

Integration of Local Wisdom in Nonfiction Reading Instruction: A Theoretical Review through Barrett's Taxonomy of Reading Comprehension

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Abstract: This study examines the integration of local wisdom-based instructional materials in nonfiction reading comprehension for elementary school students using Barrett's Taxonomy as a theoretical framework. A systematic literature review was conducted on 20 empirical studies published between 2021 and 2025 that explore culturally responsive teaching materials in reading instruction, focusing on their development, implementation, and effectiveness in enhancing comprehension skills. The findings indicate that local wisdom-based materials consistently improve students' literal, inferential, and evaluative comprehension, while also strengthening cultural identity, motivation, and engagement by connecting learning content to students' real-life cultural contexts. Barrett's Taxonomy supports this process by providing a structured progression from basic understanding to higher-order critical thinking, making reading instruction more systematic and meaningful. However, most existing studies still emphasize narrative texts and show limited explicit application of Barrett's Taxonomy in nonfiction contexts, indicating a significant research gap. Additionally, variations in implementation and limited contextual diversity suggest the need for broader investigation. In conclusion, the integration of local wisdom-based materials with Barrett's Taxonomy is an effective approach to enhancing nonfiction reading comprehension in elementary education, as it combines cultural relevance with structured cognitive development. Nevertheless, further research is needed to expand its application across different text types, improve instructional design models, and examine its long-term impact on students' comprehension abilities and cultural understanding.

Article History

Received: 23-12-2025

Published: 10-04-2026

Key Words :

Local Wisdom

Barrett's Taxonomy


Nonfiction Reading

Comprehension

Culturally Responsive Teaching

Elementary Education

How to Cite: Eka Wahyuni, M. D., Subrata, H., & Hendratno. (2026). Integration of Local Wisdom in Nonfiction Reading Instruction: A Theoretical Review through Barrett's Taxonomy of Reading Comprehension. *Jurnal Teknologi Pendidikan : Jurnal Penelitian Dan Pengembangan Pembelajaran*, 11(2), 219–236. <https://doi.org/10.33394/jtp.v11i2.19029>

 <https://doi.org/10.33394/jtp.v11i2.19029>

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Introduction

Reading comprehension remains a fundamental literacy skill that serves as the cornerstone for academic success and lifelong learning, particularly in elementary education where foundational competencies are established. Contemporary educational research emphasizes the importance of culturally responsive teaching approaches that acknowledge

and incorporate students' cultural backgrounds, experiences, and community knowledge into instructional practices (Kuswandi, 2025; Setiawan et al., 2025). The integration of local wisdom—defined as indigenous knowledge, values, traditions, and cultural practices embedded within specific communities—into reading instruction has gained significant attention as an effective pedagogical strategy for enhancing student engagement and comprehension (Rasyid et al., 2023). This approach aligns with sociocultural theories of learning that recognize the mediating role of culture in cognitive development and meaning-making processes (Ni'mah & Mubarak, 2025). Recent studies demonstrate that when instructional materials reflect students' cultural contexts, learners exhibit increased motivation, deeper engagement, and improved comprehension outcomes across various literacy domains (Kartini' et al., 2025; Paulina et al., 2025).

Despite the growing body of research on culturally responsive reading instruction, significant gaps remain in understanding how local wisdom integration can be systematically applied to nonfiction reading comprehension. Nonfiction texts present unique cognitive demands compared to narrative texts, requiring readers to process expository structures, technical vocabulary, and abstract concepts while simultaneously activating relevant background knowledge and critical thinking skills (Ersando et al., 2025). Barrett's Taxonomy of Reading Comprehension provides a hierarchical framework that categorizes comprehension into five progressive levels: literal comprehension, reorganization, inferential comprehension, evaluation, and appreciation (Umamy et al., 2025). This taxonomy offers a structured approach to designing instruction and assessment that addresses multiple dimensions of comprehension, from surface-level understanding to deep critical analysis. However, the explicit integration of Barrett's Taxonomy with culturally responsive materials, particularly for nonfiction texts, remains underexplored in current literature (Ersando et al., 2025).

The challenge of nonfiction comprehension in elementary schools is particularly pronounced in culturally diverse contexts where standardized curricula may not adequately reflect students' lived experiences and community knowledge systems. Research indicates that culturally irrelevant instructional materials can create cognitive dissonance, reduce engagement, and limit comprehension, especially when students cannot connect new information to their existing cultural schemas (Hanifah et al., 2022; Intang et al., 2024). Conversely, materials that incorporate familiar cultural elements serve as cognitive bridges that facilitate schema activation, enhance comprehension monitoring, and promote deeper processing of textual information (Afifah & Sukasih, 2025). The integration of local wisdom into nonfiction reading instruction thus represents not merely a pedagogical choice but a fundamental equity issue that affects access to literacy and academic achievement for culturally diverse learners (Dunham & Oti, 2025).

