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CHARTING RESEARCH TRENDS ON UNIVERSITY AWARENESS AND VOLUNTEERISM: A BIBLIOMETRIC STUDY OF INCLUSIVE EDUCATION FOR PERSONS WITH DISABILITIES

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Abstract:

This study maps the global research landscape on university awareness and volunteerism in relation to disability-inclusive higher education for persons with disabilities (PWD). Although previous studies have examined disability awareness, inclusive education and volunteer engagement separately, limited bibliometric evidence has systematically integrated these three areas within a single analytical framework. Existing scholarship also remains geographically uneven, with limited visibility of research from Global South and ASEAN higher education contexts. To address these gaps, this study conducted a bibliometric analysis of Scopus-indexed journal articles published between 2019 and 2024. The analysis employed VOSviewer version 1.6.20 to examine publication trends, country-level co-authorship networks, citation patterns and keyword co-occurrence structures. The findings show that research on PWD awareness and volunteerism in higher education is largely concentrated in high-income Western countries, particularly the United States, United Kingdom, Canada and Australia, while contributions from ASEAN and other Global South regions remain comparatively limited. The results further suggest that post-COVID-19 scholarship has increasingly shifted toward psychosocial support, empowerment and inclusive institutional responsibility. This study contributes theoretically by clarifying the intellectual structure of research linking university awareness, volunteerism and disability-inclusive education. Practically, it provides

evidence-based insights for universities, policymakers and disability support practitioners to strengthen inclusive volunteer programmes, institutional awareness strategies and culturally responsive support systems for PWD in higher education.

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Keyword:

Inclusive Education; Disability Awareness; University Volunteerism; Higher Education; Bibliometric Analysis



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Introduction

Public awareness of Persons with Disabilities (PWD) has emerged as a central theme in global discussions on disability inclusive higher education, reflecting a broader commitment to equity, accessibility and social participation across university settings. In higher education institutions, awareness is not limited to general knowledge about disability. Rather, it includes recognition of PWD rights, institutional responsibility, inclusive attitudes and the creation of supportive social environments that promote equal opportunity. It includes recognition of PWD rights, institutional responsibility, inclusive attitudes and the creation of supportive social environments that promote equal opportunity (Kruithof et al., 2021). Within this context, volunteerism serves as an important mechanism for translating inclusive values into practice, as it enables students, staff and community members to engage directly with PWD through empathetic, supportive, and collaborative interactions (Bakri et al., 2019). Despite the presence of national policies and targeted institutional initiatives, previous studies continue to report insufficient awareness and readiness among university communities. This has led to limited confidence, reduced engagement and persistent misconceptions about the capabilities and needs of Persons with Disabilities (PWD) (Lindsay et al., 2019; Moriña, 2020; Clouder et al., 2020). This gap between policy intention and institutional practice weakens the broader agenda of educational inclusion and highlights the need for universities to strengthen training, exposure, and volunteer-based support systems that facilitate meaningful PWD participation in academic and social spheres (Rosli & Takril, 2022). As the enrolment and visibility of PWD in higher education continue to increase, it is important to understand how awareness and volunteerism have been conceptualised, studied and positioned within the global research landscape.

Given the growing scholarly attention to disability inclusion, there is a need to systematically examine how research on university awareness and volunteer engagement toward Persons with Disabilities (PWD) has evolved internationally. Bibliometric analysis provides a robust, data-

driven method for mapping publication trends, identifying influential authors and institutions, examining collaboration patterns and uncovering dominant and emerging themes within a specific field of knowledge (Donthu et al., 2021; Aria & Cuccurullo, 2017). Unlike traditional literature reviews, bibliometric approaches enable researchers to visualise intellectual structures and trace the development of scholarship across disciplines, thereby offering deeper insights into how global research communities address issues of inclusivity, awareness, volunteerism, and support for PWD (Hallinger & Kovačević, 2019). In the context of higher education, this approach is particularly useful because research on PWD inclusion is dispersed across multiple domains, including disability studies, educational policy, community engagement, social participation and volunteer-based support.

