Evaluating the Bibliometric Landscape of Education and Communication for Disability Research

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Abstract

This research aims to map the development and direction of Communication for Education Research in Scopus-indexed publications. This research utilizes bibliometric examination strategies to investigate all distributions listed in the Scopus data set on Education and Communication for Disability from 1968 to 2023. The information was broken down utilizing Succeed and R/R-Studio. VOSviewer was utilized to break down the simultaneous occurrence of keywords and document citations visually. The authors found 1,165 publications that matched the defined function, subject, and criteria. The results showed an annual growth rate of 8.82%, with the most publications on (theme) in 2022. The US leads the publications with 560 documents. The UK follows them with 130 documents. There is a rapid increase, which is the peak of the number of publications in 2022. Jayanthi, M, Yoder, P J., and Warren, S.F. lead with seven documents each, followed by Epstein, M.H. with six documents. The bibliometric analysis conducted was limited to Scopus data. Other national and international databases should have been considered in this study. This study presents a concise outline of the writing open to scientists working in correspondence and schooling for the handicapped and gives suggestions for future examination.

Keywords: Disability Evaluation, Pathophysiology, Disabled Persons, Disease Severity, Adolescent

Introduction Section

Disability is not an individual problem, but rather a societal issue. The problems and difficulties faced by people with disabilities are often due to the physical and social barriers present in society. Therefore, disability is a physical, sensory, or mental difference that a person has, which should be accepted and accommodated in society. The solutions to improve the lives of people with disabilities should be focused on creating an inclusive and accessible society, including infrastructure, education, and employment opportunities. This can be achieved through policy changes, awareness-raising campaigns, and inclusive design (Thohari, 2014). Today, society often underestimates people with disabilities due to physical limitations (Astuti, 2021). People with disabilities still often receive unfair treatment in society. This can be seen from the number of facilities and infrastructure in the community that still need to be accommodated. For example, comparisons in public facilities, such as educational institutions and transportation, and difficulties in access in the community, such as in the economic, social, and political fields (Handayana, 2016). Not to mention the community's mindset towards people with disabilities, who still think it is a disgrace that deserves and deserves to be shunned. Until the use of pejorative terms which are still used to address people with disabilities, such as cripple, idiot, abnormality, etc. (Maftuhin, 2016).

From this background, it can be concluded that communication and education for people with disabilities are important to ensure equal access to information and opportunities. Research in this area can help understand the problems faced and find solutions to enhance the accessibility and the standard of education for the disabled.

The principal study is named "The Option to Good Work for People with Inabilities" by Dr. Arthur O'Reilly. This research discusses decent work rights for people with disabilities and the challenges faced in achieving these rights (O'Reilly, 2013). The subsequent review is named "Speaking with Patients with Inability: Points of View of Rehearsing Doctors" by Nicole Agaronnik, BS, Eric G. Campbell, PhD, Julie Ressalam, et al. This study depicts techniques or approaches to speaking with individuals with handicaps, which are advanced by master specialists in their fields. Effective communication is necessary to provide quality healthcare for people with disabilities and is legally required under the ADA. However, our results suggest that gaps may still exist in ensuring effective communication and some practicing clinicians may benefit from formal training on effective methods to communicate with patients with disabilities. (Agaronnik, 2019). The third

review is named "Correspondence Administrations and Supports for People with Serious Handicaps: Direction for Appraisal and Mediation" by Nancy C. Brady, Susan Bruce, Amy Goldman, et al. This research explains that the most recent twenty years have acquired propels appraisal and intercession that benefit people with huge correspondence needs. However, individuals still need more communication support needs. The crucial standards featured in this article can be utilized to direct an exploration and practice plan that can drive further advancement in the following ten years for people with critical handicaps. Endeavors start with bringing issues to light of the crucial requirement for powerful correspondence for all people through the boundless reception of Correspondence Freedoms in our general public. As well as advancing these privileges, specialists, teachers, and scientists can assist with coordinating comprehensive practices, fabricate mindfulness, guide research, and illuminate compelling clinical practice in basic regions (Brady, etc., 2016). The fourth examination was named "Digital Books as Assistive Innovation for Youngsters with Learning Handicaps" by Lina Novita, and others. This research shows materials such as digital books as learning help for kids with learning difficulties. This research was conducted based on students' needs and learning styles. Therefore, the research and development (R&D) approach was used in this study. The subjects in this study consisted of expert testing and limited product user testing, in this case, students. The sample selection of test subjects was carried out by purposive sampling. The model developed used ADDIE. The results showed that the development of assistive technology for e-books with basic concepts of art received a good response, can be understood, looks attractive, and is practical or feasible to use. Students achieved a better level of socialization, successfully achieving most of the lesson plan program objectives, such as motor, speech, language, reading, writing, and memory development (Purnamasari, 2022).

