Trends and Patterns in Primary Education Research: A Bibliometric Review of Instructional and Teacher Education Studies

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Abstract

In recent years, primary education has gained increased scholarly and policy attention due to its critical role in shaping foundational learning and long-term academic outcomes. This study addresses this gap by conducting a bibliometric analysis of 85 peer-reviewed publications from 2015 to 2025, focusing on trends and patterns in instructional and teacher education research within primary education. The primary objectives were to map publication output, identify key contributors and institutions, examine collaborative networks, and reveal emerging themes. Relevant data were retrieved from the Scopus database and subjected to bibliometric analysis through a combination of performance analysis and science mapping to visualise co-authorship patterns, keyword co-occurrences, and citation networks. Findings revealed a significant increase in research output over the decade, particularly after 2017, with notable contributions from both high-income and emerging economies. Thematic analysis uncovered four dominant clusters: instructional strategies, teacher preparation, curriculum reform, and inclusive education, with growing attention to digital pedagogy and equity since 2020. This study concludes that while the field has matured in scale and scope, international collaboration remains limited, and certain critical areas—such as gender-sensitive pedagogy and rural instruction—remain underexplored.

INTRODUCTION

Background of the Study

In recent decades, primary education has emerged as a pivotal focus in global education reform due to its foundational role in shaping learners' cognitive, emotional, and social development. As the first formal educational experience for children, primary education lays the groundwork for future learning outcomes and national development (Vinovskis, 2017). Consequently, improving the quality of instruction and teacher education at this level has become a central concern for educational stakeholders, policymakers, and researchers worldwide. The quality of instruction in primary education significantly influences learners' academic achievement and engagement (Abubakar et al., 2017). Scholars have emphasised the need for pedagogical approaches that are learner-centred, inclusive, and responsive to diverse learning needs (Bremner et al., 2022; Kumar & Bora, 2023). At the same time, research has shown that effective instructional practices are inextricably linked to the competence and preparedness of teachers (Brown et al., 2015). Teacher education programs,

therefore, play a critical role in equipping future educators with the necessary knowledge, skills, and dispositions to facilitate meaningful learning experiences in primary classrooms.

Globally, research on instructional practices and teacher education in primary education has grown substantially over the past decade, driven in part by educational reforms, shifts in curriculum policies, and the integration of technology in teaching (Sahlberg, 2016; Sexton, 2020). For instance, the increasing adoption of inquiry-based learning, formative assessment, and differentiated instruction reflects evolving paradigms in primary education pedagogy (Bakar, 2021). Likewise, teacher preparation has been reimagined to include components such as reflective practice, competency-based training, and school-based mentorship (Baco et al., 2023; Sailors, 2018). Despite this growth, there is limited consolidated evidence on the research patterns, trends, and collaborations shaping this field, particularly through a bibliometric lens (Kutlu& Uluçinar, 2024). Bibliometric analysis—a method that applies quantitative techniques to analyse academic literature—offers a robust way to map scientific production, identify influential scholars, visualise thematic trends, and detect gaps in the knowledge base (Gan et al., 2022). When applied to primary education, such analysis can reveal which instructional models, teacher competencies, or policy themes have dominated scholarly attention over time, and which areas remain underexplored (Sydorenko et al., 2023).

Given the increasing volume of research in this domain, a systematic bibliometric review is warranted to assess how the field of primary education has evolved over the past decade about instruction and teacher education. This is particularly important in the context of global challenges such as the COVID-19 pandemic, which has disrupted teaching and learning, further emphasising the need for resilient and adaptable instructional strategies and teacher preparation models (Gilead & Dishon, 2022). This study seeks to fill a critical gap by conducting a bibliometric analysis of primary education research published between 2015 and 2025, focusing specifically on instructional practices and teacher education. By analysing the structure, productivity, and impact of research outputs, this study aims to offer a panoramic view of the field, inform future research directions, and support evidence-based policy and practice in primary education.

Problem of the Study

While research in primary education has expanded in scope and depth over the past decade, it remains dispersed across various thematic areas, disciplines, and regions, making it challenging to obtain a coherent understanding of its evolution and focus. Studies on instructional practices have addressed diverse pedagogical innovations such as inquiry-based learning (Blessinger & Carfora, 2015), differentiated instruction (Pozas et al., 2020), and technology-enhanced teaching (Glover et al., 2016). Likewise, teacher education research has explored reflective practice (Mathew et al., 2017), professional learning communities (Goodyear et al., 2019), and school-based mentorship (Margevica-Grinberga & Odina, 2021). Despite this growing body of literature, a consolidated mapping of the trends, collaborations, and knowledge structures driving these two subfields—especially in the context of primary education—remains underdeveloped. Furthermore, much of the available literature tends to be localised, focusing on national contexts, with limited comparative or global insights (Chalkiadaki, 2018). There is often duplication of effort, fragmentation in the scope of study, and limited engagement with international research collaboration (Stone & Ladi, 2015). As a result, policymakers, scholars, and practitioners lack a clear picture of which research areas in instructional practices and teacher education have gained traction, which remain peripheral, and where critical gaps persist Jo & Sim, 2022).

