



MAPPING ARABIC LANGUAGE EDUCATION RESEARCH IN MADURA: A COMPARATIVE BIBLIOMETRIC ANALYSIS

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ABSTRACT

This study maps the intellectual structure, thematic trends, and collaboration networks of Arabic Language Education (PBA) research in Madura, Indonesia, through a comparative bibliometric analysis of Google Scholar and Scopus for the period 2016–2026. A descriptive-comparative design was employed, combining performance analysis, keyword co-occurrence mapping, and co-authorship network analysis, supplemented by qualitative content analysis for the small Scopus corpus. The findings reveal a radical volume disparity: 342 documents in Google Scholar versus only twelve in Scopus. Local research is dominated by instrumental pedagogy, classroom action research, and conventional instructional media, while the rare Scopus-indexed articles engage critical-conceptual themes such as sociolinguistics, cultural identity, and digital literacy. Co-authorship networks remain institutionally fragmented, with minimal cross-institutional and virtually no international collaboration. The study concludes that the limited global visibility of Madurese PBA research stems not from an absolute deficit in quality but from a paradigmatic divergence between local and international scholarly expectations, compounded by systemic barriers and academic isolation. A future research roadmap is proposed, prioritising critical sociolinguistics, pesantren ecolinguistics, and neuro-linguistic bilingualism, alongside strengthened cross-institutional partnerships.

Keywords: Arabic language education; Bibliometric analysis; Madura; research collaboration.

ABSTRAK

Penelitian ini memetakan struktur intelektual, tren tematik, dan jaringan kolaborasi riset Pendidikan Bahasa Arab (PBA) di Madura, Indonesia, melalui analisis bibliometrik komparatif pada Google Scholar dan Scopus periode 2016–2026. Desain deskriptif-komparatif diterapkan dengan mengombinasikan analisis performa, pemetaan ko-okurensi kata kunci, dan analisis jaringan kepengarangan, didukung analisis konten kualitatif untuk korpus Scopus. Temuan mengungkapkan disparitas volume yang radikal: 342 dokumen di Google Scholar berbanding hanya dua belas di Scopus. Riset lokal didominasi pedagogi instrumental, penelitian tindakan kelas, dan media pembelajaran konvensional, sementara artikel terindeks Scopus mengusung tema kritis-konseptual seperti sosiolinguistik, identitas budaya, dan literasi digital. Jaringan kepengarangan terfragmentasi secara institusional dengan kolaborasi lintas lembaga dan internasional yang sangat minim. Penelitian menyimpulkan bahwa keterbatasan visibilitas global riset PBA Madura bersumber dari divergensi paradigmatik antara ekspektasi akademik lokal dan



internasional, yang diperparah isolasi akademik serta hambatan sistemik. Peta jalan riset masa depan direkomendasikan berfokus pada sosiolinguistik kritis, ekolinguistik pesantren, dan bilinguisme neurolinguistik.

Kata Kunci: analisis bibliometrik;; kolaborasi riset; Madura; Pendidikan Bahasa Arab.

INTRODUCTION

The trajectory of Arabic language education (PBA) in Indonesia is deeply interwoven with the historical, dynamic, and transformative evolution of Islamic educational institutions across the archipelago (Fahrurrozi, 2014). As the nation with the world's largest Muslim population, the significance of Arabic in Indonesia transcends its function as a mere linguistic tool for communication; it serves as a sacred instrument for engaging with authoritative religious sources (the Qur'an and Hadith) and as a vital language of international scholarship (Rafi'i, 2020). Within this geographical and cultural landscape, the island of Madura occupies a uniquely strategic position in the development of Islamic education, particularly in the teaching of Arabic. Sociologically recognized as "Pulau Santri" (the Island of Santri), Madura possesses an exceptionally high density of pesantren (Islamic boarding schools) (Wiyani, 2017). These institutions, ranging from the traditional salafiyah model to the modern khalafiyah model, have for centuries functioned as both a bastion of cultural preservation and a primary laboratory for the transmission of Arabic language proficiency (Manshur, 2021).