From past examination on correspondence and schooling for handicaps, bibliometric examination research strategies have not been utilized in that frame of mind to plan logical distributions in different fields.
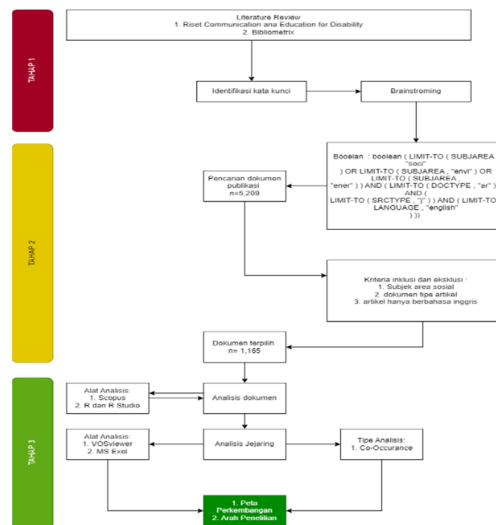
Research Methods

Bibliometric examination techniques were used in this review(M. Apriantoro et al., 2023; M. S. Apriantoro, Herviana, et al., 2023; M. S. Apriantoro, Iskandar, et al., 2023). Data was gotten by utilizing the Boolean web index to search over the Scopus dataset from 1968 to 2023. The search was conducted on August 5, 2023 at 08.05 WIB. We used R and Rstudio, VosViewer, and Microsoft Succeed to analyze references, archival content, and networks. The researcher performed three steps in handling the dataset.

In the principal stage, the specialist will lead a writing survey on related subjects to guarantee important examination is completed on bibliometric points. Likewise, the writing survey is useful for deciding proper catchphrases that are considered to address the extent of the examination.

In this step, we use the TITLE-ABS-KEY boolean operator (education AND communication AND for AND disability) AND (LIMIT-TO(SRCTYPE, "j")) AND (LIMIT-TO(SUBAREA, "SOCI")) AND (LIMIT-TO(DOCTYPE, "ar")) AND (LIMIT-TO(LANGUAGE, "English")) to limit only articles as the article document type, only journal sources and only English articles, resulting in a final document of 1,165.

In the third stage, examination was done on the last pursuit archives utilizing Scopus analyzer and R and Rstudio to decide the quantity of archives each year, reports by diary, creator, connection, nation and subject/field. Moreover, examination of the archive network level was helped out with representation through VOSviewer and Microsoft Succeed information handling. This exploration system should be visible in Figure (1) underneath:

Figure 1.

Results and Discussion

Document Analysis

Critical Information About Data (Retrieve from Bib-Shy)

Table 1 underneath, gives an outline of the 440 reports gathered north of 49 years. Incorporates 2574 creators, 195 single creators, 10.56% global initiation coordinated effort, 43184 references with a typical reference for each archive of 19,04 references.