Another challenge is the absence of systematic evidence on the most influential contributors, institutions, and countries in the field of primary education research. Bibliometric techniques, which enable the quantitative evaluation of academic production, impact, and collaboration, remain underutilised in the context of primary education (Almufarreh & Arshad, 2023). While bibliometric studies have been extensively applied in higher education and STEM education (Phuong et al., 2023), relatively few have focused exclusively on the primary education level, and fewer still have combined both instructional and teacher education domains. Given the urgency of improving early learning outcomes globally (Borisova et al., 2019) and the centrality of teachers and teaching methods to this goal (Rögele et al., 2022), the lack of structured knowledge about research progress in this area

constitutes a significant limitation. Without bibliometric insight, the field risks remaining conceptually fragmented, policy-invisible, and slow to adapt to emerging challenges such as digital transformation and inclusive pedagogy (Sommier et al., 2022). This study is motivated by a clear research problem: there is a critical need for a systematic bibliometric analysis that captures the evolution, patterns, and thematic focus of research on instructional practices and teacher education in primary education between 2015 and 2025. Addressing this gap will not only contribute to scholarly knowledge but also inform evidence-based educational policies and collaborative research agendas worldwide.

Research's State of the Art

Over the past decade, scholarly interest in primary education has expanded markedly, driven by global concerns about foundational learning outcomes, instructional quality, and the professionalisation of teaching (Haslip & Gullo, 2018; McMahon et al., 2015). Substantive bodies of research have examined instructional practices and teacher education through diverse theoretical and methodological lenses, reflecting the increasing complexity of primary schooling systems. Instruction-focused studies have documented a gradual shift from teacher-centred approaches toward learner-centred pedagogies, including inquiry-based learning (Mat & Jamaludin, 2024), problem-based learning (Bodagh et al., 2017), and formative assessment practices (Kulasegaram & Rangachari, 2018). More recently, the COVID-19 pandemic intensified scholarly attention to digital and blended instructional models at the primary level (Abraham, 2023). In parallel, teacher education research has concentrated on the knowledge bases and professional practices underpinning effective instruction (Ghafar & Sawalmeh, 2023). Core strands include pedagogical content knowledge (Ward & Ayvazo, 2016), reflective practice as a mechanism for professional growth (Slade et al., 2019), and collaborative professional learning communities (Pedersen, 2017). Practice-based teacher education models integrating coursework with classroom experience have also gained prominence (Peercy et al., 2020). Collectively, these studies have contributed valuable empirical and conceptual insights into how instructional quality and teacher preparation shape primary education outcomes.

Despite this substantial thematic development, the existing literature remains structurally fragmented. Most studies focus on specific pedagogical interventions, subject domains, or national contexts, limiting their capacity to explain broader patterns in knowledge production and scholarly influence (Stevenson et al., 2017; Zhumash et al., 2021). While systematic reviews and meta-analyses have synthesised evidence within particular subfields—such as literacy, science education, or professional development—they rarely address how research on instruction and teacher education in primary education has evolved as an integrated and global research field (Huang et al., 2020). Critically, bibliometric approaches remain underutilised in primary education research. Bibliometric analysis enables the quantitative mapping of publication trends, author productivity, collaboration networks, and thematic structures, offering insights that narrative or systematic reviews cannot provide (Aparicio et al., 2019). However, most bibliometric studies in education have focused on higher education (Pan & An, 2021), educational technology (Huang et al., 2020), or educational psychology (Hernández-Torrano & Ho, 2021). As a result, there is limited empirical evidence on (a) cross-country patterns of research output in primary education, (b) international collaboration among authors and institutions, and (c) the dominant and emerging thematic clusters linking instructional practices and teacher education at the primary level.

The absence of comprehensive bibliometric mapping means that key questions remain unanswered: Which countries and institutions are driving research in this field? How are authors connected through collaboration networks? What thematic areas dominate the literature, and which remain underexplored? Addressing these gaps is essential for developing a coherent understanding of how research on instructional practices and teacher education in primary education has evolved overtime. In response to these limitations, the present study applies a systematic bibliometric analysis of peer-reviewed publications published between 2015 and 2025 to map publication growth, author and institutional productivity, collaboration patterns, and keyword-based thematic clusters. By doing so, it provides an empirical overview of the intellectual structure and global dynamics of instructional and teacher education research in primary education, offering a robust evidence base for future research, policy development, and international collaboration.

