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### SHORT COMMUNICATION





# Scientific production on dialogical pedagogy: a bibliometric analysis

# Producción científica sobre pedagogía dialógica: un análisis bibliométrico

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## **ABSTRACT**

Paulo Freire's dialogical pedagogy provides teachers with a framework for their professional practice, offering educators strategies for teaching and learning. The main objective of this research is to determine the contributions of Paulo Freire's dialogical pedagogy to teaching praxis from bibliometric analysis, in terms of increasing impact and incidence in educational processes, knowing its structure, production, and utilization of information for pedagogical practices. A descriptive bibliometric study in Scopus database was conducted, applying a technique of exploratory and descriptive bibliographic document collection to analyze research related to the research topics. A total of 781 documents were retrieved from the Scopus database on the topic under study, of which 32,5 % were open access, involving 1317 authors, with an average of 8,1 citations per document (1,42 Field-Weighted Citation Impact). Original articles represented three-quarters of the total documents, indicating research with new contributions to knowledge, while 12,4 % were book chapters and the remaining 11,8 % were Reviews, Books, Conference Papers, Editorials, and Errata. The top 10 countries with the highest number of published documents in the research area are the United States, United Kingdom and Australia. The analysis carried out revealed that there is significant progress in the area of research related to dialogic pedagogy and its scientific evolution.

Keywords: Pedagogy; Bibliometrics; Scientific Production; Paulo Freire; Dialogical Pedagogy.

### **RESUMEN**

La pedagogía dialógica de Paulo Freire brinda a los docentes un marco para su práctica profesional, ofreciendo estrategias para la enseñanza y el aprendizaje. El objetivo principal de esta investigación es determinar las contribuciones de la pedagogía dialógica de Paulo Freire a la praxis docente a través del análisis bibliométrico, en términos de aumento del impacto e incidencia en los procesos educativos, conociendo su estructura, producción y utilización de la información para las prácticas pedagógicas. Se llevó a cabo un estudio bibliométrico descriptivo en la base de datos Scopus, aplicando una técnica de recopilación exploratoria y descriptiva de documentos bibliográficos para analizar la investigación relacionada con los temas de investigación. Se recuperaron un total de 781 documentos de la base de datos de Scopus sobre el tema en estudio, de los cuales el 32,5 % eran de acceso abierto, que involucraron a 1317 autores, con un promedio de 8,1 citas por documento (1,42 Field-Weighted Citation Impact). Los artículos originales representaron las tres cuartas partes del total de documentos, lo que indica investigaciones con nuevas contribuciones al conocimiento, mientras que el 12,4 % fueron capítulos de libros y el resto fue el 11,8 % fueron Revisiones, Libros, Actas de conferencias, Editoriales y Erratas. Los 10 países con el mayor número de documentos publicados en el área de investigación son Estados Unidos, Reino Unido y Australia. El análisis realizado reveló que hay un progreso significativo en el área de investigación relacionada con la pedagogía dialógica y su evolución científica.

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Palabras clave: Pedagogía; Bibliometría; Producción Científica; Paulo Freire; Pedagogía Dialógica.

### INTRODUCTION

Paulo Freire's dialogical pedagogy provides teachers with a framework for their professional practice, offering educators strategies for teaching and learning. For Freire, teachers have a duty to be thinking subjects about what they should know and what they should do, all in order to achieve transformation, equality, and inclusion of all individuals in society.<sup>(1)</sup>

As such, within his pedagogical principles, Freire invites teachers to think about interaction, dialogue, respect for the learning subject and their conception of the world. It is for these reasons that dialogical pedagogy allows for the development of many skills in the classroom, including orality: listening and speaking, which is a skill that is inherent to human beings and which teachers have an imperative responsibility to enhance in order to transform the world.<sup>(1)</sup>

Education with critical thinking, respect, word, freedom, hope for a better world, and reflective subjects without discrimination, in recognition of the other as a subject that is part of society, is what Freire conceives. "The educator's ability to make decisions that transform students' realities from preconceived and hopeless to hopeful and full of possibilities" is how dialogue is seen as a means of liberation for the oppressed, those who are bound by one thing or another without a critical stance towards reality, while also allowing teachers to generate reflection that leads to praxis, which in turn requires being open to dialogue, resulting in changes for the good of the students.<sup>(2,3)</sup>

However, these oral practices with formative intentions are lagging behind in educational institutions, being an element that is affecting educational quality and therefore requires research. (4,5)

The main objective of this research is to determine the contributions of Paulo Freire's dialogical pedagogy to teaching praxis from bibliometric analysis, in terms of increasing impact and incidence in educational processes, knowing its structure, production, and utilization of information for pedagogical practices.