However, over time, the institutional transformation of these educational settings has introduced new complexities. Despite the apparent rapid quantitative growth in research and scientific publications in the field of Arabic language education in Madura over the past decade, the substance, directional trends, cluster distribution, and global scholarly impact of this body of work remain in a "twilight zone." To date, no comprehensive map exists that objectively captures how the intellectual structure of PBA in Madura is constructed, who the dominant academic actors are, what methodological issues are frequently addressed, and how its contributions are positioned within both national and international academic arenas. This absence of a clear scholarly map raises concerns regarding scientific stagnation, wherein PBA research produced in Madura risks becoming trapped in a repetitive cycle of replication, lacking theoretical innovation, and remaining isolated from global scholarly debates (Taufiq, 2022). Consequently, a comprehensive, objective, and measurable meta-research evaluation is urgently needed. It is within this context that the absolute necessity of bibliometric analysis emerges.

Bibliometric analysis is a quantitative method used to evaluate scientific publication trends, citation patterns, inter-researcher collaboration, and conceptual



developments within a specific discipline over a defined period (Donthu et al., 2021). Unlike traditional literature reviews, which are susceptible to researcher subjectivity and limitations regarding sample size, bibliometric analysis can simultaneously process thousands of bibliographic records using statistical algorithms and graphical visualizations (Pritchard, 1969; Aria & Cuccurullo, 2017). This method acts as a "macro mirror" capable of revealing the deep structure of a scientific domain. In the context of this study, two primary global indexing databases—Google Scholar and Scopus—were selected as the main data sources, representing two complementary spectrums within the Indonesian academic ecosystem (Harzing, 2016).

Google Scholar is widely acknowledged for its high inclusivity and comprehensive coverage. It indexes nearly all local academic activities, including nationally accredited SINTA journals, theses, dissertations, and conference proceedings written in both Indonesian and Arabic (Pranaji, 2020). This characteristic is crucial for capturing the grassroots reality of PBA publications in Madura, where many local ideas, the sociolinguistic dynamics of Madurese pesantren, and practical pedagogical innovations are disseminated through local journals that have not yet penetrated global indices (Rasyid, 2021). However, the primary weakness of Google Scholar lies in its loose quality control, metadata duplication, and vulnerability to citation manipulation (Mongeon & Hubbard, 2016). Conversely, Scopus, managed by Elsevier, represents the gold standard of international indexing, employing strict curatorial selection based on high-quality peer review and maintaining a prestigious reputation (Thelwall, 2018). Through Scopus, we can measure the extent to which local Madurese issues or PBA pedagogical innovations attract attention and are cited by global experts (Sanni, 2015). Unfortunately, Scopus possesses an inherent bias toward English-language publications and frequently excludes local discourses published in non-English languages (Chavarro et al., 2014).

The fundamental problem driving this research rests upon a sharp disconnection between the high volume of PBA academic activity in Madura and the absence of systematic scientific mapping, resulting in an epistemological blindness regarding the direction of scientific development. First, the issue of thematic stagnation and conceptual fragmentation: PBA research in Madura is heavily dominated by simple experimental methods concerning the effectiveness of specific instructional media, while critical issues—such as AI integration, Merdeka Belajar curriculum adaptation, sociolinguistics, or neurolinguistics—remain minimally addressed (Suyanto, 2023). Second, low global visibility and collaborative deficits: PBA researchers in Madura tend to work within institutional silos, where co-authorship remains limited to narrow internal circles (Wahyudi, 2021). Third, the absence of contemporary institutional performance evaluation:



without empirical data on publication leadership, core journals, and pioneering authors (Lotka, 1926; Bradford, 1934), research funding and faculty development policies remain ungrounded in evidence.