However, despite increasing attention to disability studies and educational inclusion, three specific gaps remain evident in the existing literature. First, there is a lack of bibliometric studies that specifically map research on university awareness and volunteerism toward PWD within higher education. Existing reviews and empirical studies have tended to focus on disability inclusion, accessibility, or institutional support separately, with limited attention to how awareness and volunteer engagement are jointly represented in the scholarly landscape. Second, there is limited integration of awareness, volunteerism, and inclusive education within a single analytical framework. This has resulted in a fragmented understanding of how university communities develop knowledge, attitudes and practical engagement in supporting PWD. Third, research from Global South and ASEAN remains underrepresented, limiting understanding of how disability awareness and volunteer-based inclusion are conceptualised in non-Western higher education systems. These gaps suggest the need for a bibliometric study that not only maps publication output, but also identifies thematic developments, collaboration networks, and underexplored research directions in this field.

Therefore, this study employs bibliometric methods to chart international research trends, thematic developments and scholarly networks related to university awareness and volunteerism toward PWD. By integrating awareness, volunteerism, and disability inclusive higher education into one bibliometric framework, this study offers a clearer understanding of how the field has developed and where important knowledge gaps remain. The findings are expected to provide an evidence-based foundation for universities, policymakers and practitioners to strengthen institutional awareness strategies, inclusive volunteer programmes and meaningful participation of PWD within higher education ecosystems.

Problem Statement

Research on public awareness and volunteerism toward Persons with Disabilities (PWD) in higher education remains limited, fragmented and uneven across global contexts. Although previous studies have reported gaps in community awareness, inadequate facilities, and limited preparedness among university staff and students, these issues continue to persist in recent literature (Clouder et al., 2020; Lombardi et al., 2018). Such challenges show that many higher education institutions are still struggling to create learning environments that are fully accessible, supportive, and inclusive for PWD.

In practice, these challenges are not only related to facilities or policies. They also involve limited disability awareness, insufficient institutional support and negative attitudes that may restrict the participation of PWD in university life. As the enrolment of PWD in higher education continues to increase, universities are expected to build stronger confidence,

empathy and engagement among their communities (Rosli & Takril, 2022). Volunteerism can play an important role in this process because it encourages direct interaction, social support, empowerment and community participation for PWD (Bakri et al., 2019; Hamzah et al., 2022). However, the existing literature still provides a fragmented understanding of this area. Most studies examine disability awareness, volunteerism and inclusive education separately. There is limited integration of these three areas within one research framework. As a result, it remains unclear how university awareness and volunteer engagement are connected to the broader development of inclusive practices for PWD in higher education.

Another important gap is the lack of bibliometric studies on this topic. To date, limited research has systematically mapped publication trends, influential contributors, thematic developments, citation patterns and collaboration networks related to PWD awareness and volunteerism in higher education. Existing studies offer useful insights into local challenges, but they do not fully explain how the global research landscape has developed over time.

The field also remains geographically uneven. Much of the existing scholarship is shaped by Western and high-income contexts, while perspectives from the Global South and ASEAN countries are still underrepresented. This limit understanding of how disability awareness, volunteer engagement, and inclusive practices are shaped by different cultural, institutional, and socio-economic contexts.

Therefore, a bibliometric approach is needed to identify research hotspots, dominant themes, collaboration patterns and underexplored areas in this field. By mapping the intellectual structure of existing scholarships, this study provides clearer evidence for universities and policymakers seeking to strengthen disability-inclusive higher education and volunteer-based support systems for PWD.

To address these gaps, this study is guided by the following research questions:

1. What are the global publication trends and patterns of research growth on university awareness, volunteerism, and inclusive education for PWD?
2. What thematic clusters and emerging research hotspots are revealed through keyword co-occurrence analysis in this field?
3. What do co-authorship and citation networks reveal about the most influential countries, institutions, and authors contributing to research on PWD awareness and volunteer engagement?

Methodology

This study employed a bibliometric analysis approach to examine research trends, influential contributors, collaboration patterns and thematic developments related to university awareness and volunteerism in disability-inclusive higher education. Bibliometric analysis is suitable for this study because it allows researchers to quantitatively evaluate the structure and development of scientific knowledge through published literature (Donthu et al., 2021). It also helps identify how a field grows, which themes become dominant and how scholars, institutions and countries are connected through publication and citation networks.