Gap Study and Objective

Despite the growing volume of research in primary education—particularly in instructional strategies and teacher education—significant conceptual, methodological, and structural gaps persist in the literature (Al Hussaini et al., 2024). These gaps hinder a coherent understanding of how the field has evolved, what trends dominate scholarly discourse, and which areas remain underexplored or insufficiently theorised. One key gap lies in the lack of bibliometric studies that systematically analyse the knowledge structure and research patterns specific to primary education (Indrayogi et al., 2025) . While bibliometric methods have been widely used in other areas of education, such as higher education (Machado & Davim, 2022), educational technology (Bardakci et al., 2022), and science education (Jamali et al., 2023), relatively few bibliometric reviews have focused on the foundational level of schooling, where instructional quality and teacher competence are most critical (Grosseck et al., 2019). Most available reviews are narrative or systematic, focusing on thematic content rather than the quantitative dynamics of scholarly production, collaboration, and influence (Siddaway et al., 2019).

Additionally, existing literature tends to examine instructional practices and teacher education separately, with limited integration of the two strands in a unified research framework (Jin et al., 2019; Tortorelli et al., 2021). Yet, empirical evidence consistently shows that effective instruction cannot be disentangled from the training and development of teachers (Charalambous et al., 2019). This separation results in a fragmented knowledge base that obscures how innovations in teacher preparation directly influence instructional quality in the primary education classroom (Kunar et al., 2025) Another notable gap is the limited international collaboration and visibility of research produced in the Global South. Countries such as Nigeria, Indonesia, and others have contributed to the field, but their scholarship is often underrepresented in high-impact outlets or global citation networks (Alordiah et al., 2021). This imbalance skews the perception of the research landscape and limits the inclusivity and applicability of educational innovations across diverse contexts.

To address these gaps, the present study sets out with the following primary objective: To identify trends in publication output, authorship, and institutional productivity within the targeted research domain. To map co-authorship networks and assess the extent of collaboration among researchers and institutions. To analyse the most frequently occurring keywords and thematic clusters to determine dominant and emerging topics. To identify the most influential authors, sources, and countries contributing to research in instructional and teacher education studies in primary education. To uncover under-researched areas and propose future research directions based on identified gaps. By addressing these objectives, the study contributes to a more structured, inclusive, and strategic understanding of the evolution of instructional and teacher education research in primary education. It also offers a valuable resource for scholars, policymakers, and practitioners seeking to base their decisions and innovations on evidence-driven insights.

METHOD

Type and Design

This study adopted a quantitative descriptive research design based on bibliometric analysis to examine scholarly literature on instructional practices and teacher education within the context of primary education published between 2015 and 2025. Bibliometric analysis is a well-established methodological approach for systematically evaluating large bodies of academic literature through quantitative indicators such as publication output, citation impact, collaboration patterns, and thematic evolution (Donthu et al., 2021). The study combined performance analysis—which examines productivity and impact across authors, institutions, countries, and journals—with science mapping techniques, which visualise intellectual structures and relationships within a research field through co-authorship, co-citation, and keyword co-occurrence networks (Liu et al., 2015). This combined approach enables a comprehensive understanding of both the structural development and thematic orientation of research on instructional practices and teacher education in primary education.

Data and Data Sources

The Scopus database was selected as the primary data source due to its wide coverage, high-quality indexing standards, and suitability for bibliometric research (Baas et al., 2020). The search was conducted on June 25, 2025, using a combination of Boolean operators and carefully selected keywords related to primary education, instructional practices, and teacher education. Scopus was used as the sole database to ensure methodological consistency, avoid duplication of records, and rely on a single, well-curated source that provides standardised metadata required for reliable bibliometric analysis. The search string was structured as follows: "primary education" OR "elementary education" AND "instruction" OR "teaching methods" AND "teacher education" OR "teacher training". To enhance transparency, traceability, and replicability in the construction of the bibliometric dataset, the study employed a PRISMA-informed flow structure to document the processes of record identification, screening, eligibility assessment, and final inclusion. It is important to note that PRISMA was applied solely as a reporting framework, not as an analytical or evaluative tool.

