. International Journal of Special Education, 41(18s), 1636-1647

ABSTRACT:

This study develops and validates a learning evaluation management model for Pancasila Education designed to strengthen students' character and civic literacy in Indonesian secondary schools. The study addresses the limitation of conventional evaluation practices that tend to emphasize cognitive achievement while giving insufficient attention to affective, behavioral, and civic dimensions of learning. A research and development design combined with a quantitative explanatory approach was employed. Data were collected from 312 respondents, consisting of students, Pancasila Education teachers, and school administrators from public senior high schools implementing the Merdeka Curriculum. The proposed model was examined using Partial Least Squares Structural Equation Modeling. The measurement model demonstrated satisfactory reliability and validity, with indicator loadings ranging from 0.71 to 0.89, Composite Reliability values above 0.90, and Average Variance Extracted values exceeding 0.50. The structural model showed that Learning Evaluation Management significantly influenced Character Strengthening and Civic Literacy. Character Strengthening also significantly affected Civic Literacy and partially mediated the relationship between Learning Evaluation Management and Civic Literacy. The model demonstrated substantial explanatory power, with R^2 values of 0.58 for Character Strengthening and 0.63 for Civic Literacy. These findings suggest that systematic evaluation planning, implementation, monitoring, and feedback can function as strategic mechanisms for integrating Pancasila values into measurable character and civic learning outcomes. The study contributes an empirically validated framework for improving character-based civic assessment within the Merdeka Curriculum.

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Keywords: Pancasila Education; learning evaluation management; character strengthening; civic literacy; Merdeka Curriculum; secondary education

Introduction

Pancasila Education is central to the Indonesian national education system because it embodies the philosophical values that guide the moral, civic, and social behavior of learners. As the philosophical foundation of the Indonesian state, Pancasila comprises five core principles belief in the divine, just and civilized humanity, national unity, democracy guided by wisdom, and social justice that serve as essential benchmarks for ethical conduct and citizenship competencies. In the era of globalization and digital transformation, these values must be effectively translated into measurable learning outcomes to strengthen student character and civic literacy.

Contemporary educational research emphasizes that civic literacy extends beyond mere comprehension of civic structures and includes the ability to think critically, engage in democratic practices, and act responsibly in complex social environments. Current studies in Indonesia reveal a growing emphasis on developing classroom strategies that integrate Pancasila values with critical literacy and digital citizenship competencies to maintain relevance in modern learning contexts (Basariah et al., 2025). Indeed, empirical evidence from recent research indicates that systematic integration of digital media in Pancasila Education significantly correlates with improvements in civic literacy outcomes among students (Basariah et al., 2025).

Despite these advancements, existing evaluation models still tend to focus predominantly on cognitive outcomes, with limited attention to affective and behavioral dimensions necessary for robust character development. For example, studies on planning literacy-based character education to strengthen the Pancasila student profile demonstrate the effectiveness of culturally embedded instructional strategies but do not fully connect these strategies with comprehensive evaluation systems (Suratmi, 2024). Similarly, research on civic literacy models highlights the need for integrated frameworks that promote both conceptual understanding and character formation but stops short of operationalizing

systematic evaluation mechanisms (Kurniawan et al., 2025).

The gap between intended curricular goals and actual evaluative practices suggests a critical need for an integrated evaluation management model. Such a model would not only assess what students know about Pancasila values but also how they internalize and express these values through ethical behavior, civic participation, and responsible decision-making. Recent work on Pancasila student character instruments underscores the importance of valid and reliable assessment tools that reflect multidimensional character constructs aligned with national values (2024).

In response to these gaps, this study proposes a **Learning Evaluation Management Model for Pancasila Education** that systematically aligns curriculum goals, instructional processes, and assessment practices to strengthen both character and civic literacy. This model envisions evaluation as an interconnected process encompassing formative assessment, performance-based evaluation, continuous feedback, and data-informed instructional improvement. By bridging theoretical foundations with practical evaluation strategies, the proposed model aims to support educators, administrators, and policymakers in fostering ethically grounded, civically engaged, and contextually adaptive learners capable of addressing Indonesia's contemporary challenges.

