

ORIGINAL

Global Evolution of Research Productivity on Educational Policies Before and After COVID-19: A Bibliometric Analysis

Evolución Global de la Productividad en la Investigación sobre Políticas Educativas Antes y Después de la COVID-19: Un Análisis Bibliométrico

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ABSTRACT

Introduction: the COVID-19 pandemic triggered unprecedented disruptions in education, catalyzing shifts in policy research worldwide. This study offers a comprehensive bibliometric analysis of educational policy scholarship from 2014 to 2024, focusing on changes in research output, thematic trends, and geographic patterns before and after the onset of COVID-19.

Method: a systematic search was conducted in Scopus and Web of Science using the keywords “educational legislation,” “educational law,” “educational policy,” and “education regulation” while excluding terms related to COVID-19 or the pandemic to avoid bias. Data were filtered by open-access status, exported, and deduplicated. Bibliometric indicators were calculated to examine publication volume and top publishing countries. VOSviewer was employed for keyword co-occurrence analysis.

Results: the findings reveal a notable increase in publication output after 2020, particularly in countries like the United States, Spain, and emerging contributors like Chile and Brazil. Co-occurrence analysis indicates heightened attention to digital learning, equity, and public health dimensions in post-pandemic research.

Conclusions: the pandemic has amplified existing themes of equity and curriculum reform and introduced new focal points, including distance education and socioemotional well-being. These insights inform policymakers and researchers seeking to develop resilient and inclusive educational frameworks in a rapidly changing global context.

Keywords: Bibliometric Analysis; Educational Policy; COVID-19; Scopus; Web of Science.

RESUMEN

Introducción: la pandemia de COVID-19 generó alteraciones en la educación, impulsando cambios en la investigación sobre políticas educativas a nivel mundial. Este estudio presenta un análisis bibliométrico de las publicaciones sobre políticas educativas entre 2014 y 2024, centrándose en la evolución de la producción científica, las tendencias temáticas y la distribución geográfica antes y después de la llegada del COVID-19.

Método: se realizó una búsqueda sistemática en Scopus y Web of Science utilizando las palabras clave “educational legislation,” “education law,” “educational policy,” y “education regulation,” excluyendo términos relacionados con COVID-19 o la pandemia para evitar sesgos. Los datos se filtraron por acceso abierto, se exportaron y se eliminaron duplicados. Se calcularon indicadores bibliométricos para examinar el volumen de publicaciones y los países con mayor producción. Además, se utilizó VOSviewer para el análisis de coocurrencia de palabras clave.

Resultados: los hallazgos muestran un incremento significativo en el número de publicaciones posteriores a 2020, especialmente en países como Estados Unidos, España y otros emergentes como Chile y Brasil. El

análisis de coocurrencia indica mayor atención al aprendizaje digital, la equidad y los aspectos de salud pública en la investigación pospandémica.

Conclusiones: la pandemia no solo ha intensificado temas previos como la equidad y la reforma curricular, sino que también ha introducido enfoques novedosos como la educación a distancia y el bienestar socioemocional. Estos resultados proporcionan orientación a autoridades y académicos interesados en diseñar marcos educativos resilientes e inclusivos en un contexto global en constante transformación.

Palabras clave: Análisis Bibliométrico; Políticas Educativas; COVID-19; Scopus; Web of Science.

INTRODUCTION

Educational policy is important for shaping curricula, guiding pedagogical practices, and ensuring equitable access to schooling.^(1,2,3) Before 2020, research addressed themes such as inclusion, governance, and teacher development,^(4,5,6,7,8) reflecting broader efforts to improve learning outcomes and social equity. However, the onset of the COVID-19 pandemic introduced unprecedented disruptions—such as widespread school closures, rapid digitalization, and inequalities in remote learning access^(9,10)—that demanded urgent and innovative policy responses. This global crisis magnified preexisting disparities, compelling governments and academic institutions worldwide to reevaluate and adapt their educational systems.^(11,12,13,14,15) Consequently, the post-pandemic period has seen a surge in research focused on reform, resilience, and technology-enhanced learning,^(16,17,18,19,20) thereby reshaping the field of educational policy in both scope and urgency.

Despite the growing volume of publications, a paucity of comprehensive analyses traces how educational policy research evolved from the pre-pandemic to the post-pandemic era.^(21,22,23,24) Existing studies frequently concentrate on narrow aspects—such as digital divides or emergency remote instruction^(25,26,27,28)—without providing a global overview of publication trends, thematic clusters, and cross-national dynamics.^(29,30) The present study employs a robust bibliometric methodology that draws on two major databases, Scopus and Web of Science (WoS), to capture and compare research output on educational policies over ten years (2014-2024). This investigation elucidates significant shifts in research priorities and collaboration networks by systematically examining publication volumes, geographic distribution, and keyword co-occurrences.

This work seeks to answer three main research questions:

1. How has the global output of educational policy research changed before and after the onset of COVID-19?
2. Which countries and regions have shown the most notable shifts or surges in publications, and what might explain these patterns?
3. What thematic trends and emerging areas (e.g., distance education, public health integration, digital inclusion) are most pronounced in the post-pandemic scholarly discourse on educational policy?

The results reveal an increasingly diversified and technologically oriented landscape in the post-pandemic era, offering valuable insights for policymakers, researchers, and educators aiming to strengthen educational resilience. By mapping these evolving research trends, the study provides a foundation for understanding how crises catalyze rapid innovation and inform future policy development.

METHOD

Data Acquisition and Management

A comprehensive bibliometric analysis was conducted to examine the evolution of research on educational policies in the pre-and post-pandemic periods. Scopus and Web of Science (WoS) were selected as the primary databases because of their extensive coverage of high-impact, peer-reviewed literature on a global scale.^(31,32) The central search strategy employed the following query: (“educational legislation” OR “education law” OR “educational policy” OR “education regulation”). Notably, terms explicitly referring to “COVID-19” or “pandemic” were excluded to avoid skewing the comparison of publication trends before and after the onset of COVID-19.

A 10-year publication interval was defined from 2014 to 2024 to capture longitudinal changes in research output.^(33,34,35) The inclusion of 2024 was prompted by the timing of data retrieval, conducted in the third quarter of that year, which permitted the capture of any newly published articles relevant to educational policy. Figure 1 illustrates the flow of data acquisition and filtering, following PRISMA-based protocols to ensure methodological rigor. This flowchart details each step in identifying, screening, and selecting the final dataset, enhancing the bibliometric process’s transparency and reproducibility.

