

Bibliometric Analysis of Global Research Trends in Inclusive Education

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Abstract: Inclusive education, which aims to provide equal learning opportunities for all students regardless of their abilities or disabilities, has gained considerable attention globally. This study presents a bibliometric analysis of literature on inclusive education, providing a comprehensive overview of research trends, influential publications, key authors, and collaborative networks within this domain. Using a comprehensive database search, the study analyses scholarly articles published in the Scopus database, employing bibliometric techniques such as citation analysis, co-authorship networks, and keyword co-occurrence mapping. A bibliometric analysis was conducted using data from prominent academic databases. This study utilizes bibliometric tools to examine scholarly discourse on inclusive education, identifying key themes, influential authors, and global research collaborations. Publications were analyzed based on metrics such as the number of publications, citation counts, authorship patterns, and geographical distribution. The findings reveal the evolution of research on inclusive education, highlighting significant shifts in focus areas, emerging themes, and the geographical distribution of research contributions. The analysis revealed a steady increase in publications on inclusive education over the past two decades, with a notable surge in the last five years. Influential authors and seminal works were highlighted, along with leading journals and institutions contributing to this field. The study also identified emerging trends and under-researched areas that warrant further exploration. This study used the Scopus database, specifically using biblioMagika@2.9. Therefore, the articles related to inclusive education in other databases were not included. This study is essential because it can help researchers focus their time on exploring topics that have not been thoroughly investigated.

Keywords: *Inclusive Education, Special Education, Special Needs Education*

1. Introduction

Inclusive education aims to cater to diverse learner needs by ensuring equitable access and participation regardless of individual differences (Ioannidi & Malafantis, 2022). It embodies the principles of equality, accessibility, and social justice, striving to create learning environments where every student can thrive. The shift towards inclusive education is not merely a pedagogical trend but reflects broader societal movements towards greater inclusivity and equity in all aspects of life (Ainscow, Slee & Best, 2019).

Despite the widespread endorsement of inclusive education, its implementation has been met with various challenges. The concept is multifaceted, involving not only the adaptation of physical environments but also significant changes in curriculum design, teaching practices, policy frameworks, and societal attitudes. Research in this field has thus proliferated, with scholars from various disciplines exploring the complexities of inclusive education, its impacts, and the conditions under which it can be most effectively realised. As the body of literature continues to expand, it becomes increasingly important to systematically analyse and synthesise the knowledge produced, to understand the evolution of the field, identify key contributions, and highlight emerging trends and gaps.

Bibliometrics involves the application of statistical and mathematical methods to assess the quantity and quality of publications, citations, and other relevant metrics within a particular field. Through bibliometric analysis, researchers can gain insights into the structure and dynamics of research communities, the development of key concepts, and the dissemination and impact of knowledge. By examining patterns in the literature, such as the frequency of citations, the co-authorship networks, and the distribution of research across different regions and disciplines, bibliometrics can reveal the underlying trends and trajectories that characterise a given field.

In the context of inclusive education, a bibliometric appraisal offers a comprehensive overview of the research landscape, providing valuable information on how the field has evolved, which areas have received the most attention, and which researchers, institutions, and publications have had the greatest impact. Such an appraisal not only highlights the strengths and achievements of the research community but also identifies gaps and underexplored areas that may warrant further investigation. By doing so, it can guide future research efforts, inform policy development, and support the implementation of more effective, inclusive education practices. The analysis is based on data from Scopus and employs a range of bibliometric indicators, including the number of publications, citation counts, h-index, and measures of collaboration and network centrality, to assess the influence and reach of different contributions.

The article begins by reviewing the historical development of inclusive education as a field of study, tracing its roots back to the broader movements for civil rights and educational reform. It then outlines the methodology used for the bibliometric analysis, including the criteria for selecting and processing the data, the specific indicators used, and the tools and software employed for analysis. The main findings are presented in several sections, each focusing on a different aspect of the research landscape: publication trends, citation analysis, key authors and institutions, and thematic evolution.

The discussion section interprets these findings in the context of the broader educational and social trends, considering how the research community has responded to the challenges and opportunities associated with inclusive education. It also addresses the limitations of the study, particularly in terms of the coverage of the data sources and the inherent biases of bibliometric methods. Finally, the article concludes with a reflection on the implications of the findings for future research and practice in inclusive education. This bibliometric appraisal aims to serve as a resource for scholars, educators, policymakers, and advocates who are engaged in the field of inclusive education. By providing a detailed and systematic analysis of the literature, it seeks to contribute to a more nuanced and comprehensive understanding of the state of research in this area and to support the ongoing efforts to create more inclusive, equitable, and effective educational systems worldwide.

