

# Bibliometric Analysis of Research on Visual Impairment and Blindness: 2013-2022

Dwi Ridho Aulianto<sup>1</sup> & Cut Meuita Karolina<sup>2</sup>

<sup>1</sup>Badan Riset dan Inovasi Nasional, Indonesia

<sup>2</sup>Universitas Al Azhar Indonesia

Correspondence email: [dwir007@brin.go.id](mailto:dwir007@brin.go.id)

## Information

Submitted: 25-01-2024

Revised: 23-03-2024

Accepted: 26-04-2024

**How to cite:** Aulianto, D. R., & Karolina, C. M. (2024). Bibliometric Analysis of Research on Visual Impairment and Blindness: 2013-2022. *Khizanah Al-Hikmah : Jurnal Ilmu Perpustakaan, Informasi, Dan Kearsipan*, 12(1).  
<https://doi.org/10.24252/kah.v12i1a9>

DOI: [10.24252/kah.v12i1a9](https://doi.org/10.24252/kah.v12i1a9)

Copyright 2024 © the Author(s)

This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).



## ABSTRACT

This study aims to find out more details about the Journal of Visual Impairment and Blindness (JVIB) published in 2013–2022, as seen from the distribution of documents per year, document type, open access type, author country, productive authors, citation analysis, article citation rate, journal cite score rate, publication trends based on keyword occurrence, and publication trends by year. The research employs bibliometric analysis, gathering data from the Scopus database on June 13, 2023. Data is then processed and analyzed using the Publish or Perish (PoP) and VOSviewer applications to visualize the results. The results concluded that JVIB is a reputable international journal with a Q3 rating managed by the American Foundation for the Blind (AFB) with a frequency of publication of six times in one volume. A total of 686 documents have been published from 2013 to 2022, divided into articles, notes, editorials, letters, erratums, and reviews. America is the most dominant country, contributing a total of 490 documents. Emerson, R.W., became the most productive author with 50 documents. JVIB was cited 2710 times, with a per-article citation rate of 271.00, an h-index of 21, a g-index of 31, an hI, norm 12, HLA of 1.20, and hA-index 5. The current publication trend identified publications discussing vision rehabilitation.

**Keywords:** Bibliometric; publication mapping; visual impairment and blindness

## 1. INTRODUCTION

The United Nations (UN) internationally agreed that inequality development is one of the key points in the Sustainable Development Goals (SDGs). Inequality is a phenomenon that occurs within and between countries by empowering and promoting social, economic, and political inclusion in all communities, including people with disabilities (United Nations, 2015). The promotion of inclusion and a reflection of equality for disabilities can be supported through various research results.

This is sustainable with research results, which are believed to produce new innovations in realizing the SDGs Goal (Berrone et al., 2023). The research results can also help contextualize the SDGs in increasing corporate awareness and acceptance of social activism. It will reduce

corporate exposure to reputational risk and increase companies' likelihood of working with interest groups to create balanced social value, including on disability (Caldwell et al., 2017).

One of the high numbers of disability conditions in the world is blindness. According to WHO records, there are at least 2.2 million people in the world who are visually impaired (World Health Organization, 2023). As part of one of the disabilities and closely related to health conditions, the SDGs goals also emphasize the rights of visually impaired people and the importance of vision health. Goals 3 and 10 are precisely stated as being about health and equality. Disability rights are also listed in 15 other goals to reflect disability rights equality (United Nations, 2015). This further emphasizes that the study of the visually impaired is an important study that should not be overlooked.

One of the best journals focusing on visual impairment and blindness is the Journal of Visual Impairment and Blindness (JVIB), managed by the American Foundation for the Blind (AFB). JVIB is included in reputable international journals because it has been indexed in Scopus with the subject area "Rehabilitations" in the "Medicine" category, which is ranked Quartile 3 (Q3). Quartile is a ranking system for reputable journals based on the subject or category area of the journal. The Q1, Q2, Q3, and Q4 rankings rank how large and influential a Scopus-indexed journal is in a scientific field. JVIB is published with a publication frequency of six numbers in one volume.

This study aims to provide a detailed understanding of the Journal of Visual Impairment and Blindness (JVIB) published from 2013 to 2022, focusing on the distribution of documents per year, document types, types of open access, authors' countries, productive authors, citation analysis, article citation counts, journal CiteScore, publication trends based on keyword occurrences, and publication trends based on years. The research was conducted using bibliometric analysis. Bibliometric analysis can be used in various types of research, including scientific research, social research, and business research, and in this case, focuses on research outcomes in the form of publications published in the Journal of Visual Impairment and Blindness (JVIB). Bibliometrics can help researchers identify trends in scientific publications, measure research impact, and identify collaborations between researchers (Moed et al., 2005). Bibliometric analysis is commonly used to evaluate research performance, identify research trends, and conduct research network mapping (Perianes-Rodriguez et al., 2016). Research mapping using bibliometric analysis is only for scientific publications in certain bibliographic databases (Bornmann & Leydesdorff, 2014).

Some research on bibliometric analysis of scientific journals, including research conducted by (Aulianto et al., 2021) entitled "Bibliometric Analysis of the Journal of Environment and Geological Disasters 2016-2020 Period". The method used uses bibliometric analysis, with data collection sources from <http://jlbj.geologi.esdm.go.id/index.php/jlbj>. The data is processed and analyzed using Ms. Excel and the Publish or Perish (PoP) Application. Then, the results concluded that JLBG had published 75 articles from 2016 to 2020 written by 237 authors, consisting of 11 articles written by single authors (15%) and 64 written by collaborative authors (85%). The number of articles published by JLBG during the 2016-2020 period was 814 pages, and the reference literature used was 1457, consisting of primary literature used by 737 (50.58%) and secondary literature used by 720 (49.42%). JLBG has been cited 72 times; most articles have 7 citation numbers. The overall JLBG citation rate per year during 2016-2020 is 14.40, and the citation per article is 0.96, besides the h-index 4, g-index 5, hi, norm 3, and HLA 0.60. The next study, which was conducted (Tupan, 2020), was on bibliometric mapping of open science scientific publication development from 2000 to 2019. The data taken is publication data in open science in the last 20 years (2000-2019). The results showed that the highest growth of Scopus-indexed publications on open science occurred in 2018, with 230 publications. The core journal that publishes the most publications on open science is Royal Open Science, with 26 publications. Likewise, the United States is the country of origin of the most prolific author, with 476 publications. Quick R from Indiana University is

the most prolific author writing about open science. Visualization using VOSviewer shows that the development map of scientific publications on open science is divided into 6 clusters.