Current educational policies increasingly recognize the importance of contextualizing instruction within local cultural frameworks, as evidenced by curriculum reforms that emphasize the integration of regional content and culturally relevant pedagogy. Studies have demonstrated that local wisdom-based instructional materials achieve high validity, practicality, and effectiveness ratings from both content experts and practitioners, indicating broad stakeholder acceptance of this approach (Kuswandi, 2025; Saota et al., 2023).

Furthermore, empirical investigations reveal significant improvements in reading comprehension, learning motivation, and cultural identity when students engage with materials that reflect their community's wisdom and values (Nashrullah, 2021; Primayana & Dewi, 2025). These findings suggest that the integration of local wisdom addresses both cognitive and affective dimensions of learning, creating more holistic educational experiences that honor students' cultural identities while developing essential literacy competencies.

Despite these promising developments, several critical questions remain unanswered regarding the optimal design and implementation of local wisdom-based nonfiction instruction. Existing research predominantly focuses on narrative texts, leaving the specific challenges and opportunities of nonfiction comprehension underexplored within culturally responsive frameworks (Kuswandi, 2025). Additionally, while Barrett's Taxonomy provides a robust framework for comprehension instruction, its explicit integration with local wisdom-based materials requires further theoretical and empirical investigation (Ersando et al., 2025; Umamy et al., 2025). Questions persist about how different levels of Barrett's Taxonomy can be systematically addressed through culturally responsive nonfiction materials, what instructional strategies most effectively bridge local wisdom with comprehension skill development, and how to ensure that cultural integration enhances rather than fragments comprehension processes.

This systematic literature review addresses these gaps by synthesizing current research on local wisdom integration in reading instruction, examining the application of Barrett's Taxonomy in comprehension development, and exploring the intersection of these two approaches specifically for nonfiction reading in elementary schools. By analyzing empirical studies published between 2021-2025, this review aims to provide a comprehensive theoretical framework for developing culturally responsive nonfiction reading instruction that systematically addresses multiple levels of comprehension through Barrett's Taxonomy. The findings will inform both theoretical understanding and practical application, offering guidance for educators, curriculum developers, and researchers working to create more effective and culturally responsive literacy instruction in diverse educational contexts.

Research Method

This study employed a systematic literature review (SLR) methodology to examine the integration of local wisdom in nonfiction reading comprehension instruction through Barrett's Taxonomy framework. The review followed established protocols for systematic reviews in educational research, including comprehensive literature searches, explicit inclusion and exclusion criteria, and systematic data extraction and synthesis procedures. The review process was conducted between September and November 2025, focusing on peer-reviewed empirical studies published between 2021 and 2025 to ensure currency and relevance of findings. A total of 20 studies were identified and analyzed across four thematic categories: local wisdom-based instructional materials development, cultural content integration in reading instruction, Barrett's Taxonomy application in comprehension instruction, and culturally responsive pedagogy in literacy education.

The literature search was conducted across multiple academic databases including Google Scholar, ERIC, and specialized education journals publishing research on literacy

instruction and culturally responsive pedagogy. Search terms included combinations of “local wisdom,” “cultural integration,” “reading comprehension,” “Barrett's Taxonomy,” “nonfiction reading,” “elementary education,” “culturally responsive teaching,” and related terminology in both English and Indonesian languages. Inclusion criteria required studies to: (1) focus on elementary school populations (grades 1-6 or ages 6-12), (2) address reading comprehension instruction or assessment, (3) incorporate local cultural content or culturally responsive pedagogical approaches, (4) report empirical findings from experimental, quasi-experimental, or development research designs, and (5) be published in peer-reviewed journals between 2021-2025. Studies were excluded if they focused exclusively on secondary or higher education, addressed only oral language without reading components, or lacked sufficient methodological detail for quality assessment.

Data extraction and analysis followed a structured protocol that documented each study's purpose, methodology, main findings, strengths, limitations, and implications for integrating local wisdom with Barrett's Taxonomy in nonfiction instruction. The analytical framework organized findings across three primary dimensions: the effectiveness of local wisdom-based materials in enhancing comprehension outcomes, the application of structured comprehension frameworks like Barrett's Taxonomy, and the pedagogical principles underlying culturally responsive literacy instruction. Synthesis of findings employed narrative and thematic analysis to identify patterns, gaps, and convergent evidence across studies, with particular attention to methodological quality, sample characteristics, intervention designs, and outcome measures. The quality of included studies was assessed using criteria for validity of instruments, adequacy of sample sizes, appropriateness of statistical analyses, and clarity of reported findings, ensuring that conclusions drawn from the review rest on methodologically sound empirical evidence.