Table 1. Critical Information About Data (Retrieve from Bib-Shy)

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	1974:2023
Sources (Journals, Books, etc)	440
Documents	1165
Annual Growth Rate %	8.82
Document Average Age	10.5
Average citations per doc	19.04
References	43184
DOCUMENT CONTENTS	
Keywords Plus (ID)	2528
Author's Keywords (DE)	2574
AUTHORS	
Authors	3239
Authors of single-authored docs	195
AUTHORS COLLABORATION	
Single-authored docs	202
Co-Authors per Doc	3.06
International co-authorships %	10.56
DOCUMENT TYPES	
article	1165

Documents by year (retrieved from Scopus)

Figure 2 below shows the development of publications on the theme of education and communication for disability by year. Documents appeared since 1974 with the number of publications 1. From 1974 to 1990, publications they have stagnated. There was a rapid increase, which peaked in the number of publications in 2022.
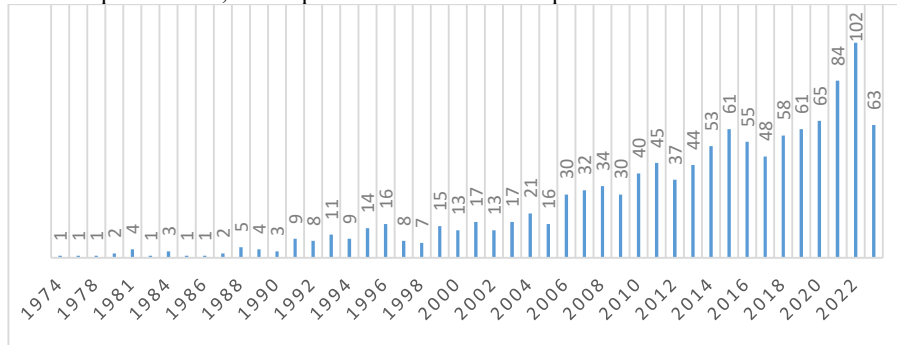
Figure 2. Documents by year

Most Relevant Author

Figure 3 underneath shows the ten most persuasive creators in distributions on education and communication for disability. Jayanthi, M, Yoder, P J. and Warren, S.F. lead with seven publications each, followed by Epstein, M.H. with six publications.

Figure 3. Most Relevant Author

Documents by Affiliation

Figure 4 below shows the top 10 most influential affiliations in publications on education and communication for disability. The University of Kansas leads with the highest number of publications at 23 documents, followed by Vanderbilt University with 18 publications.

Figure 4. Documents by Affiliation

Documents By Country

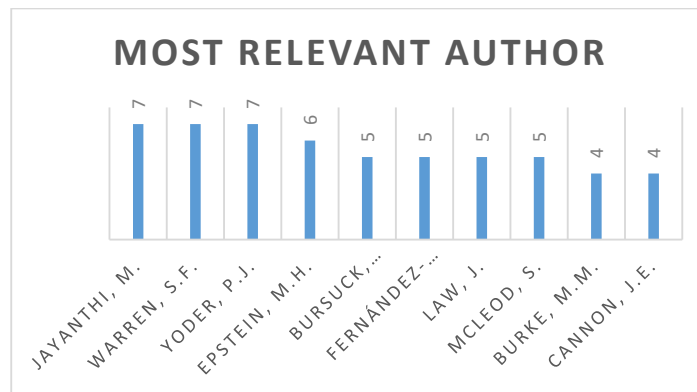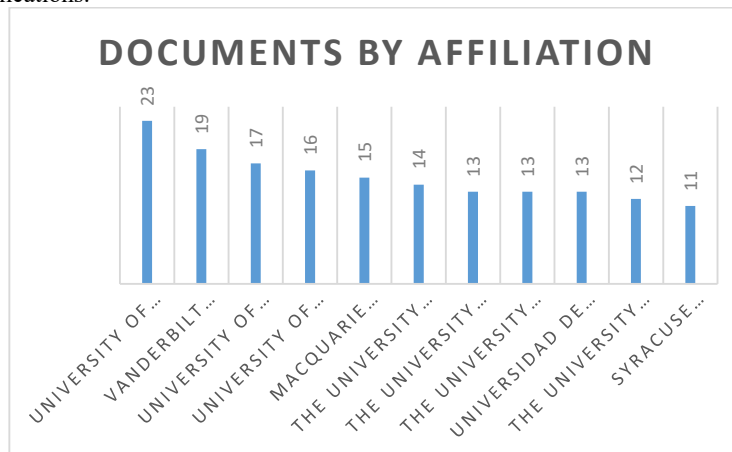Figure 5 below shows publications by country on the theme of communication and education for disability. The US leads the publications with 560 documents. The UK follows this with 130 documents. European countries dominate with a total of 6 countries, while the American continent ranks second in dominance, indicating that countries in the European continent popularly research the theme of communication and education for disability.
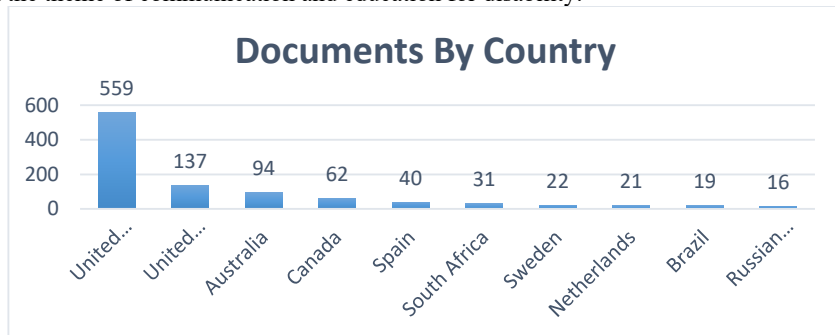