The study followed a systematic process involving data identification, screening, extraction, cleaning and analysis. This process was used to ensure transparency, consistency and methodological rigour. Scopus was selected as the main bibliographic database because it provides wide coverage of peer-reviewed journals across education, social sciences, psychology and health-related disciplines. Compared with other databases such as Web of Science and PubMed, Scopus offers broader multidisciplinary coverage, citation tracking functions and bibliometric features that are suitable for mapping global research trends in inclusive education and disability-related studies (Baas et al., 2020).

The search was limited to journal articles indexed in Scopus between 2019 and 2024. This period was selected to capture recent developments in research on disability awareness, volunteerism and inclusive practices in higher education. The search focused on English-language articles within the Social Sciences subject area. Conference papers, book chapters, reviews and non-English publications were excluded to ensure that the final dataset was focused, comparable and aligned with the objectives of the study.

The bibliometric data were exported from Scopus in a format suitable for analysis. The dataset included key bibliographic information such as author names, article titles, publication years, source titles, affiliations, countries, abstracts, author keywords, index keywords and citation information. Before analysis, the data was screened and cleaned to remove irrelevant records and improve keyword consistency. Similar terms were checked and standardised where necessary to reduce duplication during network mapping.

The analysis was conducted using VOSviewer version 1.6.20, a bibliometric software widely used to construct and visualise scientific networks. This study relied primarily on VOSviewer for network visualisation because the analysis focused on co-authorship, citation and keyword co-occurrence networks that could be directly generated through the software. Biblioshiny was not used because the objective of the study was not to perform multi-tool bibliometric comparison but to produce a focused visual mapping of collaboration patterns, citation influence and thematic structures using a single consistent platform.

Several analytical techniques were applied. First, publication trend analysis was used to examine the annual growth of studies from 2019 to 2024. Second, co-authorship analysis was conducted to identify collaboration patterns among countries, institutions and authors. Third, citation analysis was used to determine influential contributors and highly cited publications in the field. Fourth, keyword co-occurrence analysis was applied to identify dominant themes, emerging topics and research hotspots related to PWD awareness, volunteerism and disability-inclusive higher education.

Through these procedures, the study provides a systematic overview of how research on university awareness and volunteerism for PWD has developed over time. The use of Scopus data defined inclusion criteria and VOSviewer-based network analysis strengthens the transparency and replicability of the bibliometric process.

Research Design

This study employed a systematic approach to identify relevant search terms for retrieving articles related to university awareness and volunteerism in inclusive education for Persons with Disabilities (PWD). The data collection process began by searching the Scopus database

using a carefully constructed search string, based on established practices in bibliometric research (Donthu et al., 2021; Page et al., 2021). The search string was defined as follows:

TITLE-ABS-KEY (“persons with disabilities” OR “disability” OR “PWD” OR “students with disabilities” OR “inclusive education”) AND TITLE-ABS-KEY (“university awareness” OR “higher education awareness” OR “volunteerism” OR “volunteering” OR “student volunteer*” OR “community engagement”). This initial search generated a broad set of publications relevant to disability inclusion, awareness, and volunteer engagement within higher education. The results were then refined based on several inclusion criteria. Only journal articles published between 2019 and 2024 were selected, focusing on the Social Sciences subject area, with the document type limited to articles and the language restricted to English. This timeframe was chosen to capture recent developments and current discussions in inclusive education research (Aria & Cuccurullo, 2017). Earlier publications were excluded to ensure that the analysis reflects more up-to-date empirical and theoretical contributions. These criteria helped ensure that the dataset remained relevant and aligned with the objectives of the study. The final dataset, consisting of all relevant records indexed in Scopus up to October 2024, was then used for the subsequent bibliometric analysis.

Table 1: The Search String

Scopus	TITLE-ABS-KEY (“persons with disabilities” OR “disability” OR “PWD” OR “students with disabilities” OR “inclusive education”) AND TITLE-ABS-KEY (“university awareness” OR “higher education awareness” OR “volunteerism” OR “volunteering” OR “student volunteer*” OR “community engagement”).
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Table 2: Inclusion And Exclusion Criteria for Article Selection

Criterion	Inclusion	Exclusion
Language	English	Non-English
Timeline	2019-2024	< 2019
Literature type	Journal (Article)	Conference, Book, Review

Data Analysis

The bibliographic data collected in this study were analysed using VOSviewer (version 1.6.20), a widely used software for constructing and visualising bibliometric networks (Van Eck & Waltman, 2022). This tool allows researchers to examine relationships among authors, keywords, and publications, providing a clearer understanding of the intellectual structure and research patterns within a given field.

