



Bibliometric Analysis Using Vosviewers With Publish Or Perish Of “Art-Based Research”

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ABSTRACT

The purpose of this research is to analyze the trend of art-based research (ABR) using the bibliometric analysis method assisted by mapping analysis. The bibliometric analysis method and mapping analysis with VOSviewer were used in this research. Data sources were taken from the Google Scholar database in the period 2014–2023. The total number of documents found during the last 11 years was 921. The results showed that the development of ABR has generally experienced unstable changes over the past 11 years. The development of ABR is still experiencing ups and downs. From 2013 to 2014, ABR research experienced a decrease from 43 to 33 documents; from 2014–2015 experienced an increase from 33 to 50; from 2015–2016 experienced a slight increase from 50 to 51; and from 2016–2017 experienced an increase from 51 to 70. 2017-2018 remained from 70 to 70, then 2018-2019 experienced an increase from 70 to 82, 2019-2020 experienced an increase from 82 to 101, 2020-2021 again experienced a significant increase from 101 to 128, 2021-2022 again increased from 128 to 151, and in 2022 there was a decrease from 151 to 142. Based on this analysis, it can be concluded that the trend of ABR research from year to year has not been stable. In other words, ABR research still experiences ups and downs. However, overall, there has been an increase. Thus, research on ABR still needs to be done.

INFO ARTIKEL

Riwayat Artikel :

Diserahkan 20 Desember 2023
Revisi Pertama 22 Januari 2024
Diterima 18 Februari 2024
Tersedia online 20 Maret 2024
Tanggal Publikasi 1 April 2024

Kata Kunci:

Art-Based Research, Bibliometric Analysis, VOSviewer

1. INTRODUCTION

Arts-based research (ABR) is an innovative approach in academia that combines elements of art and research methodology. This method has been the subject of increasing attention in the scientific community, as it seeks to understand and explore the expressive potential of the arts in the context of multidisciplinary research. ABR can provide a deeper understanding of complex issues in society, as art provides an alternative way of conveying and analyzing data (MacDonald, A., & Hunter, M., 2018). Moreover, this approach is not just about creating art but also about using art as a way to explore, analyze, and convey knowledge, which has enriched research methodologies by expanding the way we understand the world (Leavy, P., 2015).

Despite the ongoing development in this field, few previous studies have provided a comprehensive bibliometric review that examines the development and research trends in this domain. Meanwhile, nowadays, the use of bibliometric analyses has been frequently employed by many studies (Ferreira, F. A., 2018; El-Wakeel, H. A., et al., 2022; Lindström Sol, S., et al., 2022; Al Husaeni, D.F., and Munir, M., 2023; Nandiyanto, ABD, et al., 2023). Therefore, bibliometric analyses can provide valuable insights into the development, distribution, and collaboration networks in arts-based research.

To further explore these research trends, this study aims to conduct a bibliometric analysis using the VOSviewer tool and data from Publish or Perish. This analysis is expected to provide a deeper understanding of the distribution of publications, linkages between researchers, and trends in research topics within the arts-based research domain. By utilizing state-of-the-art bibliometric methodologies, we hope that this research will make a significant contribution to expanding our understanding of the development and future direction of arts-based research.

2. METHODS

Bibliometric analysis was conducted as a research method. There are several stages in bibliometric analysis, including Article data collection is the first step in conducting literature research using bibliometric analysis. At this stage, published research documents related to the topic ‘Statistical Significance’ are collected. The article data used is article data indexed by Google Scholar in 2013–2023. Article data is collected through the Publish or Perish application. The results of collecting article data using Publish or Perish resulted in 921 articles for analysis. The collected research article data is stored in format (*.csv) so that it can be analyzed using Microsoft Excel software, and in format (*.ris) so that it can be analyzed and visualized using the VOSviewer application. After data collection, article data was filtered to see the completeness of its components (such as the year). Furthermore, the article data was analyzed using MS Excel and visualized using VOSviewer.

