



The Evolution and Intellectual Structure of Local Wisdom Research in Indonesian Education: A Fifteen-Year Bibliometric and Systematic Analysis (2010–2025)

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Abstract: The concept of local wisdom has become a significant strategic basis for culturally based education in Indonesia, though the structure of intellectual form and the developmental course of research in this area have yet to be fully synthesized. The paper explores the development and intellectual architecture of local wisdom research in Indonesian education between 2010 and 2025 through an inter-woven bibliometric and systematic approach. Based on PRISMA procedures, 132 studies were selected from 575 records of Scopus-indexed journal articles. The growth of publications, most popular journals, institutional productivity, and international contributions were analyzed using bibliometric mapping, and qualitative thematic synthesis identified the prevalent research clusters and theoretical orientations. According to the findings, a significant growth trend can be observed in recent years, and scholarship is concentrated mostly in Indonesian institutions, with a predominance of the sociocultural and constructivist approaches. Five important thematic areas were identified, reflecting an inclination toward pedagogical application. The paper finds that although the field is growing very fast, it is nationally confined and theoretically fragmented. This study provides intellectual scaffolding and strategic pathways for more rigorous and globally active scholarship by mapping the intellectual architecture of the field.

Keywords: bibliometric analysis; indonesian education; local wisdom; research trends; systematic review

Recommended citation: Djedjen., Kurniawan, D. T., & Abidin, Y. (2026). The Evolution and Intellectual Structure of Local Wisdom Research in Indonesian Education: A Fifteen-Year Bibliometric and Systematic Analysis (2010–2025). *Journal of Innovation in Educational and Cultural Research*, 7(4), 770-779.

INTRODUCTION

Over the past decades, education has been reconceptualized as a social institution that is transformative in nature and often goes beyond cognitive achievement to promote cultural identity, social cohesion, and sustainable development (OECD, 2019). According to scholars, education in culturally diverse societies should not be just a tool for universal knowledge transmission but also a place where local epistemologies and cultural maintenance are preserved (Gay, 2015; Paris, 2021; Smith, 2021). This is consistent with national educational views in the Indonesian context, where character building and cultural sustainability are two key aspects of holistic development (OECD, 2019; Suprpto et al., 2021). Local wisdom is often described as a framework of local values, beliefs, moral standards, and ecological knowledge, developed through intergenerational activities and social compromise (Battiste, 2014; Sillitoe, 2016). Modern learning studies also position local wisdom as an evolving epistemological source that can enhance contextual learning and strengthen students' cultural identity (Kasi et al., 2024; Muliadi et al., 2025). Instead of being considered a sort of secondary cultural content, local wisdom is becoming more of a pedagogical basis of culturally responsive and sustainable education. Hence, the conceptualization and integration of local wisdom into educational research are critical to the development of theory-based and contextually sensitive scholarship in Indonesia. In educational settings, local wisdom has long been established as a valuable basis for culturally responsive teaching and contextual learning. Scholars state that incorporating local wisdom and culturally responsive pedagogies into teaching and learning may improve the moral development of students, their cultural identity, and the contextual relevance of learning experiences (Aronson & Laughter, 2016; Gay, 2015; Jeynes, 2019; Kasi et al., 2024; Paris, 2021; Reyes-García, 2023). In Indonesia, local wisdom has been associated with character education, environmental consciousness, and social harmony, which are consistent with the national educational priorities, focused on values-based learning and cultural identity preservation; recent studies indicate that the implementation of local wisdom into the school curricula has a significant impact on the development of the social behavior, environmental consciousness, and cultural responsibility of students (Arjaya et al., 2024; Kementerian Pendidikan dan Kebudayaan Republik Indonesia, 2016; Sanjayanti et al., 2022; Zubaedi, 2015).