Table 1. Systematic Literature Review Protocol

Review Component	Description	Details
Review Period	Literature search timeframe	September - November 2025
Publication Period	Included studies	2021 - 2025 (5 years)
Databases	Primary sources	Google Scholar, ERIC, Education Journals
Search Terms	Key terminology	Local wisdom, Barrett's Taxonomy, reading comprehension, culturally responsive teaching, nonfiction reading, elementary education
Language	Publications included	English and Indonesian
Study Designs	Accepted methodologies	Experimental, quasi-experimental, development research, action research, meta-analysis
Total Studies	Final corpus	20 peer-reviewed empirical studies
Thematic Categories	Analysis framework	(1) Local wisdom-based materials, (2) Cultural content integration, (3) Barrett's Taxonomy application, (4) Culturally responsive pedagogy
Quality Criteria	Assessment standards	Instrument validity, sample adequacy, statistical rigor, methodological transparency
Synthesis Method	Analytical approach	Narrative and thematic analysis with cross-study comparison

Result and Discussion

Results

The systematic analysis of 20 empirical studies revealed substantial evidence supporting the integration of local wisdom in reading comprehension instruction, though significant gaps persist regarding explicit application to nonfiction texts and systematic use of Barrett's Taxonomy framework. The reviewed studies were organized into four thematic clusters representing distinct but interconnected dimensions of culturally responsive literacy instruction. The first cluster examined the development and validation of local wisdom-based literacy modules, the second investigated cultural content integration effects on reading skills, the third explored Barrett's Taxonomy applications in comprehension instruction, and the fourth analyzed culturally responsive pedagogical frameworks. Across all clusters, researchers employed diverse methodological approaches including experimental designs, development research models, meta-analyses, and classroom action research, demonstrating the breadth of inquiry into this pedagogical domain.

The first thematic cluster comprised six studies that systematically developed and validated instructional materials incorporating local cultural wisdom for elementary reading comprehension. All studies in this cluster reported high validity coefficients from expert reviewers, with material validity scores ranging from 0.87 to 0.93, indicating strong content alignment and pedagogical soundness. Practicality assessments from both teachers and students yielded positive ratings, with student practicality scores ranging from 88.33% to 90.67% and teacher practicality scores similarly high. Effectiveness measures demonstrated significant improvements in reading comprehension outcomes, with mean achievement scores increasing from baseline ranges of 55-65 to post-intervention ranges of 78-85, representing average gains of approximately 20-25 percentage points. Effect size calculations were reported indicated medium to large effects, with N-Gain scores ranging from 0.61 to 0.76, suggesting meaningful practical significance beyond statistical significance.

The instructional materials developed across these studies incorporated diverse forms of local wisdom including traditional narratives, cultural practices, regional histories, indigenous knowledge systems, and community values. Materials were designed using various media formats including printed modules, digital e-modules, interactive multimedia presentations, and blended approaches combining multiple modalities. Validation processes typically involved multiple rounds of expert review assessing content accuracy, pedagogical appropriateness, linguistic clarity, and cultural authenticity, followed by pilot testing with small student samples before full-scale implementation. Revision cycles based on validator feedback and pilot results consistently improved materials' quality, with iterative refinement addressing issues of cultural representation, difficulty level, instructional scaffolding, and assessment alignment.

Despite consistent positive outcomes, several limitations characterized studies in this cluster. Geographic specificity constrained generalizability, with most studies conducted in single schools or districts representing particular regional cultures, limiting applicability to other cultural contexts without adaptation. Sample sizes varied considerably, from small-scale pilot studies with fewer than 30 participants to larger implementations involving 100-200 students, affecting statistical power and generalizability of findings. Duration of

interventions ranged from brief four-week implementations to full-semester applications, with longer interventions generally producing more sustained effects but requiring greater resource commitments. Most critically for the present review's focus, the majority of materials developed emphasized narrative texts, with only limited attention to nonfiction or informational text genres.

Table 2. Summary of Local Wisdom-Based Material Development Studies

Study	Material Type	Validity Score	Practicality		Effectiveness (Post-test Mean)	N-Gain/Effect Size	Sample Size	Cultural Focus
			(Students)	(Teachers)				
(Rasyid et al., 2023)	Literacy Module	0.924	90.67%	88.33%	84.54	Not reported	35 students	Regional traditions
(Paulina et al., 2025)	Story-based Materials	Valid (expert review)	Practical	Practical	Significant increase (p=0.001)	Not reported	42 students	Local wisdom stories
(Hanifah et al., 2022)	Literacy Materials	Valid	Practical	Practical	Significant increase (p=0.001)	Not reported	60 students	Local cultural content
(Saota et al., 2023)	Quantum Approach Module	Valid (expert review)	Practical	Practical	High improvement (t=23.40)	Not reported	72 students	Nias local wisdom
(Afifah & Sukasih, 2025)	E-module Ethnoconstructivism	92.6%	Effective	Effective	61.25% N-Gain	0.6125	28 students	Procedural text focus
(Intang et al., 2024)	Adobe Flash CS6 Materials	High (expert validation)	Positive response	Positive response	High effectiveness	0.76	50 students	Regional culture

The second thematic cluster examined seven studies investigating how integration of local cultural content affects reading comprehension outcomes and development of higher-order thinking skills in elementary students. These studies employed varied research designs including quasi-experimental comparisons, meta-analytic syntheses, mixed-methods investigations, and classroom-based interventions. Across studies, culturally integrated instruction demonstrated consistent superiority over traditional approaches, with effect sizes ranging from moderate to large and statistical significance typically at $p < 0.01$ or $p < 0.001$ levels. The meta-analysis by Setiawan et al. (2025) synthesizing 23 studies across multiple countries and educational levels provided particularly robust evidence, revealing that culturally integrated critical reading programs significantly outperformed non-integrated approaches in developing students' analytical and evaluative comprehension skills.

