

A Global Bibliometric Analysis of Interprofessional Collaboration and Consultation in Special Education: Trends, Networks, and Emerging Research Themes (2020-2025)

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Abstract

Interprofessional collaboration and consultation have become increasingly important in special and inclusive education due to the growing complexity of supporting students with disabilities. Despite expanding scholarship in this area, the literature remains fragmented across disciplines, methods, and geographical contexts, limiting a comprehensive understanding of its development. This study conducts a global bibliometric analysis of research on interprofessional collaboration and consultation in special education published between 2020 and 2025. A total of 903 Scopus-indexed journal articles and review papers were analysed using VOSviewer to examine publication trends, influential countries, international collaboration networks, and emerging research themes. The findings indicate sustained growth in publication output, particularly after 2022, with output rising from 96 documents in 2020 to 301 in 2025, reflecting a cumulative growth of 213.5%. Research contributions are concentrated in high-income countries, although participation from underrepresented regions particularly in Asia and the Middle East has gradually increased. Thematic analysis identifies five keyword clusters anchored in inclusive education, disability support, digital collaboration, professional capacity building, and research methodology. This study clarifies the intellectual landscape of the field and offers insights for future research, policy development, and practice in special and inclusive education.

Keywords: Interprofessional Collaboration, Consultation, Special Education, Inclusive Education, Bibliometric Analysis

Introduction

The increasing complexity of special and inclusive education has intensified the need for interprofessional collaboration and consultation among educators and allied professionals. Contemporary educational systems increasingly acknowledge that teachers cannot work in isolation when responding to the diverse cognitive, behavioural, and socio-emotional needs of students with disabilities. Instead, effective educational support requires coordinated efforts among multidisciplinary teams, including psychologists, speech and language

therapists, occupational therapists, and special education specialists. This shift reflects a broader movement toward integrated, student-centred, and collaborative support systems in education (Friend & Cook, 2017; King et al., 2021).

Interprofessional collaboration and consultation have been widely recognised as critical mechanisms for improving educational outcomes and strengthening instructional quality in special education. Collaborative practices enable professionals to share expertise, co-design interventions, and align instructional strategies to better support diverse learners. Consultation models, in particular, play a pivotal role in empowering teachers by facilitating knowledge exchange and enhancing their capacity to implement evidence-based practices within inclusive classrooms (Dettmer et al., 2013; Murawski & Bernhardt, 2016). However, despite their recognised importance, the implementation of collaboration and consultation remains uneven across contexts and is often constrained by insufficient professional training, unclear role boundaries, and systemic organisational barriers (Prenger et al., 2019; Thistlethwaite et al., 2020).

In recent years, scholarly interest in collaboration and consultation within special education has expanded considerably, driven by global commitments to inclusive education and equitable learning opportunities. The post-pandemic educational landscape has further accelerated the adoption of collaborative and digitally mediated practices, underscoring the need for flexible and technology-supported interprofessional engagement (UNESCO, 2020). As a result, research in this area has become increasingly interdisciplinary, drawing on perspectives from education, psychology, health sciences, and organisational studies.

From a broader social science perspective, interprofessional collaboration and consultation in special education are closely linked to issues of equity, inclusion, institutional coordination, and the distribution of professional expertise within educational systems. Effective collaboration does not only improve classroom practice, but also reflects how schools and support services respond to social diversity, unequal access to specialised resources, and the need for coordinated intervention across professional boundaries. In this sense, the topic is situated not merely within special education practice, but also within wider social science concerns related to inclusion, organisational capacity, and equitable educational support.

Despite this growth, the literature remains fragmented across disciplines, methodologies, and geographical contexts, limiting a systematic understanding of the field's intellectual structure, collaboration networks, and thematic development (Donthu et al., 2021; van Eck & Waltman, 2014). Recent studies have highlighted the increasing importance of collaboration, inclusive practice, and digitally mediated support in education, yet there remains limited bibliometric evidence that systematically maps how research on interprofessional collaboration and consultation in special education has evolved over time, how international collaboration is structured, and which thematic priorities are emerging within the field. This gap is significant because, without such synthesis, it is difficult to clarify global knowledge patterns, identify regional disparities, and determine future directions for research, policy, and interdisciplinary practice.

The novelty of this study lies in its provision of a global bibliometric synthesis of interprofessional collaboration and consultation research in special education between 2020

and 2025. By mapping publication growth, country-level collaboration networks, and keyword-based thematic clusters, this study contributes to the field of social sciences by clarifying patterns of knowledge production, highlighting regional disparities, and identifying emerging directions in educational collaboration research. In doing so, the study offers evidence that is relevant not only to special education scholarship, but also to wider social science discussions concerning inclusion, professional coordination, institutional capacity, and equitable access to educational support.