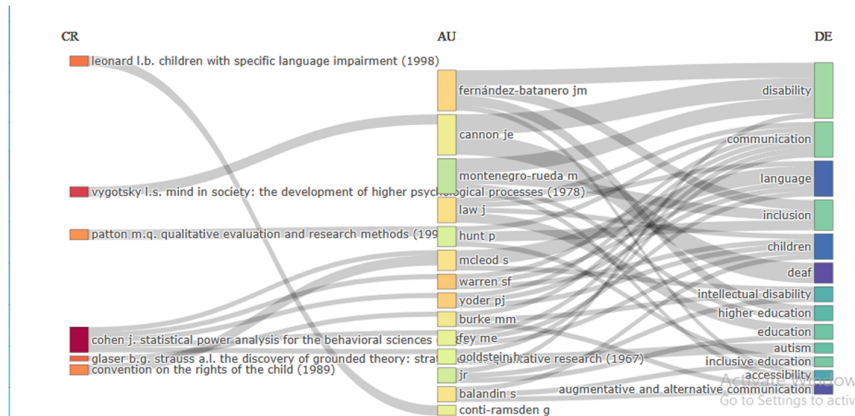**Figure 5.** Documents By Country

Three-Field Plot

Figure 6. Three-Field Plot

Figure 6 above contains three observed elements: the document name, author name and keywords used. The three components are then associated by dim plot lines that are connected with one another. In light of the diary name, every diary shows which creators contribute most often to its distributions, particularly those on the subject of correspondence and education for disability.

    The size of the plot shows how many publications are related with the topic. As per figure above, there are six journals. Journals that published the most research studies on the topic of disability is Statistical Power Analysis for the Behavioral Sciences, which is shown in dark red and is associated with several authors such as Mcleod, Warren SF, Yoder PJ, and Burke mm.

    As per on the figure above, there are 14 creators. Bar chart size shows how many research publications from each author. Among these 14 authors, Fernandez-Batanero jm, Cannon JE, and Montegro-rueda m are the authors who wrote the most disability-themed articles.

    In the third component, each examination point is associated with writers who expound a ton on the subject of handicap. From the examination, there are 13 watchwords. Inability is at the first spot on the list. This shows that the word is firmly connected with research connected with people disability.