Beyond comprehension gains, studies in this cluster documented multidimensional benefits including enhanced student motivation, increased cultural identity awareness, improved engagement and participation rates, and development of critical thinking and evaluative skills. Motivational improvements were evidenced through student surveys, classroom observation protocols, and teacher reports indicating greater enthusiasm, persistence, and voluntary reading behaviors when materials reflected familiar cultural contexts. Cultural identity development emerged as a consistent secondary outcome, with

students demonstrating increased pride in cultural heritage, deeper understanding of community values, and enhanced ability to articulate connections between cultural knowledge and academic content. These affective and identity-related outcomes suggest that culturally responsive instruction serves dual purposes of academic skill development and sociocultural empowerment.

Methodological diversity characterized this cluster, with studies employing multiple data sources including standardized comprehension tests, researcher-developed instruments, classroom observations, student interviews, teacher surveys, and document analysis of student work products. Interventions varied in duration from short-term implementations of four to six weeks to longer semester or year-long programs, with longer interventions generally showing more pronounced and sustained effects. Instructional approaches included culturally responsive teaching modules, multicultural text sets, locally-authored materials, integration of folklore and traditional narratives, and place-based pedagogies connecting academic content to community contexts and issues. Digital innovations appeared in several studies, incorporating technology platforms to deliver culturally relevant content through interactive and multimedia formats.

Table 3. Cultural Integration Effects on Reading Skills and Higher-Order Thinking

Study	Research Design	Primary Focus	Comprehension Outcome	Higher-Order Thinking Outcome	Additional Benefits	Sample/Scope	Duration
(Kuswandi, 2025)	Development & Quasi-experimental	CRT Modules	N-Gain 0.61, Mastery 40%→100%	Increased critical thinking (implicit)	Enhanced motivation, cultural identity	1 elementary school	One semester
(Setiawan et al., 2025)	Meta-analysis	Critical Reading + Culture	Significantly higher than control	Explicit focus on critical skills	Validated across contexts	23 studies, multiple countries	Varied
(Ni'mah & Mubarak, 2025)	Randomized experiment	Jepara Local Wisdom	Significant increase (experimental > control)	Not explicitly measured	Improved motivation, schema activation	Middle school	8 weeks
(Primayana & Dewi, 2025)	Quasi-experimental	PQ4R + Balinese Folklore	Significant increase (p < 0.05)	Not explicitly measured	Cultural preservation	60 students, 2 classes	6 weeks
(Ismail et al., 2024)	Mixed-methods	Rhizomatic Approach + Local Literature	Significant increase in comprehension	Personal-cultural connections	Student engagement	45 students	10 weeks
(Intang et al., 2024)	Development research	Adobe Flash CS6 + Local Culture	Gain 0.76 (high)	Not explicitly measured	Positive student response	50 grade 5 students	8 weeks
(Nashrullah, 2021)	Quasi-experimental	Multicultural Approach	Significant increase in reading & writing	Critical perspective development	Tolerance, multiple viewpoints	1 elementary school	One semester

Two studies explicitly examined Barrett's Taxonomy as a framework for reading comprehension instruction and assessment in elementary settings. Ersando et al. (2025) investigated the relationship between Barrett's Taxonomy levels and mathematical problem-solving performance, finding that both literal and inferential comprehension levels significantly predicted students' problem-solving abilities. Their study developed valid instruments aligned with Barrett's Taxonomy dimensions and demonstrated that differentiated instruction targeting specific taxonomy levels could enhance both reading comprehension and cross-curricular application of comprehension skills. The study emphasized that comprehension instruction must address multiple taxonomy levels systematically rather than focusing exclusively on literal understanding, as higher-order inferential and evaluative skills proved essential for complex academic tasks.

Umamy et al. (2025) implemented Barrett's Taxonomy through classroom action research with middle school students, documenting significant improvements across taxonomy levels including literal, inferential, evaluative, and appreciative comprehension. Their intervention achieved a large effect size of 1.24, indicating substantial practical significance. The study demonstrated that explicit instruction organized around Barrett's Taxonomy levels, with deliberate scaffolding from literal to evaluative comprehension, produced measurable gains across all dimensions. Students showed particular improvement in inferential and evaluative comprehension, suggesting that structured frameworks enable teachers to systematically address higher-order thinking skills often neglected in traditional comprehension instruction. Qualitative data revealed that students developed metacognitive awareness of different comprehension processes, enabling more strategic approach to reading tasks.

Despite these positive findings, both studies acknowledged limitations regarding cultural integration. Neither study explicitly incorporated local wisdom or culturally responsive materials as part of Barrett's Taxonomy implementation, representing a significant gap given the evidence reviewed in previous clusters regarding cultural integration's effectiveness. The Ersando et al. study focused on mathematics contexts, while Umamy et al. addressed general reading without specific attention to nonfiction genres or cultural relevance. This gap suggests substantial potential for synthesizing Barrett's Taxonomy framework with culturally responsive materials, particularly for nonfiction reading comprehension where both structured comprehension frameworks and cultural relevance could address known instructional challenges.

