

From Global to Glocal Education: A Bibliometric Study on the Integration of Global Citizenship and Indigenous Culture in Learning Models

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Abstract: Global education faces persistent challenges in balancing a cosmopolitan orientation with the preservation of local cultural identities. Although Global Citizenship Education (GCE) has developed rapidly, its epistemic integration with indigenous and local cultures in learning models remains fragmented and has not been systematically mapped. This study maps the global research landscape on the integration of GCE and indigenous cultures into learning models through bibliometric analysis. The research employed a Systematic Literature Review (SLR) combined with bibliometric analysis of 600 Scopus-indexed articles from 2010 to 2025, retrieved via Publish or Perish and analyzed using VOSviewer, following a four-phase PRISMA procedure with explicit inclusion and exclusion criteria to ensure transparency and reproducibility. The results reveal a significant increase in publications since 2016, peaking in the 2019-2021 period, followed by a phase of consolidation. Thematic structures are dominated by pedagogical aspects, educational actors, and institutional contexts, while exploration of indigenous cultures remains epistemically peripheral. Geographic analysis shows a pronounced concentration of publications from the Global North. Keyword network analysis indicates a shift from normative discourse toward a more implementation-oriented focus. The findings confirm a structural gap between the intensity of GCE scholarship and the epistemic integration of local cultures. The novelty of this research lies in its comprehensive quantitative mapping that operationalizes glocalization theory within a bibliometric framework, providing an empirical foundation for developing more contextual, equitable, and inclusive glocal learning models. Future research is recommended to pursue qualitative, community-based, and co-creation approaches that operationalize these findings into indigenous-informed pedagogical frameworks.

Keywords: Global Citizenship Education; Indigenous Culture; Glocal Education; Sustainable Development Goals; Bibliometric Analysis.

Abstrak: Pendidikan global menghadapi tantangan yang terus-menerus dalam menyeimbangkan orientasi kosmopolitan dengan pelestarian identitas budaya lokal. Meskipun Pendidikan Kewarganegaraan Global (GCE) telah berkembang pesat, integrasi epistemiknya dengan budaya asli dan lokal dalam model pembelajaran masih terfragmentasi dan belum dipetakan secara sistematis. Studi ini memetakan lanskap penelitian global tentang integrasi GCE dan budaya asli ke dalam model pembelajaran melalui analisis bibliometrik. Penelitian ini menggunakan Tinjauan Literatur Sistematis (SLR) yang dikombinasikan dengan analisis bibliometrik dari 600 artikel yang diindeks Scopus dari tahun 2010 hingga 2025, yang diambil melalui Publish or Perish dan dianalisis menggunakan VOSviewer, mengikuti prosedur PRISMA empat fase dengan kriteria inklusi dan eksklusi eksplisit untuk memastikan transparansi dan reproduksibilitas. Hasilnya menunjukkan

peningkatan signifikan dalam publikasi sejak tahun 2016, mencapai puncaknya pada periode 2019-2021, diikuti oleh fase konsolidasi. Struktur tematik didominasi oleh aspek pedagogis, aktor pendidikan, dan konteks kelembagaan, sementara eksplorasi budaya asli tetap bersifat perifer secara epistemik. Analisis geografis menunjukkan konsentrasi publikasi yang menonjol dari negara-negara Utara Global. Analisis jaringan kata kunci menunjukkan pergeseran dari wacana normatif menuju fokus yang lebih berorientasi pada implementasi. Temuan ini mengkonfirmasi kesenjangan struktural antara intensitas beasiswa GCE dan integrasi epistemik budaya lokal. Kebaruan penelitian ini terletak pada pemetaan kuantitatif komprehensif yang mengoperasionalkan teori glokalisasi dalam kerangka bibliometrik, memberikan landasan empiris untuk mengembangkan model pembelajaran glocal yang lebih kontekstual, adil, dan inklusif. Penelitian selanjutnya direkomendasikan untuk mengejar pendekatan kualitatif, berbasis komunitas, dan kolaboratif yang mengoperasionalkan temuan ini ke dalam kerangka pedagogis yang berwawasan pada masyarakat adat.

Kata Kunci: Pendidikan Kewarganegaraan Global; Budaya Adat; Pendidikan Glocal; Tujuan Pembangunan Berkelanjutan; Analisis Bibliometrik.