2. Methodology

Data Collection

The first step in the bibliometric analysis involved selecting appropriate databases to ensure comprehensive coverage of the literature on inclusive education. An academic database chosen for this study is Scopus. This database was selected because it indexes a wide range of peer-reviewed journals, conference proceedings, and other scholarly materials across multiple disciplines relevant to inclusive education, such as education, sociology, psychology, and policy studies.

Subsequently, a systematic search strategy was developed to identify relevant publications within the selected database. The search was conducted using a combination of keywords and phrases related to inclusive education. The primary keywords included "inclusive education," "special education," and "special needs education." Boolean operators (AND, OR) were used to refine the search and ensure that all relevant articles were captured. The search was limited to publications in English to maintain consistency in data analysis.

Then, the bibliometric data were extracted from each publication, such as bibliographic information. The information includes title, authors, publication year, journal name, volume, and issue. Next, the citation data, such as the number of citations received, h-index, and citation patterns. The authorship data such as author affiliations, the number of co-authors, and collaboration networks. The data were extracted and stored in a structured format, suitable for subsequent analysis.

Data Analysis

The analysis employed several bibliometric indicators to assess the structure and impact of the literature on inclusive education, such as publication output, citation analysis, authorship and collaboration, keyword analysis, and geographical distribution. The publication output is the number of publications per year, was analysed to identify trends in research activity over time. Meanwhile, the citation analysis counts were used to assess the impact and influence of individual publications and authors within the field. The h-index was calculated to measure the productivity and citation impact of authors and journals. Next, the authorship and

collaboration are to identify the co-authorship networks to understand patterns of collaboration among researchers, identify prolific authors, and map institutional affiliations. Lastly, the geographical distribution was analysed by examining the country of origin of publications and authors, highlighting regions with high levels of research activity and identifying potential gaps in global research coverage.

3. Results

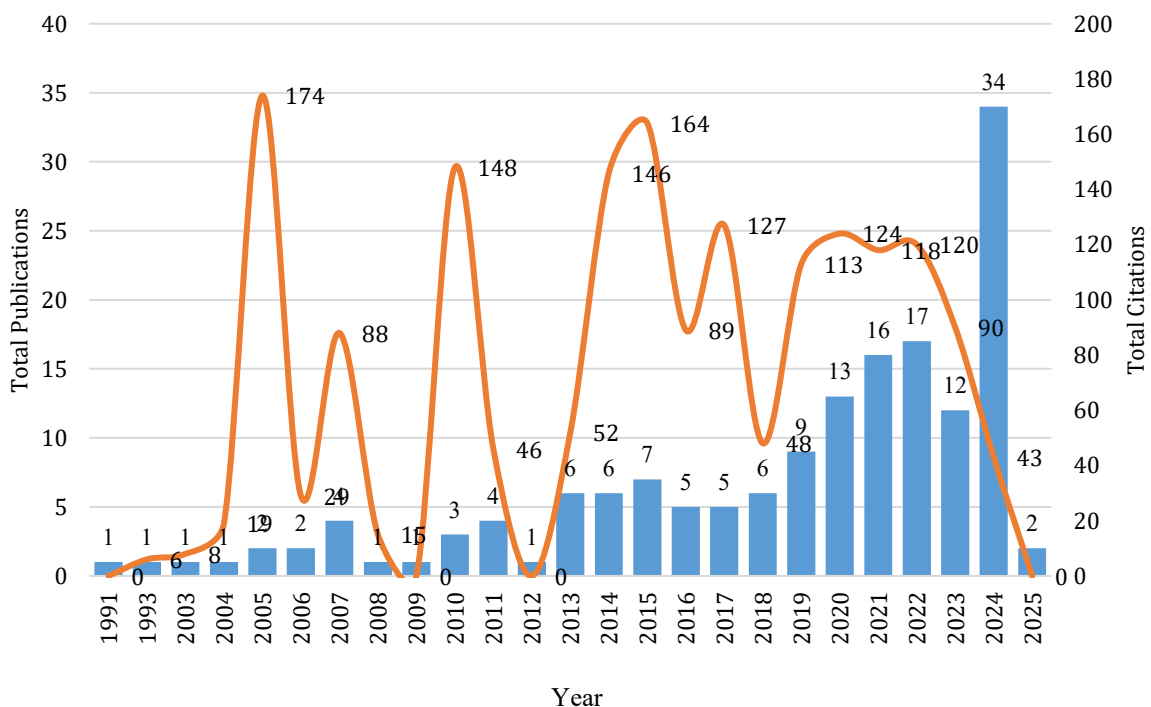
This study aims to evaluate and analyse the patterns of inclusive education publications, providing both visual and statistical analysis. The analysis was conducted based on the Scopus database, using biblioMagika®2.9.