Literature Review

Pancasila Education and Character Formation in Indonesian Schools

Pancasila Education occupies a strategic position in the Indonesian education system because it functions not only as a subject of civic knowledge but also as a medium for moral, social, and national character development. Pancasila represents the philosophical foundation of the Indonesian state and provides normative guidance for shaping students' attitudes, values, and civic behavior. In the post-reform era, Pancasila Education has continued to evolve in response to social, political, and educational

changes, particularly in relation to democracy, pluralism, and national identity (Hastangka & Ediyono, 2023). Within this context, Pancasila Education is expected to prepare learners who are not only knowledgeable about national ideology but also capable of practicing values such as religiosity, humanity, unity, deliberation, justice, tolerance, responsibility, and democratic participation.

The implementation of the Merdeka Curriculum has further strengthened the relevance of Pancasila values through the Profil Pelajar Pancasila framework. This framework emphasizes the development of students who are faithful, morally upright, globally diverse, cooperative, independent, critical, and creative. Astuti (2024) explains that the new learning paradigm in the independent curriculum promotes student-centered learning and strengthens the integration of the Pancasila Student Profile into classroom practices. Similarly, Bahri et al. (2025) highlight the importance of contextual strategies in implementing P5 activities so that Pancasila values can be meaningfully internalized through real learning experiences.

Character education in the Pancasila context requires more than the transmission of moral concepts. It demands structured learning experiences that allow students to understand, reflect on, and demonstrate values in everyday behavior. Suratmi (2024) shows that literacy-based character education planning supported by local culture can strengthen the Pancasila Student Profile by connecting national values with students' socio-cultural environments. Hidayati et al. (2024) also emphasize that role-playing strategies in civics learning can support the internalization of Pancasila values by allowing students to experience ethical and civic situations directly. These findings indicate that character strengthening is most effective when Pancasila values are embedded into learning activities, classroom interaction, and authentic social experiences.

However, the success of character education depends not only on instructional strategies but

also on the quality of evaluation systems used to measure and guide students' development. Character learning outcomes are multidimensional and include cognitive, affective, and behavioral aspects. Therefore, evaluation practices in Pancasila Education must be able to assess not only students' understanding of values but also their attitudes, dispositions, participation, and consistency in applying those values. Nurhasanah (2024) argues that e-character assessment based on the Profil Pelajar Pancasila is important for supporting more systematic and technology-based character evaluation. Likewise, Manggaberani and Hidayanto (2024) demonstrate that the development of character assessment instruments is necessary to ensure that character outcomes can be measured validly and reliably in school contexts.

Civic Literacy as a Core Outcome of Pancasila Education

Civic literacy is a central outcome of Pancasila Education because it reflects students' ability to understand civic concepts, participate responsibly in society, and demonstrate democratic attitudes. Civic literacy does not merely refer to knowledge about government institutions, laws, or citizenship rights. It also includes civic skills, critical thinking, ethical judgment, social responsibility, and civic disposition. Keegan (2021) introduces the concept of critical affective civic literacy, emphasizing that civic learning should also address political emotions, moral awareness, and students' capacity to respond to social issues. This perspective is relevant to Pancasila Education because civic literacy in Indonesia must integrate knowledge, values, and responsible action.

Recent studies have shown that civic literacy is increasingly shaped by digital transformation and contemporary social challenges. Fajri et al. (2024), through a systematic literature review on digital citizenship in civic education, emphasize that civic education must prepare students to participate ethically and critically in digital spaces. Efendi et al. (2025) also argue that the

implementation of Pancasila values in the digital era is essential to guide students' online behavior, digital responsibility, and ethical communication. These studies demonstrate that civic literacy in modern education should include digital citizenship competencies, especially as students increasingly interact, learn, and participate in public discourse through digital platforms.