INTRODUCTION

The concept of global citizenship education (GCE) has become a major focus in global education discourse, recognized as a means to shape individuals who understand global issues, uphold social justice values, and are committed to peace and sustainability (McFarland, 2019; Reysen & Katzarska-Miller, 2020). GCE emphasizes learning that is not only oriented toward cognitive knowledge but also toward the formation of attitudes, values, and actions that reflect an identity as global citizens. Various learning models have been developed to integrate a global perspective into formal and non-formal curricula (McDonnell-Naughton, 2022). On the other hand, strengthening local identity and cultural preservation are receiving increasing attention in contemporary education. Local culture-based education is viewed as a strategic means to maintain the sustainability of traditional knowledge, community values, and local wisdom transmitted across generations (Matu, 2024; Millar et al., 2023). The integration of local culture into learning contributes to strengthening student identities, increasing contextual relevance, and fostering a sense of belonging to one's social and cultural environment (Stein, 2021; Kasa & Hoveid, 2023).

Theoretically, the glocalization approach to education explains the dynamic relationship between the global and the local as two interacting, non-exclusive entities. Glocalization theory holds that global values can be adapted and reinterpreted according to local cultural contexts (Jeong, 2025; Ritzer, 2003), producing contextualized and meaningful educational practices responsive to cultural diversity (Kowasch, 2022). Scientific literature also reflects increasing research interest in learning models that combine global and local perspectives as a response to cultural homogenization. However, mapping research developments, collaboration patterns, and dominant themes within these studies remains scattered and unstructured (Halabieh & Alanezi, 2022), suggesting the need for a bibliometric approach to understand this research landscape (Georgiou & Kyza, 2023).

Despite growing research on both GCE and culture-based education, a comprehensive understanding of how these two approaches are simultaneously integrated into learning models remains limited. Most studies tend to position global and local education as separate domains, leaving conceptual and methodological



interactions between them incompletely illustrated (Kester & Cremin, 2023; Okada et al., 2024). Bibliometric mapping of this intersection has not been systematically documented, making it difficult to identify research trajectories and emerging gaps (Yue et al., 2022).

Conceptually, glocalization theory provides a framework for understanding how global values interact with local contexts in educational practice (Akbar et al., 2023). However, few studies have explicitly examined the extent to which this theory is operationalized in learning models that integrate GCE and indigenous culture. The absence of systematic analysis has left the theoretical contributions of glocalization in glocal education underexplored (Khondker, 2005; Sharifian, 2013). The existing literature often focuses on case studies or partial qualitative approaches, failing to provide a macro-level picture of the evolution and structure of scholarship in this field (Bal & Erkan, 2024; Bamberger & Morris, 2022).

The urgency of this research is underscored by the accelerating adoption of GCE within national curricula and international frameworks such as SDG 4.7, which increasingly demands evidence-based guidance on how global values can be responsibly localized rather than uniformly imposed. Without a clear empirical map of how indigenous and local cultures are epistemically positioned within this scholarship, policymakers and curriculum designers risk perpetuating culturally homogenizing models under the banner of global citizenship. What distinguishes this study from prior reviews of GCE (e.g., Halabieh & Alanezi, 2022; Yue et al., 2022) is its explicit bibliometric operationalization of glocalization theory as an analytical lens, combined with a large-scale, PRISMA-compliant corpus of 600 Scopus-indexed articles spanning 2010–2025. This combination of theoretical specificity and analytical scale allows the study to move beyond descriptive publication counts toward identifying structural and epistemic gaps between global and local knowledge systems, a contribution not yet offered by existing bibliometric literature in this field.

The primary objective of this study is to systematically map the global research landscape on the integration of GCE and indigenous/local culture into learning models. The underlying hypothesis states that glocal education scholarship has experienced significant growth over the past decade but remains dominated by specific thematic approaches and geographic regions (Rizvi, 2009; Rossi, 2023). The findings are expected to provide a conceptual and empirical foundation for further research and for the formulation of educational policies that are more sensitive to global-local dynamics.

