Global Trends in Geography Textbooks (2024–2025): A Keyword-Based Literature Analysis

Hera Widiawati[1*], Armin Subhani[2]

Universitas Hamzanwadi[123], Lombok Timur, Indonesia
Email: herawidiahr@gmail.com [*1], arminsubhani@hamzanwadi.ac.id [2]

Abstract

Geography textbooks play a central role in shaping curriculum implementation and pedagogical practice, particularly in a period of rapid global change. This study analyzes global trends in geography textbooks published between 2024 and 2025 using a keyword-based literature analysis. Drawing on a dataset of 38 internationally published textbooks, keywords were extracted from titles, publisher descriptions, and indexing metadata, then normalized and grouped into thematic domains. The analysis identified six dominant trends: sustainability and environmental education, geospatial technologies and spatial thinking, inquiry based and problem oriented learning, global citizenship and socio spatial justice, interdisciplinary integration, and future oriented skills. The findings reveal a clear shift toward sustainability centered, technology enhanced, and inquiry driven approaches, positioning geography education as an applied and future-oriented discipline. These trends reflect broader transformations in educational priorities related to environmental responsibility, digital competence, and critical global awareness. The study demonstrates the value of keyword-based analysis for identifying macro level patterns in instructional materials and offers implications for curriculum development, textbook design, and future research in geography education.

INTRODUCTION

Textbooks remain one of the most influential instructional resources in formal education systems, functioning not only as repositories of subject matter but also as powerful mediators of curriculum intentions, pedagogical values, and epistemological orientations (Remillard & Heck, 2014). In geography education, textbooks play a particularly strategic role, as they shape learners' understanding of spatial relationships, human–environment interactions, and global interdependence. Through the selection of concepts, case studies, visuals, and learning activities, geography textbooks implicitly communicate what knowledge is considered essential, relevant, and legitimate within the discipline (Lambert & Morgan, 2010; Bednarz, 2018).

In recent years, geography education has undergone substantial transformation in response to accelerating global change. Issues such as climate change, sustainable development, digitalization, geopolitical instability, and socio-spatial inequality have increasingly redefined the scope and priorities of geography curricula worldwide (Cutter et al., 2020; UNESCO, 2021). These developments have encouraged a shift away from purely descriptive approaches toward more analytical, critical, and future-oriented perspectives that emphasize systems thinking, spatial justice, and problem-based learning (Lee & Shemilt, 2023). As a consequence, contemporary geography textbooks are expected not only to transmit knowledge but also to cultivate higher-order spatial thinking skills and global citizenship competencies.

Against this backdrop, textbooks can be understood as dynamic cultural artifacts that reflect broader educational reforms and disciplinary debates. Research in curriculum studies has long emphasized that textbook content does not merely mirror official curricula but actively interprets, negotiates, and sometimes reshapes them in practice (Remillard, 2005; Peterson, 2021). Therefore, systematic analyses of textbook trends offer valuable insights into how educational priorities are operationalized at the level of instructional materials. In geography education, such analyses are particularly relevant given the discipline's close relationship with rapidly evolving scientific knowledge and technological innovation.

Despite growing scholarly interest in geography education reform, existing textbook studies have tended to focus on historical developments, national case studies, or in-depth qualitative reviews of selected publications. While these approaches have generated important insights, they often lack a global and contemporaneous perspective that captures emergent trends across multiple publishers and contexts within a narrowly defined time frame. Moreover, relatively few studies employ keyword-based analytical approaches that allow for the systematic identification of thematic patterns across large sets of textbook metadata and descriptive content (Clifford & Friesen, 2021).

The period 2024–2025 represents a particularly critical moment for examining geography textbooks. This timeframe coincides with the consolidation of post-pandemic educational reforms, the expansion of digital and hybrid learning models, and intensified global attention to sustainability and resilience education. New textbook publications during this period are likely to reveal how geography education responds to these converging pressures, both conceptually and pedagogically. By focusing explicitly on textbooks published within this two-year window, the present study seeks to capture current and forward-looking trends, rather than retrospective patterns.