Publication by Year Analysis

The search results query string key of "inclusive education," "special education," and "special needs education" yielded 157 results in the Scopus database. This study reviewed 157 publications from 1991 to 2025. Figure 1 highlights both the annual number of publications and the normalised citation impact. The number of publications remained relatively low and stable between 1996 and 2010, indicating that inclusive education was still an emerging research area during that period. A gradual acceleration in research output was evident from 2011 onwards, with a peak observed in 2022, likely driven by heightened policy emphasis and global awareness. This growth reflects a heightened global interest in inclusive education, driven by evolving educational policies, international frameworks, and increased advocacy for equity in education (Ainscow, 2020; UNESCO, 2015).

However, a slight decline in publication numbers is noticeable in 2023. This may be due to delayed indexing or incomplete data for the most recent year, and future trends may either continue to grow as the topic gains further momentum or plateau if the field reaches a saturation point. In terms of citation impact, earlier publications (e.g., from 1997, 2001, and 2004) demonstrated higher normalised citations, indicating the foundational nature of these studies. While the citation trend fluctuated over the years, it began to stabilise post-2016, suggesting a maturing field with more consistent scholarly contributions. The recent dip in citation impact in 2022 and 2023 is expected, as newer publications typically require more time to accumulate citations. Overall, the data reflect both the dynamic evolution of inclusive education research and the enduring influence of early scholarly work.

Figure 1: Publication by Year



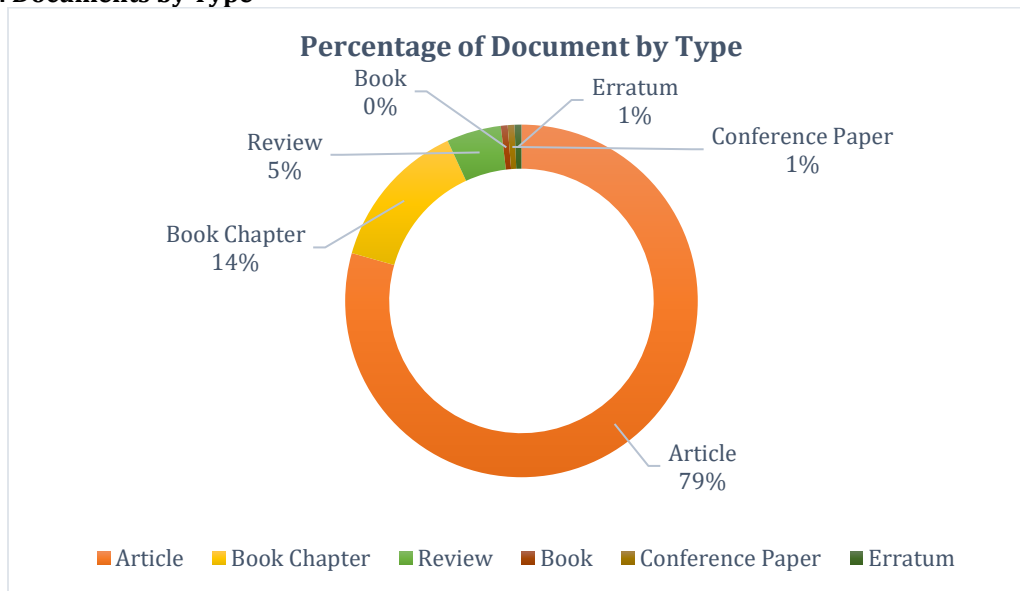
Document Type Analysis

The document was gathered from the Scopus database based on the document type, subject area, and source title. The document type can be either a journal article, a chapter in a book, a review, a conference paper, an editorial, or a book. Figure 2 presents the chart of the document type analyses from this study.