In summary, the research stages were carried out through several stages:

- I. Collection of publication data using the PoP application
- II. Processing bibliometric data of articles obtained using the Microsoft Excel application.
- III. Computational mapping analysis of bibliometric publication data using the VOSviewer application

IV. Analysis of the results of computational mapping analysis

3. RESULTS AND DISCUSSION**3.1 Development of Art-Based Research 2013-2023**

It can be understood in Table 2, which shows the annual report of 'Art-Based Research' research that has been published and can be accessed on Google Scholar for both national and international publications. Based on the data, it is known that the total number of documents found during the last 11 years is 921. Details of the number of research documents regarding 'Art-Based Research', namely in 2013 there were 43 documents, in 2014 there were 33 documents, in 2015 there were 50 documents, in 2016 there were 51 documents, in 2017 there were 70 documents, in 2018 there were 70 documents, in 2019 there were 82 documents, in 2020 there were 101 documents, in 2021 there were 128 documents, and in 2023 there were 142 documents.

Based on the number of research documents each year, it is known that research publications on 'Art-Based Research' experience ups and downs in the development of each year. However, based on the overall number, it has increased from 2013 to 2023. Figure 1 shows the graph of the increase and decrease in the number of publications on 'art-based research' more clearly. Over the past 11 years, the highest number of studies on this topic occurred in 2022 (151 documents) and the lowest number in 2014 (33 documents).

Table 2. Annual Report Research on "Art-Based Reserch".

Year	Total of Publication	Persentase
2013	43	4,7%
2014	33	3,6%
2015	50	5,4%
2016	51	5,5%
2017	70	7,6%
2018	70	7,6%
2019	82	8,9%
2020	101	11,0%
2021	128	13,9%
2022	151	16,4%
2023	142	15,4%
Total	921	100,0%

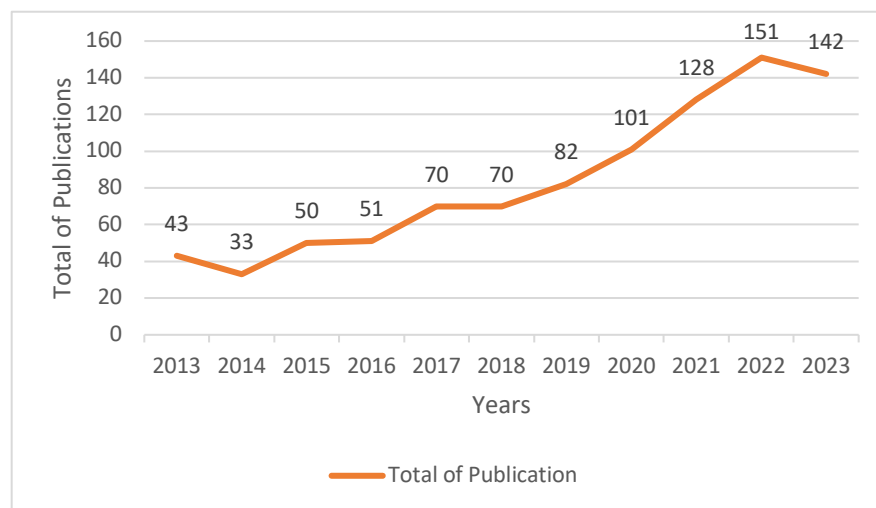


Figure 1. Research Developments regarding "Art-Based Research"

3.2 Trend of Art-Based Research Citations 2013-2023

In this study, we present 20 documents on t-test statistics that have the highest number of citations. Table 3 presents some metadata from the articles with the highest number of citations. Based on Table 3, it is known that the publication written by Leavy, P. (2020) is the most frequently cited article, namely 4635 times cited since 2020, with an average number of citations per year of 1158.75 times. Leavy, P. (2020) discusses 'Method meets Art: Arts-Based Research Practice'. Another article with the highest number of citations is the one written by Marshall, J. (2014). The article written by Marshall, J. (2014) discusses 'transdisciplinarity and art integration' and has been cited 295 times since 2014, with an average number of citations per year of 29.5 times. The article with the 3rd most citations is an article that discusses 'Identifying the evidence base for art-based practices and their potential benefits for mental health recovery: A critical review' written by Van Lith, T., et al. (2013). This article has been cited 205 times since 2013, with an annual average citation of 18.68 times. For the 4th, the most citations and so on can be seen in the following table.