To address this gap, the present study conducts a global bibliometric analysis of research published between 2020 and 2025 on interprofessional collaboration and consultation in special education. By analysing 903 Scopus-indexed publications, this study aims to provide a macroscopic overview of publication trends, collaboration networks, and thematic developments in the field. Specifically, the study addresses three research questions (Table 1): (RQ1) What are the publication trends and growth patterns of research on interprofessional collaboration and consultation in special education from 2020 to 2025? (RQ2) Which countries are the most influential, and how are international collaboration networks structured in this field? (RQ3) What are the dominant and emerging research themes based on keyword co-occurrence analysis?

Table 1

Research Questions Addressed in This Study

RQ	Research Question
RQ 1	What are the publication trends and growth patterns of research on interprofessional collaboration and consultation in special education from 2020 to 2025?
RQ 2	Which countries are the most influential, and how are international collaboration networks structured in this field?
RQ 3	What are the dominant and emerging research themes based on keyword co-occurrence analysis?

Methodology

This study employed a bibliometric analysis approach to systematically examine the development of research on interprofessional collaboration and consultation in special education. Bibliometric analysis is widely recognised as a robust quantitative method for analysing large bodies of scholarly literature and for mapping the intellectual structure, collaboration patterns, and thematic evolution of research domains (Donthu et al., 2021; van Eck & Waltman, 2010).

Data Source and Search Strategy

Data were retrieved from the Scopus database, which is recognised for its extensive coverage of high-quality peer-reviewed journals across education, social sciences, and interdisciplinary fields (Baas et al., 2020). A structured search strategy was developed using Boolean operators applied to the TITLE-ABS-KEY fields. The search was limited to journal articles and review papers published in English between 2020 and 2025. The finalised search string is presented in Table 2.

Table 2

Scopus Search String Used for Data Retrieval

Scopus Search String
<i>TITLE-ABS-KEY ((collaboration OR consultation OR teamwork OR partnership) AND ("special education" OR "inclusive education" OR disability OR "special needs") AND (teacher* OR educator* OR specialist*)) PUBYEAR > 2019 AND PUBYEAR < 2026 AND (LIMIT-TO (SUBJAREA , "SOC")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "re")) AND (LIMIT-TO (SRCTYPE , "j"))</i>

Dataset Overview

Following the application of the search string, a total of 1,087 records were initially retrieved. After systematic screening for duplicates, irrelevant publications, and studies that did not meet the inclusion criteria, a final dataset of 903 documents was retained for bibliometric analysis. These comprised peer-reviewed journal articles (n = 841, 93.1%) and review papers (n = 62, 6.9%), spanning 2020 to 2025.

Inclusion and Exclusion Criteria

Studies were included if they: (i) focused on collaboration or consultation within special or inclusive education contexts, (ii) involved professionals such as teachers, educators, or multidisciplinary specialists, and (iii) were published in peer-reviewed journals. Studies were excluded if they: (i) focused solely on clinical or medical collaboration without a clear educational context, (ii) did not address special or inclusive education, or (iii) were conference papers, book chapters, or non-English publications.

Bibliometric Analysis Techniques

The bibliometric analyses were conducted using VOSviewer (van Eck & Waltman, 2010). Three analytical procedures were employed: (1) descriptive analysis of annual publication output (RQ1); (2) country-level co-authorship analysis to examine international collaboration networks (RQ2); and (3) keyword co-occurrence analysis to identify dominant and emerging research themes (RQ3). A keyword cleaning procedure was applied prior to co-occurrence analysis to remove generic indexing terms and merge synonymous concepts.

Ethical Considerations

This study utilised secondary data obtained exclusively from published and publicly accessible sources. It did not involve human participants, personal data, or identifiable information. Therefore, formal ethical approval was not required. All data were analysed and reported in accordance with established ethical standards for academic research, including transparency, accuracy, and appropriate acknowledgment of original sources (Resnik, 2020).

Results and Discussion*Publication Trends and Growth Patterns (RQ1)*

The annual publication output indicates a marked expansion in research on interprofessional collaboration and consultation in special education over the review period. As illustrated in Figure 1, and detailed quantitatively in Table 3, publication volume remained relatively stable between 2020 and 2022, averaging approximately 98 documents per year. Output then increased substantially from 2023 onwards, with a particularly pronounced surge in 2025,

when 301 documents were recorded representing the highest annual output in the dataset and a cumulative growth rate of 213.5% over the five-year period.