The analysis of document types in inclusive education research reveals that journal articles dominate the scholarly output, accounting for 79% of the total publications. This indicates that peer-reviewed journals are the primary platform for disseminating research findings in this field, reflecting both the academic rigor and accessibility associated with this format. Book chapters make up 14% of the documents, suggesting that inclusive education is also frequently explored within edited volumes, which often provide in-depth discussions or context-specific analyses. Review articles represent 5% of the total, highlighting a relatively smaller yet important body of work focused on synthesising existing knowledge and identifying research gaps.

Other document types, such as conference papers and errata, each account for 1%, with conference papers typically reflecting early-stage or emerging research, and errata indicating corrections to previously published work. Notably, books constitute 0% of the document types in this dataset, suggesting that full-length monographs are either underrepresented or less frequently indexed. Overall, the dominance of journal articles highlights the preference for peer-reviewed validation in the field, while the limited presence of books may indicate underexplored long-form research.

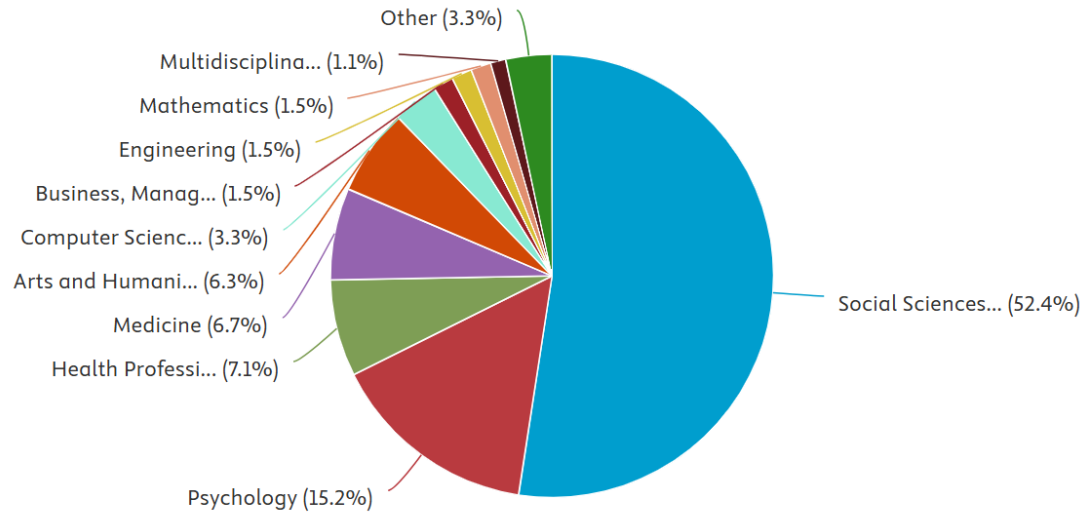
Figure 2: Documents by Type



Document by Subject Area Analysis

On the other hand, there are various document types by subject area where published articles on inclusive education. Referring to Figure 3, based on the subject area, this analysis provides insight into the disciplinary landscape of global scholarly contributions to the field.

Figure 3: Document by Subject Area



The dominant subject area is Social Sciences (52.4%), clearly reflecting the educational, sociological, and policy-oriented nature of inclusive education. Inclusive education is fundamentally a social endeavor that involves transforming educational systems, teaching practices, and institutional cultures to accommodate diverse learners. Therefore, it is not surprising that over half of the publications originate from this domain, focusing on equity in education, inclusive pedagogies, and educational reforms (Ainscow, 2020; Forlin & Sin, 2010; Symeonidou & Phtiaka, 2014).

The second most represented category is Psychology (15.2%), emphasizing the importance of understanding individual differences, including cognitive, emotional, and behavioral aspects that influence learning. Research in this area often addresses psychological assessments, interventions, and the socio-emotional development of students with special needs as crucial components for implementing effective inclusive practices. Next, Health Professions (7.1%) and Medicine (6.7%) collectively highlight the interdisciplinary involvement of health-related fields in inclusive education. These publications likely address the roles of allied health professionals (such as speech-language therapists, occupational therapists, and school nurses) in supporting inclusive practices, as well as medical conditions that influence learning and participation in educational settings.