Prior studies have applied bibliometrics to Arabic language education at national levels (Rahman & Syarif, 2020; Farisha et al., 2023; Al-Ta'rib, 2024) or macro international levels (Al-Khresheh, 2022), yet overlooked specific regional dynamics and pesantren-based sociolinguistic landscapes. No study has specifically conducted a comparative cross-database bibliometric study (Google Scholar vs. Scopus) dissecting the specific locus of Arabic Language Education in Madura. This study fills that gap, bridging local research reality with global quality standards while responding to calls for contextual sensitivity in bibliometric research (Lugya & State, 2026).

METHOD

This study adopts a quantitative approach centred on bibliometric analysis and science mapping using a descriptive-comparative design juxtaposing Google Scholar (local/national inclusivity) and Scopus (international exclusivity). Data were drawn using a rigorous extraction protocol adapted from PRISMA principles (Page et al., 2021). Google Scholar records were retrieved via Harzing's Publish or Perish with Boolean operators and institutional affiliation filters anchored in Madura. Scopus records were extracted directly via Advanced Search.

Inclusion criteria required authors to be affiliated with academic institutions in Madura or research explicitly examining PBA in Madura; peer-reviewed journal articles and conference papers published between 2016 and 2026 in Indonesian, Arabic, or English. Books, chapters, editorials, and unpublished theses were excluded. Data collection and cleaning followed four phases: identification, screening (Mendeley/Zotero deduplication), standardisation (thesaurus file for merging synonymous keywords and normalising author variants), and inclusion.

Data analysis was conducted using Bibliometrix R-Package (Biblioshiny) and VOSviewer. Two levels were operated: descriptive performance analysis (annual growth, prolific authors, institutional concentration, Bradford's Law core journals) and network visualization (VOSviewer co-occurrence mapping and co-authorship networks). For the small Scopus corpus (12 documents), network visualizations were supplemented with qualitative thematic content analysis to ensure interpretive rigor (Pinho, 2021; Donthu et al., 2021; Moresi et al., 2021; Lim & Koay, 2024).



RESULTS AND DISCUSSION

Research Performance and Annual Growth Trends

Data extraction yielded 342 documents in Google Scholar and twelve documents in Scopus for the 2016–2026 window. Table 1 presents the annual publication and citation distribution across both databases.

Table 1. Annual distribution of PBA publications in Madura (2016–2026)

i2016	Google Scholar (Docs)14	Scopus (Docs)0	Total Combined Citations42
2017	19	0	58
2018	24	1	89
2019	31	1	112
2020	38	2	145
2021	45	1	210
2022	52	2	267
2023	58	3	310
2024	41	1	185
2025	17	1	64
2026 (May)	3	0	8
Total	342	12	1,490

Source: Primary metadata analysis (2026).

The data demonstrate consistent annual growth on Google Scholar (14.5% annual growth rate), peaking in 2023 with 58 documents driven by national publishing mandates. Conversely, Scopus output moves at a markedly slow pace, never exceeding three documents per year, indicating that international publication remains exceptional rather than routine.

Author Productivity, Institutional Concentration, and Core Journals

Descriptive patterns reflect Lotka's Law of scientific productivity (Lotka, 1926). Five authors contributed >10 articles in Google Scholar, while 78% contributed only 1–2 articles. Scopus output is scattered across nine researchers without a single central pioneering author. Institutionally, UIN Madura dominates with 54% of Google Scholar articles and 7 of 12 Scopus articles, followed by Universitas Islam Madura (UIM) and STAIN Sultan Abdurrahman. Bradford's Law zonal mapping (Bradford, 1934) identifies Zone 1 core local journals as Okara, Nadi Al-Arabi, and Jurnal Nuansa (>38% coverage), whereas Scopus articles are diffusely scattered across journals like International Journal of Arabic Linguistics, Sustainability, and Journal of Higher Education Theory and Practice.