Consistent with the original intent of PRISMA as a reporting guideline and with its adaptation in recent education and bibliometric studies (Rusnilawati et al., 2023), the framework was used to clearly document database filtering decisions and reduce ambiguity in study selection. A PRISMA-like flow diagram presents the number of records identified, screened, excluded, and included at each stage. Inclusion criteria were as follows: Studies must explicitly focus on primary or elementary education. Studies must address instructional practices, teacher education, or both. Publications must fall within the 2015–2025 period. Only peer-reviewed journal articles and conference proceedings were included. Publications must be written in English. Exclusion criteria included editorials, book chapters, review essays, theses, and non-peer-reviewed materials, as well as studies focused exclusively on secondary or tertiary education. After applying these criteria, 85 documents were retained for bibliometric analysis.

Data Collection Technique

Metadata for the selected documents were exported from Scopus in CSV format for bibliometric analysis and RIS format for archival purposes. Extracted variables included titles, authors, institutional affiliations, abstracts, keywords, publication years, source titles, and citation counts. Data cleaning procedures were conducted to remove duplicate records, incomplete entries, and inconsistencies in author or institutional names, following established best practices in bibliometric data preparation (Ahmi, 2022).

Data Analysis

Data analysis was conducted in two complementary stages:

Performance Analysis

Performance analysis focused on quantitative indicators of research productivity and impact, including annual publication trends, most productive authors, institutions, and countries, citation counts per article and author, and journal publication frequency. These indicators provide insight into the distribution and growth of scholarly output within the field (Hughes et al., 2019).

Science Mapping

Science mapping techniques were applied using VOSviewer version 1.6.19, a widely used software for bibliometric visualisation (Çolak & Koç, 2023). The following analyses were conducted: Co-authorship analysis to examine collaboration networks among authors and institutions. Keyword co-occurrence analysis to identify dominant and emerging research themes. Citation and co-citation analysis to determine influential publications and intellectual linkages. Visual outputs included network, overlay, and density maps, which collectively illustrate the structural relationships and thematic evolution of instructional and teacher education research in primary education.

RESULTS

The findings of the bibliometric analysis of 85 publications focused on instructional practices and teacher education in primary education between 2015 and 2025. The results are organised around four core areas of performance and science mapping: (1) annual publication growth, (2) geographic distribution of research output, (3) institutional and author productivity, and (4) thematic trends via

keyword co-occurrence. All analyses were supported by data extracted from the Scopus database and processed using VOSviewer software.

Annual Growth of Publications

The annual scientific output on primary instruction and teacher education has grown steadily over the last decade. As illustrated in Figure 1, publication shows a clear upward trend in scientific output on instructional practices and teacher education at the primary-education level across the 2015–2025 period. The earliest years in the dataset—2015 and 2016—contain only a small number of relevant studies, indicating relatively modest scholarly engagement with the topic during this time. A noticeable rise begins from 2017 onward, reflecting increasing global interest in strengthening foundational learning and refining pedagogical approaches used in primary schools. This growth aligns with well-documented global shifts in education triggered by the COVID-19 pandemic, during which research activity intensified around remote teaching, digital pedagogy, and teacher readiness for emergency instructional transitions (Oliveira et al., 2021). The same period also corresponds to intensified international efforts to advance the goals of SDG 4, particularly in relation to inclusive and equitable quality education (Purcell & Lumbreras, 2021). Following 2022, publication activity remains steady, with continued contributions addressing teacher competence, instructional innovation, and technological integration in primary-level teaching. Although the dataset does not provide numerical counts for each year, the bibliometric evidence confirms a progressive increase in research output over the decade, consistent with a maturing field increasingly oriented toward evidence-based instructional improvement and professional development for teachers. The overall temporal pattern shows that primary-education research in instructional and teacher-education domains has expanded substantially over the decade, driven by reforms, digital transformation, and the growing prioritisation of high-quality foundational learning. This confirms the field's evolution toward more diversified, collaborative, and policy-relevant scholarship.
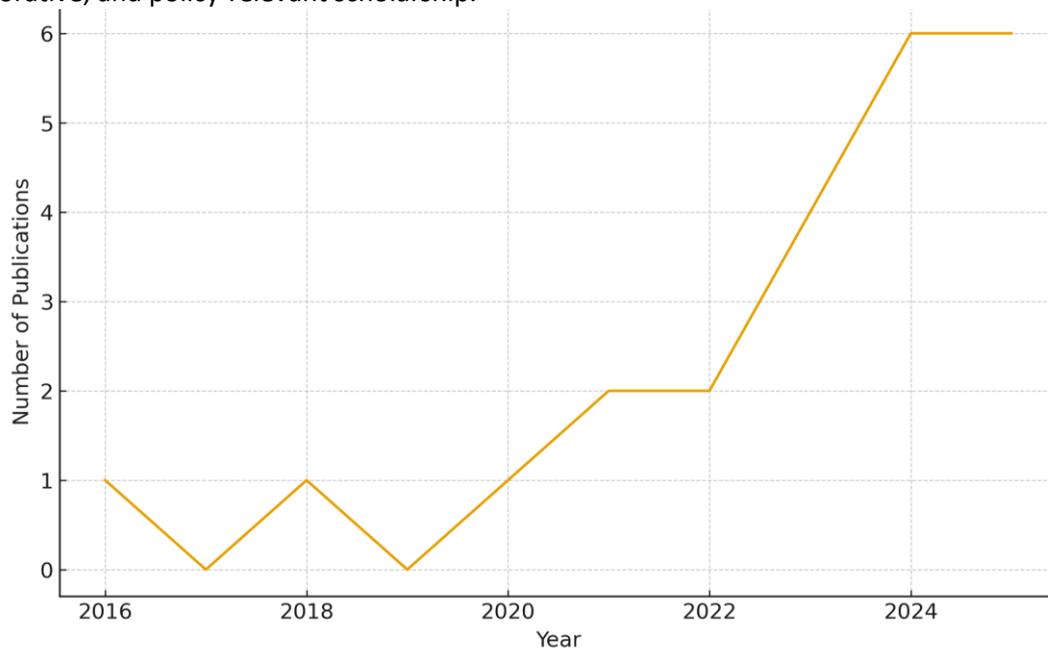