Theoretical approaches to the integration of local wisdom into education are based mostly on the modern constructivist, sociocultural, and culturally responsive theories that focus on the interrelationship between the prior knowledge of students, the social context, and their cultural context (Aronson & Laughter, 2016; McCarty & Brayboy, 2021; Paris, 2021; Sleeter, 2018). Constructivist and learning sciences view knowledge construction as a socially mediated, situated, and active process with its meaningful interaction and

contextual experience (Darling-Hammond et al., 2020). Sociocultural approaches also posit that cognition cannot exist outside of cultural practice and community involvement, and as such, indigenous and local knowledge systems should be seen as valid epistemological resources in formal schooling (Lees & Bang, 2023; Reyes-García, 2023). In science and sustainability education, local wisdom is being understood as a complement to scientific knowledge, especially in culturally responsive science education, ethnoscience, and place-based pedagogies (Kimmerer, 2018; Sleeter, 2018). All of these theoretical orientations offer a strong base in which to establish local wisdom not as cultural content, but as part of a transformative, inclusive, and contextually based learning process.

Education is becoming a cultural practice that has been acknowledged to represent and reproduce power relations, identity-making, and knowledge hierarchies in society. Recent research on culturally relevant, culturally sustaining, and decolonial pedagogies has reinforced the significance of legitimizing local epistemologies in a formal educational system alongside a critical challenge to dominant systems of Western-centric knowledge (Paris & Alim, 2017; Sleeter, 2018). In these frameworks, local wisdom is placed not only as teaching content but as symbolic and cultural capital that affects the process of identity construction by students, social cohesion, and epistemic involvement in the knowledge production process in schools (Jeynes, 2019; Lees & Bang, 2023; McCarty & Brayboy, 2021). These views emphasize that educational practices are political and culturally mediated, and that incorporating various knowledge systems is necessary to create more inclusive and socially responsive learning environments. Culturally, education is also one of the major forces of cultural values and social order transmission, reproduction, and transformation (Apple, 2018; Sleeter, 2018). Based on modern approaches to defining cultural reproduction theory and cultural capital, schools become key mediators where local knowledge is institutionalized, negotiated, and altered within formal education systems (Grenfell, 2014). Local wisdom in this context is not merely pedagogical content but also a style of symbolic capital to create identity, power relations, and social cohesion within educational environments (McCarty & Brayboy, 2021). The conceptualization of local wisdom and its incorporation into formal education is thus relevant to the wider discussions on cultural continuity, epistemic justice, and social change in modern societies (Kimmerer, 2018; Reyes-García, 2023).

Empirically, studies on local wisdom in Indonesian education have been extended to different levels of education and disciplines such as curriculum development, learning models, character education, and science education. Many studies indicate beneficial effects of local wisdom-based teaching on students' engagement, conceptual learning, and internalization of values (Kasi et al., 2024; Ridwan et al., 2021; Sanjayanti et al., 2022). More recent research has considered new pedagogical paradigms, including project-based learning, ethnoscience, and contextual teaching paradigms based on local cultural practices (Muliadi et al., 2025; Sholahuddin et al., 2021; Yuliana et al., 2021). Although the literature on local wisdom in Indonesian education is increasing, the research in the field remains conceptually and structurally disjointed. The available literature is spread across various levels of education, fields of discipline, and thematic orientations, and tends to be concentrated on particular pedagogical practices, e.g., character education or science learning. Subsequently, the wider intellectual framework of this research study, such as its publishing patterns, hermeneutics of influence, overriding themes, and theoretical underpinnings, is not well comprehended. This deficiency in synthesis makes it hard to determine how research on local wisdom has grown and the role it plays in the larger discourse on culturally responsive and culturally sustaining education.

Although a range of review studies have been conducted to investigate specific factors of local wisdom in education, most have a thematic or limited focus on educational situations. Very little literature has tried to map the development of this area of research using a systematic review method that combines both bibliometric and systematic reviews. This method is significant since it allows identifying changes in publications, scholarly dynamics, theme development, and theoretical developments that influence the formation of research on the topic of local wisdom in Indonesian education. A systematic review, accompanied by bibliometric analysis, is a strong method for overcoming these shortcomings. Bibliometric techniques facilitate the quantitative mapping of trends in publication, research productivity, and scholarly impact, whereas systematic thematic synthesis can be used to interpret research themes and theoretical orientations more deeply (Aria & Cuccurullo, 2017; Donthu et al., 2021). The combination of these methods offers a rich and clear view of the intellectual history and construction of a research discipline. In this light, this paper will discuss how local wisdom in Indonesian education has evolved by conducting a mixed bibliometric and systematic review of publications indexed in Scopus. In particular, the following research questions will be addressed in this research: (RQ1) What is the current state of publication in terms of research on local wisdom in Indonesian education between 2010 and 2025? (RQ2) What are the most influential journals, authors, institutions, and countries to conduct research on the issue of local wisdom in Indonesian education? (RQ3) What are the dominant research themes, and how have these themes evolved in the studies of local wisdom in the context of Indonesian education? (RQ4) What theoretical perspectives and conceptual frameworks are used to conduct research on the issue of local wisdom in the context of Indonesian education? (RQ5) What are the gaps in the research, and what perspectives can I consider in future research to advance the study of local wisdom in the context of Indonesian education?