In addition to bibliometric analysis, the discussion in this study will feature citation analysis and visualization to display publication trends based on keyword occurrence and by year. The study enhances readers' understanding of research trends in visual impairment and blindness through document analysis. It facilitates the identification of productive authors and potential collaborations, benefiting researchers and institutions. The evaluation of the journal's impact assists readers in assessing publication quality. Furthermore, the study provides a global perspective by examining author countries and publication trends, shedding light on geographical distribution and international collaboration in research.

Based on the background that has been described, this study was conducted on the bibliometric analysis of the Journal of Visual Impairment and Blindness (JVIB) for the period 2013 to 2022.

## **2. METHODS**

The method used in this research is the bibliometric method, which analyzes the publication of the Journal of Visual Impairment and Blindness (JVIB) for the period published from 2013 to 2022. Bibliometrics is a branch of library and information science that studies bibliographic content using quantitative methods (Broadus, 1987; Pritchard, 1969). This method was chosen because it can present an overview of a field of research that can be identified from the journal (Merigó & Yang, 2017). Bibliometric analysis is a descriptive study method that can be used to see the distribution of the number of publications and citations of various kinds of literature, authorship analysis, citation analysis, author collaboration, literature obsolescence, factors, etc. (Pattah, 2013). Bibliometric analysis topics can also be described quantitatively and qualitatively (Velasco et al., 2012). Furthermore, bibliometrics is an analytical method used to measure the quantity and quality of scientific publications. It involves collecting bibliographic data from specific sources, such as scientific journals, books, and conferences, and then analyzing the data to identify trends and patterns in scientific publications (Li & Wu, 2019). Bibliometrics can also measure researcher productivity, scientific publications' quality, and research's impact (Moed et al., 2005).

The data collected and processed is from the Journal of Visual Impairment and Blindness (JVIB), gathered from Scopus and accessed on March 2, 2023. Information about the Journal of Visual Impairment and Blindness (JVIB) was obtained through a search using ISSN 1389-0166, and a 10-year publication period was selected from 2013 to 2022. Data processing uses the Publish or Perish (PoP) application to get the citation analysis results on the Journal of Visual Impairment and Blindness (JVIB). The Journal of Visual Impairment and Blindness (JVIB) data source processed comes from the Scopus database, exported in RIS format, and later pulled for analysis using PoP. The citation matrix obtained includes data on publication years, citation years, articles (papers), citations per journal year (cites/year), citations per article (cites/paper), citations per author (cites/author), articles per author (papers/author), author numbers per article (author/paper), h-index, g-index, hI, norm, and hI, annual (Aulianto et al., 2019b). Data presentation in visualization was processed and analyzed using the VOSviewer application. The visualization results of all information about publications that have been collected related to the field under study include bibliographic pairs of authors, countries, institutions, journals, and occurrences with author keywords (Orduña-Malea & Costas, 2021; Oyewola & Dada, 2022; Perianes-Rodriguez et al., 2016).

### 3. RESULTS AND DISCUSSION

#### Results

#### Document Distribution in the Journal of Visual Impairment and Blindness (JVIB)

The JVIB published six numbers in one publication volume: January-February, March-April, May-June, July-August, September-October, and November-December. The types of documents included are articles, notes, editorials, letters, erratum, and reviews.

However, the publication during the last 10 years of JVIB has fluctuated, and there has been a significant increase in the publication over the last 1 year. From 2013 to 2022, the number of documents recorded in the Scopus database was 686, with a range of the least published documents, 57 documents in 2013 and the most 98 documents in 2022. The average published document per article year is 68.6, which means that in one number, at least 5 articles are published. Information published in the Journal of Visual Impairment and Blindness for 2013 to 2022 can be seen in Figure 1 below.

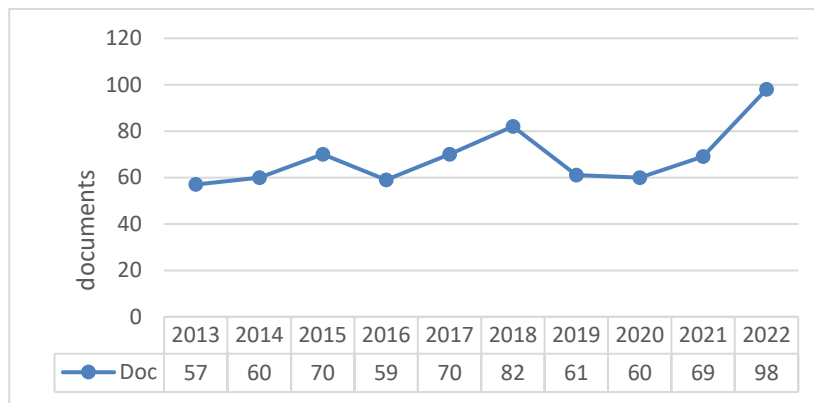
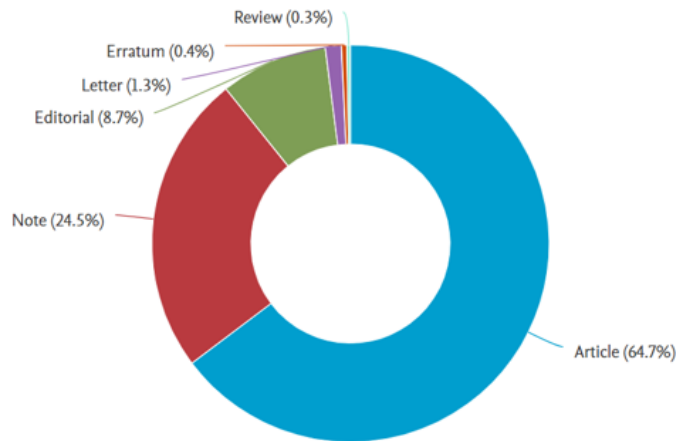