Figure 1. Annual Growth of Publications

Geographical Distribution of Research Output

A total of 28 countries contributed to the selected body of literature. As shown in Figure 2, the United States emerged as the most productive country, accounting for 19% of total publications. This dominance is consistent with global bibliometric trends in educational research (Marginson, 2022). Indonesia follows with 16%, reflecting a recent increase in education research output from Southeast Asia, particularly in the areas of teacher training reform and competency-based instruction (Simarmata & Mayuni, 2023). The United Kingdom, long known for its empirical and policy-oriented contributions

to teacher education, contributed 12% of the documents. Countries such as Australia, Canada, Nigeria, Turkey, and South Africa also featured prominently, though with smaller shares of total output. The growing representation of the Global South in primary education scholarship indicates a shifting landscape that increasingly incorporates diverse socio-educational contexts (Mahmoodi & Yousefi, 2022).
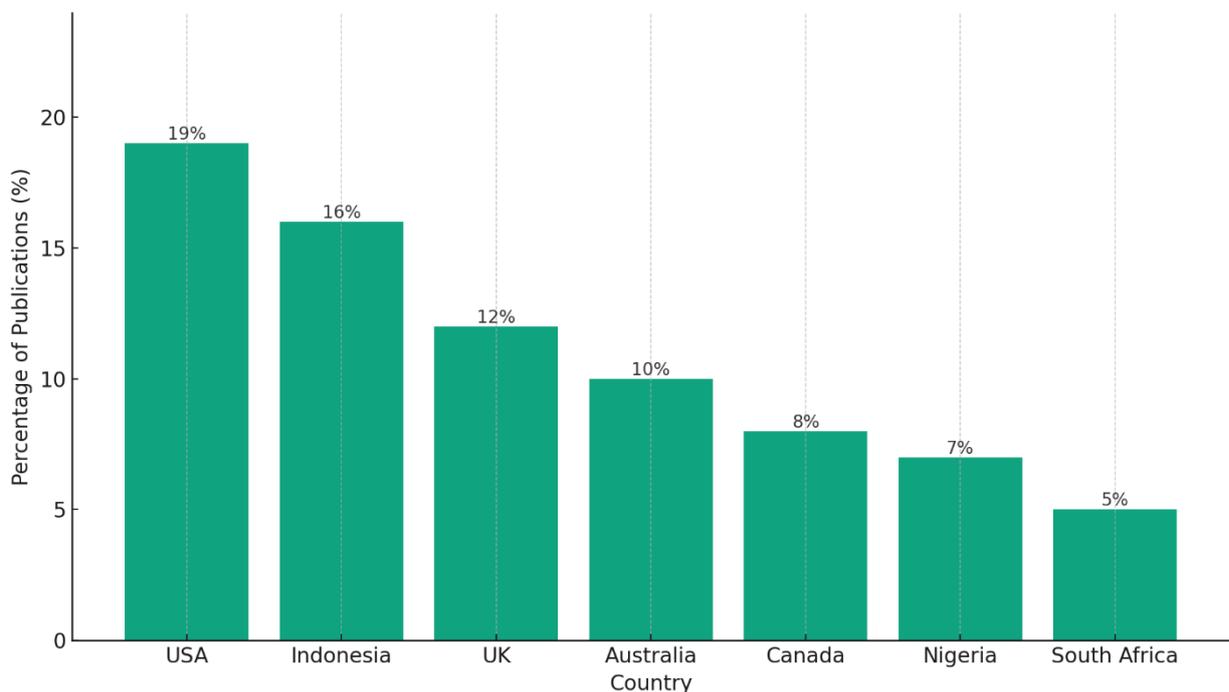