This study will answer these questions and thus will add to a more systematic understanding of the conceptualization of local wisdom, research on it, and its application to Indonesian educational research, as well as provide prospects for future research. Although the literature on local wisdom in Indonesian education is growing, past research remains disjointed and confined to certain levels of education or cognitive disciplines. This work is the first systematic synthesis of the literature on local wisdom in Indonesian education. By mapping the intellectual architecture, thematic development, and theoretical direction of the research field over the last fifteen years, the proposed study provides a detailed conceptualization of how the concept of local wisdom was conceived and implemented in Indonesian educational scholarship.

METHODS

In this research, the methodology used was a combination of bibliometric analysis and systematic literature review that investigated trends and thematic changes in research on local wisdom in Indonesian education. The mapping of the publication trends, influential journals and authors, collaboration networks, and thematic structures of the studies published during 2010-2025 was based on bibliometric analysis. In the meantime, a systematic literature review made it possible to conduct a thorough qualitative synthesis of theoretical perspectives, conceptual frameworks, and research contributions in the area (Donthu et al., 2021; Tranfield et al., 2003). Through a combination of these two methods, the research has given a macro-level summary of research developments and a micro-level thematic explanation of the literature.

The information used in the study was obtained from the Scopus database because it was chosen for its extensive collection of high-quality, peer-reviewed international journals. A predefined search query was used to search up to 25 January 2026 to find publications that addressed the topic of local wisdom in Indonesian contexts in education. The first search returned 575 records. To make the dataset as relevant and consistent as possible, preliminary filters were immediately applied in the Scopus database. The search strategy was restricted to journal articles, published since 2010, and in English. Having used these criteria, 426 records were left to be further screened and analyzed. The key search query was formulated, comprising keywords of local wisdom, education, and the Indonesian context, with Boolean operators. The search terms included variations of local wisdom (e.g., "local wisdom", "local culture", "indigenous knowledge"), educational contexts (e.g., "education", "school", "curriculum", "learning"), and geographical identifiers (e.g., "Indonesia", "Indonesian"). These keywords were searched within the title, abstract, and keywords fields to ensure comprehensive coverage of relevant studies.

There were clear inclusion and exclusion criteria that guided the systematic screening and eligibility evaluation of the retrieved studies. These were used in screening titles and abstracts and in full-text eligibility assessment during the PRISMA-based selection. Inclusions criteria: to ensure that the studies included aligned with the study subject, it was important that (1) the studies concentrated on educational contexts (such as teaching, learning, curriculum or schooling); (2) that the studies concentrated on local wisdom, local culture or local knowledge as a defining factor; (3) that the studies were situated in an Indonesian educational environment or that the studies explicitly discussed Indonesia as the research site; and (4), that the studies provided adequate conceptual, theoretical or empirical data to allow qualitative synthesis. The studies were also filtered out when they (1) were not in the area of education; (2) addressed the issue of local wisdom or culture without an explicit educational focus; (3) addressed education issues outside the Indonesian context; or (4) were not of substantive relevance according to title, abstract, or full text evaluation. The criteria were used to select only those studies that were directly related to local wisdom in Indonesian education to be retained in the bibliometric analysis and systematic literature review.

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework was used to conduct the screening and selection process, thereby guaranteeing transparency and replicability (Page et al., 2020). The first literature search was done in the Scopus database, which yielded 575 records. Registers had no records found. Before screening, 149 records were filtered out because they were outside the 2010-2025 publication period, were not journal articles, or were published in a different language. No duplicate records were observed, and the automation tools did not exclude any records. Following this first filtering, 426 records were left and were filtered accordingly in terms of title and abstract. In this step, 138 records were filtered out due to inadequate coverage of local wisdom, not being related to educational conditions, or not being carried out in the Indonesian context.