In this study, several commonly applied bibliometric techniques were used to explore scholarly trends related to university awareness and volunteerism in inclusive education for Persons with Disabilities (PWD). These techniques help identify key research themes, collaboration networks, and influential contributions, offering a more comprehensive view of how the field has evolved over time (Lim et al., 2022).

Co-Authorship Analysis

Co-authorship analysis was carried out to explore patterns of collaboration among authors, institutions, and countries involved in research on PWD awareness and volunteerism within higher education. This approach makes it possible to identify active contributors, leading institutions, and existing research networks, while also providing an overview of how scholars collaborate across different regions. By examining these patterns, the analysis offers insights into the structure of academic collaboration and the extent of international engagement in this field, particularly within inclusive education research (Donthu et al., 2021; Lim et al., 2022).

Keyword Co-Occurrence Analysis

Keyword co-occurrence analysis was used to identify key research themes and emerging topics in the field. The initial mapping was generated using an algorithm within VOSviewer, which highlighted frequently occurring keywords and their relationships. To ensure the relevance and accuracy of the identified themes, the results were further reviewed manually by two independent researchers. Each researcher examined the contextual meaning of the keywords based on the original articles. Any differences in interpretation were discussed and resolved through mutual agreement.

This combination of automated mapping and manual verification helped strengthen the credibility of the thematic analysis, while also providing a clearer picture of evolving research trends and potential gaps related to awareness, volunteerism, and inclusive practices in higher education (Hallinger & Chatpinyakoo, 2019).

Citation and Co-Citation Analysis

Bibliographic coupling analysis was used to identify thematic clusters by examining shared references among the selected articles. This approach helps reveal how different studies are connected through similar citation patterns, allowing related research areas and underlying themes to be grouped together. In this study, bibliographic coupling provided additional insights into how research on university awareness, volunteerism, and PWD inclusion is organised and linked within the broader field of inclusive education. By highlighting these connections, the analysis offers a clearer understanding of how knowledge in this area has developed and how different research streams are interrelated (Donthu et al., 2021; Lim et al., 2022).

Results and Discussion

This section presents the findings of the bibliometric analysis on university awareness and volunteerism within the context of disability-inclusive higher education for Persons with Disabilities (PWD). The analysis focuses on publication trends, collaboration patterns and thematic developments based on data retrieved from the Scopus database.

The findings identify key contributors, influential journals and major research themes that have shaped the development of this field. In particular, the analysis highlights patterns of annual publication growth, country-level collaboration, citation influence and keyword co-occurrence. These results provide a clearer view of how scholarly attention toward PWD awareness and volunteer engagement has developed between 2019 and 2024.

The analysis also shows how research in this area is connected across countries, institutions and disciplines. It helps identify dominant research themes such as disability awareness, volunteerism, accessibility, social participation, wellbeing and community engagement. At the same time, the findings reveal areas that remain underexplored, particularly the limited visibility of research from Global South and ASEAN contexts.

Overall, this section explains the main bibliometric patterns found in the dataset and discusses their implications for future research and practice. The findings are important because they show where the field is growing, which themes are receiving attention and where further studies are still needed to strengthen disability-inclusive practices in higher education

Research Question 1: What Are the Global Publication Trends and Patterns of Research Growth on University Awareness, Volunteerism, And Inclusive Education for Persons with Disabilities?

To address the first research question, Figure 1 presents the country-level co-authorship network based on Scopus-indexed publications on university awareness, volunteerism and inclusive education for Persons with Disabilities (PWD). The visualisation shows that research in this area is unevenly distributed across countries. Scholarly output and international collaboration are mainly concentrated within a small number of high-income countries.

The United States appears as the most prominent contributor in the network. Its large node size indicates strong research productivity while its multiple links with other countries show active international collaboration. This suggests that the United States plays an important role in shaping global scholarship on PWD awareness, volunteer engagement and disability-inclusive higher education.

