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High Reading Literacy, Low Character? Exploratory-Descriptive Study of Literacy Learning Based on Cognitive Level L1-L3 in Superior High School Students

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Research Article

High Reading Literacy, Low Character? Exploratory-Descriptive Study of Literacy Learning Based on Cognitive Level L1-L3 in Superior High School Students

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Abstract

This exploratory multi-case study examines the apparent disconnect between school-level reading literacy and surveyed character outcomes in three high-performing Indonesian upper-secondary schools. The study integrates 2025 education report-card data, open interviews with principals and curriculum coordinators, and documentary analysis of Indonesian Language teaching modules. Reading literacy was profiled across three cognitive levels: access and retrieve (L1), interpret and integrate (L2), and evaluate and reflect (L3). Across the schools, mean literacy scores ranged from 86.10 to 90.09, whereas overall character-survey scores ranged from 58.10 to 68.00, producing gaps of 18.10 to 31.69 points. The document and interview evidence indicates that school-wide literacy provision was extensive, but instruction had not yet systematically differentiated learners by cognitive profile or consistently linked text interpretation to ethical deliberation, self-regulation, and action. The study contributes an adaptive-reflective literacy pathway that connects L1-L3 reading processes with structured value reflection and socially situated action. The findings position literacy as an educational-welfare resource whose impact on student flourishing depends on deliberate pedagogical conversion rather than exposure to reading activities alone.

Keywords: Reading Literacy; Character Education; Critical Literacy; Upper-Secondary Education; Student Well-Being; Indonesia.

INTRODUCTION

Reading literacy is a foundational capability for learning, participation, and informed decision-making across the life course. Contemporary accounts emphasize that proficient reading is not simply accurate word recognition; it combines language development, meaning construction, background knowledge, inferential reasoning, and self-regulatory monitoring [1], [2], [3], [4], [5]. Within large-scale assessment systems, reading performance also depends on how learners negotiate text features and task demands, particularly when they must move from locating explicit information to integrating evidence and evaluating claims [2]. This progression is educationally consequential because it distinguishes basic access to textual information from reflective judgment about the credibility, relevance, and implications of that information.

Evidence from reading research indicates that comprehension is strengthened when instruction explicitly develops vocabulary and world knowledge, strategic monitoring, inference, and critical thinking rather than treating reading as a passive exercise [6], [7], [8], [9], [10], [11]. Meta-analytic studies of adolescent reading interventions show that strategy instruction, knowledge-building, and sustained teacher-mediated support can improve comprehension, although effects depend on instructional content, implementation duration, and the fit between learner needs and the intervention design [8], [9]. These findings are especially relevant to upper-secondary education, where students increasingly encounter disciplinary, multimodal, and contested texts that require evaluative and reflective reading.

The expectation that literacy contributes to character development is equally prominent in education policy and practice. Character-related outcomes, however, are not reducible to knowing what a text says or recognizing desirable values. They involve social-emotional competence, ethical deliberation, self-regulation, participation, and habitual action in relationships and institutions [12], [13], [14], [15], [16]. School climate and organizational routines further shape whether students can enact these capacities consistently, because the experience of safety, fairness, participation, and supportive adult relationships mediates the translation of learning into behavior [17], [18]. Accordingly, a high literacy score should not be interpreted as direct evidence of strong character or student well-being.

In Indonesia, school literacy initiatives often combine reading promotion, text production, and character-strengthening agendas. Empirical studies report that literacy models can support metacognition, critical thinking, expression, and character-related learning when students are required to discuss, interpret, and apply textual meanings [19], [20], [21], [22]. Analyses of literacy-program documents also show that value formation is more plausible when students engage with texts through critical pedagogies rather than merely complete reading routines [23]. Evidence from character-education research likewise suggests that academic outcomes are stronger when schools integrate values into learning processes rather than place them solely in co-curricular ceremonies or slogan-based programs [24].

This literature nevertheless identifies an important conceptual caution. Literacy is a social practice, shaped by cultural norms, institutional relationships, and the power of texts to frame particular perspectives [25], [26]. At the highest level of reading, learners must monitor their own reasoning, compare alternatives, and explain how textual claims bear on real decisions. These metacognitive and critical-thinking processes can support value reflection,

but they do not automatically guarantee moral conduct; transfer depends on opportunities for dialogue, feedback, rehearsal, and responsible action in authentic social settings [27], [28].