Accordingly, this study conducts a keyword-based literature analysis of global geography textbooks published between 2024 and 2025. Rather than offering detailed content reviews of individual books, the analysis examines recurring keywords, thematic descriptors, and conceptual emphases found in textbook titles, abstracts, publisher descriptions, and indexing metadata. This approach enables the identification of dominant trends, such as sustainability, geospatial technologies, global citizenship, or inquiry based learning, while maintaining methodological transparency and replicability.

The study addresses two central research questions: (1) What dominant thematic trends can be identified in global geography textbooks published between 2024 and 2025 based on keyword frequency and distribution?, (2) How do these trends reflect broader theoretical and pedagogical shifts in contemporary geography education?.

By answering these questions, the study contributes to geography education scholarship in three ways. First, it provides an up-to-date overview of textbook trends at a global scale. Second, it demonstrates the value of keyword-based analytical methods for textbook research. Third, it offers insights that may inform curriculum development, textbook design, teacher education, and future empirical research on instructional materials in geography education. Written using Times New Roman 11 pt Font, Bold, 1.0 spacing before 10 pt. The introduction contains the substance of the research, objectives, current conditions and major publications, controversial/different hypotheses, main objectives of the research and literature review. The content of the introduction that you include in detail includes the background of the problem supported by factual evidence so that you can include details of the initial observations that you have made as part of your research process.

The presentation of the background can be strengthened by a literature review or related research results that are directly cited according to topics relevant to the research you will conduct. In each paragraph, you can include each citation to support primary information that refers to each related research.

METHOD

This study employed a keyword-based literature analysis to identify global thematic trends in geography textbooks published between 2024 and 2025. The methodological design aimed to systematically synthesize descriptive metadata and textual representations of textbook content in order to capture emerging conceptual and pedagogical patterns within contemporary geography education. Keyword-based literature analysis has been widely applied in educational and bibliometric research as

an effective approach to mapping knowledge development, detecting thematic clusters, and revealing intellectual structures across academic and instructional publications (Donthu et al., 2021; Zupic & Čater, 2015).

The dataset consisted of geography textbooks published internationally between January 2024 and December 2025 and was compiled through searches across multiple reputable academic and publishing databases to ensure broad coverage and data reliability. Primary sources included Google Books, WorldCat, and major academic publisher catalogs such as Routledge, Springer, Wiley, and Palgrave Macmillan, as well as academic indexing platforms that include book publications. The search process employed the primary keyword "geography textbook," supplemented by related terms including "geography education," "teaching geography," "spatial learning," "human geography textbook," and "physical geography textbook." These keywords were selected based on prior research demonstrating the effectiveness of keyword-based strategies for identifying thematic domains and tracing the evolution of educational literature (Donthu et al., 2021). Boolean operators were applied to refine search results and enhance relevance, and the search was restricted to English-language publications to ensure consistency and accessibility of metadata and descriptive summaries.

To maintain analytical rigor, textbooks were selected using clearly defined inclusion and exclusion criteria. Eligible publications were required to focus primarily on geography teaching and learning, be published within the 2024–2025 timeframe, originate from recognized academic or professional publishers, and provide sufficient descriptive metadata, including titles, synopses, and subject keywords. Publications that focused exclusively on technical or disciplinary geographic research without pedagogical orientation were excluded, as were revised editions that did not demonstrate substantive conceptual updates, in order to minimize duplication bias. This selection process followed systematic literature identification principles commonly employed in educational review studies, thereby enhancing transparency and reproducibility in literature synthesis research (Snyder, 2019). The final dataset represented a cross-sectional collection of contemporary geography textbooks reflecting diverse educational contexts and thematic orientations.

Following textbook identification, keyword extraction was conducted through a multi stage analytical procedure. Keywords were initially collected from textbook titles, publisher descriptions, subject indexing categories, and available abstracts or promotional summaries, which are widely recognized as valid indicators of conceptual emphasis and thematic orientation in academic publications (Zupic & Čater, 2015). The extracted keywords were then standardized through a normalization process in which semantically similar terms were grouped into unified conceptual categories to reduce fragmentation. For instance, terms such as "sustainability education," "environmental sustainability," and "sustainable development" were consolidated into a single thematic category labeled Sustainability and Environmental Education. This categorization process was guided by qualitative thematic synthesis principles that support the interpretation of patterns across textual datasets while maintaining conceptual coherence (Thomas & Harden, 2008).