Corresponding Author's Countries

Figure 7 explains that the countries with the largest SCP are the USA, the United Kingdom (UK), and Australia, while the countries with the largest MCP are the USA, the United Kingdom (UK), and Canada.
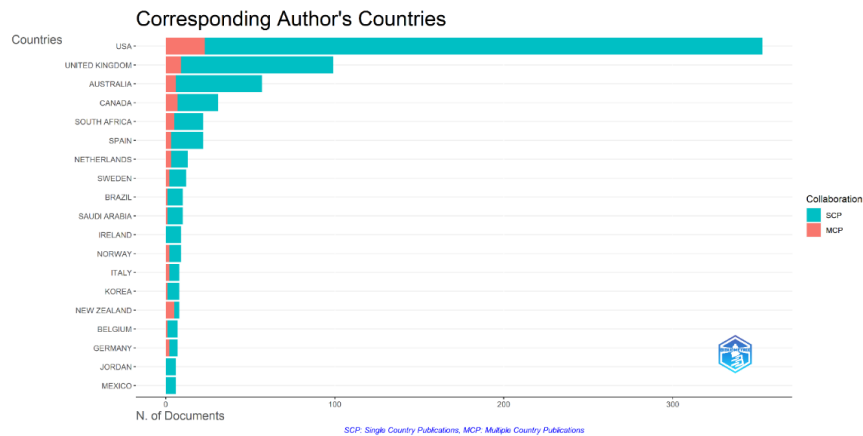
Figure 7.

Table 2.

Paper	Total Citations	TC per Year	Normalized TC
DAWSON G, 2004, DEV PSYCHOL	876	43.80	9.08
RICE C, 2009, MORB MORTAL WKLY REP	757	50.47	16.19
CLINE RJW, 2001, HEALTH EDUC RES	428	18.61	6.66
RICE ML, 1998, J SPEECH LANG HEAR RES	398	15.31	5.47
DURAND VM, 1991, J APPL BEHAV ANAL	246	7.45	4.56
NORBURY CF, 2004, INT J LANG COMMUN DISORD	207	10.35	2.14
THIEMANN KS, 2001, J APPL BEHAV ANAL	206	8.96	3.20
CAMPBELL TF, 2003, CHILD DEV	187	8.90	4.12
YODER PJ, 2002, J SPEECH LANG HEAR RES	183	8.32	5.01
YARUSS JS, 2004, J COMMUN DISORD	181	9.05	1.88

Most Global Cited Document
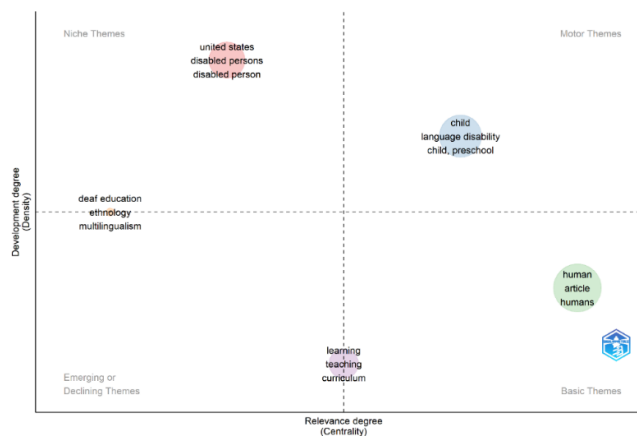
Figure 8. Most Global Cited Document

The theme mapping is shown in Figure 8 above. It consists of Basic Themes, Motor Themes, Basic Themes, Niche Themes, and Emerging or Declining Themes. *Basic Themes* are a category that includes themes that are the basis or core of existing research or publications. The cluster "Human" (Cluster 1) is an example of a basic theme in the data presented.

The human theme is the main theme that appears in the publication or research being observed. Basic themes are often the main focus of research and receive extensive attention from researchers.

Motor Themes: This category includes themes that are the driving force behind research development. The "Child" cluster (Cluster 2) is an example of a motor theme in this data. The child theme is actively researched and influences the direction and trends of research related to children. Motor themes often influence how research and publications evolve.