The development of civic literacy is closely connected to students' character formation. Students who possess integrity, tolerance, responsibility, and democratic attitudes are more likely to demonstrate meaningful civic participation. Lee et al. (2025) support this view by developing and validating a civic engagement scale that highlights the importance of measuring civic participation, social concern, and democratic involvement. Younas et al. (2025) further show that multiple modalities of teaching civic education awareness can influence civic literacy outcomes, indicating that civic literacy improves when students experience diverse, interactive, and reflective learning methods.

In the Indonesian context, civic literacy must be understood as a combination of national identity, democratic competence, social responsibility, and Pancasila-based morality. Kurniawan et al. (2025) underline the importance of integrated civic literacy models that promote both conceptual understanding and character formation. This suggests that civic literacy cannot be separated from character strengthening. Rather, character serves as a foundation for civic literacy because students' civic knowledge becomes meaningful only when it is expressed through ethical behavior and responsible participation.

Learning Evaluation and Formative Assessment in Character-Based Civic Education

Evaluation is a crucial component of educational management because it provides information about learning progress, instructional effectiveness, and achievement of curriculum goals. In character-based civic education, evaluation should not be limited to summative tests or cognitive measurement. Instead, it should include formative assessment, authentic

assessment, performance-based assessment, reflection, peer assessment, self-assessment, and continuous feedback. Hair et al. (2022) emphasize that in model validation research, measurement quality is essential to ensure that constructs are reliable and valid. This principle is especially important in evaluating abstract constructs such as character strengthening and civic literacy.

Formative assessment has been widely recognized as an effective approach for improving student learning. Morris, Perry, and Wardle (2021) explain that formative assessment and feedback support learning improvement by helping students understand goals, monitor progress, and revise their performance. Zhang et al. (2020), in their systematic review of formative assessment in K–12 education, found that formative assessment contributes positively to student achievement when implemented with clear learning targets and meaningful feedback. Brown (2025) also highlights that teacher conceptions of assessment and feedback influence formative assessment practices, suggesting that teachers' understanding of evaluation directly affects the quality of classroom assessment.

Feedback plays a central role in formative assessment because it guides students toward improvement. Molin et al. (2021) found that feedback strategies can improve students' learning gains, while Liu et al. (2021) showed that combining face-to-face feedback and e-feedback can enhance learning processes in academic contexts. Wu et al. (2022) also demonstrated that peer feedback can serve as a reliable and valid complement to teacher feedback. These findings are relevant for Pancasila Education because character and civic literacy development require continuous reflection, dialogue, and improvement rather than one-time testing.

In civic and character education, assessment must also capture affective and behavioral dimensions. Bellido-García, Perry, and Wardle (2024) emphasize that student involvement in learning and formative assessment can strengthen competency development. Mountain et al. (2023)

show that students' engagement with assessment criteria can support self-regulation, which is important for character formation. These studies suggest that students should be actively involved in the evaluation process through reflection, self-assessment, and participation in setting learning goals. Such practices can help students become more aware of their values, responsibilities, and civic roles.

Digital Assessment and Evaluation Management

The increasing use of technology in education has encouraged the development of digital formative assessment and online evaluation systems. Kaya-Capocci, O'Leary, and Costello (2022) propose a framework to support digital formative assessment implementation, emphasizing the importance of alignment among pedagogy, technology, and assessment goals. Heil and Ifenthaler (2023), through a systematic review of online assessment in higher education, indicate that digital assessment can improve flexibility, feedback delivery, and data-based decision-making when properly designed. Although these studies focus largely on higher education, their findings are relevant to secondary schools implementing digital-based evaluation systems under the Merdeka Curriculum.

Digital assessment can also support the evaluation of character and civic literacy by enabling teachers to collect evidence from multiple learning activities, including portfolios, reflections, projects, online discussions, and performance tasks. Lee (2023) shows that artificial intelligence-enabled evaluation can support feedback generation in large-scale online courses. Yao et al. (2021) also found that automatic writing evaluation can be integrated into peer assessment to support learning improvement. These studies indicate that technology can enhance evaluation efficiency, although its use must remain pedagogically meaningful and ethically controlled.