Keyword Co-occurrence Analysis

VOSviewer co-occurrence mapping (occurrence threshold = 5) identified four main clusters in the Google Scholar corpus: Cluster 1 (Red: Traditional Pedagogy & Pesantren), Cluster 2 (Green: Instructional Media & Action Research), Cluster 3 (Blue: Applied Linguistics & Error Analysis), and Cluster 4 (Yellow: Sociolinguistic Factors & L1 Interference). Figure 1 illustrates this keyword network.

Figure 1. Keyword Co-occurrence Network (Google Scholar Corpus, n=342)

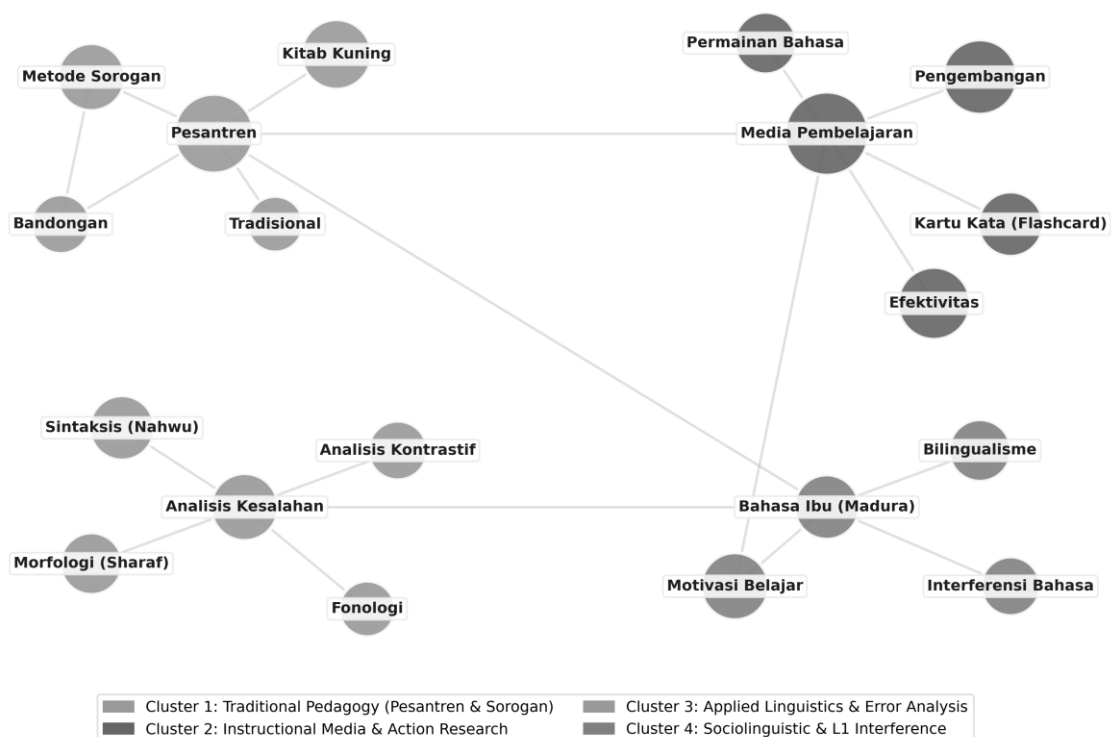


Figure 1. Keyword co-occurrence network for the Google Scholar corpus

For the Scopus corpus, qualitative content analysis revealed a contrasting thematic profile centered on critical-conceptual pedagogy (sociolinguistics, cultural identity, digital literacy, gender perspectives) rather than tactical classroom media. Figure 2 summarizes this thematic profile comparison.