Table 3. Difference Test Statistics articles with the most citations

No.	Cites	Title	Year	CitesPer Year	CitesPer Author	Ref
1	4635	Method meets art: Arts-based research practice	2020	1158.75	4635	Leavy, P. (2020)
2	295	Transdisciplinarity and art integration: Toward a new understanding of art-based learning across the curriculum	2014	29.50	295	Marshall, J. (2014)
3	205	Identifying the evidence-base for art-based practices and their potential benefit for mental health recovery: A critical review	2013	18.64	68	Van Lith, T., et al. (2013)

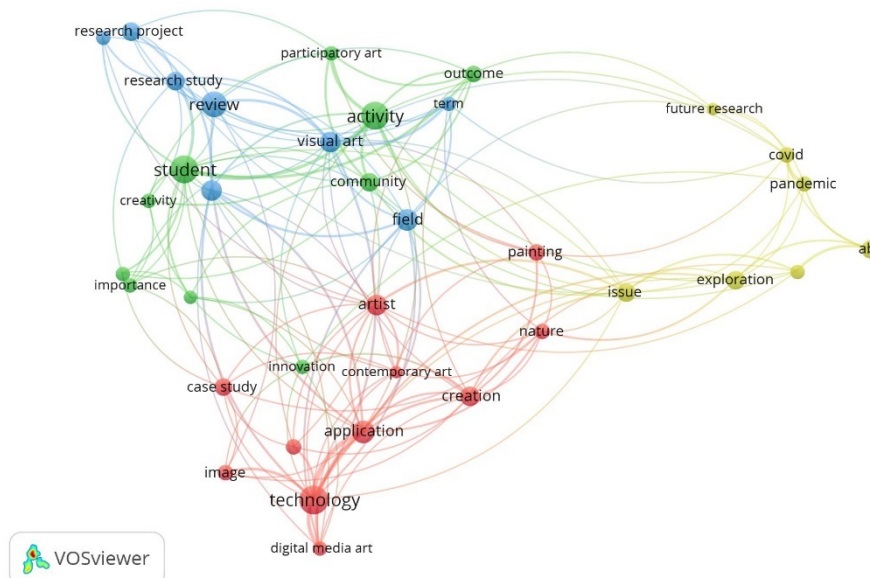
4	133	Art-based group therapy: Theory and practice	2016	16.63	133	Moon, B. L. (2016)
5	97	Art-based action research– participatory art for the north	2015	10.78	32	Jokela, T., Hiltunen, M., & Härkönen, E. (2015)
6	87	Art-based supervision: Cultivating therapeutic insight through imagery	2016	10.88	87	Fish, B. J. (2016)
7	72	Art-based research for engaging not-knowing in organizations	2013	6.55	72	Antal, A. B. (2013)
8	72	“The Art (ist) is present”: Arts-based research perspective in educational research	2017	10.29	72	Pentassuglia, M. (2017)
9	69	Dengue epidemics prediction: A survey of the state-of-the-art based on data science processes	2018	11.50	17	Siriyasatien, P., et al. (2018)
10	65	Effects on leaders of an art-based leadership intervention	2013	5.91	22	Romanowska, J., et al. (2013)
11	56	Art-based occupation group reduces parent anxiety in the neonatal intensive care unit: a mixed-methods study	2013	5.09	19	Mouradian, L. E., et al. (2013)
12	54	An art-based leadership intervention for enhancement of self-awareness, humility, and leader performance	2014	5.40	18	Romanowska, J., et al. (2014)
13	52	Art-based research of constructivist teaching	2016	6.50	52	Topolovčan, T. (2016)
14	50	Art-based action research in the development work of arts and art education	2018	8.33	25	Jokela, T., & Huhmarniemi, M. (2018)
15	50	Realising the potential of art-based interventions in managerial learning: Embodied cognition as an explanatory theory	2018	8.33	25	Springborg, C., & Ladkin, D. (2018)
16	49	Paradoxes, double binds, and the construction of 'creative' managerial selves in art-based leadership development	2014	4.90	25	Parush, T., & Koivunen, N. (2014)

