












ORIGINAL

Mapping publication trend of teacher mindfulness: a visualization and bibliometric analysis using Scopus databases

Mapeo de la tendencia de publicación de la atención plena docente: una visualización y un análisis bibliométrico utilizando bases de datos Scopus

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ABSTRACT

Introduction: this study aimed to analyze the bibliometric characteristics and trends of research with the theme of teacher mindfulness on the Scopus database, including co-authorship, co-occurrence by keywords, citation, co-citation, and bibliographic coupling in the last decade (from 2014 to 2024).

Method: this study utilizes a qualitative research methodology through a bibliometric literature analysis strategy. The Scopus database is used to identify research trends related to teacher mindfulness and teacher professionalism from 2014 to 2024. The data was structured according to the PRISMA approach, yielding a total of 783 papers that were further processed for the purpose of mapping and visualizing research trends.

Results: there has been significant growth in the quantity of articles on teacher mindfulness subjects during the last decade. A total of 783 papers were analyzed, published across 159 journals, with Mindfulness being the most popular journal. Collaboration among authors occurred across 74 different countries, resulting in 16 clusters, with the United States and the United Kingdom as the leading contributors to the publication of scholarly works on the subject of mindfulness. Jennings, P.A. is the author who most contributed to the publication. Furthermore, topics about teacher mindfulness, trait mindfulness, mindfulness in teaching, psychological stress, teacher well-being, job satisfaction, and teacher professionalism, which have great opportunities for further research, relate to the theme of teacher mindfulness.

Conclusions: the topic of teacher mindfulness is becoming increasingly significant with current challenges, providing opportunities for future research aligned with current trends in mindfulness studies.

Keywords: Bibliometric Analysis; Mindfulness; Teacher Mindfulness; Scopus Databases; Vosviewer.

RESUMEN

Introducción: este estudio tuvo como objetivo analizar las características y tendencias bibliométricas de las investigaciones con el tema de mindfulness docente en la base de datos Scopus, incluyendo coautoría, coocurrencia por palabras clave, citación, cocitación y acoplamiento bibliográfico en la última década (de 2014 a 2024).

Método: este estudio utiliza una metodología de investigación cualitativa a través de una estrategia de análisis de literatura bibliométrica. La base de datos Scopus se utiliza para identificar las tendencias de investigación

relacionadas con la atención plena y el profesionalismo docente desde 2014 hasta 2024. Los datos se estructuraron de acuerdo con el enfoque PRISMA, lo que arrojó un total de 783 artículos que se procesaron posteriormente con el propósito de mapear y visualizar las tendencias de investigación.

Resultados: durante la última década, se ha producido un crecimiento significativo en la cantidad de artículos sobre temas relacionados con la atención plena en el ámbito docente. Se analizaron un total de 783 artículos, publicados en 159 revistas, siendo Mindfulness la revista más popular. La colaboración entre autores se produjo en 74 países diferentes, lo que dio lugar a 16 grupos, siendo Estados Unidos y el Reino Unido los principales contribuyentes a la publicación de trabajos académicos sobre el tema de la atención plena. Jennings, P.A. es el autor que más contribuyó a la publicación. Además, los temas sobre la atención plena en el ámbito docente, la atención plena como rasgo, la atención plena en la enseñanza, el estrés psicológico, el bienestar docente, la satisfacción laboral y la profesionalidad docente, que tienen grandes oportunidades para una mayor investigación, se relacionan con el tema de la atención plena en el ámbito docente.

Conclusiones: el tema de la atención plena del docente está adquiriendo cada vez más importancia frente a los desafíos actuales, lo que brinda oportunidades para futuras investigaciones alineadas con las tendencias actuales en los estudios de atención plena.

Palabras clave: Análisis Bibliométrico; Consciencia; Consciencia Docente; Bases de Datos Scopus; Vosviewer.

INTRODUCTION

Teacher Mindfulness describes the implementation of mindfulness practices predominantly within the educational environment. It involves educators cultivating mindfulness to enhance their well-being and effectiveness in the classroom. Mindful educators excel in stress management, improving classroom dynamics, and fostering positive relationships with students.^(1,2,3) Teacher mindfulness can be assessed with tools like the Mindfulness in Teaching Scale (MTS), which gauges both interpersonal and intrapersonal awareness.^(4,5,6,7) Mindfulness training empowers educators to foster a tranquil and focused learning environment, alleviate conflicts, diminish conflict, and improve job satisfaction.^(5,8,9,10,11,12,13)

Teacher mindfulness has become an essential element in education, profoundly influencing teacher well-being, student engagement, and the overall classroom environment. Mindfulness, characterized as the intentional awareness of the present moment without judgement, has been incorporated into different professional domains, including education, owing to its extensive advantages. Mindfulness in education has evolved beyond solely enhancing individual well-being to impacting wider educational outcomes, including student achievement, teacher-student interactions, and classroom dynamics.^(6,11,14,15,16,17,18,19)

Numerous research indicate that mindfulness positively influences well-being and empathy, while enhancing awareness of an individual's authentic values.^(11,12,17,20,21) Well-being, empathy, and value awareness can subsequently foster more sustainable behaviors. Summarize the primary concerns regarding these elements as an interconnected unit in the context of sustainability behavior. Mindfulness, in the contexts of psychology and education, is a heightened awareness of one's thoughts and emotions, which can improve teacher well-being, classroom management, and student achievement. Integrating mindfulness into teacher training programs can enhance emotional regulation, reduce psychological distress, and promote well-being among educators.⁽²²⁾ The challenges of securing teacher buy-in and effective execution must be addressed when integrating mindfulness practices into educational settings.^(1,2,5,13,21,23,24,25,26,27,28,29)

Therefore, the trends and subjects of publications addressing teacher mindfulness are compelling for discussion and visualization. In the Scopus database, the term mindfulness yielded 33 632 scientific publications of various categories, but the keyword teacher mindfulness produced 1478 scientific publications. The quantity of publications has surged significantly over the last ten years.

We would like to analyze the bibliometric characteristics and trends of teacher mindfulness research on the Scopus database, including co-authorship, co-occurrence by keywords, citation, co-citation, and bibliographic coupling. These findings can assist researchers in identifying and comprehending prospective trends in teacher mindfulness research, as well as discovering innovative avenues for additional investigation on this subject. This research employs bibliometric analysis with VOSviewer and Biblioshiny. This analysis is deemed crucial as it offers insights that extend well beyond the journal's scope.⁽⁹⁾ The examined texts originate from esteemed journals with impact factors included in the Scopus database.