### **METHODS**

A descriptive bibliometric study was conducted, applying a technique of exploratory and descriptive bibliographic document collection to analyze research related to the research topics. The following stages were applied: identification of the study, broad and comprehensive analysis of dialogical pedagogy, selection of the Scopus platform as one of the databases due to its high quality web content, which provides tools for analysis, tracking, and visualization of different research, including journals, books, articles, and conference proceedings.

In the third stage, a search was conducted according to the following equation: TITLE-ABS-KEY (dialogic\* AND pedagogy\*), and in the fourth stage, a search filter was applied using the search equation in Scopus and SciVal, covering the period from 2012 to 2021. In the fifth stage, VOSviewer was used to analyze the obtained results.

## **RESULTS AND DISCUSSION**

A total of 781 documents were retrieved from the Scopus database on the topic under study, of which 32,5 % were open access, involving 1317 authors, with an average of 8,1 citations per document (1,42 Field-Weighted Citation Impact). Figure 1 shows Scholarly Output, International Collaboration, Citations, Views, and Authors by year. There is a positive growth trend in all indicators per year.

Table 1 shows the indicators of scientific collaboration, highlighting low levels of both international and national collaboration, with neither exceeding 20 %, and nearly half of the articles showing no collaboration.

Table 1. Collaboration indicators							
Indicator	General	Scholarly Output	Citations	Citations per Publication	Field-Weighted Citation Impact		
International collaboration	12,8 %	100	975	9,8	1,52		
Only national collaboration	16,8 %	131	1358	10,4	1,27		
Only institutional collaboration	23,7 %	185	1579	8,5	1,77		
No collaboration	46,7 %	365	2437	6,7	1,27		

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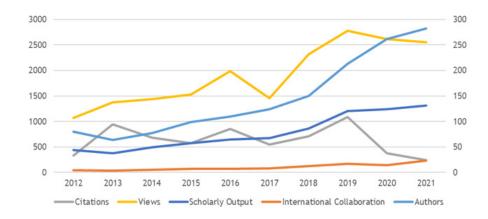


Figure 1. Scholarly Output, International Collaboration, Citations, Views and Authors per year

One way to measure the impact of titles in Scopus is through the CiteScore. Figure 2 shows the distribution of documents per quartile of the journals by year, with the majority of publications in the first quartile.



Figure 2. Publications by Journal quartile

Figure 3 shows the Scholarly Output and Field-weighted Citation Impact in relation to the subject areas of the papers.

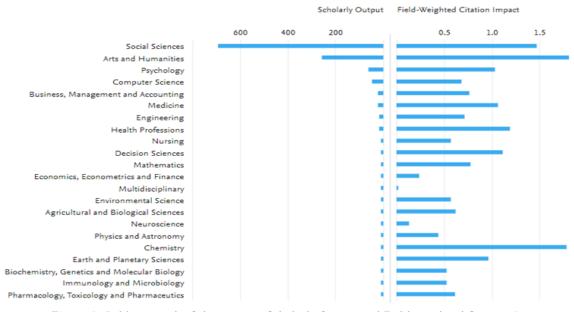


Figure 3. Publications by Subject Area (Scholarly Output and Field-weighted Citation Impact)

Table 2 shows the ranking of the most productive institutions based on the number of documents, with the University of Cambridge standing out with 24 documents and 21,3 Citations per Publication.

Table 2. Most productive institutions								
Rank	Institution	Sector	Country/ Region	Scholarly Output	Citations	Authors	Citations per Publication	Field- Weighted Citation Impact
1	University of Cambridge	Academic	United Kingdom	24	510	27	21,3	6,99
2	University of Exeter	Academic	United Kingdom	18	330	21	18,3	2,03
3	University of Delaware	Academic	United States	15	153	7	10,2	3,05
4	Monash University	Academic	Australia	12	230	13	19,2	1,73
5	Nanyang Technological University	Academic	Singapore	11	234	12	21,3	1,72
6	University of South Australia	Academic	Australia	10	26	19	2,6	0,4
6	The University of Auckland	Academic	New Zealand	10	157	12	15,7	2,11
6	University of Waikato	Academic	New Zealand	10	122	8	12,2	1,41
6	University of Jyväskylä	Academic	Finland	10	94	9	9,4	1,24
7	University of Sheffield	Academic	United Kingdom	9	76	7	8,4	1,38
8	University of the Witwatersrand	Academic	South Africa	8	41	10	5,1	0,48
8	University of Sydney	Academic	Australia	8	63	6	7,9	1,24
8	Ben-Gurion University of the Negev	Academic	Israel	8	163	3	20,4	3,92
9	Hebrew University of Jerusalem	Academic	Israel	7	79	6	11,3	2,2
9	SUNY Buffalo	Academic	United States	7	25	12	3,6	1,27
10	University of Melbourne	Academic	Australia	6	10	7	1,7	0,05
10	University of Technology Sydney	Academic	Australia	6	24	7	4	0,72
10	Western Sydney University	Academic	Australia	6	38	3	6,3	0,96
10	University of Wollongong	Academic	Australia	6	103	7	17,2	0,81
10	University College London	Academic	United Kingdom	6	69	8	11,5	1,18