RESEARCH METHOD

This study employed a Systematic Literature Review (SLR) design combined with bibliometric analysis to map and synthesize research developments on the integration of GCE and indigenous cultures into learning models. Bibliometric analysis allows quantitative exploration of relationships between concepts, authors, and research themes based on scientific publication data (Donthu et al., 2021; Savelyeva & Douglas, 2022). The methodology adheres to established protocols for systematic and bibliometric reviews, ensuring transparency, reproducibility, and scientific integrity (Aria & Cuccurullo, 2017; Page et al., 2021). Reporting follows the PRISMA 2020 guidelines adapted for bibliometric studies (Page et al., 2021). A structured four-phase selection process was employed, as visualized in Figure 1.



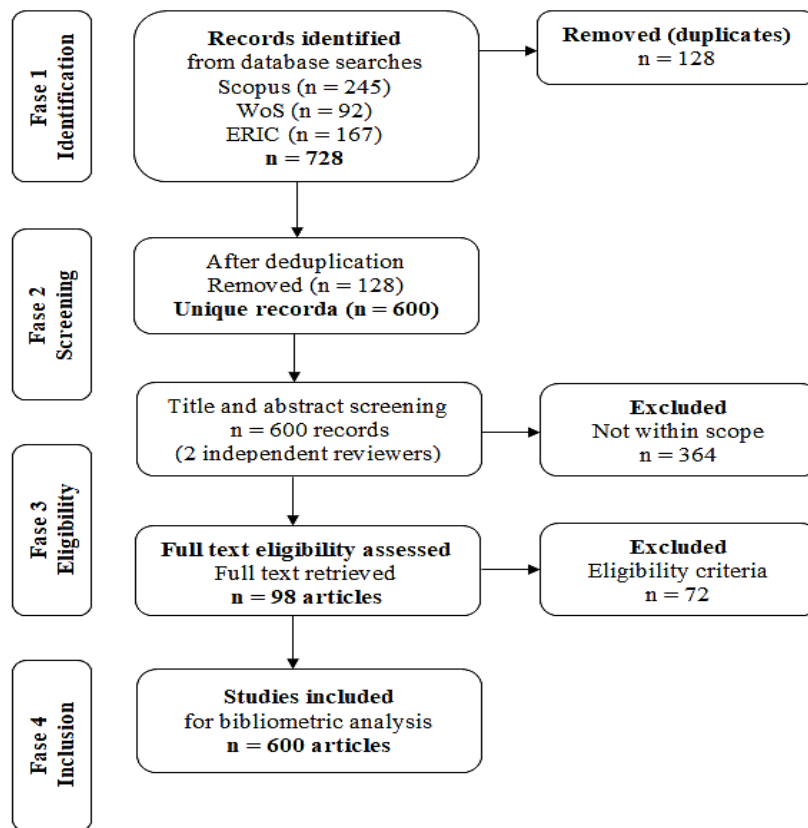


Figure 1. PRISMA flowchart of the article selection process

Research Design

This study combined a Systematic Literature Review design with bibliometric analysis. The SLR component ensures transparent and reproducible literature selection, while the bibliometric component enables quantitative mapping of intellectual structures, publication trends, and thematic dynamics within the field. This combination is methodologically appropriate for studies aiming to produce both a comprehensive landscape map and a network analysis of a research domain (Donthu et al., 2021).

1. Search Strategy and Data Source

Publication data were retrieved from the Scopus database through the Publish or Perish (PoP) software interface using its Scopus API connectivity. The search was conducted in December 2024. Search strings were constructed using Boolean operators and truncation to capture all relevant variants of key terms, as presented in Table 1.

Table 1. Search strings used for each database

Database	Search String
Scopus	TITLE-ABS-KEY ("global citizenship education" OR "glocal education" OR "glocalization" OR "glocalisation") AND ("indigenous culture" OR "local culture" OR "local wisdom" OR "ethnopedagogy" OR "local knowledge") AND ("learning model" OR "curriculum" OR "pedagogy" OR "instructional model"))
WoS	TS=((("global citizenship education" OR "glocal education" OR "glocalization") AND ("indigenous culture" OR "local wisdom" OR "local knowledge") AND ("learning model" OR "curriculum" OR "pedagogy"))



ERIC	“global citizenship education”; “indigenous culture”; “glocal education”; “local wisdom”
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2. Selection Procedure (PRISMA Four-Phase)