The present study emerged from 2025 education report-card data from three high-performing Indonesian upper-secondary schools in East Java. The schools recorded relatively high reading-literacy results across the nationally reported L1-L3 cognitive continuum, whereas their overall character-survey outcomes were markedly lower. This discrepancy provides a focused education-systems and student-welfare problem: how can schools with established literacy programs produce strong cognitive reading outcomes without equivalent performance on surveyed social-emotional and character dimensions? Prior work has largely examined literacy and character as complementary outcomes; fewer studies have used school-level performance profiles to interrogate a divergence between them and to connect that divergence to institutional provision and classroom design.

This study therefore had three objectives: (1) to describe the L1-L3 reading-literacy profile of the three schools; (2) to examine the pattern of character-survey outcomes across overall and dimension-level indicators; and (3) to identify institutionally plausible explanations for the mismatch through interviews and teaching-module documents. The study's novelty lies in treating the literacy-character relationship as a conversion problem rather than an assumed correlation. It proposes an adaptive-reflective literacy pathway that aligns cognitive reading levels with explicit value reflection, self-regulation, and socially situated action. The article proceeds by detailing the multi-case design, presenting integrated quantitative-documentary and qualitative evidence, and discussing implications for literacy instruction, school welfare, and future inquiry.

METHODS

Research Design

This study employed an exploratory qualitative multiple-case design with an embedded descriptive analysis of school-level performance data. The design was selected because the focal issue was not whether literacy causes character outcomes, but how a visible divergence between two institutional indicators might be interpreted in relation to school practices and classroom provision. The study combined three evidence streams: (a) education report-card scores, (b) open interviews with school leaders, and (c) documentary analysis of Indonesian Language teaching modules. The analytic logic was interpretive and convergent: numerical profiles identified the mismatch, while interview and document data were used to develop carefully bounded explanations of how literacy was organized and enacted. This combination is consistent with the flexibility of thematic analysis for identifying patterned meaning across heterogeneous qualitative materials [29], [30].

Study Setting, Participants, and Case Selection

The study was conducted in three high-performing upper-secondary schools in East Java, Indonesia, here anonymized as School A, School B, and School C. The schools were purposively selected because they were recognized locally for academic performance and character-oriented programming, and because their 2025 education report cards displayed the focal literacy-character discrepancy. The unit of analysis was the school, not an individual

student. Six institutional informants participated: the principal and the curriculum coordinator from each school. These informants were selected because they had direct knowledge of school-wide literacy programs, curricular coordination, and character-related routines. Grade XI Indonesian Language teaching modules were examined as documentary evidence of classroom literacy planning. The study does not report teacher-interview findings because interview transcripts from teachers were not part of the finalized analytic corpus; this boundary is retained to avoid extending interpretations beyond the available evidence.

Data Sources and Research Focus

The education report-card data supplied school-level achievement scores for reading literacy and character survey outcomes. Reading literacy was reported at three cognitive levels: L1 - access and retrieve; L2 - interpret and integrate; and L3 - evaluate and reflect. The character survey reported an overall character score and six dimensions from the national Pancasila Student Profile framework. In this article, the framework is described through internationally intelligible functional labels: ethical and civic character; collaborative orientation; creativity; critical reasoning; global diversity; and independence/self-regulation. The source terminology remains conceptually respected, but the translated labels are used to enable cross-contextual interpretation.

Table 1. Research Focus, Evidence Sources, and Analytic Output

Research Focus	Primary Evidence	Analytic Procedure	Output
L1-L3 reading literacy profile	2025 school education report cards	Descriptive profiling; mean of L1, L2, and L3	School-level literacy composite and cognitive pattern
Character-survey profile	2025 school education report cards	Dimension-level comparison across cases	Overall and domain-specific character pattern
Institutional literacy provision	Six open interviews with principals and curriculum coordinators	Condensation, coding, thematic synthesis	School-wide program features and reported practices
Classroom literacy design	Available Grade XI Indonesian Language teaching modules	Documentary content analysis	Evidence of cognitive differentiation, reflection, and action linkage
Literacy-character mismatch	Integrated evidence across all sources	Cross-source comparison; negative-case attention	Bounded explanatory propositions and adaptive-reflective pathway

Data Collection Procedure

Education report cards were reviewed to extract the complete L1-L3 reading-literacy scores and the overall and dimension-level character-survey scores for each school. Open interviews were conducted with the six institutional informants to clarify how literacy was implemented across intracurricular, co-curricular, and extracurricular settings. The interview prompts

addressed the organization of literacy activities, roles of teachers, links between literacy and character-building, and perceived constraints. Teaching modules were reviewed to identify the learning sequence, text-related activities, opportunities for interpretation and reflection, and explicit references to values or character. No individual student records, personal identifiers, or sensitive personal data were collected.