Figure 1. Number of publications of JVIB (2013-2022)

#### Document Types in Journal of Visual Impairment and Blindness (JVIB)

Five types of documents are published in the Journal of Visual Impairment and Blindness (JVIB): article, erratum, editorial, letter, note, and review. A brief explanation of each document type follows: An article is a document published in a scientific journal. Erratum refers to a manuscript that contains corrections of errors made in the article by the publisher, so the author must approve any corrections before being republished. An editorial summarizes several articles or provides editorial opinion or news. Editorials are usually identified as editorial introductions and forewords and are listed at the beginning of the table of contents. The letter is a letter to or correspondence with the editor. The note is a document in the form of a note, and a review is a document resulting from a review.

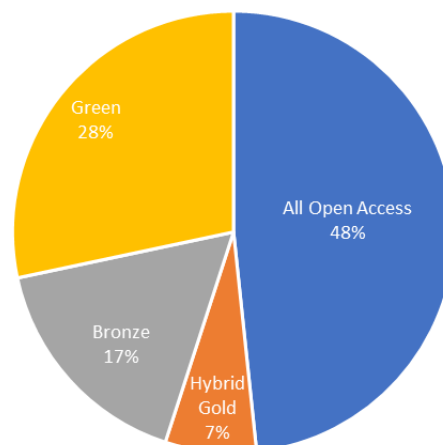
A total of 686 documents are divided into 6 document types, with the composition of documents in the form of articles being the largest, with 444 articles (64.7%), notes as many as 168 documents (24.5%), editorials as many as 60 documents (8.7%), letters as many as 9 documents (1.3%), erratum 3 documents (0.4%), and reviews 2 documents (0.3%). A graph of the percentage of document types in JVIB can be seen in Figure 2.



**Figure 2.** The document type of JVIB (2013-2022)

### Types of Open Access at Journal of Visual Impairment and Blindness (JVIB)

In December 2020, Scopus introduced Open Access (OA) filters, providing several open access options in data searches. The classification system released includes document searches using Gold OA, HybridGold OA, Green OA, Bronze OA, and All Open Access Article filters (Aulianto et al., 2019a). *Gold OA* means that the document version is available on the publisher's platform, complete with Creative Commons license attributes, and the documents in the journal are open-access only. *HybridGold OA* means that the version of the document is available on the publisher's platform and complete with Creative Commons license attributes. The documents in the journal are selected by the author, who publishes on an open-access basis. *Bronze OA* is the version of the manuscript declared published by the publisher and will be given temporary or permanent free access. *Green OA* is the published version of the document or accepted manuscript that is available in the repository. The author or publisher places a version of the article published in the subscribed journal in a freely accessible archive (Solomon, 2013).



**Figure 3.** Types of open-access

Figure 3 shows that from 2013 to 2022, documents with the type of "All Open Access" were the most numerous, with a percentage of 48%, as many as 58 documents. The percentage of 28% with 34 documents is categorized as "Green Open Access," the number of Hybrid Gold OA documents is 8, and the bronze OA type is 20.

### Document Distribution by Nation

The distribution of documents can also be seen from the author's country of origin. America is the most dominant country contributing a total of 490 documents. The second position is Canada, with 35 documents; the third is the UK, with 14 documents. New Zealand with 12 documents, followed by Australia, the Netherlands, Poland, Turkey, Brazil, and Germany. Information on the distribution of the country of origin of the authors can be seen in Figure 4.

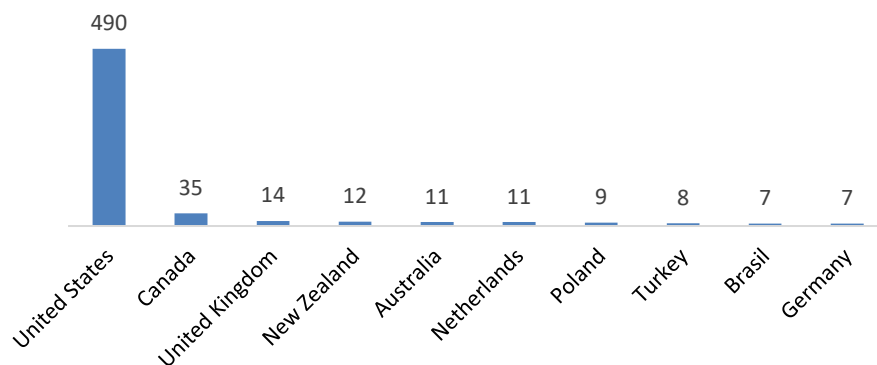


Figure 4. Authors' countries

Authors from the United States are the most active contributors, with 490 documents published in the last 10 years. The second position is Canada, with 35 documents, and continued with authors from other countries whose documents are around a dozen, as shown in Graph 4 Nation of Author.