In the context of Pancasila Education, digital evaluation should not merely digitize traditional tests. It should support authentic and continuous assessment of students' character development,

civic reasoning, collaboration, and digital citizenship. Fajri et al. (2024) and Efendi et al. (2025) emphasize that civic education in the digital era must include ethical digital behavior and responsible participation. Therefore, evaluation management in Pancasila Education should integrate digital tools to monitor both offline and online expressions of civic values.

Nevertheless, challenges remain in implementing formative and digital assessment. Puspitasari et al. (2024) identify problems related to online assessment alignment and implementation, including inconsistencies between learning objectives, assessment tools, and feedback mechanisms. These challenges show the need for a systematic evaluation management model that can guide teachers in planning, implementing, monitoring, and using evaluation results effectively.

Character and Civic Assessment Instruments

Valid and reliable instruments are essential for measuring character strengthening and civic literacy. Rachman et al. (2024) developed and validated the Kuesioner Tema Proyek Penguatan Profil Pelajar Pancasila as a tool for strengthening the Pancasila Student Profile in Indonesian pioneer schools. Their study demonstrates the importance of instrument validation in ensuring that Pancasila-related constructs are measured accurately. Nurhasanah (2024) similarly emphasizes the importance of e-character assessment based on P5, especially in supporting digital and systematic evaluation practices.

Character assessment instruments must reflect multidimensional constructs. Manggaberani and Hidayanto (2024) explain that character assessment in school learning should include observable indicators that are relevant to students' behavior and learning context. Hung et al. (2022), in developing a literacy-based scale for university social responsibility curriculum reflection, also demonstrate that reflective and values-based learning outcomes can be measured through carefully designed instruments. These studies support the idea that character and civic literacy assessment should combine conceptual, reflective, affective, and behavioral indicators.

In civic literacy research, measurement instruments increasingly include civic knowledge, civic skills, civic disposition, and civic engagement. Lee et al. (2025) highlight the importance of validating civic engagement scales to ensure accurate measurement of participation and social responsibility. Wang, Hiekata, and Nakashima (2025) further demonstrate that civic literacy can influence participatory urban planning, showing that civic literacy has practical implications beyond classroom learning. These findings confirm that civic literacy assessment must evaluate students' readiness to participate in real social and democratic contexts.

Learning Evaluation Management as an Integrated Model

Learning Evaluation Management refers to the systematic process of planning, implementing, monitoring, and using evaluation results to improve learning quality. In Pancasila Education, evaluation management is particularly important because the subject aims to develop both cognitive understanding and character-based civic behavior. A well-managed evaluation system enables teachers to align curriculum goals, instructional activities, assessment indicators, feedback, and follow-up actions.

Previous studies have discussed formative assessment, feedback, digital assessment, character education, and civic literacy separately. However, there remains a need for an integrated model that connects these components into a coherent evaluation management framework. Studies by Morris et al. (2021), Zhang et al. (2020), and Brown (2025) demonstrate the importance of formative assessment and feedback, while Rachman et al. (2024), Nurhasanah (2024), and Manggaberani and Hidayanto (2024) emphasize the importance of character assessment instruments. Meanwhile, Fajri et al. (2024), Efendi et al. (2025), and Younas et al. (2025) highlight the growing importance of civic literacy and digital citizenship. These bodies of literature indicate that effective Pancasila Education requires an evaluation model that integrates assessment

management, character strengthening, and civic literacy development.

The proposed Learning Evaluation Management Model addresses this gap by positioning evaluation as a strategic mechanism for strengthening Pancasila-based character and civic literacy. Evaluation planning ensures that assessment indicators are aligned with Pancasila values and Merdeka Curriculum objectives. Evaluation implementation enables teachers to apply authentic, formative, and performance-based assessment. Monitoring allows schools to track student progress and identify learning needs. Feedback provides students with guidance for improving their attitudes, behavior, and civic competence. Through these processes, evaluation becomes not only a measurement activity but also a transformative educational practice.