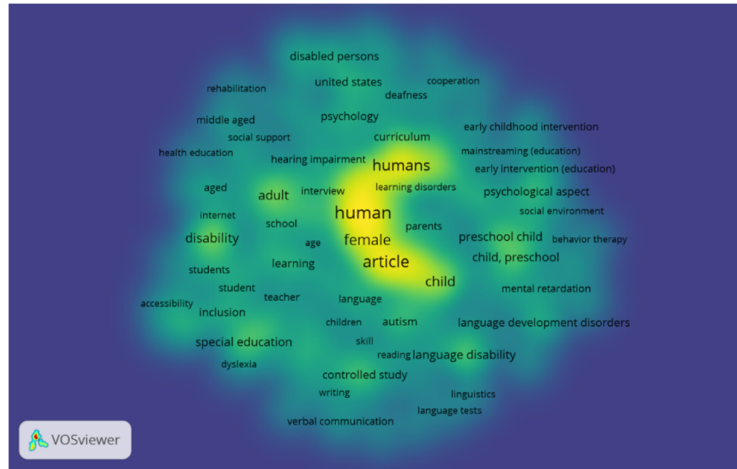**Niche Themes:** This category includes more specific and less general themes than the basic and motor themes. An example of a niche theme in this data is the disabled person's cluster. The themes of disabled persons and Deaf education fall into the niche theme category because they may have fewer studies or only be of interest to certain groups.

Emerging or Declining Themes: This category includes themes that are emerging or declining in popularity in research or publications. In this data, the theme "learning and deaf education" can be categorized as an emerging theme because the number of occurrences and relevance in research is still significant, but not as much as the theme "Human" in cluster 1 or "Child" in cluster 2.

By analyzing this classification, we can understand the distribution and trends of themes in existing research data or publications. This categorization helps identify key themes that dominate a particular research field, emerging themes, and themes that may require more attention and further research.

Network Analysis

Figure 9. Network Analysis

Figure 9 above shows that the minimum cluster is 1. Each cluster exists (1st cluster has 35 items, 2nd cluster has 35, 3th cluster has 32 items, 4th cluster has 29 items, 5th cluster has seven items.). The dominating keyword is "human"—total link strength 6448.

Figure 10. Network Analysis

10th Figure above shows the analysis of keyword networks based on the overlay. It tends to appear that keywords inclusive education, intellectual disability, and psychology are keywords with usage in the most recent year. The keywords autistic disorder, mental deficiency, and language disability are keywords with relatively old usage around 2006.

Figure 11. Network Analysis

Figure 11 above, it is explained that Keywords with a high density include those that are often researched, namely "human", "humans", "female", and "child". At the same time, low-density keywords marked with a faded colour indicate that the keywords are still rarely researched, for example, "linguistic", "rehabilitation", "dyslexia", and many more (Petkovski, 2023).

Table 3. Network Analysis

Keyword	Occurrences	Cluster
1. Human	499	
2. Adult	146	
3. Humans	336	1
4. Midle age	39	
5. age	37	
1. female	271	
2. child	185	
3. male	284	2
4. childern	20	
5. school child	21	
1. teaching	65	
2. learning	68	
3. special education	103	3
4. teacher	34	
5. training	33	
1. interpersonal communication	199	
2. communication	181	
3. autism	49	4
4. mental retardation	41	
5. mental deficiency	31	
1. deafness	34	
2. hearing empairment	47	
3. hearing loss	31	5
4. disabled children	31	
5. handicapped childern	35	

The occurrences in each cluster that are representative of the main themes in the research field of communication and education for disability. The subject in the principal bunch is the life stage. The second cluster's theme is the stage of development. The theme in the third cluster is special education. The theme in the fourth cluster is communication methods for people with disabilities. The theme in the fifth cluster is the type of disability.

Conclusion

Publications on the theme of communication and education for disability peaked in 2022. The most relevant authors are Jayanthi, M, Yoder, P J., and Warren, S.F., leading with the most publications of 7 documents. The affiliation with the most publications is the University of Kansas, leading with the highest number of publications at 23 documents. The country with the most publications is the US, with 560 documents. The largest MCP is in the USA. Dawson G, 2004, Dev Psychol is the document with the largest citation of 876. The basic theme in research on communication and education for disability is "Human ."The dominating keyword is "human," with a total link strength of 6448. Inclusive education, intellectual disability, and psychology are keywords used in 2016. The limitation of this research is that it only explores Scopus-indexed datasets and only analyzes documents with journal article types in English without considering other global indexations, languages, and document types other than articles.

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