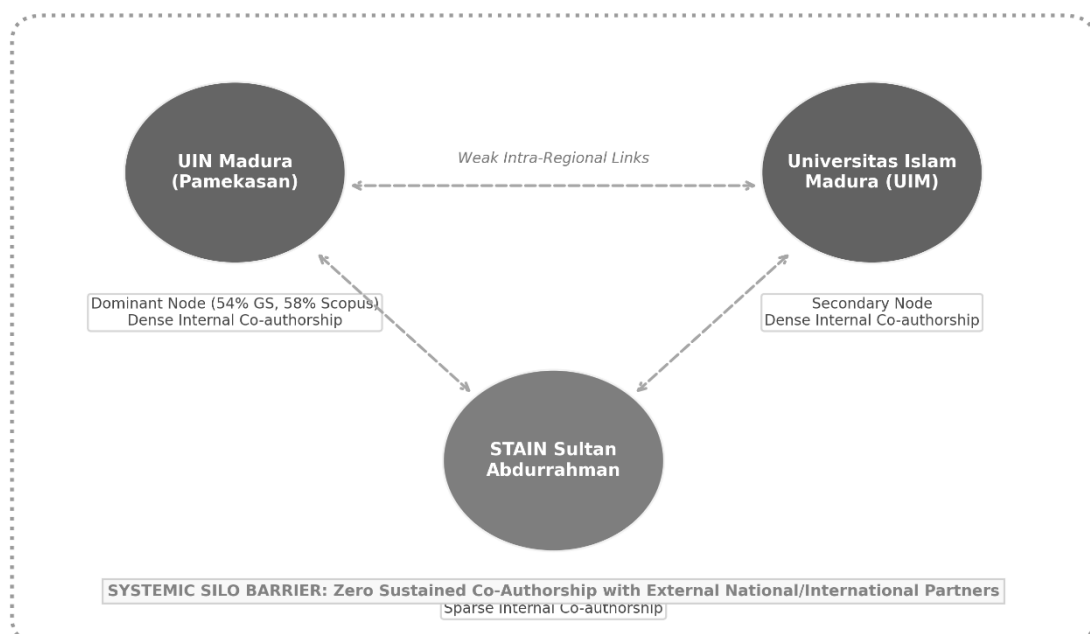
Figure 2. Thematic Profile Divergence: Google Scholar vs. Scopus Corpora

Dimension	Google Scholar (n = 342) Local/National Scope	Scopus (n = 12) International Reputable Scope
Dominant Orientation	Instrumental & Tactical Pedagogy	Critical-Conceptual Pedagogy
Typical Method	Classroom Action Research (CAR), Quasi-Experiment	Ethnographic Case Study, Critical Discourse Analysis
Central Keywords	Media Pembelajaran, Kitab Kuning, Sorogan, Kosakata	Sociolinguistics, Cultural Identity, Digital Literacy
Unit of Analysis	Classroom, Madrasah, Specific Learning Tools	Society, Cultural Identity, Institutional Discourse
Theoretical Depth	Minimal (Replication-oriented & Practical)	Substantive (Engages with Social & Linguistic Theory)

Co-authorship Network Analysis

Co-authorship mapping in Google Scholar revealed small, mutually isolated institutional sub-graphs. Collaboration occurs almost exclusively within individual campuses (e.g., senior-junior lecturer or lecturer-student co-authorship). Links bridging campuses across Madura are exceedingly thin, with zero sustained collaboration connecting Madurese researchers to major national or international institutions. Figure 3 illustrates this co-authorship fragmentation.

Figure 3. Institutional Fragmentation and Co-Authorship Isolation in Madura



scholarly priorities (Google Scholar) and global journal expectations (Scopus). This