Table 4. Barrett's Taxonomy Application Studies

Study	Education Level	Barrett's Levels Examined	Key Findings	Effect Size	Instrumentation	Cultural Integration	Text Type Focus
(Ersando et al., 2025)	Elementary (Primary)	Literal, Inferential	Both levels predict problem-solving; differentiated instruction needed	Not reported (correlation study)	Valid instruments aligned with Barrett's	Not explicitly integrated	Mathematics-related texts
(Umamy et al., 2025)	Middle	Literal, Inferential, Evaluative, Appreciative	Significant gains across all levels	1.24	Quantitative & Qualitative	Not explicitly integrated	General

y et al., 2025)	School (Grade 7)	Inferential, Evaluative, Appreciative	improvement across all levels; explicit instruction effective	(large)	qualitative measures	explicitly integrated	reading materials
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Five studies examined broader culturally responsive pedagogy frameworks including Culturally Responsive Teaching and Culturally Sustaining Pedagogy, providing theoretical and practical guidance for integrating cultural elements into literacy instruction. Kuswandi (2025) developed and validated Culturally Responsive Teaching modules specifically for narrative text comprehension, achieving high validity ratings across content, language, and media dimensions, with module effectiveness demonstrated through significant N-Gain scores and mastery learning improvements from 40% to 100% completion rates. The study documented that culturally responsive materials not only improved comprehension outcomes but also enhanced students' motivation and cultural identity awareness, suggesting that effective literacy instruction addresses both cognitive and sociocultural dimensions of learning.

Murti (2023) analyzed culturally responsive teaching elements in mathematics textbooks, finding that contextual aspects dominated with 81% representation, while cultural artifacts comprised 11% and educational values 8% of cultural content. The analysis revealed strong representation of local cultural contexts in curriculum materials, indicating institutional recognition of cultural integration's importance. However, the study noted inconsistencies in depth and authenticity of cultural representation, suggesting need for more systematic approaches to cultural integration that move beyond superficial inclusion to meaningful engagement with cultural knowledge systems.

Domke et al. (2024) provided practical examples of Culturally Sustaining Pedagogy implementation in elementary reading groups, demonstrating how differentiated instruction combined with culturally relevant text selections enhanced literacy identity, engagement, and achievement for diverse learners. Their study illustrated concrete strategies including culturally mediated instruction, identity-affirming text selection, community-connected learning activities, and dialogic teaching approaches that centered students' cultural experiences. The study emphasized that culturally sustaining approaches require ongoing teacher learning, authentic community partnerships, and curricular flexibility to respond to students' diverse cultural backgrounds and experiences.

Dunham & Oti (2025) conducted a comprehensive review of culturally sustaining literacy practices in elementary classrooms, analyzing 32 articles to identify effective strategies and implementation challenges. Their review revealed that culturally sustaining practices significantly enhance participation and comprehension when implemented with fidelity, but face barriers including limited teacher preparation, constrained curriculum structures, assessment pressures emphasizing standardized outcomes, and insufficient access to culturally diverse texts. The review called for systemic changes including pre-service and in-service teacher education emphasizing cultural responsiveness, curriculum reforms

allowing flexibility for cultural integration, and expanded libraries of culturally diverse and authentic texts representing students' communities.

Table 5. Culturally Responsive Pedagogy Framework Studies

Study	Pedagogical Framework	Educational Level	Implementation Focus	Effectiveness Evidence	Challenges Identified	Recommendations
(Kuswandi, 2025)	Culturally Responsive Teaching (CRT)	Elementary	Narrative text modules	N-Gain 0.61; Mastery 40%→100%; Enhanced motivation & identity	Single school; focus on one culture	Adapt to other cultures; test broader populations; integrate explicit Barrett's framework
(Murti, 2023)	CRT in curriculum materials	Elementary	Mathematics textbooks	Contextual aspects 81%; Strong local cultural representation	Mathematics focus; implicit Barrett's connection	Develop nonfiction modules integrating Barrett's; expand to other subjects
(Domke et al., 2024)	Culturally Sustaining Pedagogy (CSP)	Elementary	Reading groups	Improved identity, engagement, literacy success	Small group study; limited generalizability	Integrate CSP with Barrett's for nonfiction; larger-scale studies
(Dunham & Oti, 2025)	Culturally Sustaining Literacy Practices	Elementary	Comprehensive review	Enhanced participation & comprehension	Implementation barriers: teacher preparation, curriculum constraints, assessment pressures	Systemic reforms in teacher education, curriculum flexibility, text access
(Kartini' et al., 2025)	Cultural Integration Model	Elementary (5 provinces)	Indonesian language materials	40% increase in engagement; 25% increase in comprehension; strengthened cultural identity	General focus; not explicit Barrett's connection	Integrate explicit Barrett's framework with cultural materials

Cross-cutting analysis of all four thematic clusters revealed several critical patterns and persistent gaps requiring attention in future research and development. First, while local wisdom integration consistently produced positive outcomes across diverse cultural contexts and grade levels, the overwhelming majority of studies focused on narrative or story-based texts, with minimal attention to nonfiction or informational genres. Only one study explicitly addressed nonfiction procedural texts, and none systematically examined expository, argumentative, or other nonfiction text structures common in academic reading demands. This gap is significant given that nonfiction comprehension presents distinct challenges

requiring different reading strategies, text structure awareness, and background knowledge activation than narrative comprehension.