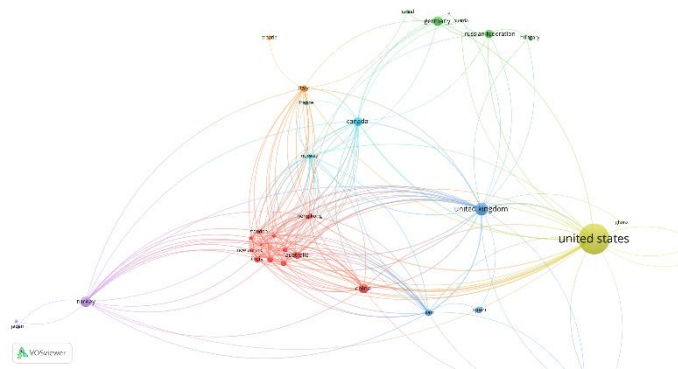


Figure 1: Country-Level Co-Authorship Network Based on Scopus-Indexed Publications on University Awareness, Volunteerism and Inclusive Education for Persons with Disabilities (PWD)

The United Kingdom, Canada and Australia also appear as important secondary hubs. These countries show visible research activity and strong collaborative links with other nations. Their position in the network suggests shared academic interests in disability inclusion, institutional responsibility, social participation and volunteer-based support for PWD. This pattern may also be influenced by similarities in language, higher education systems and inclusive education policies.

Several emerging contributors are also visible in the network, including China, Spain, Iran and Turkey. Their presence indicates that research on PWD awareness and volunteerism is gradually expanding beyond traditional Western research centres. However, their smaller node sizes and weaker links suggest that their involvement in global collaboration is still developing. This may be related to limited research funding, language barriers, publication visibility or fewer opportunities for cross-national collaboration.

The network also shows that several regions remain less visible. Countries from Africa, Latin America and parts of Asia appear to have limited representation in this research area. This finding is important because disability awareness and volunteerism are strongly shaped by cultural, institutional and socio-economic contexts. When research is concentrated mainly in Western settings, the global understanding of disability-inclusive higher education may remain incomplete.

Overall, the findings show that research on university awareness, volunteerism and inclusive education for PWD remains largely Western-centric. The field is led by high-income countries such as the United States, United Kingdom, Canada and Australia while contributions from the Global South and ASEAN contexts remain limited. This pattern supports the research gap identified earlier in this study. It also highlights the need for stronger cross-regional collaboration and greater inclusion of underrepresented contexts in future research. Similar patterns of geographical concentration have been reported in bibliometric studies where research productivity and influence are often dominated by developed regions (Donthu et al., 2021; Lim et al., 2022).

Research Question 2: What Thematic Clusters and Emerging Research Hotspots Are Revealed Through Keyword Co-Occurrence Analysis in This Field?

To address the second research question, Figure 2 presents the keyword co-occurrence network derived from Scopus-indexed publications on university awareness, volunteerism and inclusive education for Persons with Disabilities (PWD). The network shows the keywords that frequently appear together in the dataset. It also helps identify the main themes and emerging research hotspots in this field.

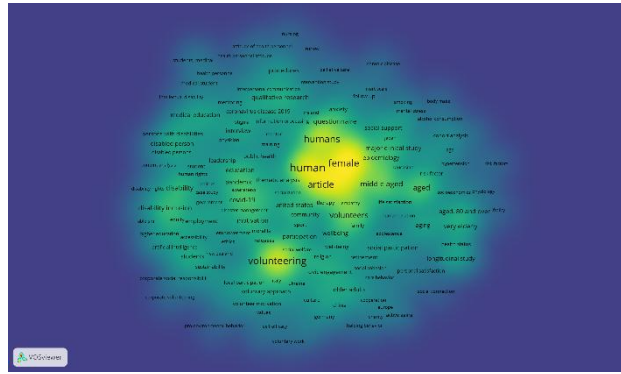


Figure 2: Keyword Co-Occurrence Network of Research on University Awareness, Volunteerism and Inclusive Education for Persons with Disabilities (PWD)

At the centre of the network, keywords such as “humans”, “female”, “article” and “middle aged” appear prominently. These terms are mainly indexing descriptors. Although they do not represent conceptual themes directly, their high frequency shows that many studies in this field are empirical and population-based. This also suggests that research on PWD awareness and volunteerism is often linked to human participation, social experience and community-based settings.

A clear thematic cluster is formed around “volunteering”. This keyword is closely linked with “civic engagement”, “participation”, “community”, “social participation” and “wellbeing”. This pattern shows that volunteerism is commonly discussed as a pathway for strengthening social inclusion and community engagement. In the context of higher education, these links suggest that student volunteer activities are not only service-based. They also support empathy, social responsibility and direct engagement with PWD.