Data Analysis

The quantitative-descriptive component did not infer statistical association or causality. First, a school-level reading-literacy composite was calculated as the arithmetic mean of the reported L1, L2, and L3 scores. Second, a descriptive mismatch index was calculated as the literacy composite minus the overall character-survey score. This index is a transparent indicator of profile divergence rather than an effect estimate. The qualitative materials were analyzed through iterative data condensation, display, and conclusion verification. Interview summaries and module content were coded deductively against the three study objectives and inductively for recurring patterns concerning provision, differentiation, reflection, and behavioral transfer. The procedure followed established principles of qualitative content analysis and thematic development [31], [32].

Trustworthiness and Ethical Considerations

Credibility was strengthened through source triangulation, member checking with institutional informants, and deliberate attention to negative cases. In particular, the research team did not treat high literacy scores as confirming effective character formation; instead, the mismatch itself was retained as disconfirming evidence requiring explanation. An analytic audit trail documented the extracted report-card values, coding decisions, cross-source comparisons, and the limits of each inference. These procedures are consistent with recommendations for rigorous qualitative inquiry, transparent theme development, and trustworthiness [33], [34], [35], [36]. Participation was voluntary, informed consent was obtained from interview participants, and all school identities were anonymized. The study relied on aggregated school-level data and did not collect personally identifiable student information.

RESULTS AND DISCUSSION

Results

L1-L3 Reading Literacy Profiles Across Cases

The report-card data show that all three schools achieved high reading-literacy scores at each cognitive level, but the profiles were not identical. School B had the highest composite score (90.09), followed by School A (89.06) and School C (86.10). School B performed particularly strongly at L2 (92.79), suggesting a robust institutional capacity for interpretation and integration. School A showed a balanced profile, with comparable L2 (89.66) and L3 (89.70) scores. School C had the lowest L3 score (82.19), producing a visible decline from access/retrieval and interpretation to evaluation/reflection. This pattern is important because the L3 level represents the point at which readers are expected to evaluate claims and relate textual content to experience and judgment.

Table 2. School-Level Reading Literacy Profile and Literacy-Character Mismatch

School	L1	L2	L3	Literacy Composite	Overall Character Score	Mismatch Index
School A	87.83	89.66	89.70	89.06	58.10	30.96
School B	89.43	92.79	88.05	90.09	58.40	31.69
School C	87.86	88.24	82.19	86.10	68.00	18.10