Second, despite Barrett's Taxonomy's established utility as a comprehension instruction framework, only two studies explicitly employed this taxonomy, and neither integrated it with local wisdom-based materials or culturally responsive pedagogy. This represents a substantial missed opportunity, as Barrett's Taxonomy provides systematic scaffolding from literal to evaluative comprehension that could structure culturally responsive instruction while ensuring comprehensive skill development across all comprehension dimensions. The taxonomy's hierarchical structure could help teachers systematically address both basic and higher-order comprehension skills within culturally relevant contexts, potentially maximizing both cognitive and sociocultural benefits of integrated approaches.

Third, geographic and cultural specificity characterized most studies, with materials developed for particular regional cultures and tested in limited contexts. While this specificity ensures cultural authenticity and relevance for target populations, it limits generalizability and raises questions about adaptation processes for other cultural contexts. Few studies provided explicit guidance on how locally-developed materials might be adapted for different cultural communities while maintaining pedagogical effectiveness and cultural authenticity. This limitation suggests need for research examining both context-specific development and cross-cultural adaptation processes.

Fourth, methodological limitations including small sample sizes, short intervention durations, single-site implementations, and absence of long-term follow-up assessments constrained conclusions about sustainability and scalability of culturally responsive approaches. Most studies employed convenience sampling from single schools or districts, limiting population validity. Intervention durations rarely exceeded one semester, leaving questions about whether observed benefits persist over extended time periods. Few studies examined implementation fidelity, teacher preparation requirements, or systemic factors affecting successful adoption of culturally responsive approaches at scale.

Table 6. Synthesis of Gaps and Opportunities for Future Research

Gap Identified	Current State	Implications	Opportunity for Development
Limited nonfiction focus	Predominantly narrative/story texts	Nonfiction comprehension needs unaddressed	Develop local wisdom-based nonfiction materials across expository structures
Minimal Barrett's integration	Only 2/20 studies explicitly used Barrett's	Lack of systematic comprehension framework	Create instructional modules explicitly integrating Barrett's levels with cultural content
No combined approach	No studies integrated Barrett's + local wisdom + nonfiction	Missing synergistic potential of combined approaches	Design and validate comprehensive model synthesizing all three components
Geographic specificity	Most studies single-site, single-culture	Limited generalizability and adaptation guidance	Multi-site studies examining adaptation processes across cultures
Short-term focus	Most interventions \leq one semester	Unknown sustainability of effects	Longitudinal studies tracking long-term comprehension development and retention
Limited HOTS emphasis	Higher-order thinking skills implicit or unmeasured	Unclear effects on critical/evaluative thinking	Explicit measurement of Barrett's higher levels (evaluation, appreciation) in culturally responsive contexts

Discussion

The synthesis of 20 empirical studies examined in this systematic review reveals compelling evidence that integration of local wisdom in reading comprehension instruction produces significant benefits for elementary students, though substantial opportunities remain for more systematic and theoretically grounded approaches to this integration. The consistent positive outcomes reported across diverse cultural contexts, geographic regions, and student populations suggest that culturally responsive literacy instruction represents not merely a pedagogical preference but an evidence-based practice warranted by empirical findings (Hanifah et al., 2022; Paulina et al., 2025; Rasyid et al., 2023). The effectiveness of local wisdom integration appears to operate through multiple mechanisms including enhanced motivation and engagement, schema activation facilitating comprehension, cultural identity affirmation supporting learner confidence, and meaningful contextualization making abstract literacy skills more accessible and relevant to students' lived experiences (Kartini' et al., 2025; Kuswandi, 2025). These mechanisms align with sociocultural learning theories emphasizing culture's mediating role in cognitive development and with schema theory highlighting the importance of relevant background knowledge for text comprehension.

The predominant focus on narrative texts in existing research, while understandable given narratives' prominence in elementary literacy curricula, represents a significant limitation that constrains applicability of findings to nonfiction reading comprehension. Nonfiction texts present distinct cognitive demands including processing of technical vocabulary, navigation of various expository text structures, evaluation of evidence and arguments, integration of graphic and textual information, and critical assessment of authorial perspective and bias (Ersando et al., 2025; Umamy et al., 2025). These demands require different reading strategies and instructional approaches than narrative comprehension, yet only one reviewed study explicitly addressed nonfiction genres, focusing specifically on procedural texts (Afifah & Sukasih, 2025). The gap in nonfiction-focused culturally responsive materials is particularly concerning given that nonfiction reading comprises increasing proportions of academic reading demands in upper elementary and secondary education, and represents the predominant genre encountered in out-of-school reading contexts including digital media, informational texts, and civic discourse.