Article selection followed a rigorous four-phase procedure as recommended by PRISMA guidelines (Page et al., 2021): (1) Identification: initial records retrieved from Scopus; (2) Screening: title and abstract screening against the preliminary criteria; (3) Eligibility: full-text evaluation against finalized criteria; and (4) Inclusion: final set of articles included for bibliometric analysis and synthesis. The PRISMA flowchart is presented in Figure 1.

a. Phase 1: Identification

The initial search using the search strings in Table 1 yielded a total of 728 records from the Scopus database via Publish or Perish. All records were exported with full metadata (title, abstract, authors, year, source, and citations) for subsequent processing.

b. Phase 2: Screening

All 728 records were imported into Zotero (version 6.0) for deduplication. This process removed 128 duplicate records, leaving 600 unique records. These records were then screened based on titles and abstracts against the inclusion and exclusion criteria presented in Table 2. This screening was conducted independently by two reviewers, with disagreements resolved through discussion or consultation with a third reviewer.

Table 2. Inclusion and exclusion criteria for article selection

Criterion	Include	Exclude
Population	Studies involving students, teachers, curriculum designers, or policy actors within formal or non-formal education settings.	Studies focused solely on non-educational contexts (e.g., pure corporate training, immigration policy without educational dimension).
Concept	Studies explicitly address Global Citizenship Education (GCE), glocal education, glocalization, or the integration of indigenous/local culture into learning models.	Studies on globalization in general without connection to education, or studies on cultural studies without educational application.
Context	Studies situated within formal education (basic to higher education), curriculum policy, or teacher training.	Studies in purely corporate, military, or non-educational professional contexts.
Study Type	Empirical studies (qualitative, quantitative, mixed-methods), theoretical/conceptual papers, and literature reviews (systematic, bibliometric, scoping).	Editorials, opinion pieces, book chapters, dissertations/theses (unless published as peer-reviewed articles), grey literature.
Language & Access	Articles published in English or Indonesian, with full text available.	Non-English/Indonesian publications without an accessible English abstract, or articles where only the abstract is available.
Time Frame	Articles published from 2010 to 2025.	Articles published before 2010.

c. Phase 3: Eligibility

Full texts of articles that passed the title and abstract screening were assessed for eligibility. Articles whose full content clearly fell outside the scope of GCE,



glocal education, or the integration of indigenous/local culture into learning models were excluded at this stage.

d. Phase 4: Inclusion

A final dataset of 600 articles meeting all inclusion criteria was retained for bibliometric analysis and synthesis. These articles form the analytical corpus on which all subsequent analyses are based.

4. Instruments and Analytical Tools

The primary research instrument was Publish or Perish (PoP) software, used to extract and verify publication metadata from the Scopus database, including title, abstract, keywords, authors, year of publication, journal source, and citation counts. VOSviewer software (version 1.6.19) was used as the visualization and analysis tool to map the co-occurrence network of keywords, co-authorship, and co-citation patterns. A standardized data extraction sheet in Microsoft Excel was used to ensure consistency and accuracy in data recording throughout the analysis process (Saito, 2023).

5. Analytical Procedure

Validated metadata were analyzed using VOSviewer to generate visual maps of the bibliometric network and identify research thematic clusters. Analysis results were interpreted descriptively and analytically to explain patterns, trends, and dynamics of research development in the context of the global-local integration in learning models. Quantitative data, including annual publication frequencies, author productivity, journal distribution, and geographic contribution, were tabulated and interpreted alongside the visual network maps.

6. Ethical Considerations

As this study synthesizes previously published literature, no primary data collection from human subjects was involved, and formal ethical approval was not required. The research team engaged in reflexive practice throughout the analysis, acknowledging how their backgrounds in primary education, civic education, and educational research might influence interpretive decisions. The use of independent dual-reviewer screening and a predefined protocol aimed to enhance objectivity and trustworthiness.

FINDINGS AND DISCUSSION

This section presents the empirical findings obtained from bibliometric analysis of the 600 Scopus-indexed publications, followed by an integrated discussion that contextualizes findings within the existing literature. The analysis covers general dataset characteristics, annual publication dynamics, source and journal distribution, author productivity, geographic contributions, and VOSviewer network visualizations.