Arts and Humanities (6.3%) contribute a critical lens by exploring the ethical, philosophical, and cultural dimensions of inclusion. Topics such as the rights of individuals with disabilities, the historical evolution of inclusive practices, and the portrayal of disability in literature and media fall within this category. Computer Science (3.3%) signals the growing role of digital innovation in inclusive education. Research in this area often centers on assistive technologies, e-learning platforms, accessibility in digital content, and the use of artificial intelligence in supporting diverse learners. Next, Business, Management and Accounting (1.5%) reflects a relatively small but emerging interest in inclusive practices beyond the classroom, particularly in organizational settings like inclusive leadership, diversity training, and workplace accommodation, which may have indirect implications for education systems, especially higher education.

Subsequently, Engineering (1.5%) and Mathematics (1.5%) are less represented but remain relevant. Engineering contributions often involve the development of assistive devices and smart classroom tools that aid learners with disabilities. Mathematical research may support inclusive education through data modeling, statistical analysis of inclusive practices, or algorithmic approaches to personalized learning. Multidisciplinary studies (1.1%) and the Other category (3.3%) indicate a variety of cross-cutting or integrative research that combines perspectives from multiple fields. This aligns well with the inherently interdisciplinary nature of inclusive education, which draws from pedagogy, psychology, health, and technology to create inclusive environments.

The subject area analysis highlights that inclusive education is a deeply interdisciplinary field, with its scholarly foundation rooted in social sciences and psychology, yet increasingly enriched by contributions from health, technology, and the humanities. The dominance of social sciences reflects the global emphasis on inclusive policies, teaching strategies, and systemic transformation, while the presence of other domains illustrates the multifaceted support systems needed to ensure that inclusive education is not only theoretically sound but also practically effective.

Source Title Analysis

The studies of inclusive education were also published in numerous journals, proceedings, and books. Table 1 below presents the top 10 source titles for publications on inclusive education, highlighting the academic journals that contribute the most to this research area. Among the listed sources, the European Journal of Special Needs Education leads with 9 publications (5.73%), indicating its strong role in disseminating research related to inclusive and special needs education. It is followed by the International Journal of Inclusive Education, which has 7 publications (4.46%), reflecting its dedicated focus on inclusive education policies, practices, and challenges.

Table 1: Top Source Title

European Journal of Special Needs Education	9
Journal of Research in Special Educational Needs	7
International Journal of Inclusive Education	7
International Journal of Special Education	5
International Journal of Disability, Development and...	4
Frontiers in Education	4
Alter	4
Cypriot Journal of Educational Sciences	3
SAGE Open	2
British Journal of Special Education	2
Dialogues between Northern and Eastern Europe on the...	2
Education in the Asia-Pacific Region	2
International Journal of Instruction	2
Children and Youth Services Review	2
Korean Journal of Physical, Multiple and Health...	2
Psychology, Society and Education	2
Childhood Education	2
International Perspectives on Education and Society	1
Review of Education	1
Heliyon	1

Other key journals include the Journal of Research in Special Educational Needs (6 publications, 3.82%) and the International Journal of Special Education (5 publications, 3.18%), both of which contribute significantly to the discourse on special and inclusive education. Additionally, Alter and the International Journal of Disability Development and Education each account for 4 publications (2.55%), suggesting their relevance in disability studies and educational development.