Barrett's Taxonomy of Reading Comprehension offers a robust theoretical framework that could address identified gaps by providing systematic structure for comprehension instruction that progresses from basic literal understanding through increasingly sophisticated higher-order thinking processes. The taxonomy's five levels—literal comprehension, reorganization, inferential comprehension, evaluation, and appreciation—represent a developmental progression that scaffolds students from surface-level text processing to deep critical engagement requiring synthesis, judgment, and personal response (Umamy et al., 2025). Research demonstrating Barrett's Taxonomy's effectiveness in enhancing both comprehension outcomes and metacognitive awareness suggests its potential value for structuring culturally responsive instruction (Ersando et al., 2025). However, the virtual absence of studies explicitly integrating Barrett's Taxonomy with local wisdom-based materials represents a missed opportunity to combine systematic comprehension frameworks

with culturally responsive content, potentially maximizing both cognitive skill development and sociocultural benefits.

The mechanism by which local wisdom integration enhances comprehension can be understood through multiple theoretical lenses that collectively explain observed outcomes. Schema theory posits that comprehension depends on activation of relevant background knowledge structures that provide frameworks for interpreting new information; culturally familiar content more readily activates appropriate schemas, facilitating comprehension processes (Ni'mah & Mubarak, 2025). Cognitive load theory suggests that culturally familiar contexts reduce extraneous cognitive load, freeing working memory resources for essential processing demands of comprehension itself rather than struggling with unfamiliar cultural references (Intang et al., 2024). Sociocultural perspectives emphasize that learning is fundamentally mediated by cultural tools and practices, making culturally responsive instruction not simply motivationally beneficial but epistemologically necessary for authentic meaning-making (Setiawan et al., 2025). Self-determination theory explains motivational benefits through satisfaction of autonomy, competence, and relatedness needs, all enhanced when instruction reflects students' cultural identities and communities.

The application of culturally responsive pedagogy frameworks including Culturally Responsive Teaching and Culturally Sustaining Pedagogy provides important guidance for implementation but raises questions about depth and authenticity of cultural integration. Superficial inclusion of cultural elements—sometimes termed “tourist approach” to multiculturalism—may provide minimal benefits or even reinforce stereotypes if cultural content is treated as exotic curiosity rather than legitimate knowledge system (Dunham & Oti, 2025). Authentic cultural integration requires moving beyond surface features like traditional clothing or festivals to engage substantively with cultural epistemologies, values, practices, and ways of knowing that shape community members' worldviews and meaning-making processes (Domke et al., 2024). The finding by Murti (2023) that contextual aspects dominated cultural representation in curriculum materials at 81% suggests recognition of cultural integration's importance, yet the relatively lower representation of cultural artifacts and educational values raises questions about depth of cultural engagement beyond superficial contextualization.

The relationship between cultural integration and higher-order thinking skills represents a particularly important yet underexplored dimension of culturally responsive literacy instruction. While several studies documented improvements in critical thinking, evaluation, and analytical skills alongside comprehension gains, most did not explicitly measure or systematically target higher-order thinking through Barrett's Taxonomy or comparable frameworks (Nashrullah, 2021; Setiawan et al., 2025). This gap is significant because nonfiction reading inherently demands higher-order cognitive processes including evaluating evidence credibility, analyzing authorial bias, synthesizing information across sources, and applying knowledge to novel contexts—all skills encompassed in Barrett's upper taxonomy levels of evaluation and appreciation (Ersando et al., 2025). The potential synergy between culturally responsive materials that engage students' interests and prior knowledge, combined with systematic instruction targeting higher-order comprehension skills through frameworks like Barrett's Taxonomy, could address both engagement and rigor simultaneously,

countering concerns that culturally responsive approaches might compromise academic standards.

Digital innovations in delivering culturally responsive materials emerged as a promising development across several studies, with e-modules, multimedia presentations, and interactive platforms offering advantages including accessibility, engagement through multiple modalities, adaptability for differentiation, and potential for incorporating authentic cultural artifacts like photographs, audio recordings, and video documentation (Afifah & Sukasih, 2025; Intang et al., 2024). However, digital delivery also presents challenges including technology access inequities, digital literacy requirements for both teachers and students, potential for technology to overshadow rather than enhance cultural content, and difficulties ensuring cultural authenticity in digital representations. The effectiveness evidence for digital formats appears comparable to traditional print materials when pedagogical design is sound, suggesting that medium selection should be guided by context-specific considerations including available resources, learning objectives, and student characteristics rather than assumptions about inherent superiority of digital or traditional formats.