Thereafter, 288 reports were requested to be retrieved, and all full-text articles were accessed successfully; therefore, no report was excluded because of retrieval problems. Eligibility assessments were done on these 288 full-text articles. A total of 156 full-text articles were eliminated at the eligibility phase because they did not specifically focus on the integration of local wisdom within educational practices, did not focus on education, had a non-educational research design or focus, or were not relevant to Indonesian educational contexts. Finally, 132 articles were included in the final analysis and review because they were all inclusive. Figure 1 presents the PRISMA flow diagram, which shows how the studies were identified, screened, and eligible for inclusion in this review.

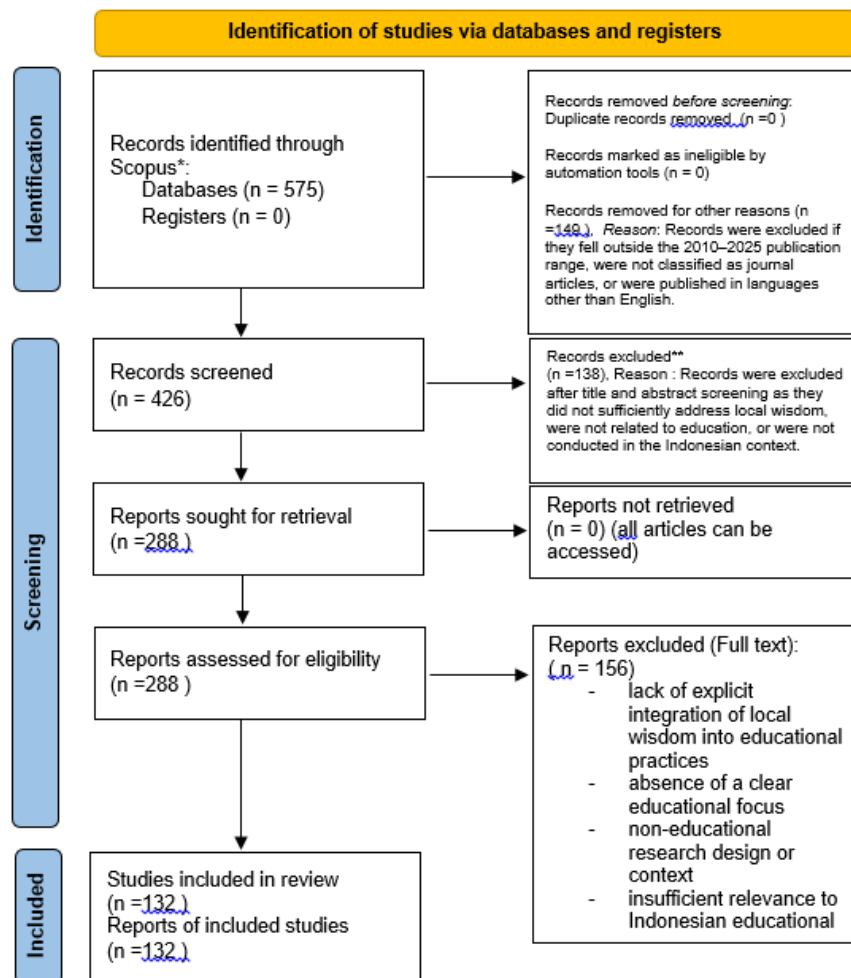


Figure 1. PRISMA Flow

The final dataset of 132 articles was subjected to bibliometric analysis to evaluate publication trends, the most active journals, leading institutions, and countries that contributed to the selected literature. Bibliographic data exported from the Scopus database were used to perform bibliometric analysis using descriptive statistical techniques. The extracted data were tabulated and processed to determine publication trends, dominant journals, institutional productivity, and contributions at the country level. The bibliometric indicators were summarized through frequency analysis and tabulation, as well as used to demonstrate the tendencies in the evolution of research on local wisdom in Indonesian education. The bibliographic information was obtained from the Scopus database and structured using a designed data extraction form to maintain uniformity among studies. The information extracted included the year of publication, journal name, authors, institutional affiliations, country of origin, research design, level of education, and data collection methods.