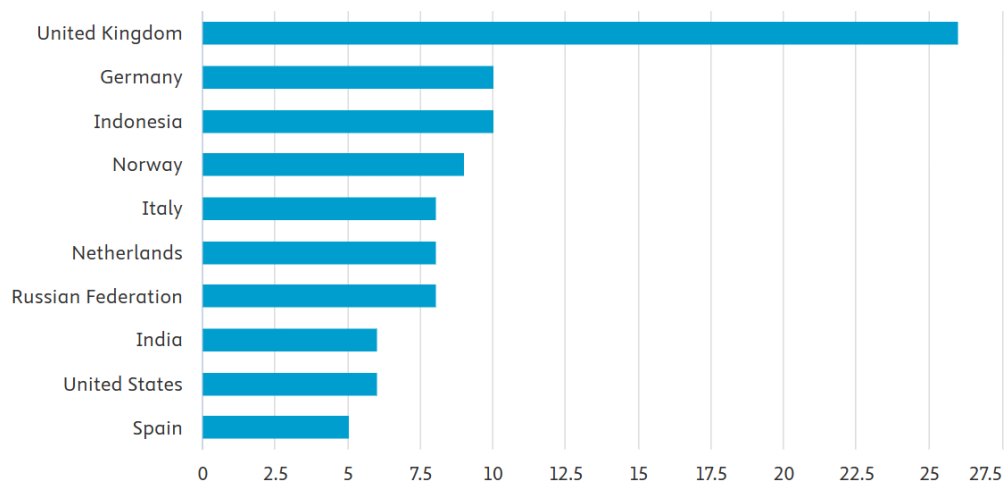
Smaller contributions come from the Cypriot Journal of Educational Sciences and Frontiers in Education, each with 3 publications (1.91%), while the British Journal of Special Education and Childhood Education each have 2 publications (1.27%). These findings suggest that research on inclusive education is primarily concentrated in specialised journals focusing on special needs education, disability studies, and broader educational sciences. The distribution of publications across these journals highlights the multidisciplinary nature of inclusive education, encompassing pedagogical, psychological, and policy-driven perspectives.

Geographical Distribution of Publication Analysis

In total, 59 countries are contributing to the articles on inclusive education, where the top 10 publishing countries are displayed in Figure 4. The analysis of publications on inclusive education based on geographical distribution reveals that the United Kingdom has the highest number of published articles, significantly surpassing other countries. This dominance is likely attributed to the UK's long-standing commitment to inclusive education policies, such as the Equality Act 2010 and the Special Educational Needs and Disability (SEND) Code of Practice. The UK also benefits from a robust academic infrastructure, strong funding support, and active discourse around equity in education, making it a global leader in the field (Ainscow, 2020; Lauchlan & Greig, 2015).

Next, Germany's strong position reflects its emphasis on educational reform, inclusion in mainstream schools, and ongoing research in pedagogy and special education. The country's federal education system has actively promoted the integration of students with disabilities, supported by scholarly work from institutions and regional (Kultusministerkonferenz, 2022). Meanwhile, Indonesia's growing contribution is noteworthy, especially as a developing country. It indicates increasing regional focus and government efforts to promote inclusive education as part of the Education for All (EFA) agenda and UN Sustainable Development Goals (SDG 4). The country's diversity and decentralised education system offer rich research contexts for inclusive practices (ADB, 2020; Rahmawati & Amka, 2022; Sunardi et al., 2011).

Figure 4: Geographical Distribution of Publication Analysis



Next, Norway's high output aligns with its progressive social policies and inclusive values. Its education system is well-regarded for promoting equity, accessibility, and support services for students with diverse needs. The presence of specialised research institutions and government-backed inclusion initiatives further explains its strong representation. Meanwhile, both Italy and the Netherlands are part of the European Union's inclusive education strategies and actively participate in cross-national projects on special needs education and inclusion. Their contributions reflect the academic interest in developing inclusive pedagogies and evaluating educational outcomes in mainstream schools.

Russia's inclusion in the top contributors reflects its ongoing transformation in education systems post-Soviet Union, including initiatives to support learners with disabilities and integrate inclusive principles in teacher training and curriculum development. Moreover, India's increasing publication count highlights the growing awareness and policy development around inclusive education, especially following the Right to Education Act and the National Education Policy (NEP 2020). Given its vast population and educational disparities, inclusive education is a critical area of academic inquiry.

Although the United States has a long history of special education law (e.g., IDEA) and inclusive practices, its relatively lower position may reflect a possible categorisation bias in Scopus indexing or a greater focus on