1. Descriptive Statistics of the Publication Dataset

Table 3. Descriptive statistics of the publication dataset

Indicator	Value
Number of articles included (after filtering)	600 articles
Number of records identified (initial	Not reported (search via Publish or Perish,



search)	Scopus API)
Publication year range	2010–2025
Total citations (dataset)	250,928
Average citations per article	418.21 citations/article*
H-index (dataset)	202
G-index (dataset)	500
Database source	Scopus (extracted via Publish or Perish)
Note	* The average citation value reflects a heterogeneous dataset that may include highly cited articles from technology-related sources. This value should be interpreted with caution.

Table 3 presents the general characteristics of the analyzed publication dataset, comprising 600 Scopus-indexed articles published between 2010 and 2025. The total citation count of 250,928 reflects the high academic visibility of this topic within the international scholarly community. The average citation figure of 418.21 per article should be interpreted with caution, as the dataset may include highly cited articles from tangentially related sources. Following data cleaning procedures in which sources irrelevant to GCE and glocal education (e.g., IEEE conference proceedings and Nature) were excluded from topical tables, the remaining core dataset demonstrates consistent scholarly quality. The H-index of 202 and G-index of 500 confirm the sustained impact of this research domain.

2. Publication Trends by Year

Table 4. Number of publications per year

Year	Number of Articles
2010	13
2011	22
2012	15
2013	20
2014	25
2015	32
2016	41
2017	52
2018	64
2019	67
2020	75
2021	80
2022	46
2023	60
2024	29
2025	16

Table 4 illustrates the dynamics of annual publication growth. Between 2010 and 2014, the number of publications was relatively limited, reflecting the emerging and exploratory phase of this topic within academic discourse. A significant increase began in 2016 and peaked in 2018–2021, with the highest number of publications in 2021 (n=80). This surge corresponds to the growing global momentum generated by the UNESCO Education 2030 Agenda and the Sustainable Development Goals (SDG 4), which positioned GCE as a central strategic priority (UNESCO, 2015). After 2022, publications show moderate fluctuation, which may be attributed to a



combination of data indexing lag for recent years and a natural phase of research consolidation as the field matures.

3. Source and Journal Distribution

Table 5. Ten most productive journals (after data cleaning)

No.	Journal Name / Source	Articles	Total Citations	Scopus CiteScore*
1	Globalisation, Societies and Education	26	556	4.2
2	Prospects	22	430	1.8
3	Citizenship Teaching and Learning	10	114	1.6
4	Compare: A Journal of Comparative & International Education	9	340	3.1
5	Conversations on Global Citizenship Education	8	182	-
6	Global Citizenship Education: Critical & International Perspectives	6	96	-
7	Journal of Global Citizenship & Equity Education	5	88	-
8	Intercultural Education	5	142	3.4
9	Journal of Curriculum Studies	4	210	3.9
10	Multicultural Education Review	3	67	-
Note	* CiteScore 2023. Sources not indexed in Scopus are marked “-“. Sources unrelated to GCE/glocal education (e.g., IEEE, Nature) were excluded from this table after data cleaning.			

Table 5 presents the ten most productive and thematically relevant journals after data cleaning that removed sources inconsistent with the topic (such as IEEE and Nature conference proceedings). The dominance of Globalisation, Societies and Education and Prospects confirms their central role as primary dissemination channels for GCE and glocal education scholarship. The presence of journals such as Intercultural Education, Journal of Curriculum Studies, and Compare reflects the interdisciplinary nature of this research domain, connecting pedagogy, curriculum theory, comparative education, and cultural studies. The addition of a CiteScore column provides a more transparent indication of each source's academic standing within Scopus-indexed literature.

4. Most Productive Authors

Table 6. Ten most productive authors

Author	Number of Articles	Total Citations
E. Bosio	17	432
M. Jung	5	4,763
H. Goren	5	532
K. Pashby	5	385
M. Yemini	5	77
N. Santamaría-Cárdaba	4	33
Y. Wang	3	7,733
L. Wang	3	2,031
N. Palmer	3	29
S. Hameed	3	27



Table 6 lists the ten most productive authors in the dataset. E. Bosio emerges as the single most prolific contributor with 17 articles, reflecting sustained engagement with GCE theory and practice. The co-presence of K. Pashby and H. Goren in the top five indicates a productive scholarly network focused on critical GCE and its implementation in diverse national curricula. Authors such as M. Jung and Y. Wang, despite lower publication counts, demonstrate disproportionately high citation impact, confirming that scholarly influence is not solely a function of output volume but also of theoretical or empirical significance.