Furthermore, a qualitative thematic synthesis was conducted to determine the prevailing research themes and how they evolved across the chosen studies, according to the thematic synthesis procedure normally applied in systematic reviews (Thomas & Harden, 2008). The quantitative descriptive analysis was also utilized to analyze the trends of publications over time and determine the influential journals, authors, institutions, and countries that have impacted this research field. These data were considered to answer RQ1 and RQ2. Frequency counts and visual depictions were used to analyze the data and provide evidence of trends and changes in the literature. Moreover, the substantive data extracted were subjected to qualitative content analysis to establish the prevailing themes of research, theoretical views, and conceptual frameworks concerning local wisdom in Indonesian education settings. This methodology helped to analyze RQ3 and RQ4 and identify the research gaps and possible future research directions (RQ5).

Thematic synthesis of qualitative data was performed to interpret and synthesize qualitative data of the included studies systematically. This was done inductively, meaning that common concepts and patterns were subsequently identified with reference to local wisdom in education by repeatedly reading article abstracts, findings, and discussion sections. Thematic synthesis was performed qualitatively via an iterative coding process. In the first step, pertinent textual passages in the chosen articles were reviewed to produce initial codes of recurring ideas and research interests. These early codes were later clustered and narrowed down to a few overarching themes that signified the prevailing themes in research on local wisdom in Indonesian education.

To guarantee reliability and consistency, coding outcomes were repeatedly evaluated and polished by comparing and contrasting the results of the analyzed studies. The first codes were developed through repetitive educational practices, cultural values, pedagogical approaches, and local contextual applications of local knowledge. The codes were further categorized into larger descriptive themes which outlined strong research interests in the literature. Higher-order analytical themes were created through additional refinements in the analytical method that help to capture the conceptual and theoretical contributions of local wisdom to Indonesian education. This thematic synthesis allowed a holistic appreciation of how local wisdom has been conceptualized, applied, and theorized at various levels of education and in various disciplines. Coding was performed iteratively and repeatedly checked to ensure uniformity and reliability in coding the themes. Moreover, it helped identify unexplored areas and methodological constraints, thus guiding recommendations for future studies.

RESULT AND DISCUSSION

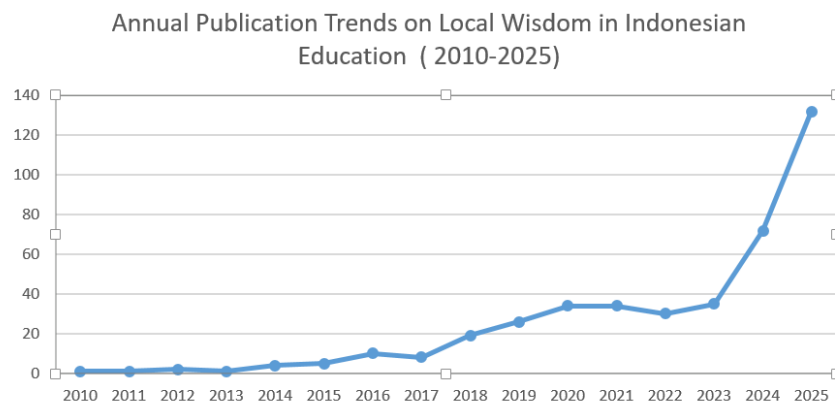


Figure 2. Annual Publication Trends of Research on Local Wisdom in Indonesian Education (2010–2025)

Figure 2 shows trends in the number of publications on local wisdom in Indonesian education between 2010 and 2025, using data from the Scopus database. The review shows that the number of publications has significantly grown over the years, which underscores scholars' interest in exploring the role of local wisdom in research on Indonesian education. The number of publications indexed in Scopus during the early years of the last decade (2010-2013) was very small, indicating that the concept of local wisdom was not yet acknowledged as one of the key themes of education research. There is a visible growth between 2014 and 2017, indicating initial attempts to apply a cultural and indigenous lens to educational research. Since 2018, the upward trend in publications has strengthened, and the number of studies published in 2024-2025 increased significantly. This surge signifies heightened scholarly interest in local wisdom, especially in response to current educational agendas like character education, cultural sustainability, and context-based learning. Overall, the trend shows that the study of local wisdom in Indonesian education transitioned from a peripheral issue to a fast-growing and increasingly important area of Scopus-registered educational research.