METHOD

Study design

This study employs a qualitative research methodology^(29,30,31,32) utilizing a literature analysis strategy.⁽³³⁾ The literature review in qualitative research is an essential activity that underpins the entire research lifecycle,

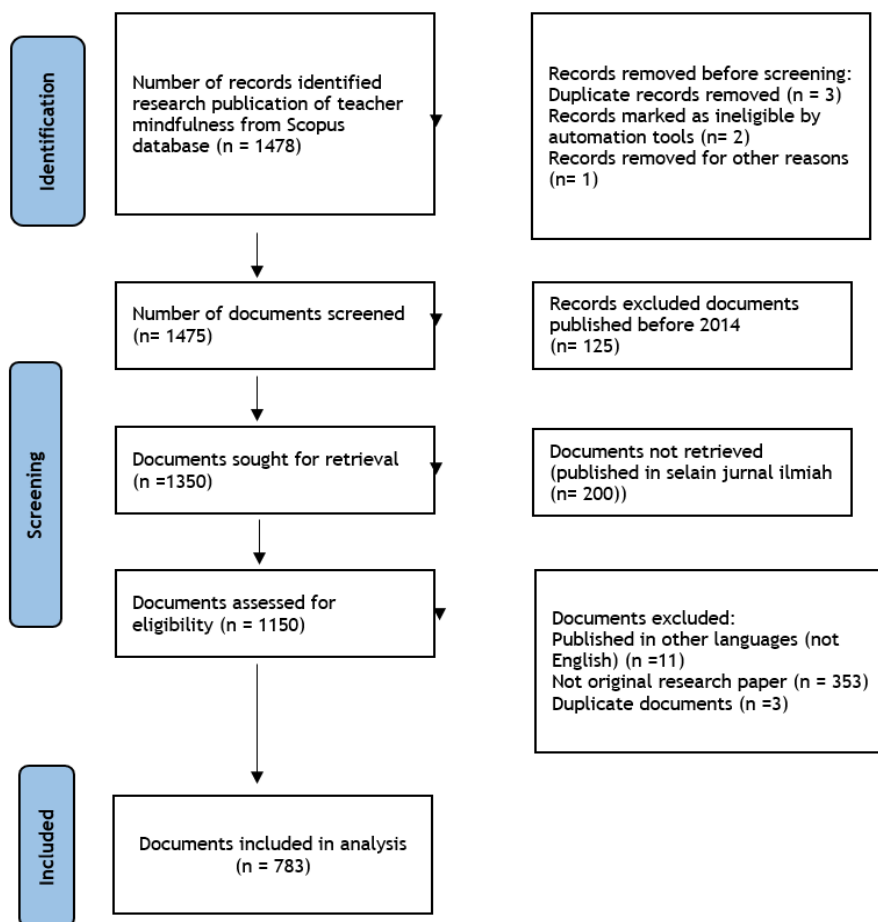
from problem conceptualization to theoretical discourse, employing methodical and qualitative analytical approaches.^(34,35,36) The data used in this study originated from journal articles indexed in the Scopus database. The data was subsequently extracted, analyzed bibliometrically, and visualised via the VOSviewer^(37,38) and Biblioshiny software.^(39,40) VOSViewer is a complimentary software application intended for the construction and visualisation of bibliometric maps.^(41,42)

It is especially distinguished for its capacity to manage extensive data sets and deliver lucid graphical representations of bibliometric networks.^(38,41) Biblioshiny is a web-based application integrated within the bibliometrix R package.⁽⁴³⁾ It offers an interactive platform for conducting thorough bibliometric analysis. The document presents data categorised by document type, affiliation, subject area, nation or territory, source, and year.⁽⁴⁴⁾ This study employs the Scopus database to trace and identify the evolution of scientific publications concerning teacher mindfulness.

Setting

The data for this study were sourced from the Scopus database as of the end of September 2024. The initial phase of document retrieval in the Scopus database involved the application of keywords utilizing the Boolean operator (“teacher” OR “educator”) AND (“mindfulness”). This search was conducted within the article title, abstract, and keywords, covering a publication period for the entire year, prior to being restricted to the last decade. At this stage, 1478 publication documents were collected from diverse categories of scientific literature. The second step involved filtering the publication documents to restrict the publication years to the last decade, specifically from 2014 to 2024. In the second step of filtering, a total of 1350 documents were acquired. The third step involved re-filtering by restricting the selection to documents published in journals. This phase yielded the identification of 1 150 documents. The search for these documents was restricted to “original research articles”, resulting in the acquisition of 980 documents in English. Furthermore, re-screening was conducted to eliminate duplicate documents and irrelevant articles, resulting in a final total of 783 documents analyzed. Figure 1 illustrates the process flow for identifying documents from the database, the screening process, and the acquisition of documents included in the analysis, following the PRISMA procedure.^(45,46,47,48)

Visualization



Source: Page et al.⁽⁴⁵⁾

Figure 1. PRISMA flow for identifying documents from the database

The documents obtained from the Scopus database were exported to VOSviewer application version 1.6.20, a tool commonly used for analyzing and visualizing bibliometric relationships, including co-authorship, co-occurrence, citation analysis, co-citation, and bibliographic coupling.^(38,41,49) VOSviewer generates network maps, identifies key clusters, and visualizes connections among scholarly works, offering a thorough method for understanding the structure of research within a specific field. The bibliometric data obtained from Scopus comprises critical metadata, including authorship, titles, abstracts, keywords, and citation counts, which are vital for analyzing research trends and recognizing significant works.

The documents were analyzed using Biblioshiny, a web-based interface within the bibliometrix R package, which is an open-source tool for advanced bibliometric analyses.^(39,40) Biblioshiny provides comprehensive tools for data preprocessing, descriptive analysis, and the creation of bibliometric indicators, enabling the extraction of significant insights from extensive bibliographic datasets. This study employs advanced analytic techniques to thoroughly examine research patterns, collaboration networks, citation flows, and thematic trends within the literature. The integration of VOSviewer's visualization capabilities with Biblioshiny's analytical tools strengthens the bibliometric analysis, providing an effective method for identifying research gaps, emerging topics, and the impact of scholarly works in the field.