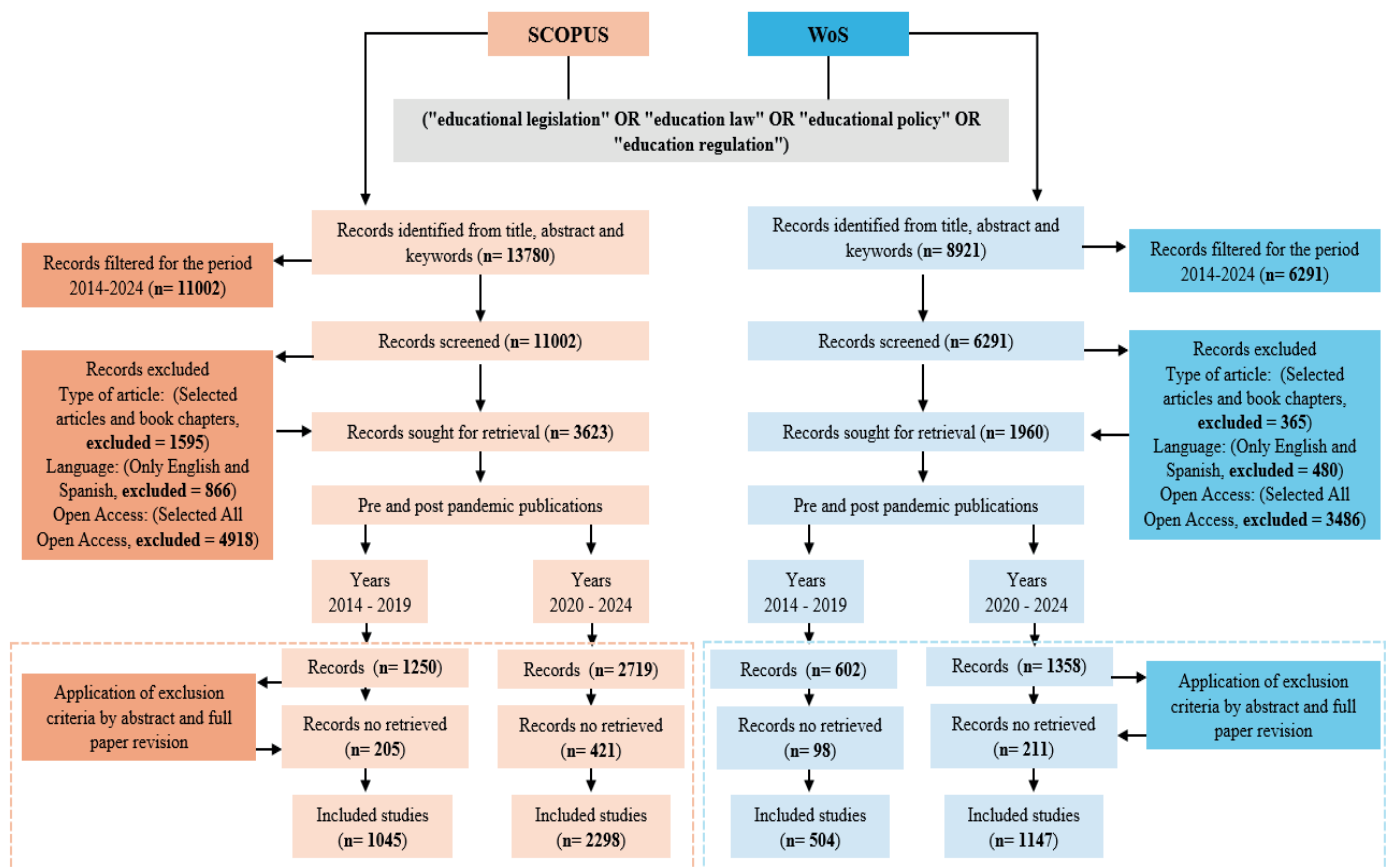


Figure 1. Flow of data acquisition and filtering, following PRISMA-based protocols

Data Filtering and Inclusion Criteria

The flow diagram illustrates that documents were filtered based on article type, language, and open-access status. All non-open-access articles were omitted to underscore research that not only addresses the development and implementation of educational policies during this period but also has the potential to inform the creation of new international policies. This approach ensures the selected works remain freely accessible to all interested stakeholders.

Additional exclusion criteria were employed to maintain a clear focus on the primary research objective. Studies were excluded if they (i) did not address educational policies, laws, or regulations or (ii) did not present a methodological or empirical framework capable of informing policy decisions for education stakeholders and decision-makers.

Data Analysis

Data were retrieved from Scopus and Web of Science in .csv and .txt formats, respectively, and then converted to .xls files to facilitate data cleaning and the removal of duplicates and records not meeting the specified inclusion criteria. Following this preprocessing stage, a bibliometric analysis was performed to examine key parameters such as publication volume, the countries with the highest number of publications, and associated citation metrics. Additionally, VOSviewer was employed to generate visual representations of the data, enabling a more in-depth exploration of the underlying patterns and trends within the research landscape.

RESULTS

Publications by year

Analysis of Publication Trends (2014-2019)

Between 2014 and 2019, both databases show an overall increase in publications on educational policy, although Scopus consistently reflects higher counts than WoS. Scopus grows steadily from 142 to 346 documents, while WoS remains relatively modest at around 70 articles per year before a notable surge from 68 in 2018 to 255 in 2019. This jump in WoS is particularly striking and suggests a marked rise in indexed publications related to educational policy research in the lead-up to 2020.

Analysis of Publication Trends (2020-2024)

From 2020 to 2024, Scopus and WoS exhibited a clear upward trend in educational policy publications. Scopus saw a significant document increase, growing from 386 in 2020 to 588 in 2023 before slightly declining to 417 in 2024. WoS also showed less pronounced growth, starting at 263 in 2020 and reaching 329 in 2023. These patterns indicate sustained research output on educational policies during the pandemic and post-pandemic periods, with Scopus maintaining a more substantial volume of publications compared to WoS.

Between 2020 and 2024, Scopus and WoS show a generally upward trajectory in publication volumes, peaking in 2023 at 588 and 329 records, respectively. Although both databases registered a dip in 2024, this may be attributable to incomplete data for the year. This data suggests sustained interest and scholarly activity in educational policy research post-pandemic.

The data and regression analyses underscore a significant growth in educational policy research post-2020 (figure 2), a phenomenon likely tied to pandemic-driven concerns and the urgent need to adapt regulatory and pedagogical frameworks worldwide.