Synthesis and Research Gap

The reviewed literature shows that Pancasila Education has a strong theoretical and practical foundation for character and civic literacy development. Studies on the Merdeka Curriculum and Profil Pelajar Pancasila emphasize the importance of contextual, student-centered, and values-based learning (Astuti, 2024; Bahri et al., 2025; Suratmi, 2024). Research on civic literacy and digital citizenship confirms that students need civic knowledge, critical thinking, ethical digital behavior, and democratic participation skills (Fajri et al., 2024; Efendi et al., 2025; Keegan, 2021; Younas et al., 2025). Meanwhile, studies on formative assessment and feedback demonstrate that evaluation can improve learning when conducted continuously and constructively (Brown, 2025; Morris et al., 2021; Zhang et al., 2020).

However, several gaps remain. First, many studies on Pancasila Education focus on instructional strategies but pay limited attention to systematic evaluation management. Second, existing evaluation practices often emphasize cognitive achievement and do not sufficiently measure affective, behavioral, and civic dimensions. Third, although character and civic literacy instruments have been developed, they

are not always integrated into a comprehensive management model that includes planning, implementation, monitoring, and feedback. Fourth, digital assessment studies provide useful insights but require further contextualization within Pancasila Education and the Merdeka Curriculum.

Therefore, this study is positioned to fill these gaps by developing and validating a Learning Evaluation Management Model for Pancasila Education. The model integrates evaluation management with character strengthening and civic literacy outcomes. It assumes that systematic evaluation practices can directly improve civic literacy and indirectly strengthen civic literacy through character formation. This framework is consistent with contemporary assessment theory, character education research, and civic literacy studies, while also responding to the practical needs of Indonesian secondary schools implementing the Merdeka Curriculum.

Methods

Research Design

This study employed a research and development (R&D) design integrated with a quantitative explanatory approach to develop and validate a Learning Evaluation Management Model of Pancasila Education for strengthening character and civic literacy. The research was conducted in two main phases. The first phase involved model development through needs assessment, conceptual framework formulation, and expert validation. The second phase involved empirical testing using survey data to examine construct validity, reliability, and structural relationships among variables. This design enabled systematic model construction followed by statistical verification.

Participants

The participants consisted of 312 respondents drawn from public senior high schools implementing the Merdeka Curriculum in Indonesia. Stratified random sampling was applied to ensure proportional representation. The sample included 248 students enrolled in Pancasila Education courses, 42 Pancasila

Education teachers, and 22 school administrators. The sample size satisfied the minimum requirement for Structural Equation Modeling (SEM) analysis, which recommends a minimum of 5–10 observations per indicator.

Measures

Three main constructs were examined in this study: Learning Evaluation Management (LEM), Character Strengthening (CS), and Civic Literacy (CL).

Learning Evaluation Management was conceptualized as a multidimensional construct encompassing evaluation planning, implementation, monitoring, and feedback processes. Character Strengthening reflected internalization of Pancasila values such as integrity, responsibility, tolerance, and democratic attitudes. Civic Literacy included civic knowledge, civic skills, and civic disposition.

All constructs were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement indicators were adapted from contemporary civic education and educational management literature and contextualized within the Indonesian Pancasila Education framework.

Instruments

Data were collected using a structured questionnaire consisting of 42 items distributed across the three constructs. Prior to distribution, the instrument underwent content validation by three experts in civic education and educational management. Construct validity was assessed using Confirmatory Factor Analysis (CFA). Reliability was evaluated using Cronbach's Alpha and Composite Reliability (CR), with a threshold value of 0.70 considered acceptable. Convergent validity was examined through Average Variance Extracted (AVE), with a minimum criterion of 0.50.

In addition, semi-structured interviews were conducted during the initial needs assessment phase to explore challenges in evaluating Pancasila Education and to refine the proposed model dimensions.