Based on the data identification and analysis results, derivative information is obtained regarding the distribution of documents by the author. There are ten (10) names of authors found who often send their manuscripts to the Journal of Visual Impairment and Blindness (JVIB). Emerson, R.W. is the most productive author with 50 documents. Lewis, with 31 documents in second place, and Rosenblum, with 23 documents in third place. Complete information about the 10 most productive authors can be seen in Table 1 below.

Table 1. The ten prolific authors

No	Authors	Countries	Quantities
1	Emerson, R. W.	United States	50
2	Lewis, S.	Australia	31
3	Rosenblum, L. P.	United States	23
4	McDonnall, M. C.	United States	22
5	Cmar, J. L.	United States	21
6	Erin, J. N.	United States	18
7	Lieberman, L. J.	United States	18
8	Pogrund, R. L.	United States	15
9	Haegele, J. A.	United States	14
10	Herzbero, T. S	United States	12

The results of data processing obtained information that in the last 10 years, the most productive authors in the Journal of Visual Impairment and Blindness (JVIB) are dominated by authors from the country, namely the United States. Out of 10 authors, there is only 1 author outside the United States, Lewis from Australia, who is included in the ranks of productive authors. The list of prolific authors is in line with Table 1, which shows that authors from the



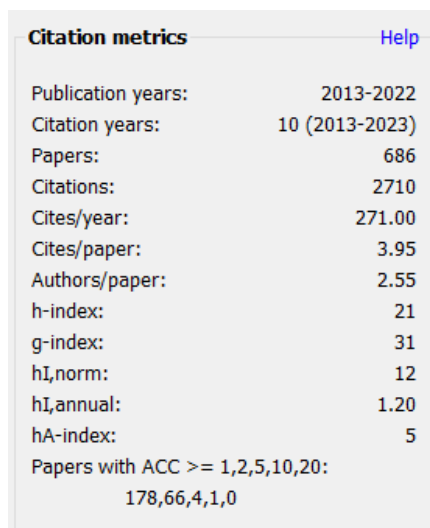
United States are the main contributors to the Journal of Visual Impairment and Blindness (JVIB).

### **Citation Analysis of Journal of Visual Impairment and Blindness (JVIB)**

Citations are used in scientific work to acknowledge the impact of previous work. The assessment of the scientific impact of a journal is calculated by dividing the number of citations by the number of articles published in a certain period, usually within two years of publication. The success of scientific work can be seen in whether or not other authors cite the writing. The greater the number of citations, the greater the usefulness of the published work (Gunawan, 2021). Measuring the frequency of one's scientific work cited by others can be done through citation analysis (Erwina & Sodikin, 2018). The quality of scientific work can be seen from the urgency of scientific work to evaluate research programs; scientific work can be used to map science by visualizing it through various disciplines. There are indicators of the development of science and technology, the quality and development of scientific work, and an impact factor from the journal (Hartinah, 2002).

Accordingly, the JVIB citation metrics for 2013 to 2022 can be seen in Figure 4. The citation analysis results in this metric are processed using the Publish or Perish (PoP) application, whose data sources are taken from the Scopus database based on ISSN and journal publication year. The information listed in the metric includes publication years from 2013 to 2022, which is the period studied in this paper. The number of citation years is determined to calculate citations or citations made by other authors for ten years from 2013 to 2022. The number of Papers in the Journal of Visual Impairment and Blindness (JVIB) published from 2013 to 2022 is 686 documents and has been indexed in Scopus, with a total of 2,710 citations. The number of citations/years shows the number of citations per year for the JVIB, which is 271.00, obtained from the number of citations divided by 10 (years of publication). The cites/paper number shows the number of citations per article/document in the JVIB, which is 3.95, and the author/paper number shows the number of authors per article/document in the journal which is 2.55.

The h-index is an index used to measure the productivity and impact of an article published by the authors. This index is based on the number of scientific papers produced by the author and the number of citations received from other authors or publications (Aulianto & Nashihuddin, 2020). A journal can have an h-index if every h articles published have been cited at least h times. The h-index reflects the number of publications and the number of citations per publication. The number of citations from the cumulation of cited articles affects other articles and can be used to calculate the g-index. The g-index calculation is the average number of times cited after sorting to the g number. The weight of citations a document receives is considered in the g-index calculation, and the total number of publications does not limit the g-index for a particular author (Costas & Bordons, 2008).



**Figure 4.** The citation metrics of JVIB (2013-2022)

After sorting the documents by the number of citations, the h-index and g-index are determined based on the document order. On the Harzing.com page, it is informed that the hI-norm is an individual h-index obtained from normalizing the number of citations for each article by dividing the number of citations by the number of authors for that article and then calculating the h-index from the normalized number of citations. hI-annual (hIa) is a number obtained from the hI-norm divided by academic age (the number of years in effect since the first publication), and hA-index is a new revolutionary index to measure the impact of a researcher, which is the average of the h-index. In Figure 1, the Journal of Visual Impairment and Blindness (JVIB) has an h-index of 21, a g-index of 31, an hI-norm of 12, and an hI-annual of 1.20 and an hA-Index of 5. The large number of citations in the Journal of Visual Impairment and Blindness (JVIB) indicates that other authors refer to articles published in this journal and allows the research trends carried out to be in line with the publications in the Journal of Visual Impairment and Blindness (JVIB).

**Citation Rate of Articles in The Journal of Visual Impairment and Blindness (JVIB)**

The influence of a journal or article can be seen from the number of references. A higher citation rate indicates that more authors use these writings as written references. The reference count reflects the author’s contribution to academics and science (Aulianto, 2022). Table 2 lists the top 10 article citation numbers in the Journal of Visual Impairment and Blindness (JVIB) from 2013 to 2022. These citation numbers include all articles published from 2013 to 2022 and citations by other authors during the same period. Furthermore, table 2 shows that the highest number of citations is 147, for an article written by Emerson in 2015. The second rank is a collaborative article written by Perkins et al., with 75 citations. The third rank with 57 citations was written collaboratively by Griffin-Shirley et al., published in 2017. The number of citations in rank four to ten, according to Table 2, is in the range of 29 to 39.