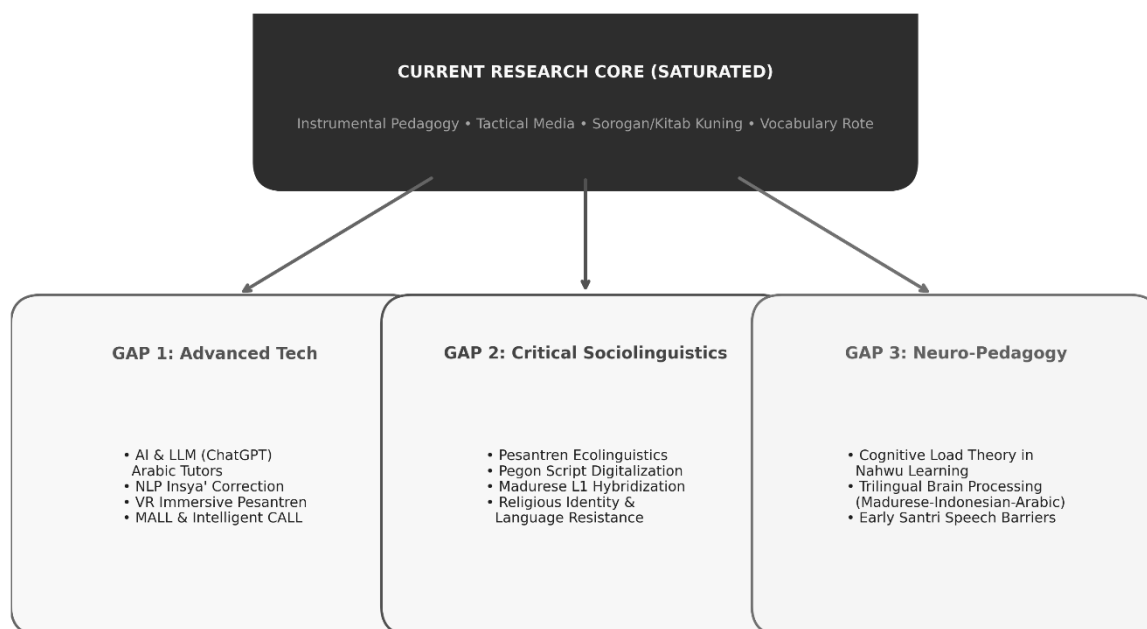


dualism reflects divergent paradigms rather than a simple deficit narrative. Both databases converge in recognizing pesantren and local Islamic culture as primary research capital (Wiyani, 2017; Manshur, 2021). However, substantial divergence occurs across three dimensions: (1) Methodological divergence (local CAR/quasi-experiments vs. international critical ethnography and discourse analysis); (2) Conceptual depth (tactical media/memorization vs. critical sociolinguistics, digital literacy, and religious authority); and (3) Collaboration structure (institutional silos vs. international research consortia) (Mongeon & Hubbard, 2016; Donthu et al., 2021).

Research Gaps and Future Directions

VOSviewer density mapping highlights three major unmapped research horizons for PBA in Madura: Gap 1 (Advanced Technology: AI/LLM tutors, NLP insya' correction, VR immersive pesantren) (Suyanto, 2023); Gap 2 (Critical Sociolinguistics & Pesantren Ecolinguistics: Pegon digitalization, language hybridization, cultural resistance) (Al-Khresheh, 2022); and Gap 3 (Neuro-Pedagogy & Psycholinguistics: Cognitive Load Theory in Nahwu, trilingual brain processing) (Persson, 2014; Chavarro et al., 2014; Sanni, 2015). Figure 4 maps this strategic roadmap.

Figure 4. Strategic Research Roadmap and Unmapped Horizons for PBA in Madura





CONCLUSION

This bibliometric study reveals a radical volume disparity (342 Google Scholar vs. 12 Scopus documents) and a sharp paradigmatic dualism in Arabic Language Education research in Madura (2016–2026). The limited global conversion stems from divergent audience expectations—local research prioritizes instrumental pedagogy and classroom action research, whereas international journals demand critical-conceptual depth, sociolinguistics, and theoretical innovation. Co-authorship networks remain institutionally fragmented in silos. Advancing Madurese PBA scholarship to international reputable outlets requires shifting from replicative CAR models toward critical sociolinguistics, pesantren ecolinguistics, and neuro-pedagogy, underpinned by cross-institutional and global research partnerships.

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