Procedures

The research was conducted through sequential stages. First, a needs analysis was performed through interviews and curriculum document analysis. Second, a conceptual Learning Evaluation Management Model was developed. Third, expert judgment was carried out to assess theoretical alignment and content appropriateness. Fourth, the validated questionnaire was distributed to participants. Finally, quantitative data were analyzed to evaluate measurement validity and structural relationships, followed by refinement of the proposed model.

Participation was voluntary, and informed consent was obtained from all respondents. The study adhered to ethical research standards applicable in educational research.

Data Analysis

Quantitative data were analyzed using Structural Equation Modeling (SEM) with a Partial Least Squares (PLS) approach. The analysis included descriptive statistics, measurement model evaluation (outer loading, AVE, Composite Reliability, and discriminant validity), and structural model testing (path coefficients, R^2 values, effect size, and predictive relevance). Model fit was evaluated using standardized criteria such as SRMR and NFI.

Qualitative interview data were analyzed using thematic analysis to complement the quantitative findings and to strengthen interpretative validity.

Software

Statistical analyses were performed using IBM SPSS Statistics version 26 for preliminary analysis and reliability testing, and SmartPLS version 4 for SEM-PLS modeling. Qualitative data coding and thematic organization were supported using NVivo 12 software.

Results and Discussion

The empirical testing of the Learning Evaluation Management Model was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The analysis followed a two-step approach: (1) evaluation of the measurement model and (2) evaluation of the structural model.

Measurement Model Evaluation

The reliability and validity of the constructs were assessed through outer loading, Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and discriminant validity (HTMT ratio).

All indicator loadings ranged from 0.72 to 0.89, exceeding the recommended minimum threshold of 0.70. This indicates adequate indicator reliability.

Table 1. Measurement Model Results

Construct	Loading Range	Cronbach's Alpha	CR	AVE
Learning Evaluation Management (LEM)	0.72–0.88	0.90	0.92	0.61
Character Strengthening (CS)	0.74–0.89	0.88	0.91	0.64
Civic Literacy (CL)	0.71–0.87	0.87	0.90	0.60

All CR values were above 0.70, confirming internal consistency reliability. AVE values exceeded 0.50, demonstrating convergent validity. Discriminant validity assessed using the HTMT criterion showed values between 0.62 and 0.81, below the conservative threshold of 0.85.

Therefore, all constructs were empirically distinct.

Multicollinearity testing showed Variance Inflation Factor (VIF) values ranging from 1.45 to 2.12, below the critical threshold of 5.00, indicating no collinearity concerns.

Structural Model Evaluation

The structural model was evaluated using path coefficients, coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and bootstrapping (5,000 resamples).

The structural equations are expressed as:

$$CS = \beta_1 LEM + \varepsilon_1$$

$$CL = \beta_2 LEM + \beta_3 CS + \varepsilon_2$$

Where:

LEM = Learning Evaluation Management

CS = Character Strengthening

CL = Civic Literacy

Table 2. Structural Model Results

Path	β	t-value	p-value	f^2
LEM $\rightarrow$ CS	0.76	14.52	0.000	1.37
LEM $\rightarrow$ CL	0.41	6.87	0.000	0.21
CS $\rightarrow$ CL	0.49	8.15	0.000	0.33

All relationships were statistically significant at $p < 0.001$.

The R^2 value for Character Strengthening was 0.58, indicating that 58% of the variance in character strengthening is explained by evaluation management practices. The R^2 value for Civic Literacy was 0.63, indicating substantial explanatory power. The effect size (f^2) of LEM on CS was 1.37, which indicates a large effect. The effect of CS on CL (0.33) and LEM on CL (0.21) represent medium effect sizes. Predictive relevance was assessed using blindfolding procedures. The Q^2 value for Character

Strengthening was 0.42, and for Civic Literacy was 0.47, both greater than 0.00, indicating strong predictive relevance of the model.

Mediation Analysis

Character Strengthening was tested as a mediator between Learning Evaluation Management and Civic Literacy.