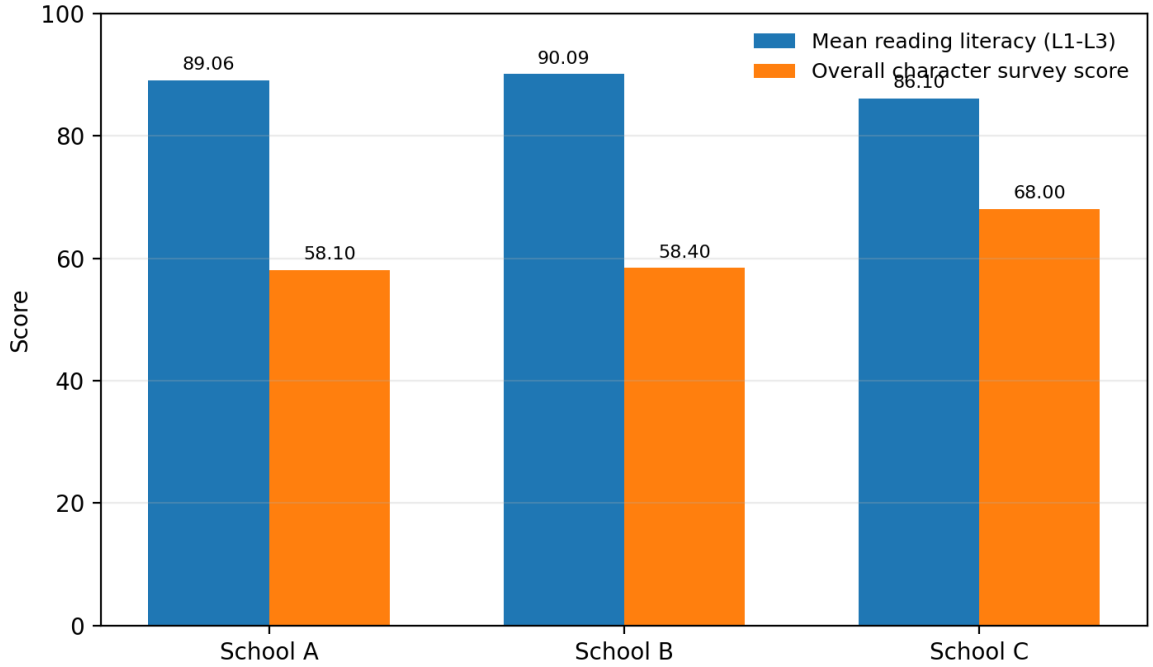

Figure 1. Reading Literacy Composites and Overall Character-Survey Scores Across Schools

Character-Survey Outcomes and Dimension-Level Variation

Overall character-survey outcomes were substantially lower than the literacy composites in every case. Schools A and B recorded nearly identical overall character scores (58.10 and 58.40, respectively), despite their high literacy profiles. School C obtained a higher overall character score (68.00), yet still displayed an 18.10-point difference from its literacy composite. Dimension-level results further show that the pattern was not uniform. Across the three cases, creativity and independence/self-regulation were the most consistently modest dimensions, whereas ethical and civic character was relatively higher. The widest cross-school variation occurred for global diversity and independence/self-regulation, indicating that these outcomes may be particularly responsive to differences in school climate, participation structures, and developmental support.

Table 3. Character-Survey Profile by School and Dimension

Character Dimension	School A	School B	School C	Cross-School Mean
Overall character survey score	58.10	58.40	68.00	61.50

Character Dimension	School A	School B	School C	Cross-School Mean
Ethical and civic character (faith, reverence, and noble conduct)	60.33	61.06	69.73	63.71
Collaborative orientation (mutual cooperation)	59.32	58.84	70.13	62.76
Creativity	54.56	54.14	59.27	55.99
Critical reasoning	59.07	59.20	69.53	62.60
Global diversity	57.75	57.83	70.19	61.92
Independence and self-regulation	53.20	54.38	65.69	57.76

Institutional Literacy Ecosystem and Classroom-Document Evidence

Interview and document evidence indicates that literacy was not marginal in the three cases. Informants described literacy as operating through three institutional spaces: intracurricular learning in Indonesian Language classes; co-curricular activities for students with a particular interest in reading and writing; and extracurricular activities that supported creative products such as essays, short stories, and scientific writing. This ecology plausibly explains why the schools could sustain generally high reading-literacy performance. Students encountered reading both as an academic requirement and as a visible school culture.

At the same time, the available teaching modules did not show a systematic mechanism for identifying whether learners were operating primarily at L1, L2, or L3, nor did they consistently vary tasks in response to such profiles. The modules included text reading, discussion, written responses, and occasional value reflection, but the link from text interpretation to ethical reasoning, self-regulatory planning, and observable action was not routinely made explicit. The core issue is therefore not the absence of literacy activity. Rather, it is the limited pedagogical conversion of reading performance into repeated reflective and social practices.

Table 4. Cross-Source Evidence on the Literacy Ecosystem and the Literacy-Character Mismatch

Evidence Theme	Source	Observed Pattern	Interpretive Relevance
School-wide literacy provision	Leader interviews	Literacy enacted through intracurricular, co-curricular, and extracurricular programs	Supports broad exposure and may explain high L1-L3 performance
Text production	Leader interviews	Students read and produce essays, short stories, and scientific writing	Extends literacy beyond consumption but does not itself establish character transfer
Cognitive differentiation	Teaching modules	No documented learner-level L1-L3 profiling or	May limit targeted movement toward

Evidence Theme	Source	Observed Pattern	Interpretive Relevance
		adaptive task sequencing	evaluative-reflective reading
Value reflection	Teaching modules	Some prompts invite reflection on literary and narrative texts	Reflective opportunity present but not consistently scaffolded into ethical deliberation and action
Behavioral transfer	Integrated sources	No routine documented link from text-based reflection to self-regulation, collaboration, or community action	Provides a plausible explanation for the literacy-character divergence

A Descriptive Literacy-Character Disconnect

When the quantitative and qualitative evidence is read together, the most defensible conclusion is that the schools had developed a credible literacy ecosystem without an equally systematic adaptive-reflective pathway for translating reading into character-related enactment. This finding does not imply that students lacked character, nor does it validate a causal claim that literacy programs were ineffective. Character-survey outcomes are aggregate self-report indicators and cannot be treated as direct observations of moral conduct. Instead, the mismatch identifies a design problem: high cognitive reading performance can coexist with lower surveyed social-emotional and character outcomes when the instructional pathway from textual analysis to reflection, dialogue, self-regulation, and action is not deliberately structured.