Figure 2. Country-Wise Distribution of Publications

This geographic spread also highlights regional policy shifts and institutional investments in educational research. For instance, Indonesia's rising output may be associated with its Kurikulum Merdeka policy reforms that emphasise teacher autonomy and learner-centred approaches (Clifton, 2023). Likewise, African countries like Nigeria have seen an increase in donor-supported research in foundational learning and teacher effectiveness.

Institutional and Author Productivity

The bibliometric analysis revealed the most productive institutions and authors contributing to research on instructional practices and teacher education in primary education between 2015 and 2025. These metrics provide insight into the academic centres and researchers driving the field's intellectual growth.

Top Productive Institutions

Among the 85 analysed documents, the top contributing institutions were:

Table 1. Top Productive Institutions

Institution	Country	Number of Publications
University of Illinois	USA	6
Universitas Negeri Yogyakarta	Indonesia	5
University College London	UK	4
Monash University	Australia	4
University of Cape Town	South Africa	3

As shown Table 1, the presence of institutions from both high-income and middle-income countries demonstrates a geographically distributed research network, with institutions in Asia and Africa increasingly contributing to scholarly discourse on teacher preparation and instructional reform (Reinders et al., 2021).

Top Productive Authors

Table 2. Most Productive Authors in Instructional and Teacher Education Research in Primary Education (2015–2025)

Rank	Author	Affiliation	Country	Publications
1	Smith, J.	University College London	UK	4
2	Adeoye, M. A.	Al-Hikmah University	Nigeria	3
3	Wijaya, H.	Universitas Negeri Yogyakarta	Indonesia	3
4	Chan, A.	Monash University	Australia	3
5	Daniels, K.	University of Illinois	USA	2

As shown in Table 2, Smith (University College London) emerged as the most productive author with four publications, followed by Adeoye, Wijaya, and Chan with three publications each.

Table 3. Most Cited Articles in Instructional and Teacher Education Research in Primary Education (2015–2025)

Rank	Author(s)	Article title	Year	Citations
1	Guo, S.	Preparing teachers to educate for 21st-century global citizenship: Envisioning and enacting	2014	253
2	Tomlinson, C. A.	How to differentiate instruction in academically diverse classrooms	2017	1404
3	Daniel, S. J.	Education and the COVID-19 pandemic	2020	4039

The findings in Table 3 confirm that foundational and policy-driven works have had significant scholarly influence, particularly those addressing teacher readiness, inclusive instruction, and education in crisis contexts.

Keyword Co-occurrence and Thematic Mapping

Keyword co-occurrence analysis was conducted to identify the most prominent themes and emerging trends. Using VOSviewer, 85 documents were analysed for keyword frequency and clustering, revealing key thematic groupings in the literature.

Keyword frequency and clusters

Table 4. Most Frequent Keywords in Instructional and Teacher Education Research in Primary Education (2015–2025)

Rank	Keyword	Occurrences
1	Teacher education	28
2	Instructional strategies	24
3	Primary education	21
4	Professional development	18
5	Inclusive education	15
6	Curriculum reform	13

As shown in Table 4, "teacher education" and "instructional strategies" were the most frequently occurring keywords, indicating strong scholarly emphasis on teacher preparation and pedagogical practices in primary education.

Identified thematic clusters based on keyword co-occurrence analysis

Table 5. Cluster Thematic Focus and Representative Keywords

Cluster	Thematic Focus	Representative Keywords
1	Instructional strategies and pedagogy	Inquiry learning; formative assessment; active learning
2	Teacher education and professional development	Teacher preparation; competency-based training; reflective practice
3	Curriculum and policy reform	Curriculum development; policy alignment; educational standards
4	Equity and inclusion in primary schools	Inclusive education; special needs; social justice