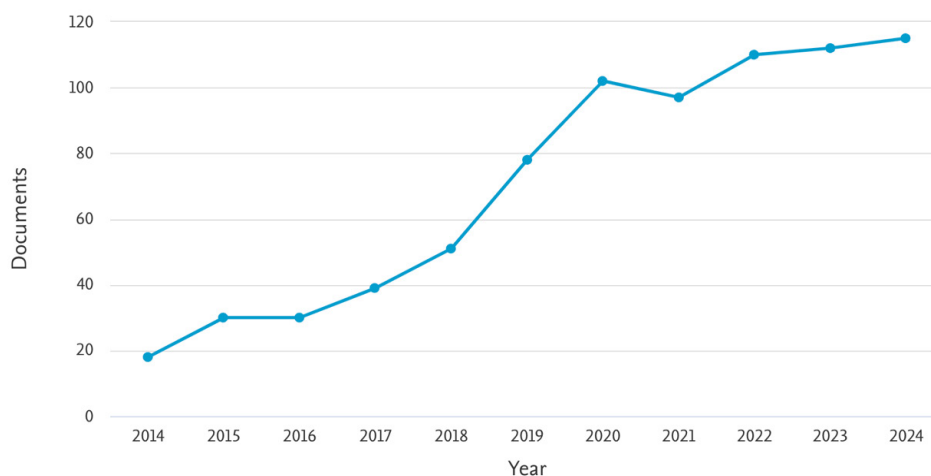
Statistical methods

Descriptive statistical analysis and qualitative in-depth analysis were utilized to investigate the distribution of articles and visualizations generated from data processed with VOSviewer and Biblioshiny software. Descriptive statistics summarize essential metrics, including total article count, author productivity, citation frequency, and publication trends over time. This provides an overview of research output, key contributors, and temporal dynamics within the field.⁽⁴³⁾ This involved identifying publication patterns across various journals and analyzing the frequency of keywords, thereby offering insights into the thematic focus of the literature.

A qualitative in-depth analysis was concurrently performed to interpret the patterns identified through visualizations produced by VOSviewer and Biblioshiny. Visual maps, including co-authorship networks, keyword co-occurrence, and citation relationships, were analyzed to identify research themes, trends, and collaborative structures within the scientific community. This qualitative method facilitated a comprehensive analysis of the data, revealing intellectual convergences, emerging research frontiers, and scholarly divergences.⁽³⁹⁾ This study integrates descriptive and qualitative methods to provide a comprehensive overview of the research landscape, emphasizing both structural aspects and contextual implications of the field's development.

RESULTS AND DISCUSSION

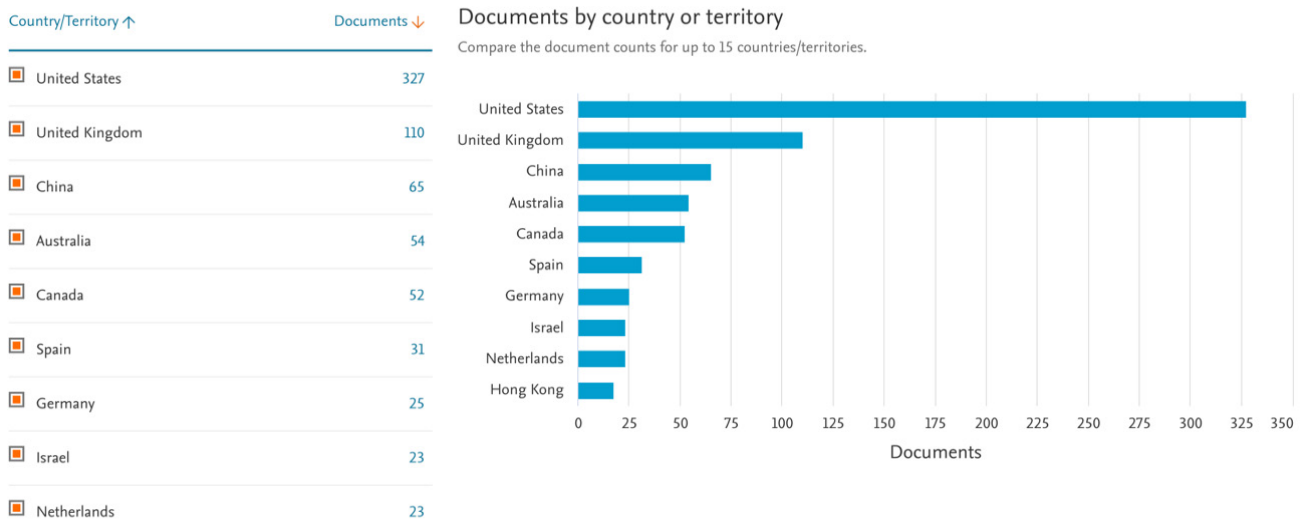
Analysis of documents sourced from the Scopus database indicates a year-on-year increase in the number of articles concerning teacher mindfulness. This article focusses exclusively on teacher mindfulness research published in Scopus-indexed journals over the past decade (2014-2024). The analysis of 783 scientific publications from the Scopus database yielded varied data. Scientific publications concerning teacher mindfulness from 2014 to 2024 present a range of intriguing perspectives for mapping and analysis. This study systematically analyses and categorises data, focussing on the year of the document, the leading country in scientific publication contributions, journal sources, authors, institutions, and author affiliations. Figure 2 illustrates that the number of published articles exhibits stability from 2014 to 2024, with a notable increase occurring between 2018 and 2019. The topic of teacher mindfulness is gaining increasing interest for research purposes.



Source: Scopus.com

Figure 2. Trends in publications regarding teacher mindfulness over the past decade (documents categorized by year)

Contributions of countries



Source: Scopus
 Figure 3. The documents by country

Figure 3 illustrates the top ten countries contributing to global scientific research publications on the theme of teacher mindfulness from 2014 to 2024. Figure 3 indicates that the United States is the leading contributor to Scopus-indexed scientific research publications on the topic of teacher mindfulness from 2014 to 2025, with a total of 327 Scopus-indexed documents. The United Kingdom ranks second, contributing 110 scientific article documents. China ranks third, contributing 65 scientific journal articles. These three countries are the primary contributors to Scopus-indexed scientific journal articles on teacher mindfulness, although there is a significant disparity in the number of publications among them. Australia and Canada contributed a total of 54 and 52 scientific publications, respectively, on the topic of teacher mindfulness. Spain, Germany, Israel, and the Netherlands contributed 31, 25, 23, and 23 scientific publications, respectively. Hong Kong ranks last among the top 10 countries or territories, contributing 17 scientific publications on teacher mindfulness from 2014 to 2024. The subsequent step involves visualizing the co-authorship data pertaining to the subject of teacher mindfulness. The initial visualization pertains to co-authorship in relation to the country of origin. This study analyses cross-country author collaboration, author networks, and influences in the field of teacher mindfulness.