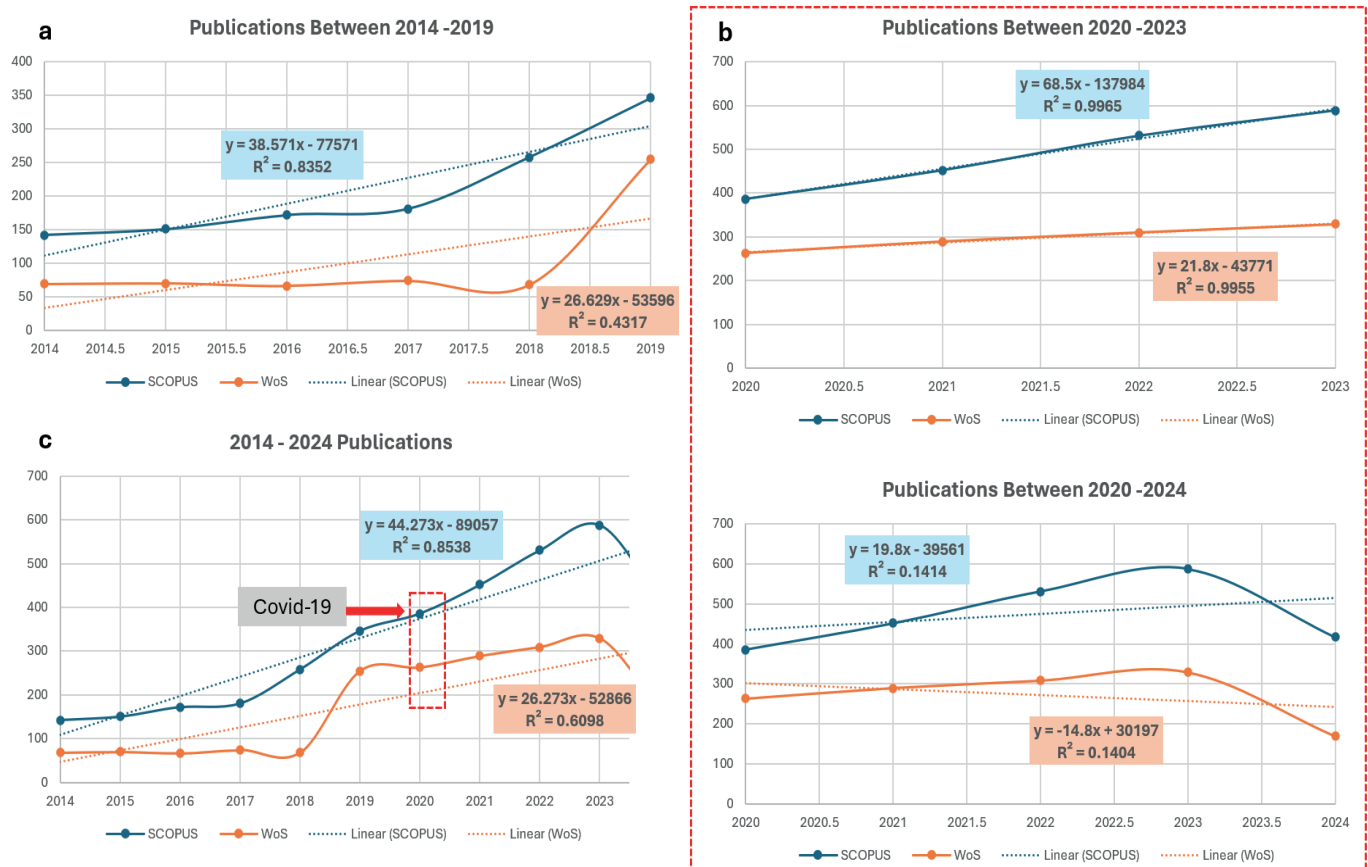


Figure 2. Growth in Educational Policy Research

A close inspection of figures (a), (b), and (c) reveals notable shifts in the volume of publications on educational policies across Scopus and WoS from 2014 to 2024, with three distinct time segments warranting particular attention.

Between 2014 and 2019 (figure 2-a), Scopus shows a marked upward trajectory, with a linear regression slope of 38,57 and an R^2 of 0,8352. This relatively high coefficient of determination suggests steady, predictable growth in research output during these years. WoS also trends upward but has a lower slope of 26,63 and a weaker R^2 of 0,4317, implying a less consistent, though still positive, increase in publications.

Between 2020 and 2023 (figure 2b), Scopus experiences a pronounced increase, with a higher slope (68,50) and a firm R^2 of 0,9965. This near-perfect correlation indicates that the surge in publications post-2020 follows a linear pattern. WoS also rises, albeit at a more modest rate (slope of 21,80), but similarly achieves a very high R^2 of 0,9955. These sharp inclines are likely tied to heightened global interest in educational policy during COVID-19, as educators, policymakers, and researchers grappled with sudden shifts in teaching modalities, resource allocation, and regulatory frameworks. The high R^2 values suggest that the growth, while rapid, was relatively systematic—perhaps driven by pandemic-related grants and a collective urgency to address emerging policy questions.

It is important to also analyze 2020-2024 and Unified View (figure 2b, lower panel). When extending the timeline to include 2024, linear regressions for both databases yield lower R2 values (0,1414 for Scopus and 0,1404 for WoS). This drop reflects the apparent decrease in publications in 2024—possibly due to incomplete data for the year, a natural tapering-off after the pandemic surge, or shifts in research focus.

The unified chart (figure 2c) consolidates the entire 2014-2024 period, pinpointing the onset of COVID-19 in early 2020. Here, the long-term linear regression for Scopus has a slope of 44,27 and an R2 of 0,8538, indicating robust long-term growth. WoS has a somewhat lower slope of 26,27 and an R2 of 0,6098, implying more variability but a clear upward trend over time.

The “COVID-19” label in figure 2c underscores a distinct inflection point, where the number of publications accelerates in both databases. This surge likely mirrors the global imperative to reevaluate and reform educational policy during the crisis, prompting a wave of publications aimed at informing and assessing policy interventions.

Potential Causes for Observed Change are: i) Policy Relevance and Funding. The sudden global impact of COVID-19 led governments and international organizations to prioritize research on educational guidelines and best practices, boosting publication rates. ii) Methodological Shifts. The pandemic catalyzed new lines of inquiry—such as digital learning, hybrid instruction, and mental health considerations—broadening the scope of “educational policy” studies. iii) Publication Lag and Data Completeness. The decline in 2024 may partially stem from publication lag and the timing of data collection, suggesting that the final 2024 numbers could increase.

Publications by Country

For the bibliometric analysis, it is important to compare the publications by country from the Scopus and WoS databases (figure 3).