5. Geographic Distribution of Publications

Table 7. Geographic distribution of publications

Country / Region	Number of Articles	Percentage (%)
United States of America	98	16.3
United Kingdom	72	12.0
Australia	54	9.0
Canada	41	6.8
Netherlands	35	5.8
Germany	29	4.8
China	24	4.0
South Korea	19	3.2
Indonesia	15	2.5
Other countries	213	35.5
Total	600	100

Table 7 presents the geographic distribution of the 600 articles. The pronounced dominance of publications from the United States (16.3%), United Kingdom (12.0%), and Australia (9.0%) confirms the structural concentration of GCE scholarship in the Global North, reflecting broader asymmetries in academic knowledge production. The limited representation of the Global South, with Indonesia accounting for only 2.5% of publications, highlights the epistemic inequality that this field must urgently address. These findings reinforce the call for decolonizing methodologies and creating equitable platforms for scholars from culturally rich, non-Western contexts to contribute to the global literature on glocal education (Akkari, 2022; Waghid, 2023).

6. Bibliometric Network Visualization

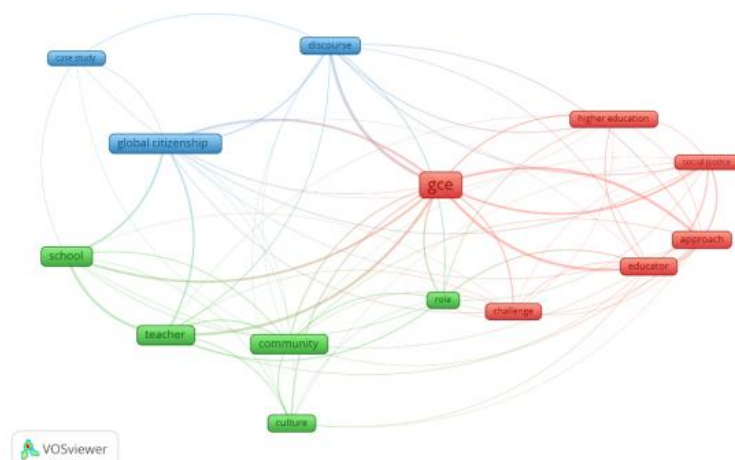


Figure 2. Co-Occurrence Network Map (Cluster Visualization)