The rising trend in publications also captures a wider global move towards appreciating the value of culturally based knowledge in research in education. The inclusion of indigenous knowledge and culturally responsive pedagogies has become a focus of international scholarship as part of an inclusive and contextually relevant education. Here, the concurrent increase in academic interest in local wisdom in Indonesia suggests a similar trend where educational research attempts to re-link formal schooling to the local cultural traditions and knowledge systems based on the community. This sub-section explores the most impactful journals, institutions, and nations that have contributed to the studies of local wisdom in Indonesian education based on publications indexed in Scopus. Figure 3 shows that the majority of the research output is limited to a few academic outlets and institutions.

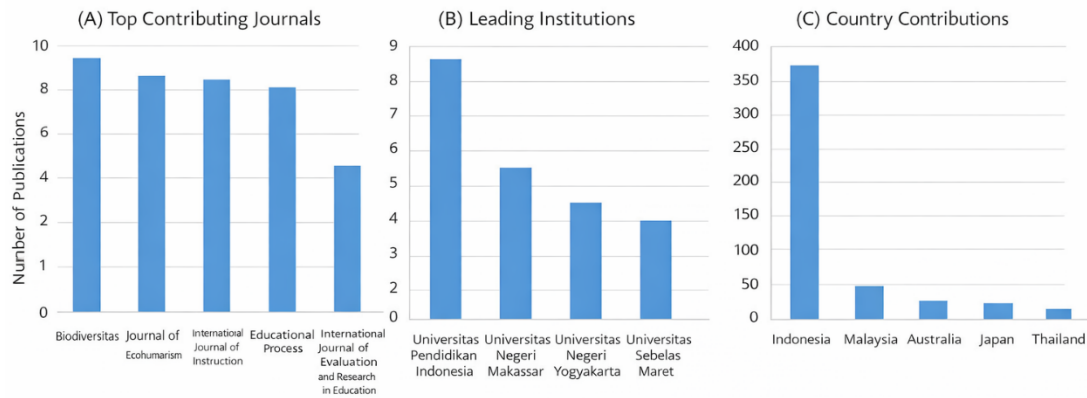


Figure 3. Research Productivity in Studies of Local Wisdom in Indonesian Education: (a) Leading Journals, (b) Leading Institutions, (c) Country Distribution.

Figure 3a reveals that Biodiversitas is the most fruitful journal, followed by the Journal of Ecohumanism and the International Journal of Instruction. Further works by journals like Educational Process: International Journal and the International Journal of Evaluation and Research in Education indicate that the scholarship on local wisdom is shared through interdisciplinary and education-oriented journals. This distribution reflects both thematic specialization and increased institutionalization of culturally based research in indexed academic journals. As shown in Figure 3b, Universitas Pendidikan Indonesia is the largest contributor in terms of institutional contributions, followed by Universitas Negeri Makassar, Universitas Negeri Yogyakarta, Universitas Sebelas Maret, and Universitas Pendidikan Ganesha. The fact that the leading universities are public emphasizes their key role in promoting research that incorporates local knowledge into formal education systems. The distribution of the count of publications by country in Figure 3c is highly concentrated, with Indonesia publishing the vast majority. Malaysian, Australian, Japanese, and Thai contributions are relatively small. The trend indicates that the studies of local wisdom in Indonesian education are mostly locally based, which is a characteristic of its contextual and culturally embedded nature.

Nevertheless, a relatively low degree of global engagement also shows prospects of developing global cooperation and comparative study. In general, the results show that the discipline is rooted in national scholarly networks, and institutional support for Indonesian universities and journals is high. Although such a concentration highlights the contextual authenticity of research on local wisdom, it also highlights the need to enhance international cooperation. Comparative and cross-national studies play a significant role in developing theoretical perspectives and reinforcing the international presence of culturally based educational studies in the global discourse on indigenous knowledge and culturally responsive education.