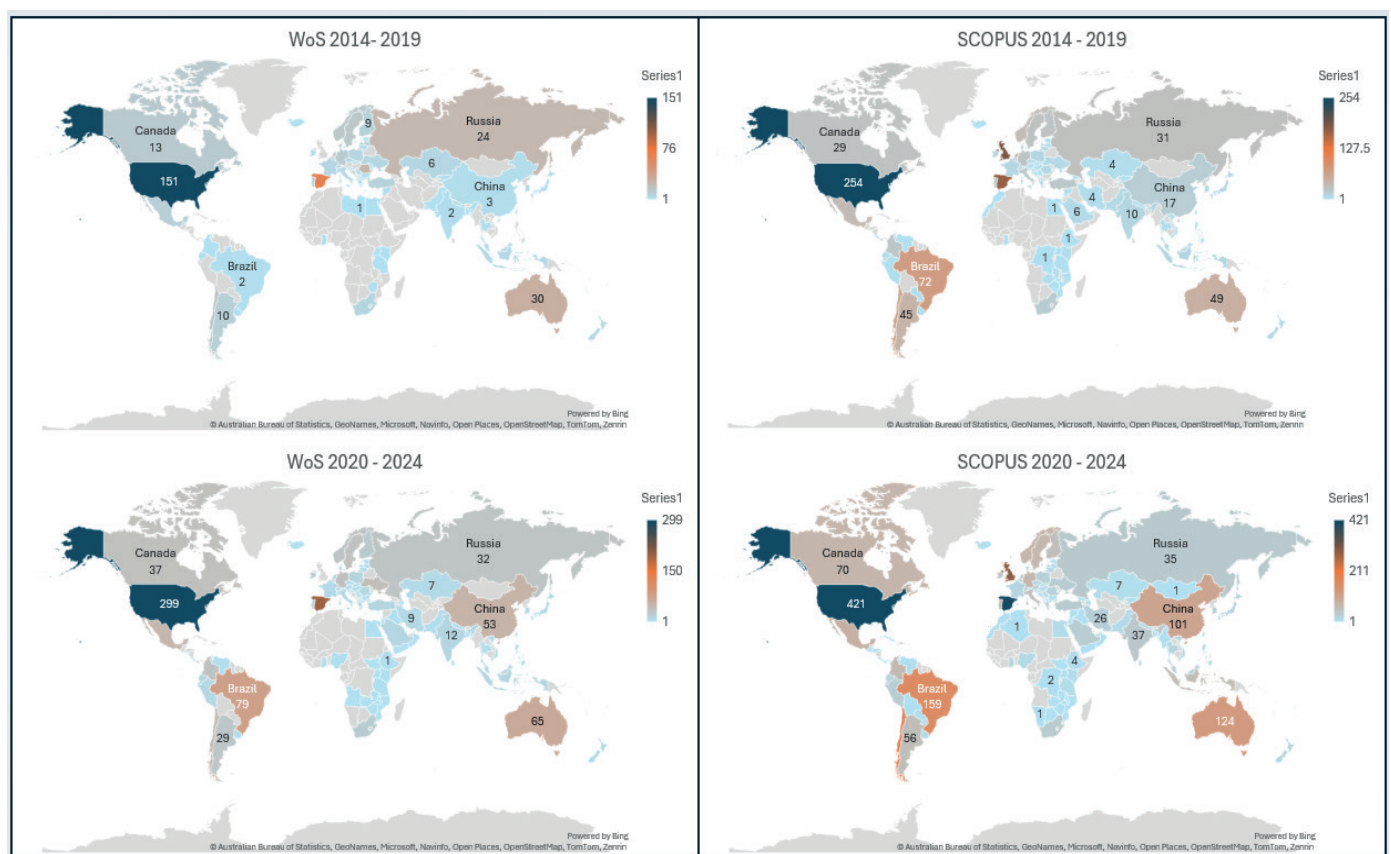


Figure 3. Publications by country from Scopus and WoS databases

A comparative look at these two time periods (2014-2019 and 2020-2024) in Scopus reveals both continuity and precise shifts in the global distribution of research on educational policy. Several key observations and possible explanations emerge.

The dominance of Western Countries, yet shifting ranks: In 2014-2019, the United States led with 254 publications, followed by the United Kingdom (186), Spain (171), and Brazil (72). By 2020-2024, the United States (421) remains at the top, but Spain (413) closes the gap dramatically, surpassing the United Kingdom (290). This

reordering may be partially explained by (i) stronger collaboration networks within and across Spanish-speaking countries, (ii) focused initiatives or funding programs in Spanish universities related to educational reforms, and/or (iii) a surge in research output responding to pandemic-driven policy needs.

Significant Growth in Latin America: Chile escalates from 62 to 180 publications, and Brazil from 72 to 159. The regional emphasis on equity and technology integration during COVID-19 could have prompted more investigations into educational policy. Additionally, many Latin American institutions undertook extensive reforms (e.g., remote-learning laws and digital inclusion measures), increasing scholarly interest and funding for policy studies.

Emerging and Accelerating Contributions from Asia: China shows a remarkable jump from 17 to 101 publications. Other Asian countries (e.g., Indonesia, South Korea, Iran) also demonstrate notable increases. This expansion likely stems from heightened government-led initiatives to modernize educational systems and the critical need to respond to pandemic disruptions, particularly in large school-age populations.

Continued Presence of Established Systems in Northern Europe: Countries such as Norway, Sweden, and Finland are consistently represented across both periods, maintaining solid research outputs. Their strong tradition of public education research, coupled with robust higher-education infrastructures, supports a steady publication flow.

Possible Reasons for Accelerated Growth Post-2020: Pandemic-Driven Policy Revisions explains the sudden transitions to remote or hybrid learning necessitated swift policy changes, leading to more publications analyzing these reforms. International consortia and funding bodies (e.g., the European Commission and philanthropic organizations) placed educational continuity high on their agendas, fueling cross-national studies and multi-institution projects.

Heightened urgency around COVID-19 often led to faster review processes and a broader push toward open-access dissemination, which amplified the visibility and indexing of research outputs.

In sum, the evolving ranking of countries demonstrates that while traditional powerhouses continue to dominate, many nations have leveraged the pandemic context to publish more actively on educational policy. Increased funding, new research agendas focusing on remote learning and equity, and stronger international collaboration networks are the primary drivers behind the marked gains in publication volume globally.

A comparative analysis of WoS (Web of Science) data between 2014-2019 and 2020-2024 shows both expected continuities and notable shifts in the global distribution of educational-policy research.

Sustained Leadership in the United States and England, between 2014-2019: The United States (151 publications) leads, followed by England (103) and Spain (67). Between 2020 and 2024, both maintain their strong positions, with the United States increasing sharply to 299 publications and England to 122, though Spain jumps even further to 195.

The United States has traditionally invested heavily in academic research infrastructure, including teacher education, curriculum development, and policy analysis, translating into a consistently high output volume. England, too, sustains a robust academic ecosystem surrounding educational reform and policy debate. Spain's sharp rise suggests ongoing or intensified funding and research programs tied to educational reforms, as well as potentially enhanced international collaboration.

The Rise of Brazil and Chile in the Post-2020 Period shows that in Pre-2020, Brazil appears more modestly in WoS (2 publications in this subset for 2014-2019 data), while Chile has 16. But between 2020 and 2024, Brazil soars to 79, and Chile to 45.

This surge may reflect (1) increased Latin American visibility in WoS journals, (2) targeted research grants and policy reforms in response to COVID-19 disruptions, and (3) a concerted effort to internationalize research output. Both countries were compelled to address deep-seated educational inequalities during the pandemic, and this urgency may have translated into a spike in policy-focused publications.