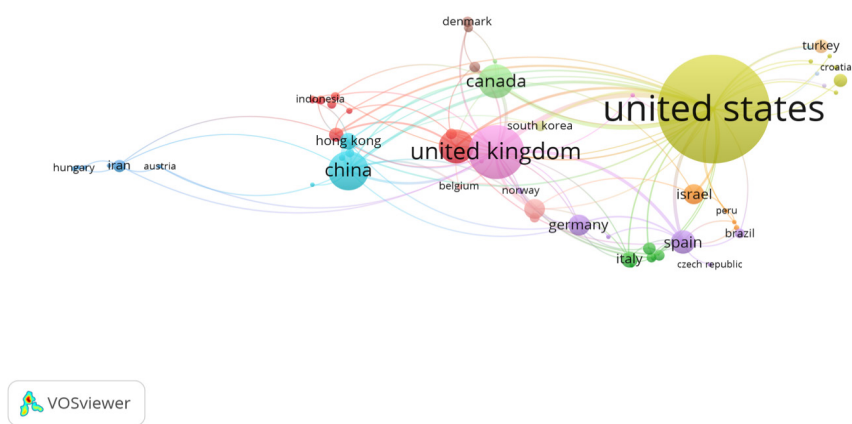


Figure 4. Co-authorship by countries

Figure 4 illustrates the co-authorship network among countries in the domain of teacher mindfulness. The node color represents the diversification of research fields, which are organized into 16 clusters, while the connections between nodes illustrate the collaborative relationships among authors from different countries. The node size reflects the quantity of contributions to published teacher mindfulness articles, while the thickness of the connecting line represents the degree of collaboration among countries.

The United States constitutes the largest node and cluster, indicating its dominance in the contribution of publications on teacher mindfulness, with a total of 327 documents and 6088 citations, resulting in a total link

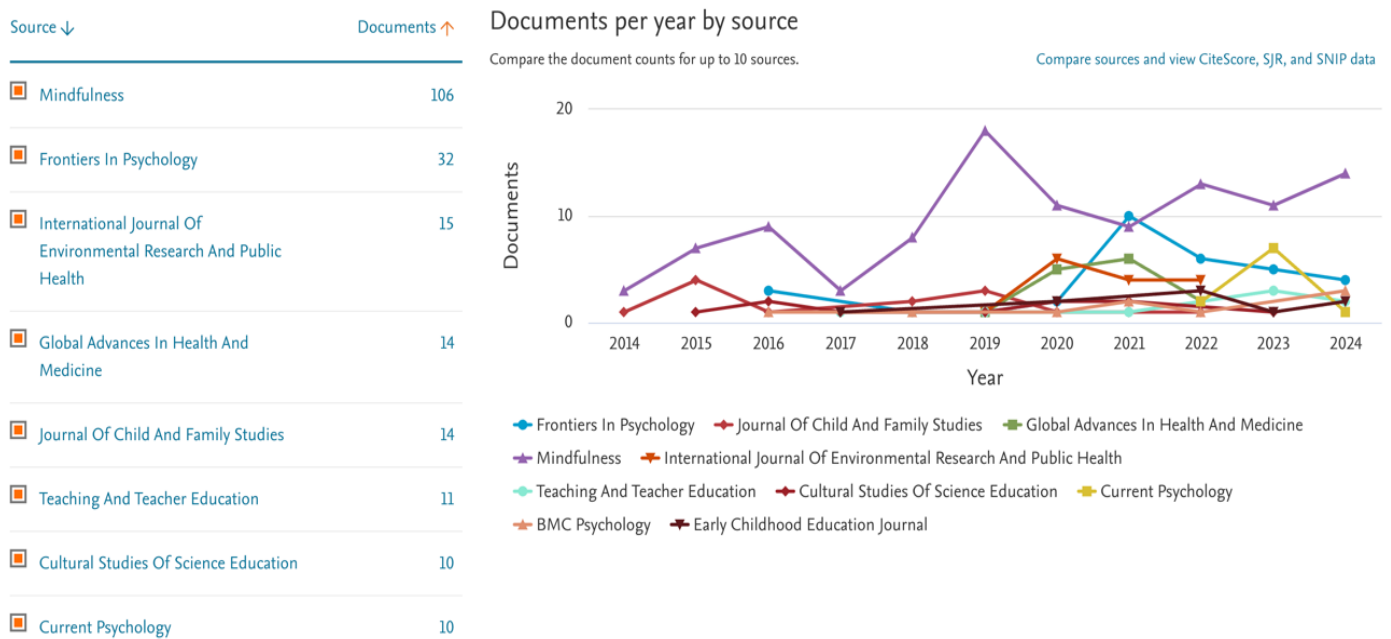
strength of 87. The United Kingdom represents the next largest node, establishing an authorship network with multiple countries and contributing 110 documents, which have garnered 1588 citations and exhibit 71 link strengths. Table 1 presents the contributions of documents, citations, and total link strengths from the top 10 countries.

No.	Country/Territory	No. of Articles	Citations	Total link strength
1.	United States	327	6088	87
2	United Kingdom	110	1588	71
3	China	65	465	35
4	Australia	54	766	17
5	Canada	52	1003	27
6	Spain	31	320	28
7	Germany	25	225	9
8	Netherlands	23	333	16
9	Israel	23	230	6
10	Hong Kong	17	209	18

Source: analysis from VOSviewer

Analysis of publications sources

Several publication sources publish scientific research related to teacher mindfulness. Figure 5 shows the top ten sources that published the study.



Source: Scopus
Figure 5. Top 10 journals that published the teacher mindfulness

Figure 5 and table 2 present the ten most reputable journals that publish articles on teacher mindfulness. Mindfulness, a Q1 ranked journal in Scopus, is the leading publication for articles on teacher mindfulness. The journal with the highest publication of articles on teacher mindfulness is Mindfulness, published by Springer Verlag, which has released 106 articles. In the past decade, 32 scientific articles have been published in Frontiers in Psychology. Frontiers in Psychology ranks as the second most productive journal following Mindfulness. The International Journal of Environmental Research and Public Health, published by the Multidisciplinary Digital Publishing Institute (MDPI), contributed 15 documents. Both Global Advances in Health and Medicine and the Journal of Child and Family Studies have published 14 documents indexed in Scopus. Teaching and Teacher Education, Cultural Studies of Science Education, Current Psychology, PLoS ONE, and Psychology in the Schools

published 11, 10, 10, 9, and 9 articles on teacher mindfulness, respectively. Scopus categorizes journals into quartiles (Q1-Q4) for those indexed in its database. Journals focusing on teacher mindfulness are predominantly ranked in the top tiers, specifically Q1 and Q2.