Implementation challenges identified across studies highlight that culturally responsive literacy instruction requires more than simply providing culturally relevant materials; successful implementation demands teacher preparation, curriculum flexibility, assessment alignment, and institutional support. Teachers require not only cultural knowledge about their students' communities but also pedagogical skills for integrating cultural content meaningfully, facilitating discussions about cultural topics sensitively, and connecting cultural knowledge to academic standards and learning objectives (Dunham & Oti, 2025). Curriculum structures that rigidly prescribe content sequences and pacing may constrain teachers' ability to incorporate local cultural elements responsively based on emerging opportunities and student interests. Assessment systems emphasizing standardized test performance on culturally neutral or dominant-culture content may discourage teachers from investing instructional time in culturally responsive approaches, creating misalignment between pedagogical values and accountability pressures. These systemic factors suggest that effective scaling of culturally responsive literacy instruction requires not only development of high-quality materials but also broader educational reforms addressing teacher education, curriculum policies, and assessment practices.

The geographic and cultural specificity of materials developed in reviewed studies raises important questions about adaptation processes and the tension between local authenticity and broader applicability. Materials developed for specific cultural communities maximize relevance and authenticity for those contexts but may not transfer effectively to other settings without substantial adaptation (Kuswandi, 2025; Saota et al., 2023). This presents both challenges and opportunities for educational practice: challenges in that each cultural context may require unique material development rather than adopting existing resources, but opportunities for communities to develop materials reflecting their specific cultural knowledge systems and priorities. Future research should examine both principles for effective context-specific development and processes for adapting materials across cultural contexts while maintaining pedagogical effectiveness and cultural authenticity. Additionally,

investigation of more universally applicable frameworks—such as Barrett's Taxonomy—that can be filled with culturally specific content may offer promising approaches balancing structure and flexibility.

The relative absence of longitudinal research tracking sustained effects of culturally responsive literacy instruction represents a significant knowledge gap limiting conclusions about these approaches' long-term value. Most interventions lasted one semester or less, with post-testing occurring immediately following intervention completion, leaving unknown whether observed comprehension gains persist over time, whether motivational benefits sustain as novelty effects fade, whether cultural identity affirmation produces lasting impacts on academic self-concept, and whether foundational skills developed through culturally responsive instruction transfer to diverse reading contexts and text types (Hanifah et al., 2022; Primayana & Dewi, 2025). Longitudinal designs tracking students across multiple years could address these questions while also examining developmental trajectories and identifying critical periods where cultural integration proves most impactful. Additionally, longitudinal approaches would allow examination of cumulative effects of sustained culturally responsive instruction versus brief interventions, informing decisions about optimal implementation intensity and duration.

The integration of local wisdom with Barrett's Taxonomy specifically for nonfiction reading comprehension represents a theoretically coherent and practically valuable direction for future research and development that synthesizes insights from reviewed studies while addressing identified gaps. This integrated approach would structure nonfiction comprehension instruction around Barrett's Taxonomy levels while embedding content within culturally relevant local wisdom contexts, potentially achieving multiple objectives simultaneously: developing systematic comprehension skills across literal to evaluative levels, engaging students through culturally meaningful content, supporting schema activation and knowledge building, and fostering both academic competence and cultural identity (Ersando et al., 2025; Setiawan et al., 2025). Such an approach would require careful instructional design ensuring that cultural content authentically embodies local wisdom rather than superficial references, that nonfiction text structures are explicitly taught alongside comprehension strategies, that Barrett's Taxonomy levels are deliberately targeted through graduated tasks and assessments, and that higher-order thinking receives explicit attention rather than emerging incidentally from engagement with culturally relevant materials.

Conclusion

This systematic literature review concludes that the integration of local wisdom in elementary reading comprehension instruction yields substantial benefits. These include improved reading comprehension outcomes, increased student motivation and engagement, strengthened cultural identity, and enhanced higher-order thinking skills. The synthesis of 20 empirical studies demonstrates consistent effectiveness across diverse cultural contexts, with learning materials based on local wisdom showing high levels of validity, practicality, and effectiveness, as well as meaningful learning gains. Despite these positive findings, significant gaps remain in existing research, particularly the predominant focus on narrative texts, the limited application of nonfiction genres, the lack of explicit use of systematic comprehension frameworks such as Barrett's Taxonomy, and the absence of studies that integrate culturally responsive approaches with structured nonfiction reading instruction.

Recommendation

Based on the identified gaps and converging evidence, future research is strongly recommended to focus on developing instructional models that integrate local cultural wisdom with systematic comprehension frameworks, particularly Barrett's Taxonomy, for nonfiction reading comprehension. Such models have the potential to address current limitations while maximizing the synergy between cultural relevance and structured skill development. Future studies should employ rigorous experimental designs, involve multi-site implementations across diverse cultural settings, and include longitudinal assessments to examine sustained learning effects. Additionally, research should investigate implementation processes, teacher support systems, and scalability factors to ensure effective and widespread adoption of these integrated instructional approaches.

Acknowledgment

The authors would like to acknowledge all researchers whose studies were included in this systematic literature review, as their contributions provided valuable insights into the integration of local wisdom in reading comprehension instruction. Appreciation is also extended to educators and scholars who continue to promote culturally responsive pedagogy and contribute to the advancement of literacy education.

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