17	48	The effect of art-based learning to improve teaching effectiveness in pre-service teachers	2019	9.60	12	Zakaria, Z., et al. (2019)
18	44	ABI–Art-based intervention questionnaire	2013	4.00	22	Snir, S., & Regev, D. (2013)
19	43	Trusting the felt sense in art-based research	2013	3.91	43	Rappaport, L. (2013)
20	41	CB-ART—The use of a hybrid cognitive behavioral and art based protocol for treating pain and symptoms accompanying coping with chronic illness	2014	4.10	8	Czamanski-Cohen, J., et al. (2014)

3.3 Visualization of Research Data Mapping of Art-Based Research

The data mapped using VOSviewer resulted in 3 forms of visualization, namely network visualization (Figure 2), overlay visualization (Figure 3), and density visualization (Figure 4). The network visualization shows the terms generated from the abstract and the keywords deemed appropriate to the keywords used at the time of data collection, divided into 4 clusters with a total of 36 items. Each item has different links, total link strength, and occurrences. Overall, based on the network visualization, the total link strength is 159, while the number of links is 271. The following is a more detailed explanation of each cluster:

- i) Cluster 1, marked in red, consists of 11 items, namely application, artist, case study, contemporary art, creation, creative art, digital media art, image, nature, painting, and technology.
- ii) Cluster 2, marked in green, consists of 10 items: activity, assessment, community, creativity, importance, innovation, meaning, outcome, participatory art, and student.
- iii) Cluster 3, marked in blue, consists of 8 items: efficacy, field, research project, research study, review, science, term, and visual art.
- iv) Cluster 4, which is marked yellow, consists of 7 items, namely ABR, COVID, exploration, future research, issue, pandemic, and research methodology.



4. CONCLUSION

The number of publications on ‘Art-Based Research’ over the past 11 years (2013–2023) is 921 documents. The overall development has increased. The year 2022 is the year with the highest number of publications, namely 151 articles. Judging from the annual development, there are 43 documents (2013), 33 (2014), 50 (2015), 51 (2016), 70 (2017), 70 (2018), 82 (2019), 101 (2020), 128 (2021), 151 (2022), and 142 (2023). Although the overall data increased, the increase did not occur every year. In 2013–2024 and 2022–2023, there was a decrease.

The terms that are used as keywords when used in the mapping stage using the VOSviewer application produce 36 items, which are divided into 4 clusters marked with different colors. Each cluster has a different number of items, and each item has a different number of occurrences, links, and total link strength (although it is possible that there are the same number of items).

5. AUTHORS’ NOTE

The publication of this paper does not present any conflicts of interest for the authors. The work was devoid of plagiarism, according to the writers.

6. REFERENCES

- Al Husaeni, DF, and Munir, M. (2023). Literature Review and Bibliometric Mapping Analysis: Philosophy of Science and Technology Education. *Indonesian Journal of Multidisciplinary Research*, 3 (2), 219-234.
- Antal, A. B. (2013). Art-based research for engaging not-knowing in organizations. *Journal of Applied Arts & Health*, 4(1), 67-76.
- Czamanski-Cohen, J., Sarid, O., Huss, E., Ifergane, A., Niego, L., & Cwikel, J. (2014). CB-ART— The use of a hybrid cognitive behavioral and art based protocol for treating pain and symptoms accompanying coping with chronic illness. *The Arts in Psychotherapy*, 41(4), 320-328.
- El-Wakeel, H. A., Abdellatif, R., Eldardiry, D. H., Al-Saleh, D. F., Shukri, M. I., & Ansari, K. M. (2022). Brain-based learning in design and visual arts education: a bibliometric assessment of Scopus indexed literature. *F1000Research*, 11.
- Ferreira, F. A. (2018). Mapping the field of arts-based management: Bibliographic coupling and co-citation analyses. *Journal of Business Research*, 85, 348-357.
- Fish, B. J. (2016). *Art-based supervision: Cultivating therapeutic insight through imagery*. Routledge.