**Table 2.** The highest cited articles JVIB (2013-2022)

No	Authors	Title	Year	Citation
1	Emerson R.W.	Convenience sampling, random sampling, and snowball sampling: How does sampling affect the validity of research?	2015	147
2	Perkins K.; Columna L.; Lieberman L.; Bailey J.E.	Parents' perceptions of physical activity for their children with visual impairments	2013	75



No	Authors	Title	Year	Citation
3	Griffin-Shirley N.; Banda D.R.; Ajuwon P.M.; Cheon J.; Lee J.; Park H.R.; Lyngdoh S.N.	A survey on the use of mobile applications for people who are visually impaired	2017	57
4	McDonnall M.C.; O'Mally J.; Crudden A.	Employer knowledge of and attitudes toward employees who are blind or visually impaired	2014	39
5	Hatton D.D.; Ivy S.E.; Boyer C.	Severe visual impairments in infants and toddlers in the United States	2013	35
6	Zebehazy K.T.; Wilton A.P.	Straight from the source: Perceptions of students with visual impairments about graphic use	2014	34
7	Grant P.; Spencer L.; Arnoldussen A.; Hogle R.; Nau A.; Szlyk J.; Nussdorf J.; Fletcher D.C.; Gordon K.; Seiple W.	The functional performance of the brainport v100 device in persons who are profoundly blind	2016	33
8	Arditi A.; Tian Y.L.	User interface preferences in the design of a camera-based navigation and wayfinding aid	2013	32
9	McDonnall M.C.; Sui Z.	Employment and Unemployment Rates of People Who Are Blind or Visually Impaired: Estimates from Multiple Sources	2019	30
10	Crudden A.; McDonnall M.C.; Hierholzer A.	Transportation: An electronic survey of persons who are blind or have low vision	2015	29

### Cite Score on Journal of Visual Impairment and Blindness (JVIB)

Cite score is an indicator used to measure the influence and prestige of a scientific journal (Ahmad et al., 2019). It is obtained by calculating the number of citations received by articles published in the journal within a specific period. Cite score provides an overview of the recognition and esteem the journal holds within the scientific community. A higher cite score indicates a greater level of influence and reputation for the journal. Therefore, the cite score can be used as a factor to evaluate the quality and impact of publications in a scientific journal.

Thomson Reuters' Impact Factor (IF) calculation for each journal is a reference material used to indicate that international journals have a high-level or reputable citation index. Another case with Scopus, to detect how high or how high the level of journal reputation on Scopus can be seen from the CiteScore number. The bigger the number, the more reputable it is. Cite Score is a journal-level metric published by Scopus to measure the average citations received per document published in a journal.

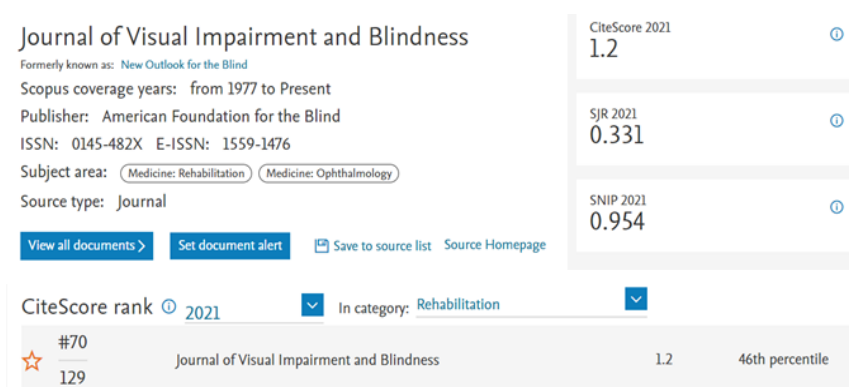


Figure 5. CiteScore JVIB

Journal of Visual Impairment and Blindness (JVIB) has a CiteScore of 1.2, calculated on May 5, 2022, and is ranked 70 out of 129 journals in the "Medicine: Rehabilitation" category. The latest CiteScore Trends and Rankings are in 2021. In the Scopus CiteScore database, rank 1 (one) is occupied by IEEE Transactions on Neural Systems and Rehabilitation Engineering with a score of 8.1. Rank 2 (two) is occupied by the Journal of NeuroEngineering and Rehabilitation with a score of 7.4. Rank 3 (three) is occupied by Games for Health Journal with a score of 6.4, and rank 4 (four) is Neurorehabilitation and Neural Repair with a score of 6.1. Journal of Geriatric Physical Therapy occupies position 5 (five) with a score of 6.1.

Rank	Source title	CiteScore 2021
#1	IEEE Transactions on Neural Systems and Rehabilitation Engineering	8.1
#2	Journal of NeuroEngineering and Rehabilitation	7.4
#3	Games for health journal	6.4
#4	Neurorehabilitation and Neural Repair	6.1
#5	Journal of Geriatric Physical Therapy	6.1

**Figure 6.** The highest CiteScore ranking "Rehabilitation" category

### Publication Trends Based on Keyword Occurrence

Publication trends based on keyword occurrence involve analyzing the frequency and patterns of keywords in published articles. This analysis provides insights into emerging research areas, popular themes, and shifts in research priorities over time (Hou et al., 2018). Based on the data processing results on keywords using the VOSviewer thesaurus file, the publication of the Journal of Visual Impairment and Blindness (JVIB) from 2013 to 2022 has 675 keywords. Publication trends show that 56 keywords meet the minimum threshold of appearing at least three times.