Table 3

Annual Publication Output and Growth Patterns (2020–2025)

Year	Publications (n)	Cumulative Total	Year-on-Year Change (%)	Trend
2020	96	96	-	Baseline
2021	98	194	+2.1%	Stable
2022	99	293	+1.0%	Stable
2023	147	440	+48.5%	Growth ↑
2024	162	602	+10.2%	Growth ↑
2025	301	903	+85.8%	Rapid ↑↑
Total	903	-	+213.5% (2020-2025)	Expanding

Note. Year-on-year change (%) calculated relative to the preceding year. Data for 2025 reflects complete indexing as of the search date.

The acceleration observed after 2022 may be interpreted in relation to wider post-pandemic educational changes, which intensified the demand for coordinated, flexible, and inclusive support systems for students with disabilities (UNESCO, 2020). The sharp increase in 2025 likely reflects both increased global awareness of inclusive education imperatives and the delayed publication of studies initiated during the pandemic period. These patterns are consistent with broader trends of growing interdisciplinary interest in educational collaboration, as documented in recent reviews of the field (Friend & Cook, 2017; King et al., 2021).

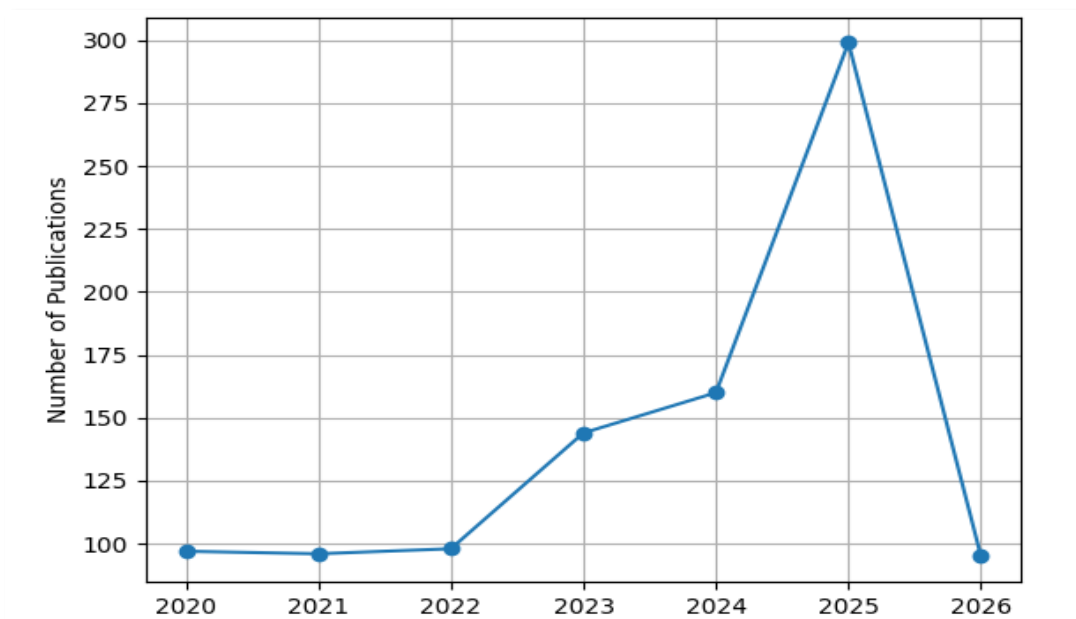


Figure 1. Annual document production trends in interprofessional collaboration and consultation in special education (2020-2025).

International Collaboration Networks by Country (RQ2)

Country-level co-authorship analysis reveals that research in this field is organised around several interconnected national clusters. As illustrated in Figure 2, and summarised quantitatively in Table 4, the collaboration network is largely concentrated in high-income countries. The United States leads with 186 documents and the highest citation count (2,140), followed by the United Kingdom (98 documents; 1,023 citations) and Australia (87 documents; 891 citations). These countries occupy central positions within the co-authorship network, reflecting strong research infrastructure, established funding mechanisms, and long-standing traditions of interdisciplinary scholarship (Wagner et al., 2015).