Table 2. Top 10 highly reputable journals publishing articles on mindfulness

No.	Name of Journal	No. of Articles	Rank	Citations	Total link strength	Publisher	Country
1.	Mindfulness	106	Q1	2835	113	Springer Verlag	Germany
2.	Frontiers in Psychology	32	Q2	516	23	Frontiers Media SA	Switzerland
3.	International Journal of Environmental Research and Public Health	15	Q2	353	18	MDPI	Switzerland
4.	Global Advances in Health and Medicine (continued as: Global Advances in Integrative Medicine and Health)	14	Q2	110	7	SAGE Publications Inc.	United States
5.	Journal of Child and Family Studies	14	Q2	508	16	Springer New York	United States
6.	Teaching and Teacher Education	11	Q1	152	17	Elsevier Ltd.	United Kingdom
7.	Cultural Studies of Science Education	10	Q1	73	1	Springer Netherlands	Netherlands
8.	Current Psychology	10	Q1	64	10	Springer New York	United States
9.	PLoS ONE	9	Q1	132	4	Public Library of Sciences	United States
10.	Psychology in the Schools	9	Q1	382	20	Wiley-Liss Inc.	United States

Source: analysis from VOSviewer and Scopus

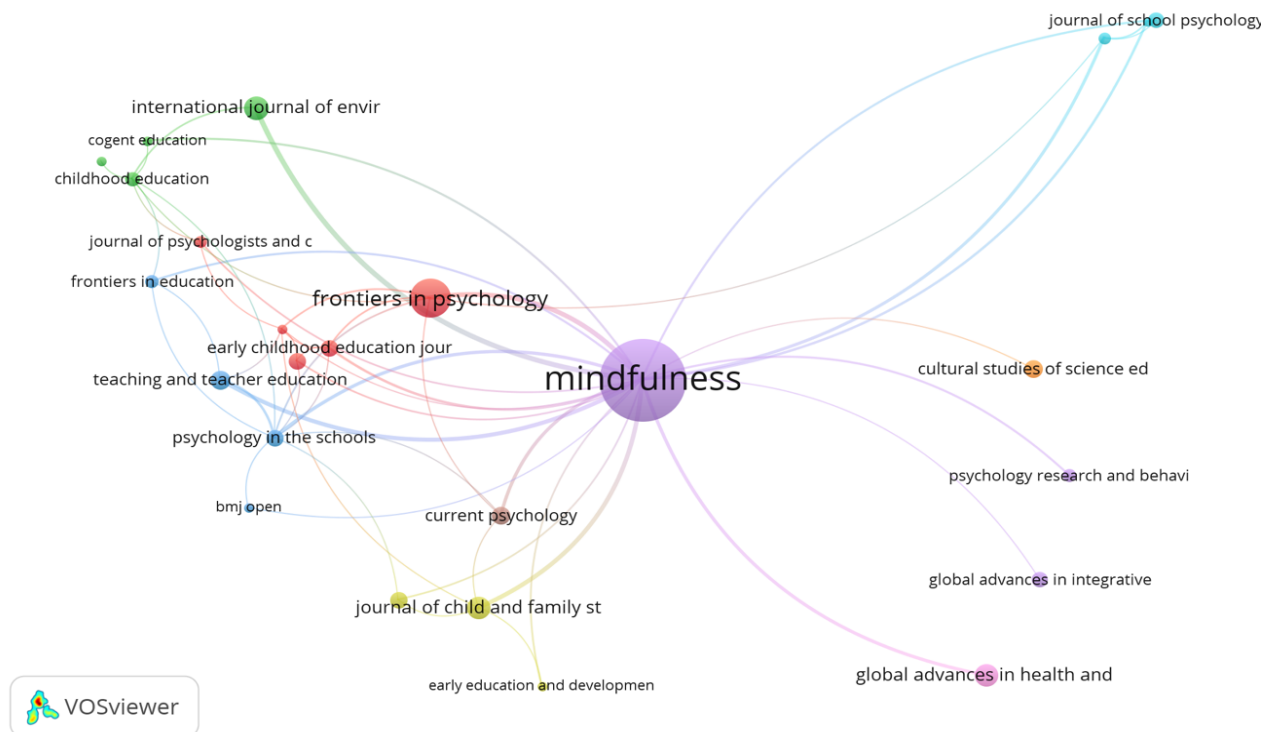


Figure 6. Citation by source

The top ten journals that significantly contribute to the topic of teacher mindfulness are identified based on the citation counts of their published articles. Citations serve as an indicator of the scientific impact of an article or author, as well as the article’s influence within the domain of teacher mindfulness. Figure 6

indicates that the Mindfulness journal possesses the largest node, signifying that its articles are extensively cited by publications in other journals. Subsequently, the Frontiers in Psychology journal was referenced. This illustrates the relationship and influence of published articles on teacher mindfulness.

The co-citation relationship among these journals is observable in co-citation analysis. Co-citation analysis reveals the connections between documents that are cited together in the references of scientific works. Figure 7 illustrates that the Mindfulness journal exhibits a robust co-citation and bibliographic coupling relationship with documents from both the same and different clusters.

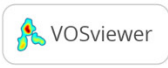
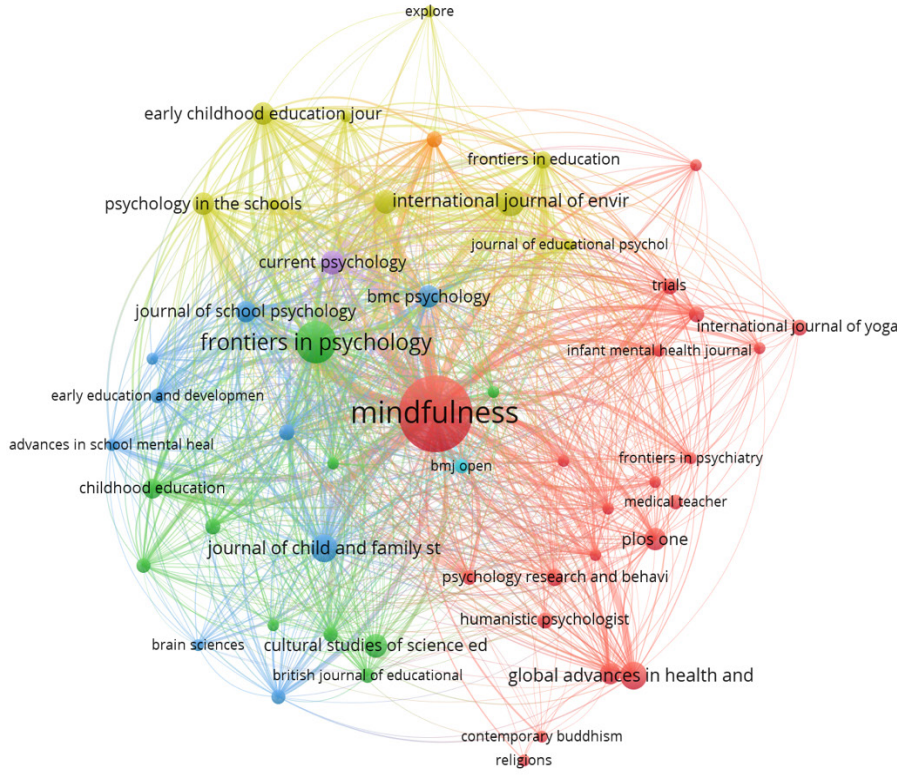