Discussion

Reading Achievement Is Not a Proxy for Character Enactment

The principal finding is a consistent disjunction between high school-level reading-literacy performance and lower character-survey outcomes. The mismatch was largest in Schools A and B, where literacy composites exceeded 89 but overall character scores remained near 58. This result challenges a common but overly linear assumption that greater reading proficiency necessarily produces stronger character. The broader literature supports a more conditional interpretation. Reading instruction can cultivate inference, critical inquiry, and metacognition when it is deliberately designed for these processes [6], [7], [8], [9]; character-related outcomes, however, require social-emotional learning, ethical dialogue, opportunities for participation, and supportive institutional climates [12], [13], [14], [15], [16]. The present study therefore reframes the relationship: literacy creates a cognitive opportunity structure, but character development depends on how schools convert that opportunity into habitual judgment and action.

This interpretation also explains why School C, despite the lowest literacy composite and the lowest L3 score, had the highest overall character-survey score. A more direct literacy-to-character model would predict the opposite. Instead, the pattern implies that school-level character outcomes are influenced by additional mechanisms, such as relational norms,

opportunities for collaboration, adult modeling, decision-making routines, and the perceived fairness and inclusion of the school environment. These factors are central to school climate research [17], [18] and should be examined in future studies rather than inferred from cognitive performance alone.

Why L3 Reflection Requires an Explicit Pedagogical Bridge

The L1-L3 profile offers a useful diagnostic lens. At L1, students access and retrieve stated information. At L2, they interpret, integrate, compare, and infer. At L3, they evaluate credibility, examine presentation, and reflect on the relation between a text and personal or social decisions. The high L3 score in School A and strong L2 score in School B show that these schools have substantial cognitive resources. Yet cognitive capacity only becomes character-relevant when students are asked to name competing values, justify their position with evidence, consider affected others, regulate emotional responses, and test a chosen action in a social context. Critical literacy scholarship makes a related point: texts are not neutral containers of information, and reflection must attend to voice, representation, interest, and consequence [25], [26]. Metacognitive research likewise indicates that reflection is productive when learners plan, monitor, evaluate, and revise their reasoning rather than simply state an opinion [27], [28].

The available teaching modules contained reading and reflection activities but did not yet document an adaptive sequence that moves individual learners from L1 through L3 and then into action-oriented reflection. This gap is consequential. A student can accurately explain the moral message of a story and still struggle to apply the principle in peer relationships, online communication, collaborative work, or community participation. The result therefore supports a shift from value identification to value enactment: tasks should not end when students recognize a theme, but continue through evidence-based deliberation, scenario testing, self-regulatory planning, peer feedback, and reflection on outcomes.

The Adaptive-Reflective Literacy Pathway

The study's novelty is the adaptive-reflective literacy pathway, a design proposition generated from the observed mismatch. The pathway has four linked elements. First, teachers map learners' reading performance across L1-L3 using validated tasks that distinguish retrieval, integration, and evaluation/reflection. Second, teachers adapt the text, scaffold, and expected response to the learner's profile: L1 tasks focus on locating and selecting evidence; L2 tasks require connection, inference, and comparison; and L3 tasks require credibility evaluation, perspective-taking, and justification. Third, each L3 task is connected to a structured value-reflection protocol in which students identify stakeholders, competing values, likely consequences, and an ethically defensible response. Fourth, students complete a small action or relational commitment, such as collaborative problem solving, responsible digital communication, peer support, or an evidence-based community contribution, and then reflect on the result.