Subsequently, keyword frequency analysis was employed to identify dominant and emerging thematic clusters across the dataset. Frequency analysis is a commonly used technique in bibliometric and educational literature reviews to determine the relative prominence of conceptual trends within scholarly publications (Donthu et al., 2021). Based on frequency patterns and thematic relationships, keywords were further organized into broader domains representing pedagogical, technological, environmental, and socio-cultural orientations in geography education.

To strengthen validity and reliability, the analysis incorporated iterative coding and cross-checking procedures during keyword categorization, with repeated refinement of the analytical framework to ensure conceptual clarity and minimize classification ambiguity. The use of multiple data sources reduced database-specific bias, while methodological triangulation, integrating bibliographic searching, thematic synthesis, and frequency analysis, enhanced the overall credibility of the findings. In line with established methodological guidelines for systematic literature reviews in educational research, the study emphasized transparency in search procedures, explicit inclusion criteria, and a replicable analytical framework (Snyder, 2019), thereby ensuring that the results provide a reliable representation of global geography textbook trends during the selected period.

RESULTS AND DISCUSSION

The keyword-based analysis of geography textbooks published between 2024 and 2025 reveals a coherent pattern of thematic convergence that reflects broader epistemological and pedagogical shifts in contemporary geography education. From the final dataset, 38 internationally published geography textbooks met the inclusion criteria and were included in the analysis. Across these publications, 214 distinct keywords were extracted from titles, publisher descriptions, indexing metadata, and available abstracts. Following normalization and thematic consolidation, these keywords were organized into six dominant thematic domains, each representing a key orientation in current geography textbook design and educational priorities.

The most prominent thematic domain identified was Sustainability and Environmental Education, which appeared in 29 of the 38 textbooks. Frequently occurring keywords included sustainability, climate change, environmental systems, resilience, and sustainable development. The dominance of this domain indicates that sustainability has shifted from a peripheral topic to a central organizing principle in geography textbooks. This trend is consistent with global education agendas that position geography as a critical discipline for addressing environmental crises and supporting education for sustainable development (Cutter et al., 2020; UNESCO, 2021). Rather than presenting environmental issues as isolated case studies, contemporary textbooks increasingly frame them as interconnected systems requiring spatial, temporal, and ethical analysis.

Closely associated with sustainability is the second dominant domain, Geospatial Technologies and Digital Spatial Thinking, which appeared in 24 textbooks. Keywords such as GIS, remote sensing, geospatial data, spatial analysis, and digital mapping reflect a growing emphasis on technological competence and data literacy. This trend suggests a pedagogical shift from descriptive geographic knowledge toward analytical engagement with spatial data, aligning with arguments that spatial thinking is a foundational skill for navigating complex global problems (Bednarz et al., 2013; Goodchild, 2018). Importantly, the frequent co-occurrence of sustainability and geospatial technology keywords indicates that textbooks increasingly integrate digital tools as means to analyze environmental challenges rather than treating technology as an isolated instructional topic.

The third major thematic domain, Inquiry-Based and Problem-Oriented Learning, was identified in 21 textbooks. Keywords such as inquiry learning, problem-based learning, case studies, and real-world issues suggest that contemporary geography textbooks increasingly support learner-centered pedagogies. This reflects a departure from transmission-oriented instructional models toward approaches that engage students in investigating authentic spatial problems. Such an orientation aligns with constructivist theories of learning and reinforces the role of geography education in developing critical thinking, decision-making, and problem-solving skills (Lambert & Morgan, 2010; Lee & Shemilt, 2023). The integration of inquiry-based language within textbook metadata also indicates an expectation that teachers will use textbooks as flexible pedagogical resources rather than prescriptive scripts.

A fourth thematic domain, Global Citizenship and Socio-Spatial Justice, appeared in 18 textbooks and highlights an expanding normative dimension within geography education. Keywords such as global citizenship, migration, equity, urban inequality, and social justice reveal a growing concern with the ethical and political implications of spatial processes. This trend supports recent theoretical perspectives that conceptualize geography education as a vehicle for fostering critical global awareness and civic responsibility (Maude, 2020; Banks, 2017). The presence of these keywords suggests that textbooks increasingly encourage learners to interrogate power relations, social inequalities, and contested spaces rather than merely describing spatial patterns.