Figure 7. Bibliographic coupling analysis by source

Analysis of co-authorship

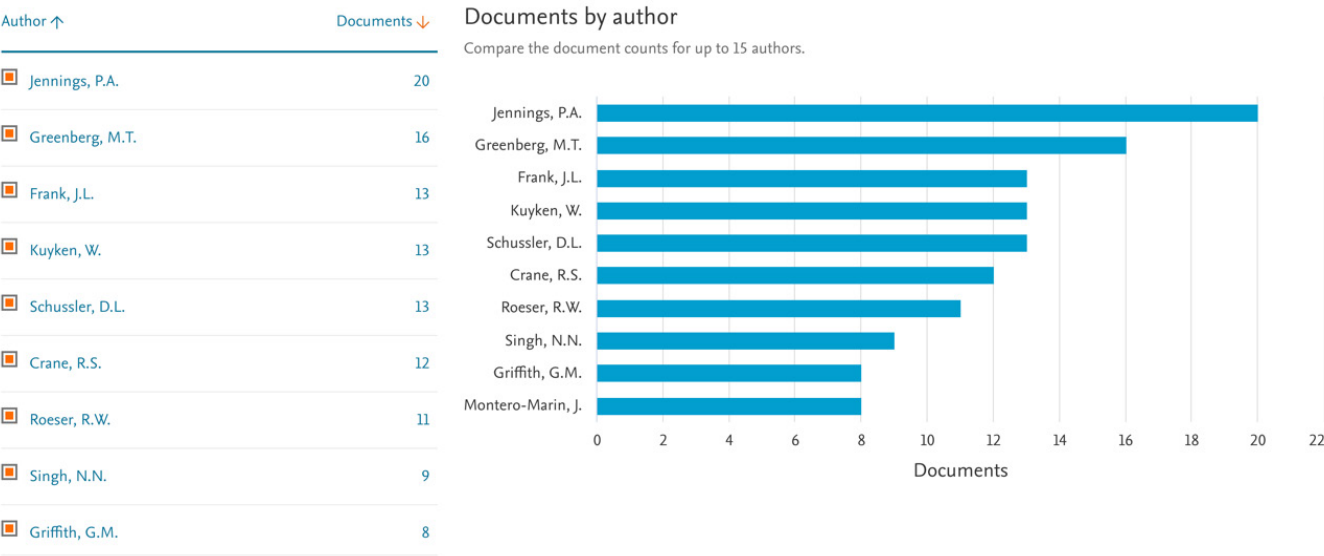


Figure 8. Top 10 authors with the highest contributions to scientific publications

The Scopus database reveals that scientific research on teacher mindfulness from 2014 to 2024 comprises 783 documents authored by numerous researchers across different countries. Figure 8 illustrates the ten authors

with the highest contributions to scientific publications regarding teacher mindfulness.

Figure 8 indicates that Jennings, P.A. is the leading contributor to scientific research on teacher mindfulness from 2014 to 2024, as evidenced by a total of 20 documents indexed by Scopus. Greenberg, M.T. contributed 16 documents, while Frank, J.L., Kuyken, W., and Schussler, D.L. each contributed 13 documents. Crane, R.S. possesses 12 documents, while Roeser, R.W. has 11 documents. Additionally, Singh, N.N. provided a contribution of nine documents. Griffith, G.M. and Montero-Marin, J. each authored 8 scientific documents focussing on the theme of teacher mindfulness.

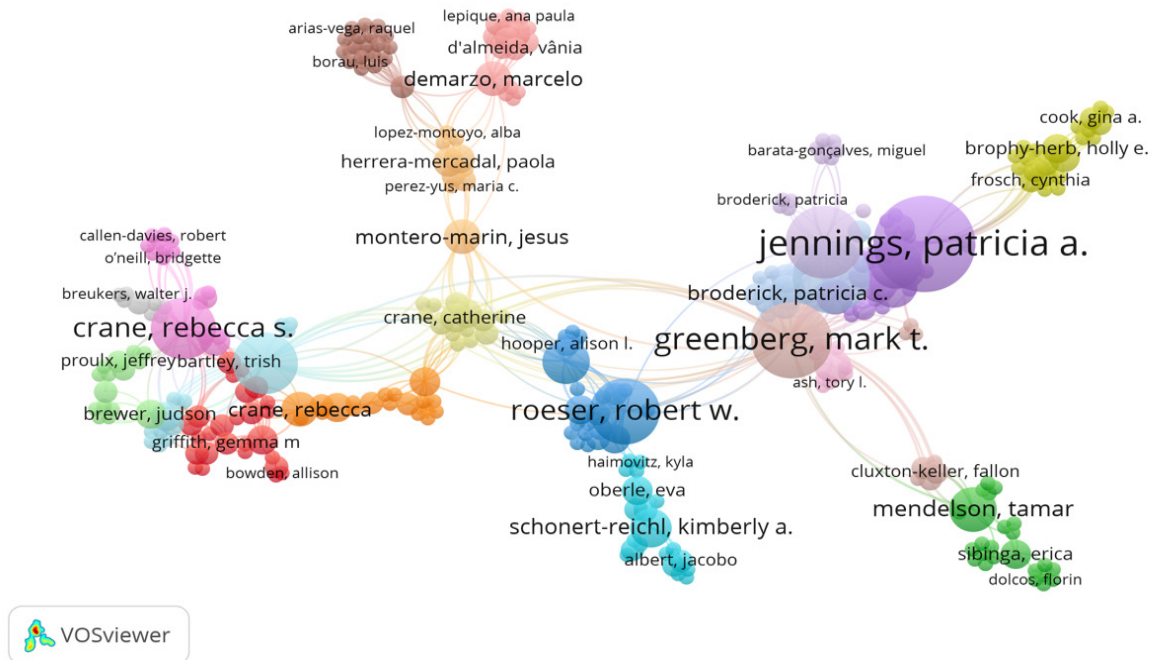


Figure 9. Cluster co-authorship of teacher mindfulness articles

Figure 9 illustrates the distribution of the network map of authors contributing to scientific articles on the topic of teacher mindfulness, revealing 20 distinct author clusters. The clusters are predominantly led by the ten most cited authors identified. Jennings, P.A. constitutes a significant cluster, comprising 44 links, a link strength of 92, and 20 associated scientific publications. The cluster established by Greenberg, M.T. is evident from its co-authorship network, comprising 52 links and a link strength of 99. Similarly, other authorship networks are constructed from nodes categorized into these clusters.

Analysis of co-occurrence

Figure 10 illustrates the co-occurrence distribution map in the teacher mindfulness article. A total of 306 keywords emerged, organized into 6 major clusters, based on a minimum threshold of 5 views. The co-occurrence map is essential for identifying the relationships between keywords that frequently appear together in a document, particularly within the abstract, title, and keywords of the article. The dimensions of the nodes and words in figure 9 indicate the frequency of each keyword's occurrence; larger sizes correspond to higher frequencies, reflecting their common usage in scientific publications. The distance between the nodes in this network reflects the strength of the relationship among keywords. The proximity of two nodes correlates with the frequency of co-occurrence of keywords within an article document. The cluster color indicates the grouping of keywords that frequently co-occur, each represented by a distinct color.