The indirect effect was calculated as:

$$\text{Indirect Effect} = \beta_1 \times \beta_3$$

$$\text{Indirect Effect} = 0.76 \times 0.49 = 0.37$$

The total effect of Learning Evaluation Management on Civic Literacy was:

$$\text{Total Effect} = 0.41 + 0.37 = 0.78$$

Bootstrapping analysis confirmed that the indirect effect was significant ($t = 7.42$, $p = 0.000$), indicating partial mediation. This finding demonstrates that evaluation management strengthens civic literacy both directly and indirectly through character development.

Model Fit

Model fit evaluation showed:

1. SRMR = 0.058 (< 0.08)
2. NFI = 0.92 (> 0.90)

These values indicate acceptable global model fit.

Discussion

The findings provide strong empirical support that structured Learning Evaluation Management significantly enhances both character formation and civic literacy. The large effect size ($\beta = 0.76$) indicates that systematic planning, monitoring, and feedback mechanisms are central drivers of character internalization in Pancasila Education.

The substantial R^2 value for Civic Literacy (0.63) suggests that evaluation management, combined with character development, explains a considerable proportion of civic competence variance. This confirms that civic literacy is not solely dependent on cognitive instruction but is deeply embedded in value internalization processes.

The mediation result demonstrates that character strengthening functions as a foundational pathway for civic literacy development. In other words, civic competence grows when ethical values are embedded through structured evaluation practices. These results reinforce contemporary educational management theory, which posits that evaluation systems function as governance instruments influencing behavioral and normative learning outcomes. In the Indonesian context, aligning evaluation with Pancasila values ensures that assessment becomes transformative rather than merely administrative.

Overall, the validated model demonstrates statistical robustness, predictive accuracy, and theoretical coherence. It provides an empirically grounded framework for policymakers and educators seeking to institutionalize character-based civic literacy assessment within the Merdeka Curriculum.

Conclusion

This study developed and empirically validated a Learning Evaluation Management Model for Pancasila Education aimed at strengthening character formation and civic literacy. The findings demonstrate that structured evaluation practices encompassing systematic planning, authentic assessment implementation, continuous monitoring, and formative feedback significantly enhance students' internalization of Pancasila values and civic competencies. The structural model confirmed that evaluation management exerts both direct and indirect effects on civic literacy, with character strengthening serving as a significant mediating variable. The substantial explanatory power and predictive relevance of the model indicate that evaluation systems function not merely as

measurement tools but as strategic mechanisms for shaping ethical and participatory citizenship. Practically, the model offers a structured framework for educators and school administrators to align assessment practices with national philosophical values and competency-based curriculum objectives. Integrating character-based indicators into evaluation instruments can improve accountability, transparency, and instructional quality within the Merdeka Curriculum implementation. Future application of this model may support policy refinement at institutional and regional levels, particularly in designing digital-based evaluation monitoring systems. Further research is recommended to test the model across diverse educational levels and socio-cultural contexts to enhance its generalizability and long-term sustainability.

Acknowledgement

The authors would like to express their sincere appreciation to the participating schools, teachers, and students who contributed valuable data and insights to this study. Gratitude is also extended to the academic experts who provided constructive feedback during the model validation process. Their contributions significantly enhanced the quality and rigor of this research.

Funding Information

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors. The study was conducted independently as part of academic research activities.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this paper. The research was conducted objectively and independently without any financial or personal relationships that could inappropriately influence the work reported in this manuscript.

Author's contribution

Hairul Amren Samosir, Politeknik Penerbangan Medan, contributed to the conceptualization of

the study, research design, instrument development, data collection, statistical analysis, interpretation of findings, and drafting of the manuscript. The author also supervised the overall research process and approved the final version of the manuscript.

Novi Juli Rosani Zulkarnain contributed to the development of research instruments, data validation, literature review, and critical revision of the manuscript. The author participated in data interpretation, refinement of the theoretical framework, and manuscript editing to ensure academic rigor and clarity.

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