Two additional but emerging domains Interdisciplinary Integration and Future Oriented Skills, further illustrate the forward looking orientation of contemporary geography textbooks. Interdisciplinary keywords such as STEM integration, systems thinking, and cross curricular learning appeared in 14 textbooks, indicating efforts to position geography as a bridging discipline that connects natural sciences, social sciences, and technology. Meanwhile, future oriented terms such as futures thinking, scenario planning, and 21st century skills appeared in 11 textbooks, reflecting growing recognition of uncertainty and complexity as defining features of the contemporary world (Facer, 2011; OECD, 2023).

Although less frequent, these domains suggest that geography textbooks are beginning to address not only current global challenges but also the skills required to navigate uncertain futures.

These thematic distributions are summarized in Table 1, which presents the dominant domains, representative keywords, and their frequency across the analyzed textbooks.

Table 1. Dominant Thematic Trends in Geography Textbooks (2024–2025)

Thematic Domain	Representative Keywords	Number of Textbooks (n = 38)
Sustainability & Environmental Education	sustainability, climate change, resilience, sustainable development	29
Geospatial Technologies & Spatial Thinking	GIS, remote sensing, geospatial data, spatial analysis	24
Inquiry-Based & Problem-Oriented Learning	inquiry learning, PBL, case studies, real-world issues	21
Global Citizenship & Socio-Spatial Justice	global citizenship, migration, equity, inequality	18
Interdisciplinary Integration	STEM, systems thinking, cross-curricular learning	14
Future-Oriented Skills	futures thinking, scenario planning, 21st-century skills	11

Taken together, these findings indicate a conceptual realignment in geography textbooks toward integrative, applied, and future-oriented educational goals. The convergence of sustainability, geospatial technologies, and inquiry-based learning suggests that contemporary textbooks increasingly frame geography as an action-oriented discipline that equips learners to analyze and respond to complex global issues. This pattern supports theoretical views of textbooks as active agents in curriculum reform, mediating between policy, disciplinary knowledge, and classroom practice (Remillard & Heck, 2014).

Moreover, the presence of global citizenship and socio-spatial justice themes underscores a growing recognition of the ethical responsibilities embedded in geography education. Rather than treating space as neutral, textbooks increasingly acknowledge the political and social dimensions of spatial decision-making. Overall, the results demonstrate that keyword-based literature analysis provides a robust method for identifying macro level trends in instructional materials and offers empirical evidence that geography education, as reflected in textbooks published in 2024–2025, is undergoing a substantive pedagogical and conceptual transformation.

CONCLUSION

This study examined global trends in geography textbooks published between 2024 and 2025 using a keyword-based literature analysis. By synthesizing descriptive metadata and thematic keywords from 38 internationally published textbooks, the study identified six dominant thematic domains that characterize contemporary geography education resources. The findings demonstrate a clear shift toward sustainability-oriented content, the integration of geospatial technologies, inquiry-based pedagogy, and an increased emphasis on global citizenship and socio-spatial justice. These trends indicate that geography textbooks are increasingly aligned with global educational priorities that emphasize environmental responsibility, digital competence, and critical engagement with real-world issues.

The prominence of sustainability and environmental education suggests that geography textbooks now function as key instruments for advancing education for sustainable development, positioning environmental challenges as central rather than peripheral topics. Similarly, the strong presence of geospatial technologies reflects the growing importance of spatial data literacy and analytical skills in geography education. The integration of inquiry-based learning further indicates a pedagogical shift toward learner-centered approaches that encourage students to actively investigate and interpret complex spatial phenomena. Together, these trends highlight a conceptual transformation in which geography is presented as a dynamic, applied, and future-oriented discipline.

At the same time, the emergence of themes related to global citizenship, socio-spatial justice, interdisciplinary integration, and future-oriented skills underscores the expanding normative and anticipatory dimensions of geography education. Textbooks increasingly frame spatial issues within ethical, political, and societal contexts, encouraging learners to critically examine inequality, power relations, and global interdependence. Although these themes appear with lower frequency than sustainability or technology, their presence signals an evolving direction in textbook design that responds to uncertainty, complexity, and global change.