Another important cluster focuses on disability rights and access. Keywords such as “disability”, “persons with disabilities”, “accessibility”, “equity” and “human rights” show that the literature continues to emphasise structural and policy-related issues. These terms indicate that research in this area is concerned with how universities create fairer and more accessible learning environments. This cluster also reflects the role of higher education institutions in promoting disability rights and reducing barriers to participation.

A third cluster relates to awareness, attitudes and training. Keywords such as “awareness”, “training”, “medical education” and “interpersonal communication” suggest growing attention to how students and professionals understand disability. This theme is important because awareness alone may not lead to inclusive behaviour. Training, communication and direct exposure are needed to help university communities develop more positive attitudes toward PWD.

The keyword map also shows emerging interest in psychosocial support. Terms such as “COVID-19”, “mental stress”, “social support” and “wellbeing” indicate that recent studies are paying more attention to the emotional and social needs of PWD. This suggests a post-COVID-19 shift in literature, where inclusion is increasingly understood not only in terms of access but also in terms of mental health, belonging and support. Keywords such as “empowerment”, “motivation” and “self-efficacy” further show that the field is moving toward more person-centred and strength-based approaches.

Overall, the keyword co-occurrence analysis reveals four main thematic directions. These are volunteerism and civic engagement, disability rights and accessibility, awareness and training and psychosocial support. These findings show that the field is gradually becoming more holistic. However, the network also confirms that the integration of awareness, volunteerism and inclusive education remains limited. Research from non-Western, Global South and ASEAN contexts is still less visible. This supports the research gap identified earlier and highlights the need for future studies that examine disability-inclusive higher education across more diverse cultural and institutional settings. Similar gaps in geographical representation and thematic integration have also been highlighted in previous bibliometric studies (Donthu et al., 2021; Lim et al., 2022).

Research Question 3: What Do Co-Authorship and Citation Networks Reveal About the Most Influential Countries, Institutions, And Authors Contributing to Research on PWD Awareness and Volunteer Engagement?

To address the third research question, Figure 3 presents the country-level co-authorship and citation network for research on university awareness and volunteer engagement for Persons with Disabilities (PWD). The network shows how countries are connected through shared publications and citation relationships. It also highlights which countries have stronger scholarly influence in this field.

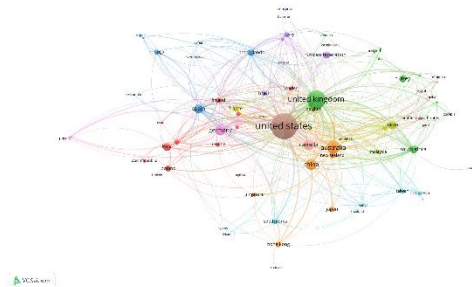


Figure 3: Country-Level Co-Authorship and Citation Network on PWD Awareness and Volunteer Engagement.

The United States appears as the most central and influential country in the network. Its large node size suggests strong research productivity and citation influence. The multiple links connected to the United States also show that it has broad international collaboration with other countries. This indicates that scholarship from the United States plays a major role in shaping discussions on PWD awareness, volunteerism and disability-inclusive higher education.

The United Kingdom also appears as a key contributor with strong links to several countries. Together with Canada and Australia, these countries form an important group of secondary research hubs. Their close connections suggest shared academic interests in disability inclusion, student volunteerism, institutional support and social participation. This collaboration may be supported by similarities in language, higher education systems and policy frameworks.

Several European countries such as Germany, France, Spain, the Netherlands and the Nordic nations appear as moderately connected contributors. These countries contribute to the wider knowledge base, but their links appear less central compared with the United States and the

United Kingdom. This suggests that their research influence may be more specialised or regionally focused.

Emerging contributors from Asia, the Middle East and the Global South are also visible in the network. These include China, India, Malaysia, Turkey, South Africa and Iran. Their presence shows that research on PWD awareness and volunteer engagement is gradually expanding beyond Western contexts. However, their smaller node sizes and fewer links suggest that their participation in international research networks is still limited. This may be related to lower publication visibility, limited research funding, language barriers or fewer opportunities for cross-border collaboration.