Europe's continued presence is widespread in publications. Many European countries (e.g., Germany, Sweden, Norway, Finland) consistently rank in the top ranks across both periods.

Growth is especially evident in countries like Germany (12 to 37 publications) and Norway (14 to 31), which aligns with Europe's strong public-sector support for educational research and the emphasis on cross-border educational frameworks (e.g., Bologna Process, Erasmus+ initiatives). The pandemic prompted new lines of inquiry—digitalization, remote learning, and equity—leading to higher publication counts from a range of European contexts.

Asian countries also showed an increase in publications. For example, though China reported only three publications in 2014-2019, it jumps to 53 in 2020-2024; South Korea from 4 to 7; Indonesia from 5 to 12; and India from 2 to 12.

Asian governments and academic institutions have increasingly prioritized education reform and policy studies, especially post-2020. Rapid demographic changes, digital transformation, and the need to adapt education systems to pandemic lockdowns likely contributed to heightened scholarly output.

COVID-19 sparked unprecedented interest in how education systems worldwide respond to crises—particularly

in underrepresented or emerging research regions—thereby boosting outputs from countries with previously low or zero publication counts (figure 4).

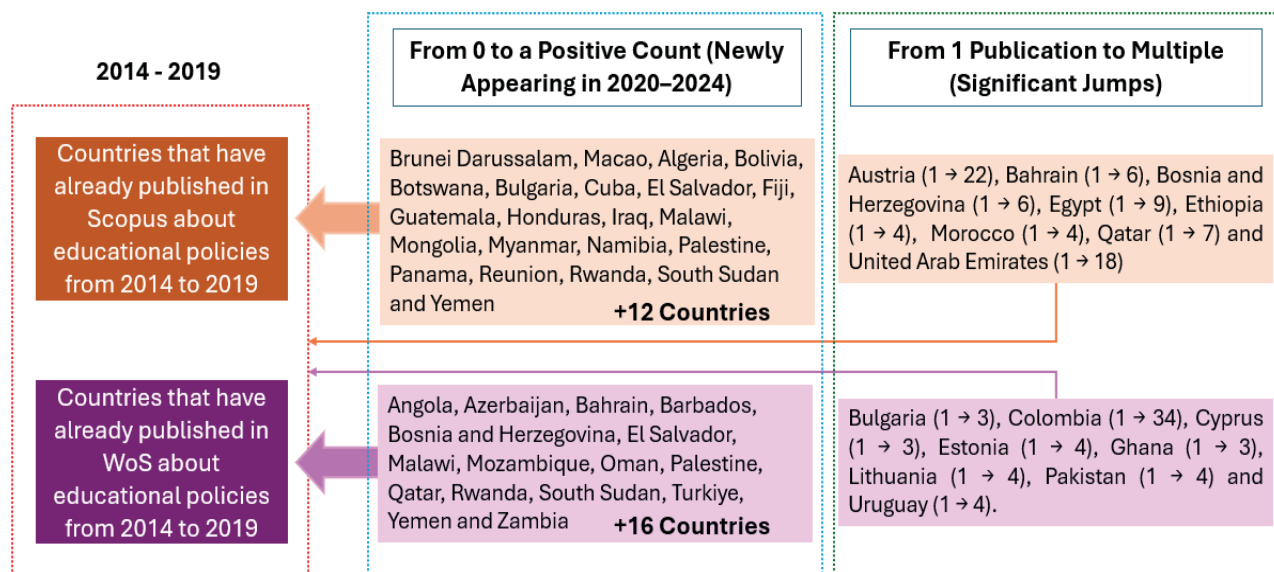


Figure 4. Boosting outputs from countries with previously low or zero publications

Co-occurrence Analysis

A close look at the VOSviewer co-occurrence map for WoS (2014-2019) (figure 5) highlights how “educational policy” sits at the center of a multidimensional research landscape, with radiating links to social, pedagogical, and governance-oriented themes. The largest node—educational policy—connects strongly to education, achievement, equity, and teachers, reflecting the breadth of research interests in policy formulation and classroom practice.

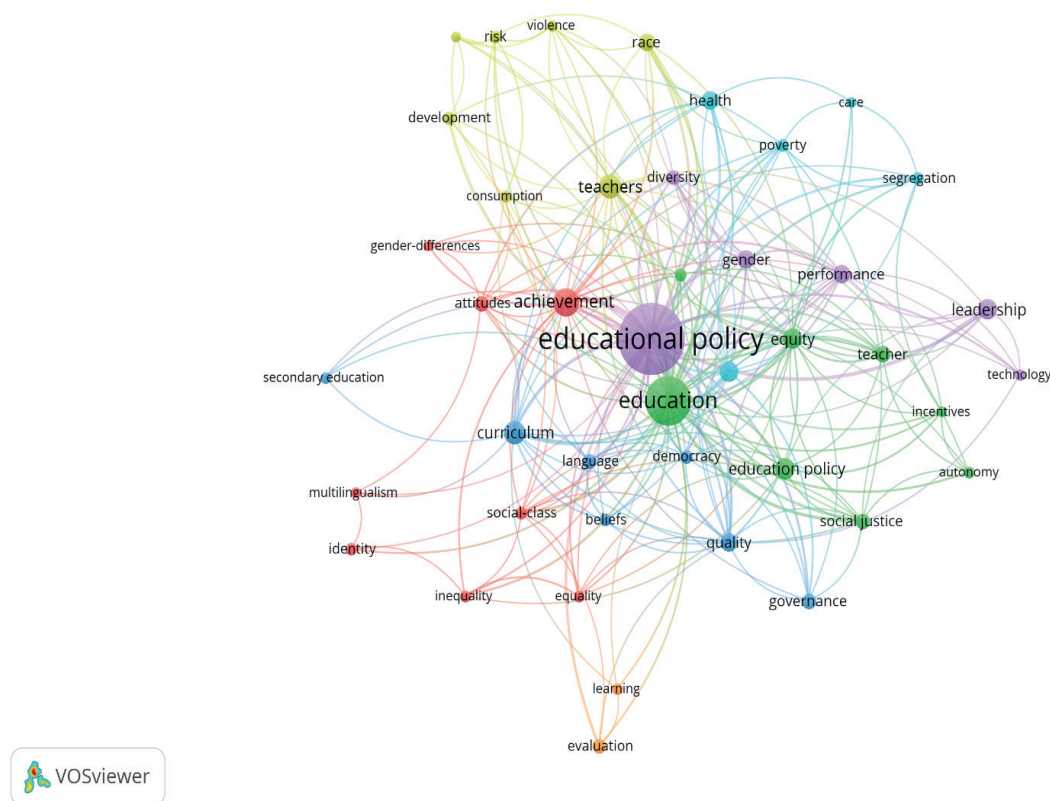


Figure 5. VOSviewer co-occurrence map for WoS (2014-2019)

From a cluster perspective, four loosely defined thematic groups emerge:

Social and Equity Concerns (Yellow/Green Cluster): Terms such as race, risk, violence, health, poverty, care, segregation, and gender differences cluster together, suggesting that many studies explore educational policy as a lever for addressing social inequalities and systemic barriers. The node “teachers” also falls within or near this cluster, pointing to how educators grapple with complex social challenges—ranging from racial equity to health disparities—in implementing policy directives.