To answer RQ3, the analysis identifies five prevalent research themes describing studies on local wisdom in Indonesian education: local wisdom, indigenous knowledge, character education, science education, and curriculum and learning models. These themes portray the primary scholarly orientations and demonstrate how research in this area has evolved. The theme of local wisdom endorses cultural values and traditions as core aspects of educational practice, with the focus on maintaining and passing local identity via schooling. Intimately connected, indigenous knowledge emphasizes community-based knowledge systems and their applicability to educational situations, along with growing interest in sustainability and culturally responsive pedagogy. One of the most obvious themes that arise is character education, which is concerned with the influence of local wisdom in creating moral values, social responsibility, and national identity among students.

Meanwhile, research on science education has shown how local contexts and traditional practices can be applied to situate scientific concepts and make learning more meaningful and relevant. Lastly, the theme of curriculum and learning models indicates a move toward applied research that explores how local wisdom is integrated into curriculum design and instructional models that are responsive to local educational requirements. In general, the development of these themes suggests a shift toward more conceptual, rather than pedagogical and practice-oriented, research, with an emphasis on the increasing significance of local wisdom as a source of educational innovation in Indonesia. These thematic trends are in line with the wider international discourses on incorporating indigenous knowledge and cultural values in the process of education. Past research has pointed out that culturally responsive pedagogy has the potential to improve student engagement, cultural identity, and meaningful learning experiences by linking academic material with students' sociocultural backgrounds. The prevalence of topics like character education and contextual science learning in Indonesian studies is thus indicative of a broader academic initiative to harmonize educational practice with local culture. To shed light on the substantive focus of each dominant theme, Table 1 provides a summary of the main orientations of research on local wisdom in Indonesian education.

Table 1. Dominant research themes in studies of local wisdom in Indonesian education

Research Theme	Main Focus in Educational Studies
Local Wisdom	Exploration of local cultural values, traditions, and community practices as foundational elements integrated into Indonesian educational contexts, particularly to strengthen cultural identity and contextual learning.
Indigenous Knowledge	Examination of indigenous and traditional knowledge systems as alternative epistemologies, emphasizing their role in preserving local heritage and supporting culturally responsive education.
Character Education	Integration of local wisdom to promote moral values, ethics, and character formation among students, often linked to national character education agendas.
Science Education	Application of local wisdom in science teaching to contextualize scientific concepts, connect learning with everyday experiences, and enhance students' understanding through culturally grounded examples.
Curriculum & Learning Models	Development and implementation of curricula, teaching models, and instructional strategies that incorporate local wisdom to support meaningful, student-centered, and context-based learning.

Local wisdom studies in Indonesian education use a variety of theoretical perspectives and conceptual frameworks to explain the incorporation of cultural values into teaching and learning processes. Among the most common schools of thought is sociocultural theory, which perceives learning as a socially constructed process influenced by cultural norms, traditions, and practices. In this context, local wisdom is positioned as a cultural resource that mediates students' cognitive and social development. The other prevailing school of thought is the character education theory, in which local wisdom is theorized to form the basis of moral and ethical growth. Cooperation (*gotong royong*), respect, and responsibility are cultural values that are often presented as key character traits that schools aim to develop in both curriculum and school culture. This method emphasizes the value-based and normative aspects of local wisdom in education. Several studies also appeal to constructivist learning theory, focusing on the active involvement of students in building knowledge through contextual, culturally relevant learning experiences. Australian local wisdom in this context acts as contextual content that bridges academic knowledge with students lived experience. Scholars in science and environmental education have often used contextual and ethnoscience approaches, placing indigenous knowledge between scientific ideas and local cultural behaviors. In addition, curriculum-based frameworks such as curriculum integration and culturally responsive pedagogy are employed to examine the inclusion of local wisdom in learning models, instructional strategies, and assessment practices. These models aim to harmonize national curriculum standards with local cultures and cultural identity while maintaining relevant learning. In general, the theoretical and conceptual frameworks employed in this research body have a multidisciplinary orientation that incorporates the views of education, culture, sociology and curriculum studies. Such multiplicity of theoretical approaches also reflects the attempts of the international community to conceptualize education as a culturally localized process. Sociocultural and constructivist approaches to learning are becoming popular in most learning settings to explain how the local knowledge system can be invoked to facilitate meaningful learning and knowledge building. In this wider academic environment, the application of ethnoscience paradigms and culturally competent research methods in Indonesian studies indicates an increased awareness of the role of local wisdom not as cultural material but as an epistemological tool that influences pedagogical and educational practices.