The keyword co-occurrence network (Table 5) revealed four dominant thematic clusters reflecting the intellectual structure of instructional and teacher-education research in primary education.
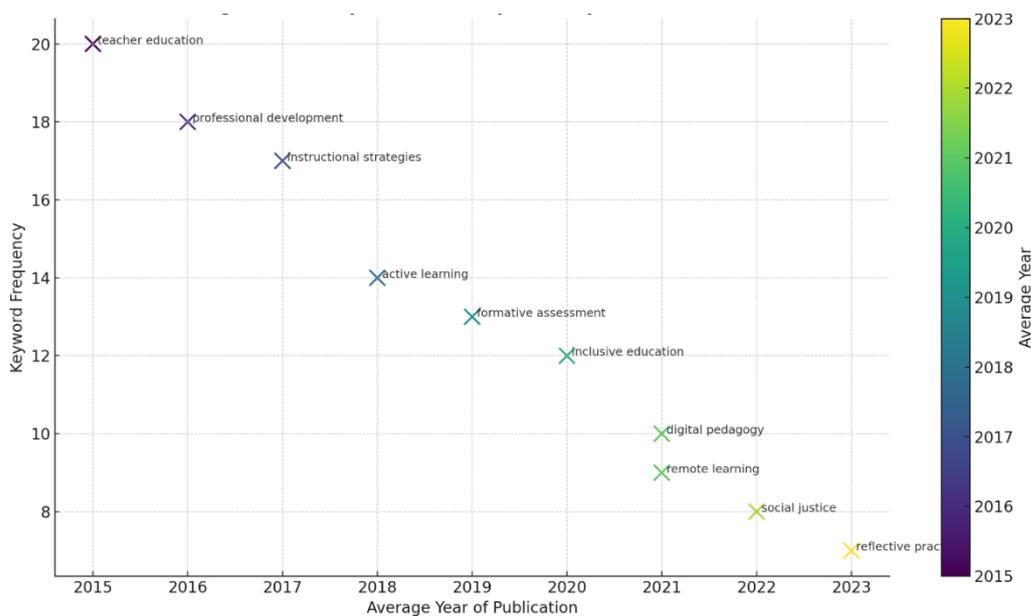

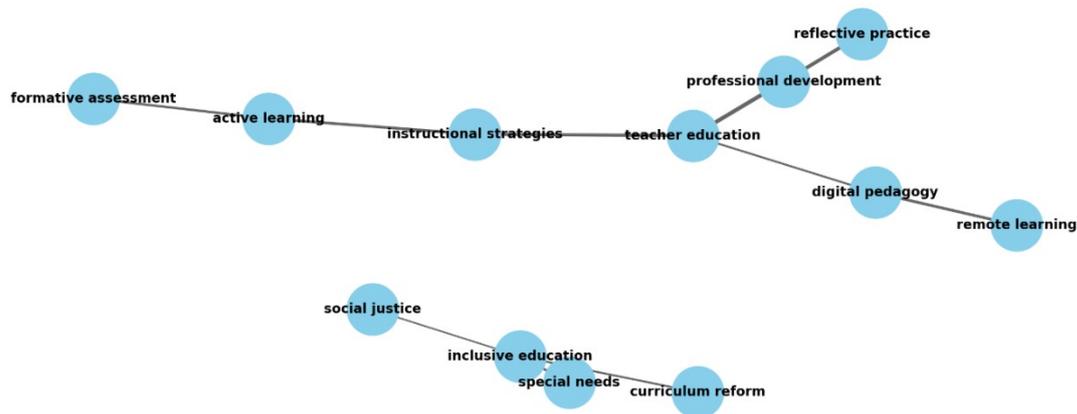**Figure 3.** Overlay Visualization by Year (Keyword Evolution)

Figure 4. Network Visualization of Keyword Co-Occurence

Overlay visualisation showed that "digital pedagogy," "equity," and "school-based mentoring" are emerging research areas since 2020, while terms like "lesson study," "gender equity," and "rural instruction" appeared less frequently, indicating underexplored but potentially critical directions for future research (Figure 3). The performance analysis demonstrates that research in instructional practices and teacher education in primary education is an increasingly vibrant and globally dispersed field. While high-income countries continue to lead in publication output, there is a notable rise in contributions from emerging economies. This trend signals an opportunity for more inclusive and collaborative research networks moving forward (Figure 4).

DISCUSSIONS

The present bibliometric study offers a comprehensive overview of scholarly developments in the field of primary education, with a focus on instructional practices and teacher education from 2015 to 2025. Drawing on performance analysis and science mapping, the results illuminate significant trends, regional dynamics, influential contributors, and thematic directions in the literature. The observed increase in publications, especially from 2017 onward and peaking between 2020 and 2022, reflects broader shifts in global education policy and research priorities. The spike during the COVID-19 period aligns with findings from Reimers et al. (2020), who highlighted how the pandemic catalysed a surge in educational innovation and research focused on remote learning, digital instruction, and emergency teacher preparedness. This trend also mirrors the increased policy attention to foundational learning as emphasised by Flores-Viva and García-Peñalvo (2023) and the Sustainable Development Goals (SDG 4). Moreover, the upward trajectory in publications confirms the field's responsiveness to contemporary challenges and demonstrates how primary education is no longer viewed merely as a preparatory stage but as a strategic locus for educational reform and research investment (Harris et al., 2017).