Pedagogical Processes and Outcomes (Red Cluster): Keywords like attitudes, achievement, secondary education, inequality, identity, and multilingualism form a second strand. This group emphasizes how policy intersects with day-to-day learning environments and student experiences. For instance, the strong link between achievement and inequality underscores ongoing debates on how educational reforms affect learners' performance and whether they mitigate or exacerbate achievement gaps.

Governance, Democracy, and Curriculum (Blue Cluster): Another set of interconnected concepts—curriculum, language, beliefs, democracy, and social class—points to broader philosophical and structural issues in policymaking. Research often probes how curricular frameworks, teacher beliefs, and societal values coalesce to shape educational democratic principles. Evaluation and learning also appear near the periphery of this thematic group, reinforcing that policy often aims to drive or measure changes in classroom practices.

Policy Instruments and Leadership (Purple/Green Cluster): A final cluster centers on leadership, technology, incentives, and autonomy. Studies here frequently examine how specific policy mechanisms—such as incentive structures for teachers or the integration of technology—affect school leadership and governance. The presence of performance and teacher nodes in this cluster indicates that these policy instruments are often assessed for their influence on teacher effectiveness, motivation, and professional agency.

In the 2014-2019 Scopus co-occurrence map (figure 6), “educational policy” (along with its closely related nodes “education policy” and “educational policies”) again dominates the network, underscoring its central role in the literature. The map reveals several interlinked thematic clusters, each highlighting a different facet of policy research during this period.

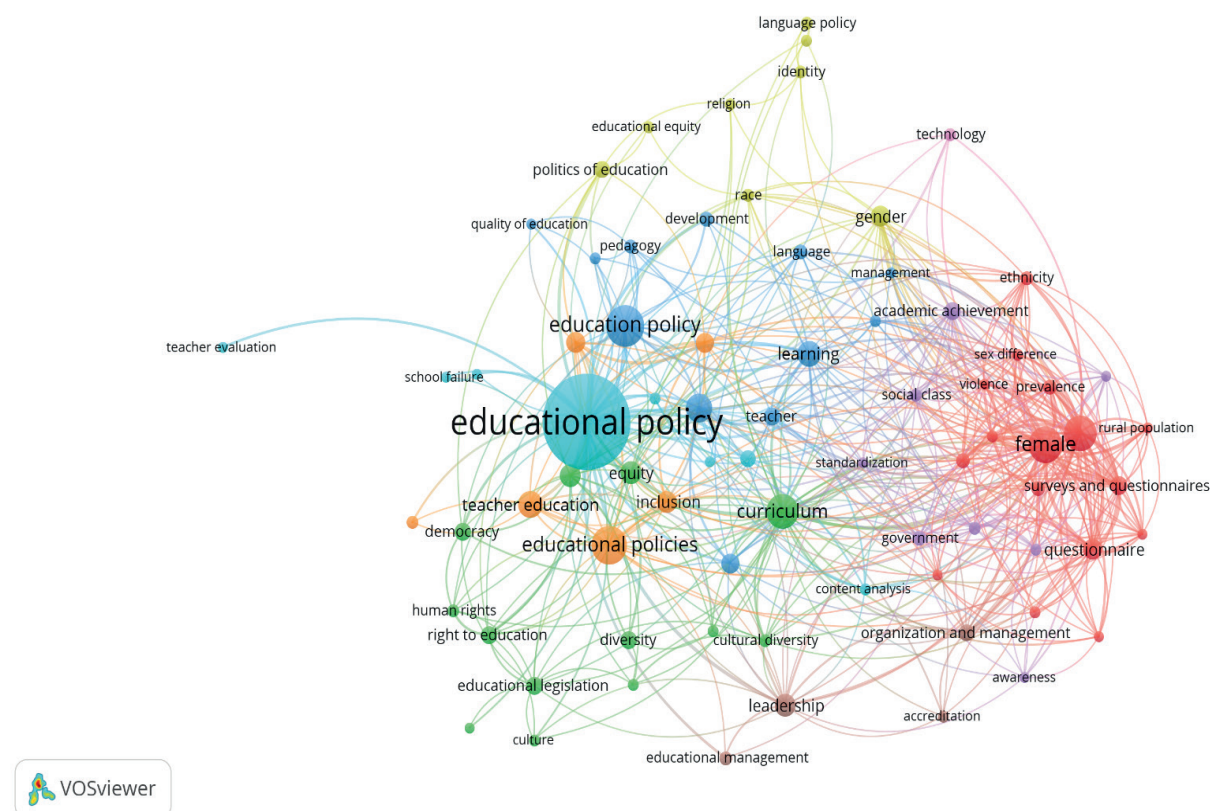


Figure 6. 2014-2019 Scopus co-occurrence map

Equity, Inclusion, and Rights Cluster: A prominent cluster features keywords such as equity, inclusion, human rights, diversity, culture, right to education, and educational legislation. Here, researchers frequently address policymaking's legal and ethical dimensions, exploring how formal regulations and principles of social justice shape access to and quality of education. The presence of democracy in this group indicates a strong normative undercurrent, suggesting that policy is often framed as a tool for safeguarding civic values and individual rights.

Curriculum, Pedagogy, and Assessment Cluster: Another set of closely linked terms—curriculum, teacher education, academic achievement, learning, teacher evaluation, standardization, and pedagogy—highlights policy studies’ pedagogical and instructional core. Here, the focus is on how various policies guide curriculum reforms, teacher preparation, and assessment methods. The link between school failure and quality of education suggests that researchers interrogate both the intended outcomes of policy and potential mismatches between policy goals and classroom realities.

Organizational and Leadership Dimensions Cluster: Nodes like leadership, organization and management, government, educational management, and accreditation form a third thematic grouping. This strand reflects the interest in how structural and managerial frameworks—within schools and at higher governance levels—affect policy enactment. Topics such as content analysis show that many scholars systematically investigate policy documents and managerial practices to understand how educational reforms are formulated and implemented.

Gender, Ethnicity, and Social Class Cluster: A distinct red cluster revolves around females, sex difference, ethnicity, rural population, violence, prevalence, and questionnaire. These keywords signal research on gender disparities, minority groups, and social inequalities, often based on surveys or empirical data collection. The strong ties to management, learning, and academic achievement suggest that scholarship examine how diverse demographic factors intersect with policy measures, influence student outcomes and broader educational experiences.