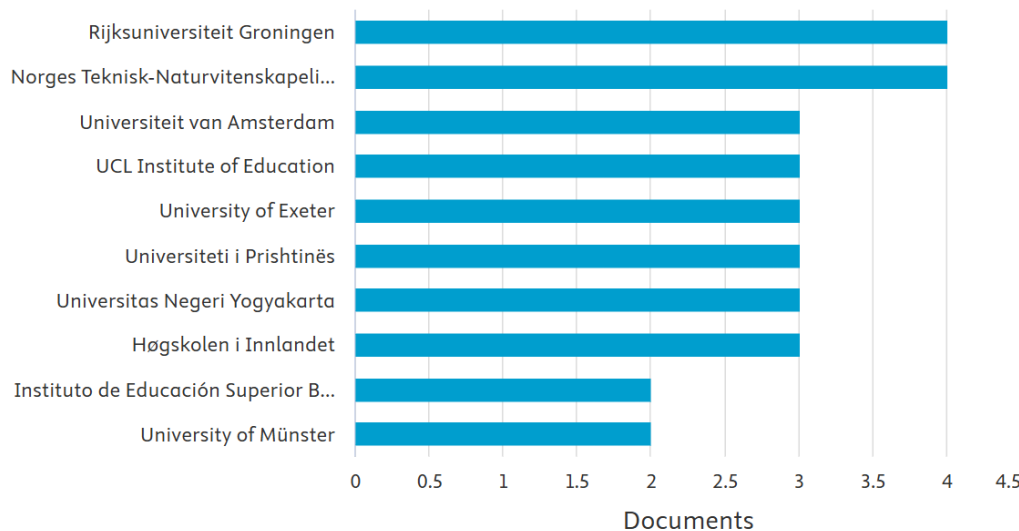
disability-related research being classified under psychology, health, or social work rather than explicitly under "inclusive education." Spain rounds out the top 10, with its research likely influenced by strong regional educational initiatives, European policy frameworks, and efforts to support linguistic and cultural diversity within inclusive education.

Overall, the geographical distribution of publications reveals a predominantly European focus, with the UK at the forefront, reflecting a regional concentration of inclusive education research. However, the presence of countries like Indonesia and India signals a positive trend of increasing engagement from the Global South. The global nature of this research field demonstrates the universal importance of inclusive education, though local contexts, policies, and resources significantly shape research output.

Active Institution Analysis

Figure 5 shows the top affiliation of the author, whereby the bar chart presents the number of documents published on inclusive education by different academic institutions. The institution with the highest publication count includes Rijksuniversiteit Groningen and Norges Teknisk-Naturvitenskapelige Universitet, both exceeding four documents. Other universities, such as Universiteit van Amsterdam, UCL Institute of Education, University of Exeter, Universiteti i Prishtinës, Universitas Negeri Yogyakarta, and Høgskolen i Innlandet, show consistent contributions, each having around three published documents. Meanwhile, the Instituto de Educación Superior and the University of Münster exhibit a lower publication count, indicating relatively lower engagement in this research area.

Figure 5: Active Institution Analysis



The high number of publications from universities in the Netherlands, the UK, and Scandinavia suggests that these regions have a strong academic focus on inclusive education. These countries are known for progressive educational policies and a commitment to equity in learning, which could justify their substantial research output. The involvement of institutions from Kosovo (Universiteti i Prishtinës) and Indonesia (Universitas Negeri Yogyakarta) signifies a growing interest in inclusive education in developing regions. Overall, the data highlights a global interest in inclusive education, with a concentration of research in Europe and select institutions from other regions. This distribution suggests that while inclusive education is gaining traction worldwide, certain regions lead in academic contributions, potentially due to policy priorities, funding availability, and institutional focus on educational equity.

4. Conclusion

This study presents a comprehensive bibliometric analysis of global research trends in inclusive education, using data extracted from the Scopus database. The analysis spans from 1991 to 2025 and includes 157

publications identified through keywords such as “inclusive education,” “special education,” and “special needs education.” The objective is to understand the evolution, distribution, and key contributors to the field. The results show a steady increase in publication output, particularly after 2011, with a notable peak in 2022. The document type analysis reveals that journal articles (79%) are the primary medium for disseminating research in this area. In terms of subject areas, most publications are in Social Sciences (52.4%), followed by Psychology, Health Professions, and Medicine, reflecting the multidisciplinary nature of the field. Geographically, the United Kingdom leads global contributions, followed by countries such as Germany, Indonesia, Norway, and India, indicating both developed and developing nations’ growing interest in inclusive education. Institutional analysis shows that European universities, particularly from the Netherlands, the UK, and Scandinavia, are prominent contributors.

The paper also identifies the most active source titles and highlights important themes and keywords, such as special needs education and equity in education. The study utilises tools such as biblioMagika®2.9 to generate visualisations and metrics, including co-authorship networks and citation patterns. This bibliometric review offers valuable insights for researchers, educators, and policymakers by identifying key trends, influential publications, and under-researched areas. It underscores the need for continued collaboration and research to further enhance inclusive practices and educational equity worldwide.

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