The term “mindfulness” appears most frequently in the document, exhibiting a total link strength of 3970 and an occurrence count of 509. Additionally, the term “mindfulness” is frequently associated with concepts such as “teacher mindfulness,” mindfulness in teaching, trait mindfulness, well-being, teacher well-being, wellness, and work engagement. This illustrates the growing relationship and connection among these concepts. The distance between nodes reflects the strength of the relationship among keywords. A shorter distance signifies a stronger relationship, and conversely, a longer distance indicates a weaker relationship. The strength of the relationship is determined by the frequency of co-occurrence of each keyword within the article. Nodes sharing identical colors are grouped within a cluster.

BIBLIOGRAPHIC REFERENCES

1. Maruntelu L. Mindfulness - A cultural paradigm for teachers. *Analele Universității Ovidius din Constanța Seria Filologie*. 2019;XXX(1):172-181. Available from: https://litere.univ-ovidius.ro/Anale/volumul_xxx_2019-1/17.%20MINDFULNESS%20-%20A%20CULTURAL%20PARADIGM%20FOR%20TEACHERS%20-%20Liliana%20Maruntelu%20-%20pp.%20172-181.pdf
2. Albrecht NJ, Albrecht PM, Cohen M. Mindfully Teaching in the Classroom: a Literature Review. *Australian Journal of Teacher Education* [Internet]. 2012 Dec 1 [cited 2024 Sep 23];37(12):1. Available from: <https://ro.ecu.edu.au/ajte/vol37/iss12/1>
3. Grant KC. From Teaching to Being: The Qualities of a Mindful Teacher. *Childhood Education*. 2017 Mar 4 ;93(2):147-52. doi: 10.1080/00094056.2017.1300493
4. Kim E, Singh NN. Psychometric Properties of the Korean Version of the Mindfulness in Teaching Scale. *Mindfulness*. 2018 Feb 1;9(1):344-51. doi: 10.1007/s12671-017-0871-2
5. Schussler DL. 'Mindful teaching': a construct for developing awareness and compassion. *Reflective Practice*. 2020 Sep 2;21(5):646-58. doi: 10.1080/14623943.2020.1798918
6. Mischenko PP, Schussler DL, Jennings PA. Mindfully Teaching Mindfulness: A Conceptual Framework Based on the Compassionate Schools Project Teacher Experience. *Mindfulness*. 2024 Feb 1;15(2):327-44. doi: 10.1007/s12671-023-02285-3
7. Huang J. The Role of English as a Foreign Language Teachers' Mindfulness and Compassion in Fostering Students' Foreign Language Enjoyment. *Frontiers in Psychology*. 2022 May 3;13:899298. Available from: www.frontiersin.org
8. Mussey S. *Mindfulness in the Classroom: Mindful Principles for Social and Emotional Learning*. 2021 Jan 1;1-207. Available from: <https://www.taylorfrancis.com/books/mono/10.4324/9781003236665/mindfulness-classroom-season-mussey>
9. Kobusch AB. Achtsamkeit in der Schule durch ein professionsbezogenes Achtsamkeitstraining für LehrerInnen. *Gruppendynamik und Organisationsberatung*. 2014 Sep 1;45(3):253-71. doi: 10.1007/s11612-014-0253-3
10. Fabbro A, Fabbro F, Capurso V, D'Antoni F, Crescentini C. Effects of Mindfulness Training on School Teachers' Self-Reported Personality Traits As Well As Stress and Burnout Levels. *Perceptual and Motor Skills*. 2020 Mar 2;127(3):515-32. doi: 10.1177/0031512520908708
11. Zarate K, Maggin DM, Passmore A. Meta-analysis of mindfulness training on teacher well-being. *Psychology in the Schools*. 2019 Dec 1;56(10):1700-15. doi: 10.1002/pits.22308
12. He J, Iskhar S, Yang Y, Aisuloo M. Exploring the relationship between teacher growth mindset, grit, mindfulness, and EFL teachers' well-being. *Frontiers in Psychology*. 2023 Sep 25;14:1241335. doi: 10.3389/fpsyg.2023.1241335
13. Jönhagen E, Wood T, Niemi M, Galante J. Mindfulness Teacher Trainees' Experiences (MTTE): An investigation of intense experiences in mindfulness-based interventions. *PLOS ONE*. 2024 Apr 1;19(4):e0301593. Available from: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0301593>
14. Jeon L, Ardeleanu K, Zhao X. Preschool Teachers' Mindfulness and Children's Social, Emotional, and Behavioral Functioning. *Mindfulness*. 2022 Aug 1;13(8):2059-68. doi: 10.1007/s12671-022-01941-4
15. Nurtanto M, Masek A, Kholifah N, Herrera LM, Saputro IN, Hamid MA, et al. The Influence of Psychological Well-being on Vocational Teacher Performance: the Mediating Role of Personality Traits and Work Commitment. *Journal of Technical Education and Training*. 2024;16(4).
16. Kholifah N, Nurtanto M, Kassymova GK, Subakti H, Hamid MA. Evidence of positive influence: soft skills competence and organizational culture on innovative work behavior. *Journal of Education and Learning (EduLearn)*. 2024 Nov 1;18(4):1158-1165. doi: 10.11591/edulearn.v18i4.21018