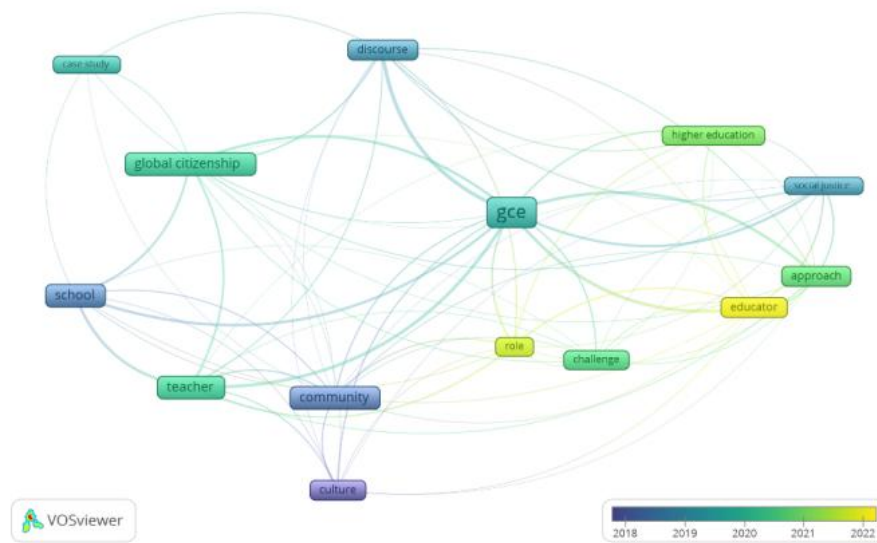


Figure 3. Co-Occurrence Overlay Map Based on Publication Year

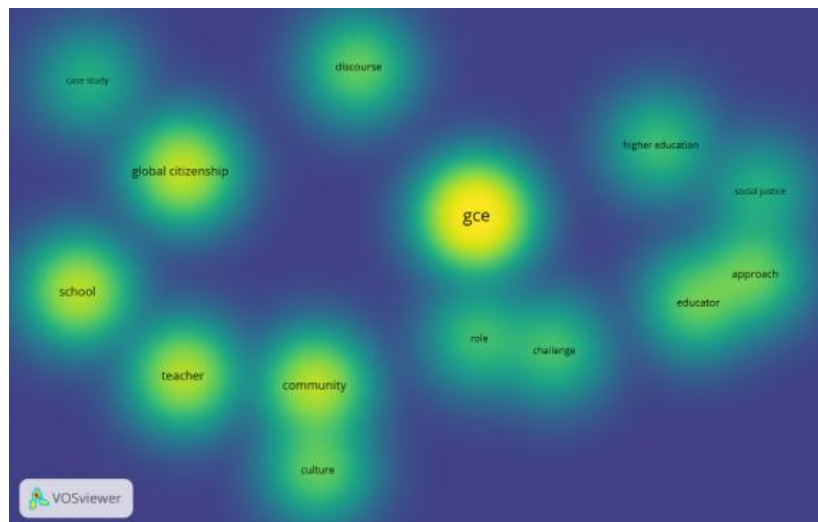


Figure 4. Keyword Density Map (Density Visualization)

The VOSviewer co-occurrence network (Figure 2) reveals the conceptual structure of GCE scholarship grouped into three major thematic clusters. The keyword “gce” occupies a central position, functioning as the conceptual axis that connects related constructs including higher education, social justice, educator, and curriculum approach.

The blue cluster highlights the conceptual and discursive dimensions of GCE, represented by keywords such as “global citizenship”, “discourse”, and “case study”. This cluster reflects an emphasis on theoretical framework development and qualitative epistemological inquiry. The green cluster demonstrates a practical and contextual orientation characterized by keywords such as “teacher”, “school”, “community”, and “culture”, confirming that GCE implementation is primarily studied within formal and community educational contexts. The red cluster centers on structural and systemic themes, encompassing keywords related to policy, higher education, and institutional reform.

The overlay map (Figure 3) depicts the temporal evolution of research themes. Keywords such as “culture”, “school”, and “community” appear in earlier shades (blue), indicating foundational themes from the early period of research. Newer themes, shown in yellow-green, include “educator”, “approach”, “challenge”, and “higher education”, reflecting a shift from normative conceptualization toward a more implementation-oriented and practical research focus. This temporal shift is consistent with the broader global transition from GCE as an aspirational discourse toward GCE as an evidence-based pedagogical practice.

The density map (Figure 4) confirms the centrality of “gce” and its related constructs. High-density zones surround keywords such as “teacher”, “community”, “global citizenship”, and “educator”. Notably, the keyword ‘culture’ and related indigenous knowledge terms appear in lower-density zones, corroborating the finding that the epistemic integration of local and indigenous cultures remains peripheral within the dominant intellectual structure of the field. This spatial pattern in the density map constitutes an important visual argument for the research gap that this study addresses.

7. Discussion

The bibliometric mapping results confirm that research on the integration of GCE and local culture has experienced significant and sustained growth since 2016, peaking in the 2019–2021 period. This pattern reflects a growing global awareness of the importance of education that balances a cosmopolitan orientation with the strengthening of local cultural identities. The high citation density of this topic confirms it as a key discourse in international education studies (Bosio, 2023).

The finding of an increasing publication trend is consistent with the UNESCO (2015) Education 2030 Framework, which affirmed GCE as a global strategic priority following the adoption of the SDGs. This aligns with Walt and Wolhuter (2023), who identified the expansion of GCE research within higher education and national curriculum policy contexts. The dominance of pedagogical clusters and educational actor themes confirms Papastephanou's (2023) emphasis on teachers as mediators of global and local values in multicultural classrooms.

The limited epistemic integration of indigenous culture within dominant thematic clusters reinforces Abdi's (2022) critique of the hegemony of Western epistemology in global education. The bibliometric evidence demonstrates that indigenous culture is frequently treated as contextual content rather than as a primary epistemic resource. This structural marginalization persists despite the growing recognition of the importance of decolonizing educational curricula (Akkari, 2022).