Overall, the network shows a clear imbalance in scholarly influence. Research productivity and citation impact are concentrated in a small number of high-income Western countries. At the same time, contributions from ASEAN, Africa, Latin America and other Global South regions remain less visible. This finding supports the research gap identified earlier in this study, particularly the underrepresentation of non-Western perspectives in research on university awareness, volunteerism and inclusive education for PWD.

These findings highlight the need for stronger North–South and South–South collaboration in future studies. Greater involvement of underrepresented regions is important because disability awareness and volunteer engagement are shaped by local culture, institutional capacity and social context. Similar patterns have been observed in previous studies where research productivity and international collaboration are often dominated by developed regions (Bakri et al., 2021). Therefore, a more diverse and globally balanced research network is needed to develop context-sensitive approaches to PWD awareness and volunteer engagement in higher education.

Limitations and Future Work

This study has several limitations that should be considered when interpreting the findings. First, the analysis was limited to publications indexed in the Scopus database and written in English. Therefore, relevant studies from other databases or non-English sources may not have been included. This limitation is important because research on disability awareness and volunteerism in low- and middle-income countries is often published in local or regional journals.

Second, the study focused only on journal articles published between 2019 and 2024. This timeframe was selected to capture recent developments in disability-inclusive higher education. However, earlier publications may offer useful historical insights into how research on PWD awareness and volunteerism has developed over time. More recent studies published after 2024 were also not captured in the dataset.

Third, although bibliometric analysis provides systematic and quantitative insights, the interpretation of thematic clusters may still involve researcher judgement. This is especially relevant for keyword co-occurrence analysis, where theme labelling depends on how researchers interpret the meaning and relationship of keywords. Although efforts were made to maintain consistency, some degree of subjectivity may remain.

Fourth, this study focused mainly on publication trends, co-authorship networks, citation patterns and keyword co-occurrence. It did not examine the full content of each article in depth. As a result, the findings provide a broad overview of the research landscape but do not fully explain the theoretical arguments, methodological quality or lived experiences discussed in individual studies.

Future research could address these limitations by using multiple databases such as Scopus, Web of Science and ERIC to provide a wider and more balanced dataset. Future studies may also include non-English publications to improve the visibility of research from the Global South, ASEAN countries and other underrepresented regions.

Further studies could also combine bibliometric analysis with systematic review or content analysis. This would allow researchers to examine not only publication patterns but also the quality, theoretical focus and practical implications of existing studies. Country- or region-specific analyses may also be useful to understand how university awareness, volunteer engagement and disability-inclusive practices differ across cultural, institutional and socio-economic contexts.

Longitudinal bibliometric studies are also recommended to examine how this field develops over time. Such studies may help identify whether themes such as volunteerism, wellbeing, empowerment and accessibility continue to grow in future scholarships. Overall, these directions would support a more inclusive, context-sensitive and globally representative evidence base for advancing disability-inclusive higher education and volunteer-based support for PWD.

Conclusion

This study provides a bibliometric overview of global research on university awareness and volunteerism within the context of disability-inclusive higher education for Persons with Disabilities (PWD). Based on Scopus-indexed publications from 2019 to 2024, the findings show that this field is growing but remains unevenly developed across global contexts. Research productivity and citation influence are still largely concentrated in high-income Western countries such as the United States, United Kingdom, Canada and Australia. Although contributions from China, India, Malaysia and South Africa are becoming more visible, perspectives from the Global South and ASEAN contexts remain comparatively underrepresented.

The keyword analysis shows that the field is mainly shaped by themes related to volunteerism, disability inclusion, awareness, wellbeing, accessibility and social participation. These themes indicate that research is gradually moving beyond basic discussions of access and policy compliance. The field is increasingly shifting toward empowerment, psychosocial support, community engagement and rights-based participation. This development reflects a broader understanding that disability-inclusive higher education requires not only institutional policies but also active social responsibility and meaningful engagement from university communities. The main contribution of this study lies in its integration of three related but often separately examined areas: university awareness, volunteerism and inclusive education for PWD. By mapping these areas within a single bibliometric framework, this study addresses a clear gap in the existing literature and provides a more structured understanding of how the field has developed. Theoretically, it clarifies the intellectual structure, dominant themes and emerging

directions of research on PWD awareness and volunteer engagement. Practically, it offers evidence that can guide universities in designing stronger awareness programmes, inclusive volunteer initiatives and support systems that are responsive to the needs of PWD.