17. Ruijgrok-Lupton PE, Crane RS, Dorjee D. Impact of Mindfulness-Based Teacher Training on MBSR Participant Well-Being Outcomes and Course Satisfaction. *Mindfulness*. 2018 Feb 1;9(1):117-28. doi: 10.1007/s12671-017-0750-x
18. Becker BD, Gallagher KC, Whitaker RC. Teachers' dispositional mindfulness and the quality of their relationships with children in Head Start classrooms. *Journal of School Psychology*. 2017 Dec 1;65:40-53. doi: 10.1016/j.jsp.2017.06.004
19. Braun SS, Roeser RW, Mashburn AJ, Skinner E. Middle School Teachers' Mindfulness, Occupational Health and Well-Being, and the Quality of Teacher-Student Interactions. *Mindfulness*. 2019 Feb 1;10(2):245-55. doi: 10.1007/s12671-018-0968-2
20. Hwang YS, Noh JE, Medvedev ON, Singh NN. Effects of a Mindfulness-Based Program for Teachers on Teacher Wellbeing and Person-Centered Teaching Practices. *Mindfulness*. 2019 Nov 1;10(11):2385-402. doi: 10.1007/s12671-019-01236-1
21. Soysa CK. Mindfulness, Self-compassion, Self-efficacy, and Gender as Predictors of Depression, Anxiety, Stress, and Well-being. *Mindfulness*. 2015;6(2):217-26. doi: 10.1007/s12671-013-0247-1
22. Darmawan IA, Budiyantha NE, Aribowo D, Fatkhurokhman M, Hamid MA, Guntara Y, et al. Electricity course on vocational training centers: a contribution to unemployment management. *Journal of Physics: Conference Series*. 2020 Jan 1;1456(1):012048. Available from: <https://iopscience.iop.org/article/10.1088/1742-6596/1456/1/012048>
23. Tao W. Understanding the relationships between teacher mindfulness, work engagement, and classroom emotions. *Frontiers in Psychology*. 2022 Sep 29;13:993857. doi: 10.3389/fpsyg.2022.993857
24. Wang X. Exploring positive teacher-student relationships: the synergy of teacher mindfulness and emotional intelligence. *Frontiers in Psychology*. 2023 Nov 29;14:1301786. doi: 10.3389/fpsyg.2023.1301786
25. Hermana P, Zuraida Z, Suganda LA. Indonesian pre-service teachers' mindfulness, social emotional competence, and academic achievement. *International Journal of Evaluation and Research in Education (IJERE)*. 2021 Dec 1;10(4):1176-84. doi: 10.11591/ijere.v10i4.21272
26. Turner JA. Mindfulness-based stress reduction and cognitive behavioral therapy for chronic low back pain: Similar effects on mindfulness, catastrophizing, self-efficacy, and acceptance in a randomized controlled trial. *Pain*. 2016;157(11):2434-44. doi: 10.1097/j.pain.0000000000000635
27. Byrne J. Effectiveness of a mindfulness-based childbirth education pilot study on maternal self-efficacy and fear of childbirth. *Journal of Midwifery and Women's Health [Internet]*. 2014;59(2):192-7. doi: 10.1111/jmwh.12075
28. van Eck NJ, Waltman L. Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*. 2010 Dec 31;84(2):523-38. doi: 10.1007/s11192-009-0146-3
29. Tracy SJ. *Qualitative Research Methods*. United States of America: Wiley-Blackwell; 2013.
30. Creswell JW. *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*. 4th ed. California: SAGE Publication, Inc.; 2014.
31. Taylor SJ, Bogdan R, Devault ML. *Introduction to Qualitative Research Methods: A Guidebook and Resource*. New Jersey: John Wiley & Sons, Inc.; 2016.
32. Guenther J, Falk IH. Generalizing from Qualitative Research: A Reconceptualization Based on Vocational Learning Examples. In: *Handbook of Vocational Education and Training*. Cham: Springer International Publishing; 2019. p. 1135-52. doi: 10.1007/978-3-319-94532-3_91
33. Michailova S. Crafting literature reviews worth publishing: Five recommendations. *European Management Review*. 2023 Sep 1;20(3):361-6. doi: 10.1111/emre.12608

34. Furlong DE, Lester JN. Toward a Practice of Qualitative Methodological Literature Reviewing. *Qualitative Inquiry.* 2022 Oct 31;29(6):669-77. doi: 10.1177/10778004221131028
35. Kalpokas N, Radivojevic I. Adapting Practices from Qualitative Research to Tell a Compelling Story: A Practical Framework for Conducting a Literature Review. *The Qualitative Report.* 2021 May 6; 26(5):1546-66. Available from: <https://nsuworks.nova.edu/tqr/vol26/iss5/11>
36. Tong M, Thomson C. Developing a critical literature review for project management research. *Designs, Methods and Practices for Research of Project Management.* 2016 Aug 12; 153-71. Available from: <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315270197-25/developing-critical-literature-review-project-management-research>
37. van Eck NJ, Waltman L. Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics.* 2010 Dec 31;84(2):523-38. doi: 10.1007/s11192-009-0146-3
38. Bukar UA, Sayeed MS, Razak SFA, Yogarayan S, Amodu OA, Mahmood RAR. A method for analyzing text using VOSviewer. *MethodsX.* 2023 Dec 1;11:102339. doi: 10.1016/j.mex.2023.102339
39. Moral-Muñoz JA, Herrera-Viedma E, Santisteban-Espejo A, Cobo MJ. Software tools for conducting bibliometric analysis in science: An up-to-date review. *Profesional de la información.* 2020 Jan 19; 29(1). Available from: <https://revista.profesionaldelainformacion.com/index.php/EPI/article/view/epi.2020.ene.03>
40. Ghorbani BD. Bibliometrix: Science Mapping Analysis with R Biblioshiny Based on Web of Science in Applied Linguistics. *A Scientometrics Research Perspective in Applied Linguistics.* 2024;197-234. doi: 10.1007/978-3-031-51726-6_8
41. van Eck NJ, Waltman L. Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics.* 2010 Dec 31;84(2):523-38. Available from: www.cs.sandia.gov/~smartin/software.html
42. van Eck NJ, Waltman L. Visualizing Bibliometric Networks. *Measuring Scholarly Impact.* 2014; 285-320. Available from: https://link.springer.com/chapter/10.1007/978-3-319-10377-8_13
43. Aria M, Cuccurullo C. bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics.* 2017 Nov 1;11(4):959-75. doi: 10.1016/j.joi.2017.08.007
44. Liang D, De Jong M, Schraven D, Wang L. Mapping key features and dimensions of the inclusive city: A systematic bibliometric analysis and literature study. *International Journal of Sustainable Development & World Ecology.* 2022 Jan 2; 29(1):60-79. doi: 10.1080/13504509.2021.1911873
45. Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ.* 2021 Mar 29;372. Available from: <https://www.bmj.com/content/372/bmj.n71>
46. Moher D, Liberati A, Tetzlaff J, Altman DG, Antes G, Atkins D, et al. Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine.* 2009 Jan 1;151(4):264-9. doi: 10.1136/bmj.b2535
47. Estrada-Araoz EG, Larico-Uchamaco GR, Ferreyros-Yucra JE, Revilla-Mendoza SM, Ruiz-Tejada JO. Assessment of predictors of satisfaction with life in pre-service teacher education students. *Salud, Ciencia y Tecnología.* 2024;4:834.
48. Eslava-Zapata R, Quiroz-Leal S. Profile of the Motivated Teacher: Empirical study with teachers who work with students who have identified disabilities. *Salud, Ciencia y Tecnología.* 2024;4:.937.
49. Orduña-Malea E, Costas R. Link-based approach to study scientific software usage: the case of VOSviewer. *Scientometrics.* 2021 Sep 1;126(9):8153-86. doi: 10.1007/s11192-021-04082-y
50. Setiawan D, Triyono MB, Sukarno S, Nurtanto M, Saputro IN, Majid NWA, et al. Assessing Pedagogical Competence of Productive Teachers in Vocational Secondary Schools: A Mixed Approach. *Journal of Education and Learning.* 2025;19(2).doi: 10.11591/edulearn.v19i2.21930

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The authors declare that there is no conflict of interest.

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