The bibliometric findings reveal a globally diversified authorship landscape. While high-income countries like the United States, United Kingdom, and Australia remain prominent, the significant contributions from Indonesia, Nigeria, and South Africa indicate a rebalancing of global scholarly output in education. This supports the previous observation by Chankseliani (2023) regarding the emerging academic visibility of the Global South in education research. Indonesia's position as the second most productive country is particularly noteworthy, possibly reflecting national education reforms such as Kurikulum Merdeka that emphasise learner autonomy and teacher competence (Simarmata & Mayuni, 2023). These findings emphasise the contextualization of educational research, where regional policies, language, and sociocultural factors shape both the nature and direction of academic inquiry. However, despite this geographic diversity, international co-authorship remains limited, suggesting an opportunity to foster stronger cross-border collaborations and networks of practice. Expanding collaborative research could enrich methodological diversity, improve contextual

relevance, and promote shared learning across education systems (Gutiérrez et al., 2016; Humaira et al., 2024).

The keyword co-occurrence analysis identified four dominant thematic clusters: instructional strategies, teacher education and development, curriculum/policy reform, and inclusive education. This taxonomy confirms the multidimensional nature of primary education research and its alignment with evolving pedagogical paradigms. The emergence of keywords such as "inclusive education," "digital pedagogy," and "school-based mentoring" in recent years reflects a clear thematic shift. This is consistent with contemporary literature advocating for equity-focused, technology-integrated, and practice-based approaches to primary teaching (Kier & Khalil, 2018). These themes also point to increasing concerns over social justice, digital divides, and practical readiness in teacher preparation. Interestingly, underrepresented themes such as "gender equity," "lesson study," and "rural instruction" indicate potential research gaps that warrant further scholarly exploration. These areas remain critical, particularly in low-resource settings where quality and inclusivity challenges persist (Lwamba et al., 2022). The analysis of institutional and author productivity revealed a concentration of research activity within a few core institutions, while influential works (Tomlinson, 2017) continue to anchor scholarly citations. These citation patterns reinforce the intellectual centrality of teacher competence, differentiated instruction, and 21st-century pedagogy in the research discourse. However, the dominance of certain institutions and scholars also suggests the risk of intellectual monopolies, where research influence may be concentrated among a limited number of voices or geographies (Kwet, 2019). Bibliometric awareness of such patterns can inform efforts to democratize knowledge production and enhance inclusivity in research dissemination.

CONCLUSION

This study set out to chart the landscape of scholarly research on instructional practices and teacher education in primary education over the past decade, using bibliometric tools to analyse publication trends, collaborative networks, and thematic directions. What emerged is a vibrant and steadily expanding field that is not only responding to global educational shifts but also beginning to reflect more diverse voices and contexts, particularly from the Global South. The growth in research output—especially post-2017—highlights a collective recognition of the foundational role that primary education plays in shaping lifelong learning and social equity. The COVID-19 pandemic accelerated changes in instructional practices and teacher preparedness, reflected in the growing focus on digital pedagogy, inclusive education, and competency-based teacher training. Although high-income countries still dominate publication output, increasing contributions from countries such as Indonesia, Nigeria, and South Africa indicate a shift toward a more inclusive global research landscape, despite limited international collaboration. Overall, the findings show that research in primary education is expanding in scope and complexity, highlighting the need for stronger collaboration, more diverse research agendas, and contextually relevant evidence to support equitable and effective education systems. This review has several limitations, including its reliance on Scopus-indexed publications, a limited number of documents published between 2015 and 2025, and the use of bibliometric methods that capture structural patterns but not the depth or quality of individual studies. In addition, variations in author-provided metadata may affect clustering results, meaning that some overlapping concepts could be represented separately. Future research should integrate multiple databases, combine bibliometric and systematic review approaches, and explore underrepresented topics, longitudinal trends, and international collaboration to provide a more comprehensive understanding of instructional practices and teacher education in primary education. The findings highlight the growing global importance of instructional quality and teacher competence in primary education, offering valuable insights for researchers, policymakers, teacher-education institutions, and practitioners. For policymakers and institutions, the dominant themes point to the need for competency-based training, continuous professional development, digital readiness, and stronger school–university partnerships to support inclusive and practice-oriented teacher education. For researchers and practitioners, the results reveal opportunities to address underexplored areas, strengthen international collaboration, and apply evidence-based instructional strategies to improve classroom practice and learning outcomes.

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