**Table 3.** The keyword occurrences

Keyword	Occurrences
visual impairments	101
blindness	38
low vision	31
Blind	25
employment	21
orientation and mobility	14
human	13
Article	11
physician	10
physical activity	10

Table 3 displays information that the most frequently used keyword in publications in the Journal of Visual Impairment and Blindness (JVIB) is "visual impairments" with 101 occurrences, followed by the keyword "blindness" with 38 occurrences and the keyword "low vision" in third place with 31 occurrences. Other popular keywords were "blind, employment, orientation and mobility, human, article, physician, physical activity."

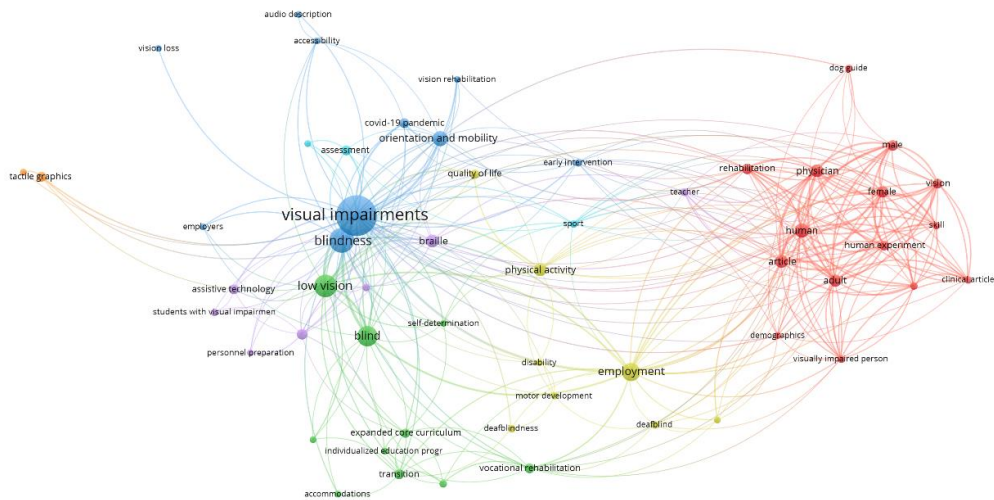
The Publication trends can be grouped based on keywords and interrelationships between keywords. Based on the data processing results using VOSviewer, publication trends can be visualized to describe the clusters and items of related publications. Table 4 shows the division of clusters and items in JVIB publications from 2013 to 2022. With a minimum keyword occurrence of three times, 55 items are divided into seven clusters. The clusters show the items included in the network map where one item can only be part of one cluster.

**Table 4.** The clusters and publication items based on keyword occurrence

<b>Cluster 1</b>	<b>Cluster 2</b>	<b>Cluster 3</b>
adult	accommodations	accessibility
article	blind	audio description
clinical article	expended core curriculum	blindness
controlled study	individualized education	covid-19 pandemic
demographics	low vision	early intervention
dog guide	self-determination	employers
female	technology	orientation and mobility
human	transition	vision loss
human experiment	vision rehabilitation therapist	vision rehabilitation
male	vocational rehabilitation	visual impairments
physician		
rehabilitation		
skill		
vision		
visually impaired person		
<b>Cluster 4</b>	<b>Cluster 5</b>	<b>Cluster 6</b>
deafblind	assistive technology	assessment
deafblindness	braille	children
disability	literacy	sport
employment	personnel preparation	
motor development	students with visual impairments	<b>Cluster 7</b>
physical activity	teacher	congenital blindness
quality of life	teacher of students with visual impairments	tactile graphics
vocational rehabilitation services		

The dominance of the red cluster is about "human" with 24 links, the total link strength is 95, and the occurrence is 13 times. Green cluster dominance regarding "low vision" with 22 links, a total link strength of 60, and 31 occurrences. The dominant blue cluster is about "visual impairments," with 47 links. So, the total link strength is 152, and the occurrence is 101 times. The dominance of yellow cluster regarding "employment" has 23 links, a total link strength of 66, and 21 occurrences; the dominant purple cluster is about "braille" with 13 links. Likewise, the total link strength is 20, and the occurrence is 10 times. The dominance of the Tosca blue cluster is about sport," with 16 links; the total link strength is 18, and the occurrence is four times.

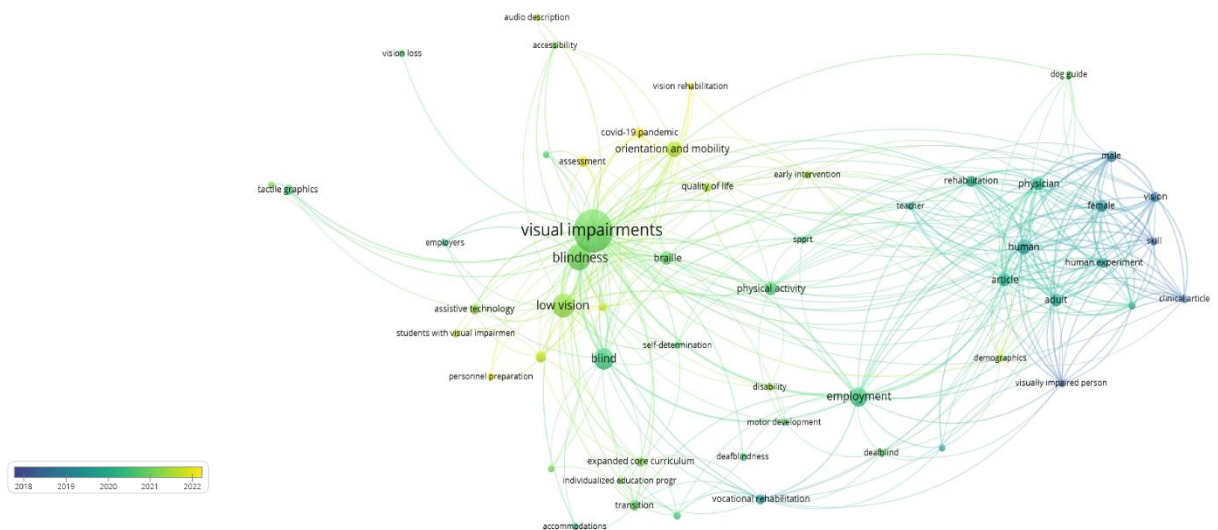
"Links" indicate the relationship or connection between two items, and "total link strength" indicates the strength of an item's link to other items. "Occurrence" indicates the presence or number of occurrences of an item. A visualization of the six clusters of publications about batik based on the occurrence of keywords can be seen in Figure 7.