Language, Identity, and Sociocultural Factors: At the map’s periphery, terms such as language policy, identity, religion, politics of education, educational equity, and development underscore how sociocultural and political dimensions weave into policy debates. Here, investigations often center on language rights, cultural diversity, and the broader “politics” behind educational decision-making, revealing that policy research frequently crosses into anthropology, sociology, and political science domains.

Co-occurrence map of WoS articles from 2020 to 2024 (figure 7), educational policy again occupies a central position. However, several nodes and thematic clusters suggest shifts in research emphases that align with post-pandemic concerns. Notably, a few keywords point toward growing attention to digital or technology-based learning—for instance, “educational technology” appears prominently, closely linked to terms such as “curriculum,” “evaluation,” and “education system.” Although explicit references to “distance learning,” “online,” or “virtual” are not immediately visible in this view, the presence and position of “educational technology” nonetheless imply a stronger focus on technology-mediated education than seen in the pre-2020 maps.

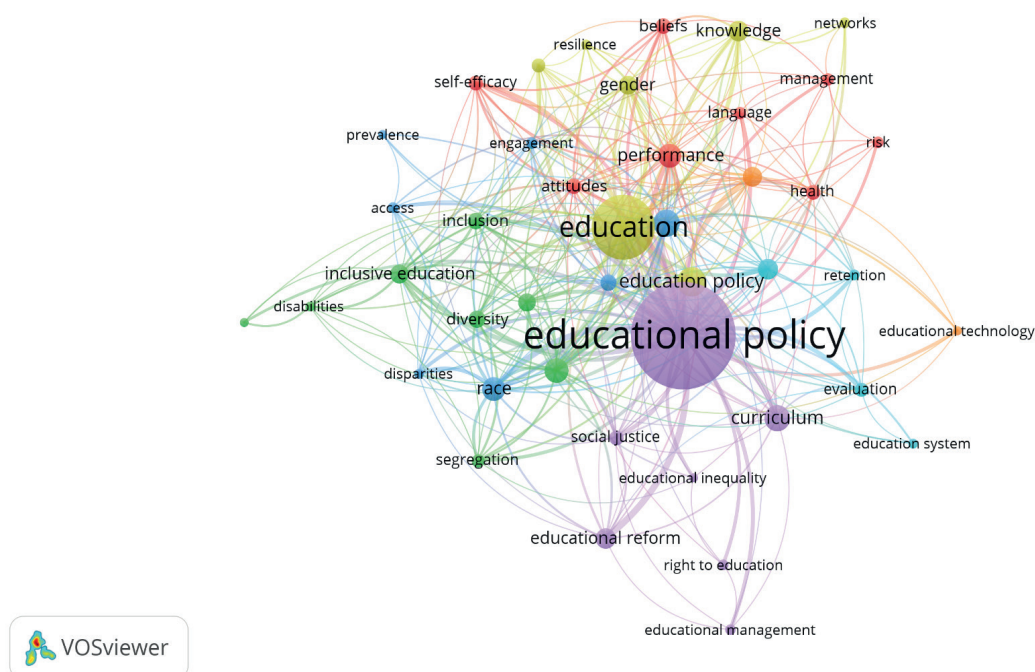


Figure 7. Co-occurrence map of WoS articles from 2020 to 2024

Beyond technology, the inclusion and equity cluster (green) are more pronounced, with nodes such as “inclusive education,” “disabilities,” “disparities,” “access,” and “diversity” forming a dense web that suggests that post-COVID-19 research increasingly addresses the digital divide and other systemic inequalities that became more urgent when schools transitioned to remote learning. Likewise, the central yellow cluster,

anchored by “education,” includes terms like “performance,” “gender,” and “resilience,” signaling a focus on learner well-being and adaptation to new modalities of instruction—possibly reflecting the challenges of remote or hybrid schooling.

Meanwhile, the purple cluster incorporates broad policy concepts— “educational reform,” “social justice,” “right to education,” and “educational management”—highlighting the continued interest in structural change and policy leadership in the face of emerging educational challenges. Finally, the red-orange region of the network features managerial and organizational terms (“management,” “networks,” “risk,” “health”), indicating heightened interest in crisis management and institutional responsiveness during and after the pandemic. These shifts suggest that while core policy themes such as equity, curriculum, and social justice remain foundational, the post-2020 agenda emphasizes technology integration and inclusive strategies to ensure continuity of learning in diverse—and often disrupted—educational environments.

In Scopus data from 2020 to 2024 (figure 8), “educational policy” remains a significant node, but the map shows that COVID-19 and technology-based learning have emerged as powerful thematic anchors.