Table 4

Top 10 Contributing Countries by Document Output, Citation Count, and Network Position

Rank	Country	Documents	Citations	Link Strength	Regional Group
1	United States	186	2,140	High	Anglophone Core
2	United Kingdom	98	1,023	High	Anglophone Core
3	Australia	87	891	High	Anglophone Core
4	Canada	74	762	High	Anglophone Core
5	Germany	52	534	Medium	Continental Europe
6	Netherlands	47	489	Medium	Continental Europe
7	Italy	43	412	Medium	Continental Europe
8	Finland	38	398	Medium	Continental Europe
9	China	34	287	Low-Medium	Asia-Pacific
10	Malaysia	28	201	Low-Medium	Asia-Pacific

Note. Link Strength refers to the co-authorship connection strength within the VOSviewer network. Regional Group reflects geographical groupings based on country location, distinct from the thematic keyword clusters reported in Table 5.

At the same time, the network also points to growing participation from a wider range of countries. The presence of Malaysia (28 documents), China (34 documents), Indonesia, and Saudi Arabia indicates a gradual diversification of global research engagement, likely driven by the expansion of inclusive education agendas in these regions. Nevertheless, the unequal concentration of collaboration ties indicates that disparities in research capacity and partnership opportunities remain substantial. These findings underscore the need for more inclusive and equitable international research collaborations to ensure that future knowledge production reflects a broader range of educational systems and contextual realities (Donthu et al., 2021).

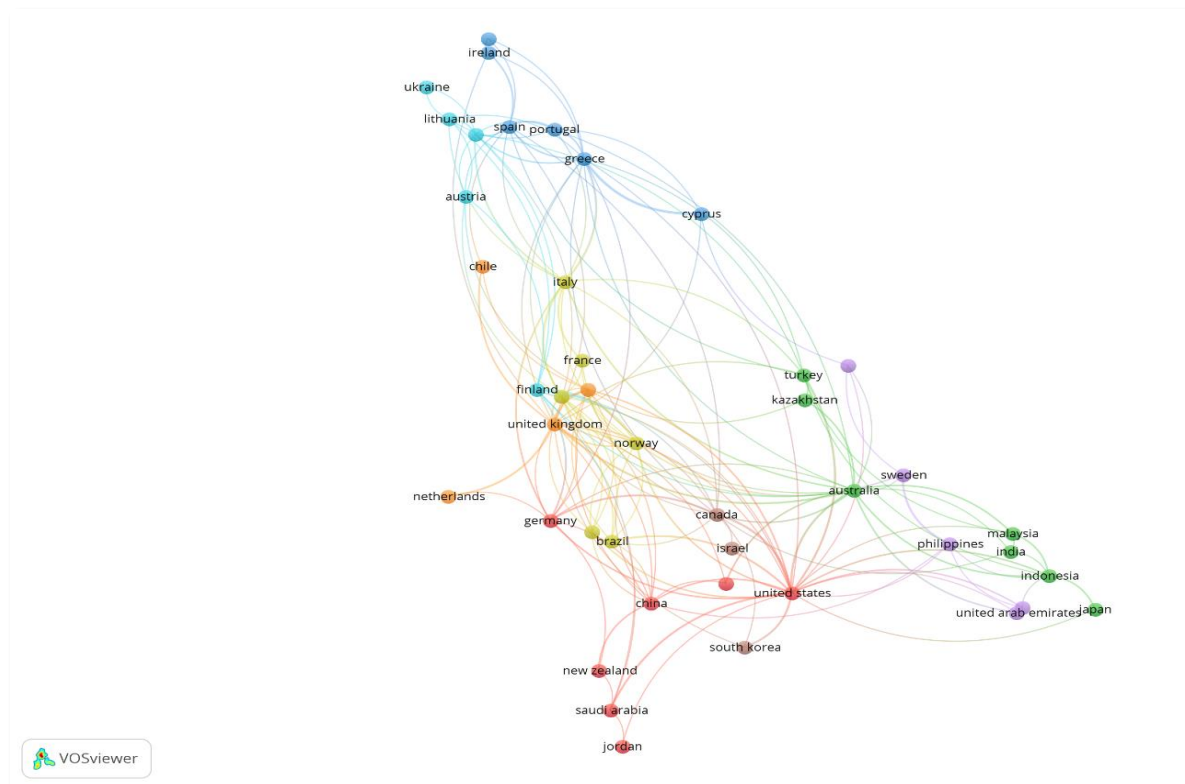


Figure 2. Country-level co-authorship network in interprofessional collaboration and consultation research.