**Figure 7.** The visualization of publication trends based on keyword occurrence

### Publication Trends by Year

A visualization of publication trends based on the year of publication in the Journal of Visual Impairment and Blindness (JVIB) can be seen in Figure 8. The more yellow circles indicate the current time, and the more dark blue circles indicate past research trends. In 2018 and the previous year, the popular publication trend was "visually impaired person, male or female, vision, skill, clinical article". It's seen that "COVID-19 pandemic" is one of the popular topics. Research on COVID-19 during the pandemic was very popular.



**Figure 8.** The visualization of publication trends by year of publication

According to [Fassin \(2021\)](#), research on COVID-19 has experienced an unprecedented explosion of scientific literature. During the pandemic, research on this topic has been remarkably abundant. [Brainard \(2020\)](#) noted this surge, and [Silberner \(2021\)](#) highlighted that the World Health Organization's global database of COVID-19 studies contains nearly 250,000 listings.

The researchers have broken down barriers created by the COVID-19 pandemic, creating a global collaboration unlike any in history. Online repositories have made studies available months earlier than traditional journals ([Apuzzo & Kirkpatrick, 2020](#)). In its latest publication

in 2022, the Journal of Visual Impairment and Blindness (JVIB) began discussing vision rehabilitation.

#### 4. CONCLUSION

The Journal of Visual Impairment and Blindness (JVIB) is a highly reputable journal with a Q3 ranking on the Scopus database. Managed by the American Foundation for the Blind (AFB), JVIB consistently publishes six volumes annually. Since 2013, 686 documents have been published, including various article types such as articles, notes, editorials, letters, errata, and reviews. Regarding accessibility, the Journal of Visual Impairment and Blindness (JVIB) has embraced open access principles. From 2013 to 2022, the types of open access available included All Open Access articles, hybrid gold OA, green OA, and bronze OA.

An analysis of the publication data reveals significant contributions from different countries and authors. The United States emerged as the most dominant country, with a total of 490 published documents. Among the prolific authors, Emerson, R.W. stands out as the most productive, having contributed 50 documents to the journal. The impact of the Journal of Visual Impairment and Blindness (JVIB) can be measured through its citation metrics. It has been cited 2710 times, with a per-article citation rate of 271.00, besides the h-index 21, g-index 31, hl, norm 12, hla 1.20, and hA-index 5.

The trend and ranking of reputable journals on the Scopus database can also be seen from the CiteScore number. In the "Medicine: Rehabilitation" category, the Journal of Visual Impairment and Blindness (JVIB) ranks 70th out of 129 journals, highlighting its significance within this specific domain. From 2013 to 2022, the Journal of Visual Impairment and Blindness (JVIB) publication trends show 55 items divided into seven clusters. This is based on keywords with a minimum of three occurrences. During this period, JVIB publications began discussing *vision rehabilitation*.

#### REFERENCES

- Ahmad, S., Sohail, M., Waris, A., Abdel-Magid, I. M., Pattukuthu, A., & Azad, M. S. (2019). Evaluating journal quality : A review of journal citation indicators and ranking in library and information science core journals. *COLLNET Journal of Scientometrics and Information Management*, 13(2), 345–363.  
<https://doi.org/10.1080/09737766.2020.1718030>
- Apuzzo, M., & Kirkpatrick, D. D. (2020, April 14). Covid-19 Changed How the World Does Science, Together. *The New York Times*.
- Aulianto, D. R., Annisa, C. N., & Taufiqi, M. A. (2021). Bibliometric Analysis of "Jurnal Lingkungan dan Bencana Geologi" 2016-2020 Period. *Library Philosophy and Practice (e-Journal)*, 7(14).
- Aulianto, D. R., & Nashihuddin, W. (2020). Bibliometrics and Citation Analysis of "BACA: Jurnal Dokumentasi dan Informasi" Published During 2015-2019. *Khizanah Al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi Dan Kearsipan*, 8(2), 149–160.  
<https://doi.org/10.24252/kah.v8i2a5>
- Aulianto, D. R., Yusup, P. M., & Setianti, Y. (2019a). Citations Analysis of Jurnal Kajian Informasi & Perpustakaan Universitas Padjadjaran, Indonesia. *Library Philosophy and Practice (e-Journal)*.
- Aulianto, D. R., Yusup, P. M., & Setianti, Y. (2019b). Pemanfaatan Aplikasi "Publish Or Perish" Sebagai Alat Analisis Sitasi Pada Jurnal Kajian Komunikasi Universitas Padjadjaran. In