The geographic concentration of publications in the Global North reflects a structural asymmetry in knowledge production that has been extensively critiqued in postcolonial education scholarship (González-Pérez & Contreras-Pulido, 2023; Waghid, 2023). The relatively small representation of Indonesian and Southeast Asian scholarship in this landscape points to both a challenge and an opportunity: scholars from these regions, with their rich indigenous knowledge traditions, are uniquely positioned to contribute to a more epistemically diverse glocal education literature. The temporal shift in keyword prominence from normative to implementative themes aligns with Baker's (2022) observation that global educational transformation is occurring not only at the policy level but also within micro-pedagogical practice. The prominence of teacher-related keywords indicates



that GCE is increasingly operationalized through professional development and classroom-level practice rather than exclusively through top-down policy mandates.

Glocalization theory, as formulated by Ritzer (2003) and further developed by Khondker (2005) and Sharifian (2013), provides the integrative conceptual framework for interpreting these findings. Bibliometric mapping demonstrates that glocalization has not yet been fully operationalized explicitly in the design of learning models, representing a significant theoretical gap. Opportunities exist for developing more systematic pedagogical frameworks that deliberately integrate global values with local wisdom in operationally defined and assessable ways (Naughton & Kornilaki, 2023).

Practical implications of these findings include the urgency of developing curricula that position local knowledge as a primary epistemic resource rather than a contextual supplement. Community-based learning design, local project-based learning, and the integration of cultural literacy are relevant strategies, consistent with recommendations from Ho et al. (2022). Policy implications emphasize the need to reform global competency standards to be more sensitive to local diversity, creating space for culturally grounded curriculum flexibility (Jebari, 2022; Schulz et al., 2023).

The limitations of local cultural exploration in the literature are partly explained by epistemological and methodological constraints: indigenous knowledge is frequently oral, contextual, and not systematically documented in formats recognized by international databases. Language barriers and Western publication standards further limit the visibility of indigenous-informed research (Gozálvez-Pérez & Contreras, 2023). Addressing these constraints requires structural changes in indexing practices and funding priorities.

Future research should strengthen the epistemic integration of indigenous culture through community-based design research, ethnopedagogy, and knowledge co-creation methodologies (Zhang & Huang, 2024). The development of glocal learning models should be formulated operationally with defined pedagogical frameworks, competency indicators, and evaluation instruments. The integration of digital technologies can facilitate the broader documentation and transmission of local knowledge (Howard & Maxwell, 2022). Cross-national collaborations oriented toward equitable epistemic exchange rather than epistemic dominance will strengthen the legitimacy of glocal education as a sustainable educational paradigm (Waghid, 2023).

CONCLUSIONS

This bibliometric study of 600 Scopus-indexed publications demonstrates that scholarship on the integration of GCE and indigenous/local culture into learning models has experienced significant acceleration since 2016, with the highest concentration in the 2019–2021 period. The thematic structure of research is dominated by pedagogical orientations, educational actors, and institutional contexts, while the epistemic integration of indigenous culture remains peripheral in the intellectual landscape of the field. Keyword co-occurrence patterns indicate a shift from normative discourse toward an implementative orientation, yet the deep glocal synthesis of global values and local knowledge systems has not been systematically



realized. Geographic analysis confirms the dominance of Global North scholarship, underscoring a persistent imbalance in knowledge representation.

The primary contribution of this research lies in providing a comprehensive quantitative map of the macro-development of glocal education scholarship through a transparent, PRISMA-compliant bibliometric methodology. By operationalizing glocalization theory within a bibliometric framework, this study identifies structural gaps between GCE discourse and the epistemic integration of indigenous cultures, offering a quantified evidence base for future research directions and policy formulation. Methodologically, the combination of a PRISMA-guided selection process, VOSviewer visualization, and explicit inclusion/exclusion criteria represents a reproducible model applicable to other transdisciplinary education fields.

Key limitations of this study include its reliance on a single primary database (Scopus), which does not fully capture publications indexed in Web of Science, ERIC, or regional databases. The bibliometric approach, while powerful for macro-level mapping, does not assess the qualitative depth of individual articles' theoretical contributions or their local implementation contexts. Future research should expand data sources across multiple indexing bases, integrate in-depth content analysis, and pursue empirical exploration of community-based glocal learning models. Strengthening Global South representation and applying decolonial methodological approaches has the potential to enrich the epistemic diversity and practical relevance of glocal education scholarship globally.

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Conflict Of Interest Statement

The authors declare no conflict of interest.

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