Dominant and Emerging Research Themes (RQ3)

Keyword co-occurrence analysis reveals a clustered and increasingly interdisciplinary thematic structure. Based on VOSviewer analysis, five thematic clusters were identified from the dataset, as presented in Table 5 and visualised in Figure 3. Each cluster represents a distinct but interconnected dimension of the field, reflecting both established scholarly concerns and emerging research priorities.

Table 5

Keyword Co-Occurrence Clusters: Themes, Key Terms, and Research Orientation

Cluster	Theme Label	Key Terms	Orientation
Cluster 1	Inclusive education and teacher practice	inclusive education, teacher, co-teaching, professional development, inclusion, pedagogy	Core / Established
Cluster 2	Disability and student support	autism, learning disabilities, intellectual disabilities, special needs, children, family	Core / Established
Cluster 3	Digital collaboration and technology	e-learning, teleconsultation, digital tools, online learning, universal design for learning	Emerging
Cluster 4	Professional capacity and self-efficacy	self-efficacy, barriers, professional learning, teacher perspectives, capacity building	Emerging
Cluster 5	Research methods and knowledge production	qualitative research, questionnaire, phenomenology, human experiment, article	Methodological

Synthesis and Implications

Taken together, the findings indicate that research on interprofessional collaboration and consultation in special education has developed into an active and increasingly interdisciplinary field. The steady growth in publication output (from 96 to 301 documents annually), the expansion of international collaboration networks, and the diversification of thematic priorities collectively suggest that collaboration is now being positioned not as a peripheral support mechanism, but as a central condition for effective inclusive education. However, the analysis also reveals several important gaps. Research participation remains uneven across regions, with relatively limited representation from low- and middle-income countries despite the gradual emergence of contributions from Asia and the Middle East. In addition, the thematic structure suggests that while collaboration is widely discussed, it is not always sufficiently connected to broader questions of policy implementation, systemic reform, and institutional capacity.

These findings carry important implications for both research and practice. For researchers, there is a need to strengthen conceptual integration across collaboration, consultation, professional learning, and inclusive policy implementation. For policymakers and educational leaders, the results highlight the importance of investing in structures that support sustainable interprofessional practice including professional development programmes, cross-sector coordination mechanisms, and context-responsive support systems. Future studies should prioritise cross-regional collaboration, context-sensitive evidence, and theoretically integrated models to better inform equitable and sustainable special education systems (Fullan, 2016; Donthu et al., 2021).

Limitations and Future Directions

This study has several limitations that should be considered when interpreting the findings. First, the analysis was restricted to publications indexed in the Scopus database and written in English. Relevant studies indexed in other databases such as Web of Science and ERIC, as well as non-English publications, may not have been captured. This constraint may reduce the global representativeness of the dataset, particularly in regions where local-language scholarship plays a significant role (Baas et al., 2020; Mongeon & Paul-Hus, 2016).

Second, the search strategy relied on predefined keywords that, while comprehensive, may not have captured all relevant studies due to terminological variation across disciplines. Third, the labelling and interpretation of thematic clusters derived from co-occurrence analysis inevitably involved researcher judgment, which may introduce a degree of subjectivity (van Eck & Waltman, 2010).

Future research should broaden coverage by incorporating multiple databases and multilingual sources. Advanced techniques such as longitudinal thematic evolution and citation burst analysis would further illuminate shifts in knowledge development over time. Combining bibliometric analysis with systematic or meta-analytic approaches would provide deeper insight into the empirical effectiveness of collaboration practices. More context-specific and comparative studies, particularly in underrepresented regions, are needed to advance culturally responsive and equitable interprofessional practice (Wagner et al., 2015; Fullan, 2016).

Conclusion

This bibliometric analysis provides a comprehensive synthesis of global research on interprofessional collaboration and consultation in special education between 2020 and 2025. Based on 903 Scopus-indexed publications, the study maps the intellectual structure, international collaboration patterns, and thematic evolution of the field. The findings indicate sustained and accelerating growth in research output from 96 documents in 2020 to 301 in 2025 reflecting the increasing centrality of interprofessional collaboration in contemporary special and inclusive education.

The continued dominance of high-income countries highlights persistent disparities in research infrastructure and scholarly visibility, while the gradual emergence of contributions from underrepresented regions signals an expanding global research landscape. Thematically, the literature remains anchored in inclusive education, teacher practice, and disability support, while newer themes related to digital collaboration, educational technology, and professional capacity building point toward more applied and innovation-driven agendas. These findings position interprofessional collaboration and consultation as both a scholarly priority and a practical imperative for advancing equitable and sustainable special education worldwide.

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