- Jokela, T., Hiltunen, M., & Härkönen, E. (2015). Art-based action research—participatory art for the north. *International Journal of Education through Art*, 11(3), 433-448.
- Jokela, T., & Huhmarniemi, M. (2018). Art-based action research in the development work of arts and art education. *The lure of Lapland: A handbook of Arctic art and design*.
- Leavy, P. (2020). *Method meets art: Arts-based research practice*. Guilford publications.
- Lindström Sol, S., Gustrén, C., Nelhans, G., Eklund, J., Johannisson, J., & Blomgren, R. (2022). Mapping research on the social impact of the arts: what characterises the field?. *Open Research Europe*, 1(124).
- MacDonald, A., & Hunter, M. (2018). Arts-based research in education: Becomings from a doctoral research perspective. *Structuring the Thesis: Matching Method, Paradigm, Theories and Findings*, 251-261.
- Marshall, J. (2014). Transdisciplinarity and art integration: Toward a new understanding of art-based learning across the curriculum. *Studies in Art Education*, 55(2), 104-127.
- Moon, B. L. (2016). *Art-based group therapy: Theory and practice*. Charles C Thomas Publisher.
- Mouradian, L. E., DeGrace, B. W., & Thompson, D. M. (2013). Art-based occupation group reduces parent anxiety in the neonatal intensive care unit: a mixed-methods study. *The American Journal of Occupational Therapy*, 67(6), 692-700.
- Nandiyanto, ABD, Ragadhita, R., Al Husaeni, DN, dan Nugraha, WC (2023). Tren penelitian penggunaan merkuri di pertambangan emas: Tinjauan literatur dan analisis bibliometrik. *Jurnal Kimia Maroko*, 11 (1), 11-1.
- Parush, T., & Koivunen, N. (2014). Paradoxes, double binds, and the construction of 'creative' managerial selves in art-based leadership development. *Scandinavian Journal of Management*, 30(1), 104-113.
- Pentassuglia, M. (2017). "The Art (ist) is present": Arts-based research perspective in educational research. *Cogent Education*, 4(1), 1301011.
- Rappaport, L. (2013). Trusting the felt sense in art-based research. *Journal of Applied Arts & Health*, 4(1), 97-104.
- Romanowska, J., Larsson, G., & Theorell, T. (2013). Effects on leaders of an art-based leadership intervention. *Journal of Management Development*, 32(9), 1004-1022.
- Romanowska, J., Larsson, G., & Theorell, T. (2014). An art-based leadership intervention for enhancement of self-awareness, humility, and leader performance. *Journal of Personnel Psychology*.
- Siriyasatien, P., Chadsuthi, S., Jampachaisri, K., & Kesorn, K. (2018). Dengue epidemics prediction: A survey of the state-of-the-art based on data science processes. *IEEE Access*, 6, 53757-53795.

- Springborg, C., & Ladkin, D. (2018). Realising the potential of art-based interventions in managerial learning: Embodied cognition as an explanatory theory. *Journal of Business Research*, 85, 532-539.
- Snir, S., & Regev, D. (2013). ABI–Art-based intervention questionnaire. *The Arts in psychotherapy*, 40(3), 338-346.
- Topolovčan, T. (2016). Art-based research of constructivist teaching. *Croatian Journal of Education: Hrvatski časopis za odgoj i obrazovanje*, 18(4), 1141-1172.
- Van Lith, T., Schofield, M. J., & Fenner, P. (2013). Identifying the evidence-base for art-based practices and their potential benefit for mental health recovery: A critical review. *Disability and Rehabilitation*, 35(16), 1309–1323. <https://doi.org/10.3109/09638288.2012.732188>
- Zakaria, Z., Setyosari, P., SULTON, S., & KUSWANDI, D. (2019). The effect of art-based learning to improve teaching effectiveness in pre-service teachers. *Journal for the Education of Gifted Young Scientists*, 7(3), 531-545.