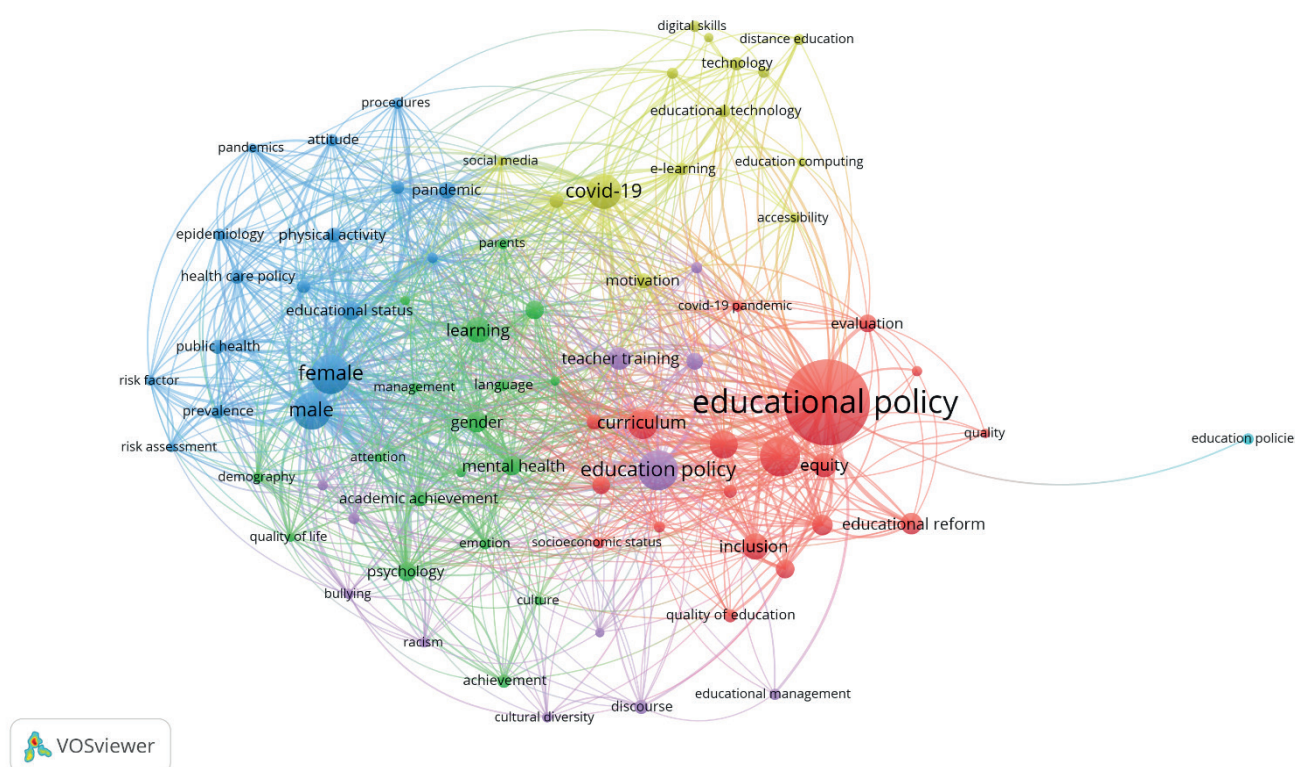


Figure 8. Co-occurrence map of Scopus articles from 2020 to 2024

Pandemic, Public Health, and Risk (Blue/Green Cluster): Keywords such as pandemic, public health, health care policy, risk factor, risk assessment, prevalence, epidemiology, and physical activity form a large, interconnected subnetwork. Their strong linkage to male, female, and demographic terms (e.g., demography, parents) indicates that researchers in education policy increasingly intersect with public health inquiries—examining how pandemics (particularly COVID-19) impact students’ well-being, learning environments, and policy decisions.

This scope underscores that policy discussions in the pandemic era are no longer confined to school governance but extend to broader socio-medical concerns, such as mental health, psychological support, and community well-being.

COVID-19, Distance Education, and Digital Skills (Yellow Cluster): A notable hallmark of the post-2020 period is the prominence of distance education, e-learning, educational technology, digital skills, technology, and education computing. These terms orbit closely around “COVID-19,” reflecting a surge in research analyzing remote or hybrid instructional models prompted by school closures. Keywords like accessibility, motivation, and teacher training appear nearby, indicating that policy research is grappling with the technical and pedagogical challenges of large-scale virtualization—how to equip teachers, support students lacking digital resources, and maintain learning continuity in the face of disruptions.

Core Educational Policy, Equity, and Reform (Red Cluster): Anchored by “educational policy” itself, this cluster includes equity, inclusion, educational reform, evaluation, curriculum, education policy, and quality.

These terms suggest sustained interest in how policies can address structural inequalities—exacerbated by the pandemic—and how reforms might redefine success metrics (e.g., from standardized exams toward more holistic assessments).

The appearance of teacher training, socioeconomic status, and cultural diversity alongside evaluation and quality of education signals a continued push to understand how policies can be equitable and evidence-driven despite the upheavals caused by COVID-19.

Socioemotional Dimensions of Learning (Purple/Green Links): Terms like mental health, psychology, racism, bullying, academic achievement, and gender highlight the intensifying focus on socioemotional well-being and identity. The pandemic spotlighted inequalities across racial, socioeconomic, and gender lines, prompting policy researchers to probe how broader social factors shape learning experiences and outcomes.

Comparative view of the four co-occurrence maps

A comparative view of the four co-occurrence maps—WoS (2014-2019), WoS (2020-2024), Scopus (2014-2019), and Scopus (2020-2024)—reveals both the enduring core of educational policy research and the ways it has evolved in response to COVID-19. Before the pandemic, equity, governance, curriculum, and teacher development were prominent themes across both databases. Researchers consistently examined how policies could promote inclusivity, address social inequalities, and drive effective instructional practices. These earlier maps also show substantial interest in assessment, leadership, and sociocultural factors but with comparatively less emphasis on technology-driven or distance-learning solutions.

The thematic scope expanded once COVID-19 entered the picture—captured in the 2020-2024 maps. In both WoS and Scopus, new clusters emerged around pandemic, public health, distance education, and technology, reflecting the urgent need to adapt educational systems to remote or hybrid learning models. Terms like “COVID-19,” “e-learning,” “distance education,” “digital skills,” and “educational technology” became central nodes, signaling a shift toward crisis-responsive policy research. At the same time, equity and inclusion remained central but are now framed considering the digital divide and socioeconomic disparities exacerbated by school closures. A noticeable upswing also occurred in socioemotional and well-being topics, such as mental health, bullying, and psychological resilience, highlighting how pandemic stressors forced policymakers to consider academic achievement and the well-being and safety of students and teachers.

Overall, the post-COVID co-occurrence maps show that while core policy concerns (e.g., equity, teacher training, curriculum reform) endured, they became increasingly intertwined with public health measures, digital infrastructure, and remote-learning strategies. The result is a field in which educational policy is no longer seen solely as a matter of institutional governance or classroom practice but as an adaptive framework that must respond rapidly to evolving crises, social inequalities, and technological innovations.

CONCLUSIONS

The findings of this bibliometric analysis underscore how educational policy research evolved between the pre-pandemic (2014-2019) and post-pandemic (2020-2024) periods. Before COVID-19, prevailing themes in Scopus and WoS included equity, curriculum reform, leadership, and teacher development. While these core topics have remained central, the pandemic catalyzed notable shifts and expansions in research focus.

First, publication output on educational policy rose significantly post-2020, with a marked increase in both established research regions (e.g., the United States, the United Kingdom, Spain), and emerging contributors (e.g., Chile, Brazil, and Indonesia). This global expansion reflects a heightened recognition of how policies could mitigate learning disruptions and social inequalities exacerbated by COVID-19.

Second, new or underrepresented countries displayed substantial growth in publications. Bibliometric data show that many nations with minimal presence before 2020 dramatically increased their output, demonstrating broader participation in the international dialogue on educational reform. This surge likely stems from targeted funding opportunities, international collaborations, and the urgent need to adapt educational systems to pandemic-driven challenges.

Third, the thematic landscape shifted toward crisis responsiveness, digital infrastructure, and the socio-emotional well-being of learners and teachers. Terms such as “distance education,” “educational technology,” “public health,” and “mental health” emerged prominently, illustrating how the pandemic pushed policymakers, institutions, and researchers to address the intersection of education, health, and equity on a much larger scale.

The co-occurrence analyses in both databases highlight how traditional concerns—such as equity, curriculum design, and teacher training—are now heavily interwoven with technology adoption, inclusive practices for vulnerable populations, and innovative instructional strategies, which underscores that post-pandemic educational policies are likely to remain multifaceted, balancing foundational reforms with digital transformations and contingency planning for future disruptions.

These results lead to a more globally interconnected and thematically broad field of educational policy

research. While the pandemic exposed longstanding inequities and systemic shortcomings, it also spurred new collaborations and a forward-thinking approach to educational governance that increasingly recognizes technology, mental health, and social justice as integral to policy design and implementation.

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