The findings also carry important implications for policy and institutional practice. Policymakers should strengthen funding, training and cross-sector collaboration to support disability awareness and volunteer-based inclusion in higher education. Universities should embed disability-inclusive values into curricula, student development programmes and community engagement activities. Stronger partnerships with disability organisations are also needed to ensure that PWD voices are included in research, programme design and institutional decision-making.

Overall, this study highlights the need for a more globally balanced and context-sensitive research agenda. Future scholarships should move beyond Western-centred perspectives and give greater attention to underrepresented regions, especially ASEAN and other Global South contexts. Advancing disability-inclusive higher education requires research that is not only academically rigorous but also socially responsive, culturally grounded and directly connected to the lived realities of Persons with Disabilities.

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Author Contribution Statement: All authors contributed equally to this work and approved the final manuscript.

References

- Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, *11*(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric database. *Quantitative Science Studies*, *1*(1), 377–386. https://doi.org/10.1162/qss_a_00019
- Bakri, Z. A. B., Mahmood, W. S. B. W., & Zakaria, M. A. B. (2019). Kajian kes: Impak sukarelawan Yes! Politeknik Sultan Mizan Zainal Abidin dalam melakukan kerja-kerja kesukarelawanan TVET. *Journal on Technical and Vocational Education*, *4*(3), 92–98. mohe.gov.my
- Clouder, L., Karakus, M., Cinotti, A., Ferreyra, M. V., Fierros, G. A., & Rojo, P. (2020). Neurodiversity in higher education: A narrative synthesis. *Higher Education*, *80*, 757–778. <https://doi.org/10.1007/s10734-020-00513-6>
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, *133*, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>
- Hallinger, P., & Chatpinyakoo, C. (2019). A bibliometric review of research on higher education for sustainable development, 1998–2018. *Sustainability*, *11*(8), 2401. <https://doi.org/10.3390/su11082401>
- Hallinger, P., & Kovačević, J. (2019). A bibliometric review of research on educational leadership. *Educational Management Administration & Leadership*, *47*(3), 335–369. <https://doi.org/10.1177/1741143217745880>
- Hamzah, I. S., Zin, S. A. M., Jamal, M. B., Sarifin, M. R., & Kamarudin, L. A. (2022). The role of voluntary activity in nurturing student's soft skills. *Perspektif Jurnal Sains Sosial dan Kemanusiaan*, *14*, 67–80. <https://doi.org/10.37134/perspektif.vol14.sp.6.2022>
- Kruithof, K., Suurmond, J., Kal, D., & Harting, J. (2021). Volunteer work with vulnerable persons in the community: A qualitative study of social inclusion. *Journal of Social Work*, *21*(4), 696–712. <https://doi.org/10.1177/1468017320913142>
- Lim, W. M., Kumar, S., Pandey, N., & Donthu, N. (2022). Bibliometric analysis: The state of the art and future directions. *Journal of Business Research*, *139*, 1170–1180. <https://doi.org/10.1016/j.jbusres.2021.10.049>
- Lindsay, S., et al. (2019). A systematic review of factors affecting attitudes toward people with disabilities. *Disability and Rehabilitation*, *41*(15), 1785–1799. <https://doi.org/10.1080/09638288.2018.1432708>
- Lombardi, A. R., Murray, C., & Dallas, B. (2018). University faculty attitudes toward disability and inclusive instruction. *Journal of Postsecondary Education and Disability*, *31*(4), 363–381.
- Moriña, A. (2020). Inclusive education in higher education: Challenges and opportunities. *European Journal of Special Needs Education*, *35*(2), 219–231. <https://doi.org/10.1080/08856257.2019.1581401>
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., et al. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, *372*, n71. <https://doi.org/10.1136/bmj.n71>
- Rosli, H. F., Sabri, S. A., & Takril, N. (2022). Peranan kakitangan akademik dalam mewujudkan kesedaran terhadap keperluan OKU di IPT. *Journal of Quran Sunnah Education & Special Needs*, *6*(1), 1–13.

van Eck, N. J., & Waltman, L. (2022). VOSviewer manual and recent developments in bibliometric mapping. <https://www.vosviewer.com/documentation>