Table 2. Theoretical Perspectives and Frameworks in Studies of Local Wisdom in Indonesian Education

Theoretical Perspective/Framework	Focus in Research	Role of Local Wisdom in Educational Studies
Sociocultural Theory	Learning as a socially and culturally mediated process	Local wisdom is positioned as a cultural context that shapes meaning-making, interaction, and knowledge construction in classrooms.
Constructivist Learning Theory	Knowledge construction based on students' prior experiences	Local wisdom serves as prior knowledge that supports contextual and meaningful learning.
Character Education Theory	Moral, social, and cultural value formation	Local wisdom is conceptualized as a source of character values, ethics, and national identity.
Ethnoscience Framework	Integration of indigenous knowledge into science education	Local wisdom functions as indigenous knowledge aligned with scientific concepts and practices.
Culturally Responsive Pedagogy	Alignment of curriculum with students' cultural backgrounds	Local wisdom is used to design culturally relevant curriculum and learning models.

Although the literature on local wisdom in Indonesian education is gradually increasing, several important gaps remain, indicating key areas to focus on in future studies. To begin with, despite the trend in publications, most studies are descriptive and exploratory, and few are longitudinal, experimental, or mixed-method. It is thus recommended that future studies should investigate the empirical effects of local wisdom-based educational practices on learning outcomes, character development, and sociocultural competencies of students in the long run. Second, thematic analysis demonstrates a strong focus on character education and cultural preservation, whereas a comparatively low number of studies incorporate local wisdom in STEM disciplines, online learning platforms, and complex learning abilities. This implies that future studies are necessary to understand how local wisdom can be effectively integrated into science education, technology-enhanced education, and interdisciplinary education, especially in response to globalization and digital transformation.

Third, theoretically, much research is based on broad educational and cultural frameworks, and there is little formulation of context-specific conceptual models grounded in Indonesian sociocultural realities. Future research thus needs to build and confirm native-based theoretical frameworks that go beyond adapting Western theories and more effectively capture local epistemological and cultural orientations. Fourth, the prevalence of Indonesian-based institutions and writers suggests little global cooperation and comparative studies. It is possible to enhance the global applicability and theoretical impact of local wisdom research in education by broadening cross-national research that covers countries with similar cultural backgrounds. These research gaps need to be addressed to strengthen the methodological rigor and theoretical contribution of local wisdom research in education. Through future studies that include experimental designs, longitudinal studies, and interdisciplinary analysis, more empirical findings can be produced to support the educational effects of local wisdom practices. In addition, increased global cooperation and comparative scholarship can help place Indonesian research in the wider global debate on indigenous knowledge and culturally responsive education.

Table 3. Research Gaps and Future Directions in Studies of Local Wisdom in Indonesian Education

Identified Gaps	Future Research Directions
Dominance of descriptive studies	Longitudinal, experimental, and mixed-method research
Limited integration in STEM and digital learning	Local wisdom in science, technology, and interdisciplinary education
Reliance on general or Western theories	Development of indigenous and context-specific frameworks
Limited international collaboration	Cross-national and comparative studies

CONCLUSION

The study is a comprehensive bibliometric and systematic review of research on local wisdom in Indonesian education that answers the following research questions (RQ): publication trends (RQ1), influential journals, institutions, and countries (RQ2-RQ3), prominent research themes and theoretical perspectives (RQ4), and current research gaps and future directions (RQ5). The results indicate a marked rise in the number of publications, especially since 2015, and the overwhelming majority of scholarly contributions are located in the

sphere of Indonesian journals, state universities, and home researchers. These five prevailing themes are found in the analysis, namely, local wisdom, indigenous knowledge, character education, science education, and curriculum and learning models, which are mostly constructed through constructivist and sociocultural lenses, but with limited empirical rigor and theoretical integration. The weaknesses identified over the years are the lack of longitudinal studies, cross-cultural studies, and systematic research findings on instructional models utilizing local wisdom. The originality of the study is that it combines bibliometric mapping and thematic synthesis to present a systematic and evidence-based summary of the research paths, conceptual focuses, and structural designs in the area. These findings can inform policymakers, curriculum developers, and teachers to enhance culturally responsive education, improve methodological soundness, and increase international cooperation, thereby globalizing the national extent of local wisdom in Indonesian education.

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