- Seminar Nasional MACOM III Universitas Padjadjaran 2019 "Communication and Information Beyond Boundaries"* (pp. 873–880). AKSEL Media Akselerasi.
- Berrone, P., Rousseau, H. E., Ricart, J. E., Brito, E., & Giuliadori, A. (2023). How can research contribute to the implementation of sustainable development goals? An interpretive review of SDG literature in management. *International Journal of Management Reviews*, 25(2), 318–339. <https://doi.org/10.1111/ijmr.12331>
- Bornmann, L., & Leydesdorff, L. (2014). Scientometrics in a changing research landscape. *EMBO Reports*, 15(12), 1228–1232. <https://doi.org/10.15252/embr.201439608>
- Brainard, J. (2020). *Scientists are drowning in COVID-19 papers. Can new tools keep them afloat?* [www.science.org](https://www.science.org). <https://www.science.org/content/article/scientists-are-drowning-covid-19-papers-can-new-tools-keep-them-afloat>
- Broadus, R. N. (1987). Toward a definition of "bibliometrics." *Scientometrics*, 12(5–6), 373–379. <https://doi.org/10.1007/BF02016680>
- Caldwell, N. D., Roehrich, J. K., & George, G. (2017). Social Value Creation and Relational Coordination in Public-Private Collaborations. *Journal of Management Studies*, 54(6), 906–928. <https://doi.org/10.1111/joms.12268>
- Costas, R., & Bordons, M. (2008). Is g-index better than h-index? An exploratory study at the individual level. *Scientometrics*, 77(2), 267–288. <https://doi.org/10.1007/s11192-007-1997-0>
- Erwina, W., & Sodikin, Y. (2018). Kajian Sitasi Karya Ilmiah Dosen Fikom Unpad Dalam Skripsi Mahasiswa: Analisis Sitasi Karya Ilmiah Dosen Dalam Skripsi Mahasiswa Pada Database Gdl Di Fikom Library and Knowledge Center (Flkc) Universitas Padjadjaran Pada Semester Genap Tahun 2011. *EduLib*, 2(2). <https://doi.org/10.17509/edulib.v2i2.10041>
- Fassin, Y. (2021). Research on Covid-19: a disruptive phenomenon for bibliometrics. *Scientometrics*, 126 (5305-5319). <https://doi.org/10.1007/s11192-021-03989-w>
- Gunawan, I. (2021). Analisis Sitasi Pada Jamp: Jurnal Administrasi aan Manajemen Pendidikan, Universitas Negeri Malang, 2018-2020. *Jurnal Administrasi Dan Manajemen Pendidikan*, 4(2), 163. <https://doi.org/10.17977/um027v4i12021p163>
- Hartinah, S. (2002). *Analisis Sitiran (Citation Analysis)*. Materi Kursus Bibliometrik. Masyarakat Infometrika Indonesia.
- Hou, J., Yang, X., & Chen, C. (2018). Emerging trends and new developments in information science: a document co-citation analysis (2009–2016). *Scientometrics*, 115(2), 869–892. <https://doi.org/10.1007/s11192-018-2695-9>
- Li, X., & Wu, X. (2019). A Bibliometric Analysis of Big Data Research. *Journal of Big Data*, 6(1), 1–22.
- Merigó, J. M., & Yang, J.-B. (2017). A bibliometric analysis of operations research and management science. *Omega*, 73, 37–48. <https://doi.org/10.1016/j.omega.2016.12.004>
- Moed, H. F., Glänzel, W., & Schmoch, U. (Eds.). (2005). *Handbook of Quantitative Science and Technology Research*. Springer Netherlands. <https://doi.org/10.1007/1-4020-2755-9>
- Orduña-Malea, E., & Costas, R. (2021). Link-based approach to study scientific software usage: the case of VOSviewer. *Scientometrics*, 126(9), 8153–8186. <https://doi.org/10.1007/s11192-021-04082-y>
- Oyewola, D. O., & Dada, E. G. (2022). Exploring machine learning: a scientometrics approach using bibliometrix and VOSviewer. *SN Applied Sciences*, 4(5), 143. <https://doi.org/10.1007/s42452-022-05027-7>
- Pattah, S. H. (2013). Pemanfaatan Kajian Bibliometrika sebagai Metode Evaluasi dan Kajian dalam Ilmu Perpustakaan dan Informasi. *Khizanah al-Hikmah: Jurnal Ilmu Perpustakaan, Informasi, dan Kearsipan* 1(1), 47–57.
- Perianes-Rodriguez, A., Waltman, L., & van Eck, N. J. (2016). Constructing bibliometric networks: A comparison between full and fractional counting. *Journal of Informetrics*, 10(4), 1178–1195. <https://doi.org/10.1016/j.joi.2016.10.006>
- Pritchard, A. (1969). Statistical Bibliography or Bibliometrics. *Journal of Documentation*.



- Silberner, J. (2021). *Scientists Say The Rush To Do COVID Research Led To A Whole Lot Of Waste*.  
<https://www.npr.org/sections/goatsandsoda/2021/04/23/988744818/scientists-say-the-rush-to-do-covid-research-led-to-a-whole-lot-of-waste>
- Solomon, D. (2013). Types of Open Access Publishers in Scopus. *Publications*, 1(1), 16–26.  
<https://doi.org/10.3390/publications1010016>
- Tupan, T. (2020). Pemetaan Bibliometrik Perkembangan Publikasi Ilmiah Sains Terbuka Periode Tahun 2000-2019. *Lentera Pustaka: Jurnal Kajian Ilmu Perpustakaan, Informasi Dan Kearsipan*, 6(1), 47–58. <https://doi.org/10.14710/lenpust.v6i1.27960>
- United Nations. (2015). *Sustainable Development Goals (SDGs) And Disability*. Department of Economic and Social Affairs. <https://social.desa.un.org/issues/disability/sustainable-development-goals-sdgs-and-disability#:~:text=Closely linked is Goal 10, settlements inclusive%2C safe and sustainable>
- Velasco, B., Bouza, J. M. E., Pinilla, J. M., & Román, J. A. S. (2012). La Utilizacion de Los Indicadores Bibliometricos Para Evaluar La Actividad Investigadora. *Aula Abierta*, 40(2).
- World Health Organization. (2023). *Blindness and Vision Impairment*. World Health Organization. <https://www.who.int/news-room/fact-sheets/detail/blindness-and-visual-impairment>