This proposal extends prior literacy-character studies in three ways. First, it avoids treating reading exposure as an intervention in itself; the focus is on the instructional mechanism through which reading becomes reflective agency. Second, it differentiates literacy instruction by cognitive profile rather than assuming that all students benefit from the same

task sequence. Third, it integrates educational achievement with student welfare by identifying independence/self-regulation, collaborative orientation, and global diversity as outcomes that require psychosocial as well as cognitive support. The proposal is consistent with research showing that blended project-based literacy can support metacognition, critical thinking, and expression when literacy tasks involve active production and collaboration [19], and with evidence that character values are more likely to be cultivated when literacy programs use critical and participatory pedagogies [20], [21], [22], [23], [24].

Implications for Education Systems and Student Welfare

For school leaders, the finding indicates that literacy dashboards should not be read in isolation. High reading performance is valuable, but it should be interpreted alongside school-climate, social-emotional, participation, and character indicators. A leadership response should therefore include (a) regular review of L1-L3 profiles; (b) teacher learning on differentiated reading and reflective dialogue; (c) routines that connect textual analysis to real school and community issues; and (d) a student-support approach that treats self-regulation, belonging, and responsible participation as educational-welfare outcomes. This aligns with the journal's education-systems and social-welfare focus by showing how human-centered school design can shape students' opportunities to convert academic learning into well-being and civic participation.

For teachers, the immediate implication is to make the final step of literacy instruction visible. After students locate information, infer meaning, and evaluate a claim, they should be asked: What value conflict is present? Who may be affected? What evidence supports a responsible response? What action is feasible in this context? Such questions do not turn language classes into moral lectures. Instead, they make the social consequences of interpretation explicit and invite students to practice reasoned, empathetic, and accountable communication. For policy and assessment designers, the implication is to examine alignment between reading-literacy constructs and character-survey constructs, response formats, and intended uses. Divergent scores may reflect true developmental differences, but they may also signal differences in measurement mode, self-report tendencies, and the extent to which students have been provided authentic opportunities to enact the surveyed capacities.

CONCLUSION

This exploratory multi-case study shows that strong school-level reading literacy does not automatically coincide with equivalent character-survey outcomes. Across three Indonesian upper-secondary schools, literacy composites ranged from 86.10 to 90.09, whereas overall character scores ranged from 58.10 to 68.00. The resulting gaps, from 18.10 to 31.69 points, cannot establish causality, but they establish a substantive design question for schools: how is cognitive reading performance converted into reflective judgment, self-regulation, collaboration, and responsible action? The integrated evidence indicates that the schools had substantial literacy provision across academic and co-curricular spaces, yet their available instructional documentation did not reveal systematic L1-L3 differentiation or a routine bridge from text interpretation to enacted values. The adaptive-reflective literacy pathway proposed here addresses this gap by aligning cognitive profiling, differentiated scaffolds, ethical

deliberation, and action-based reflection. Theoretical contribution lies in conceptualizing literacy-character alignment as a pedagogical conversion process; practical contribution lies in offering schools a tractable model for linking reading instruction with student welfare, participation, and human-centered educational development.

LIMITATIONS

The study has four limitations. First, the report-card scores are aggregated school-level indicators and do not permit inference about individual students or causal relations. Second, character-survey scores are self-report-based outcomes and should not be interpreted as direct measurements of moral behavior. Third, the qualitative corpus was intentionally bounded to leadership interviews and teaching modules; teacher-interview transcripts and classroom observations were not part of the finalized analysis. Fourth, the three cases were purposively selected high-performing schools in one province, so transferability to other settings should be reasoned rather than assumed. Future research should administer validated L1-L3 reading tasks alongside multi-informant character, school-climate, and behavioral measures; observe lessons; interview teachers and students; and test the adaptive-reflective pathway through design-based or quasi-experimental research.

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AUTHOR CONTRIBUTION

S.A. conceptualized the study, developed the research design, coordinated data collection, performed the primary analysis, and drafted the manuscript. R.W.E. contributed to theoretical framing, methodological refinement, interpretation of findings, and critical revision. M. contributed to document analysis, interpretation of literacy-learning implications, and critical review. L.E. contributed to contextual validation, interpretation of character-education practices, and manuscript review. All authors approved the final manuscript and accept accountability for the integrity of the work.

CONFLICT OF INTEREST

"The authors declare no conflict of interest."

DECLARATION OF USE OF AI IN SCIENTIFIC WRITING

The authors used ChatGPT (OpenAI) for language refinement, structural editing, and improving the readability of the manuscript. After using the tool, the authors critically reviewed and revised all content, verified the cited sources, and assumed full responsibility for the accuracy, integrity, and final form of the manuscript.

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