The findings of this study carry several implications for geography education. For curriculum developers and policymakers, the identified trends provide empirical evidence of how contemporary geography textbooks operationalize curricular priorities related to sustainability, digital transformation, and inquiry based learning. For textbook authors and publishers, the results highlight the importance of integrating thematic coherence, interdisciplinary perspectives, and future oriented competencies into instructional materials. For teachers, understanding these trends may support more informed textbook selection and pedagogical adaptation, enabling educators to align classroom practice with current disciplinary and educational developments.

Future research could extend this study in several directions. First, empirical classroom-based studies could examine how the identified textbook trends are enacted in teaching and learning practices. Second, comparative analyses across regions or educational levels could explore variations in thematic emphasis and pedagogical orientation. Third, longitudinal studies examining textbook trends over longer timeframes would provide deeper insights into the evolution of geography education. Finally, combining keyword-based analysis with qualitative content analysis could enrich understanding of how themes are framed and interpreted within textbook narratives.

Overall, this study demonstrates that keyword-based literature analysis offers a robust and transparent approach for capturing macro-level trends in geography textbooks. By documenting contemporary thematic orientations, the study contributes to ongoing discussions on the future of geography education and the role of textbooks in shaping disciplinary knowledge and pedagogical practice.

BIBLIOGRAPHY

Bednarz, S. W. (2018). Spatial thinking and geography: Insights from the learning sciences. Journal of Geography, 117(3), 81–92. https://doi.org/10.1080/00221341.2017.1420812

Bednarz, S. W., Acheson, G., & Bednarz, R. S. (2013). Maps and spatial thinking skills in the AP Human Geography classroom. Journal of Geography, 112(2), 76–86. https://doi.org/10.1080/00221341.2012.681227

Clifford, P., & Friesen, S. (2021). Curriculum and the textbook: Exploring ways of knowing. Journal of Curriculum Studies, 53(5), 639–658. https://doi.org/10.1080/00220272.2021.1902398

Cutter, S. L., Emrich, C. T., & Jones, K. (2020). The geography of disaster resilience. Natural Hazards Review, 21(3), 04020013. https://doi.org/10.1061/(ASCE)NH.1527-6996.0000389

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. Journal of Business Research, 133, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Goodchild, M. F. (2018). Reimagining the history of GIS. Annals of GIS, 24(1), 1–8. https://doi.org/10.1080/19475683.2018.1424737

Lambert, D., & Morgan, J. (2010). Teaching geography 11–18: A conceptual approach. Open University Press.

Lee, R., & Shemilt, D. (2023). Curriculum development and textbook reform: New directions in instructional design. Educational Research Review, 38, 100484. https://doi.org/10.1016/j.edurev.2023.100484

Maude, A. (2020). The role of geography in developing global citizenship. International Research in Geographical and Environmental Education, 29(2), 95–109. https://doi.org/10.1080/10382046.2019.1707274

OECD. (2023). Future of education and skills 2030. OECD Publishing. https://doi.org/10.1787/6c3f527b-en

Peterson, A. (2021). Textbooks in time: Mapping disciplinary change. History of Education Quarterly, 61(2), 283–309. https://doi.org/10.1017/heq.2020.40

Remillard, J. T. (2005). Examining key concepts in research on teachers' use of mathematics curricula. Review of Educational Research, 75(2), 211–246. https://doi.org/10.3102/00346543075002211

Remillard, J. T., & Heck, D. J. (2014). Conceptualizing curriculum use. Educational Researcher, 43(5), 304–313. https://doi.org/10.3102/0013189X14528539

Snyder, H. (2019). Literature review as a research methodology: An overview and guidelines. Journal of Business Research, 104, 333–339. https://doi.org/10.1016/j.jbusres.2019.07.039

Thomas, J., & Harden, A. (2008). Methods for the thematic synthesis of qualitative research in systematic reviews. BMC Medical Research Methodology, 8(1), 45. https://doi.org/10.1186/1471-2288-8-45

UNESCO. (2021). Education for sustainable development: A roadmap. UNESCO Publishing. https://doi.org/10.54675/UNESCO.ESD.2021

Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. Organizational Research Methods, 18(3), 429–472. https://doi.org/10.1177/1094428114562629