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10	University of Toronto	Academic	Canada	6	18	11	3	0,37
10	Ohio State University	Academic	United States	6	122	11	20,3	2,47
10	Pennsylvania State University	Academic	United States	6	392	5	65,3	5,96

Original articles represented three-quarters of the total documents, indicating research with new contributions to knowledge, while 12,4 % were book chapters and the remaining 11,8 % were Reviews, Books, Conference Papers, Editorials, and Errata.

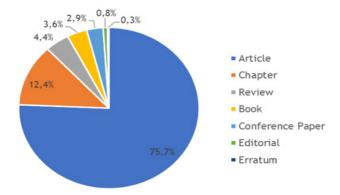


Figure 4. Documents by type

In Figure 5, it can be observed that the top 10 countries with the highest number of published documents in the research area are the United States (196 documents), United Kingdom (169), Australia (90), Canada (48), Brazil (39), Spain (29), New Zealand (27), South Africa (26), Finland (22), and Norway (22).

The progress in research on dialogical pedagogy and its significant contributions to the field of education can be appreciated, as communication and dialogue are powerful tools at our disposal for conveying and exchanging ideas, solving problems, and educating for democracy and critical thinking in all areas of education, as evidenced by the consulted research.

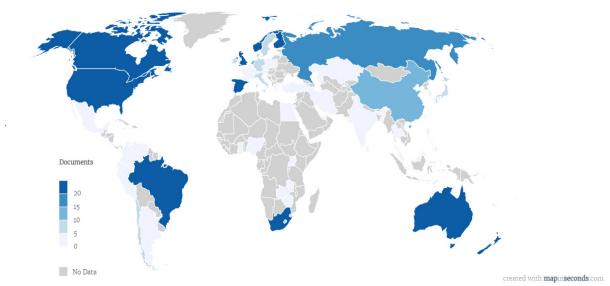


Figure 5. Documents by country

To construct the co-occurrence map, articles with keywords that had a co-occurrence of terms greater than or equal to 3 were taken into account (Figure 6). Its analysis allows for a qualitative analysis of the interrelationships and research advances with dialogical pedagogy, and how it relates to teaching and learning, education, students, and also encompasses language, reflection, psychology, creativity, imagination, social aspects, and curriculum, all of which are extremely important elements of the educational field, thus its

impact is high, as well as its research advances. It can also be observed that the distances are so short, which reflects the greater volume of research with related topics.

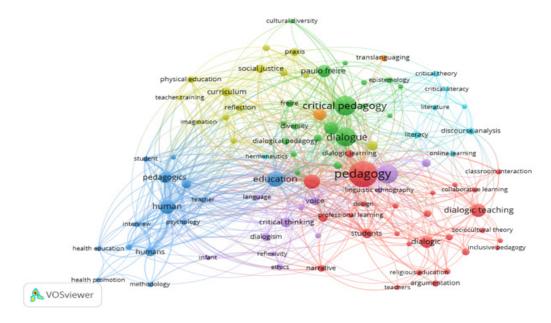


Figure 6. Map of co-occurrence of terms

During the identification process, four clusters were identified that are directly related to the keywords "dialogical pedagogy" and related topics. The words can be seen in the figure in order of size and grouped according to related topics that represent the fronts or lines of identified research. According to their order of importance:

- Pedagogy: shown in red, which is directly related to critical pedagogy, dialogue, students, teacher argumentation, teaching, interaction, learning, literature, collaborative work, and narratives.
- Critical pedagogy: shown in green with its greatest exponent being Paulo Freire, encompassing epistemological concepts, dialogue, praxis, social justice, teaching dialogues, and curriculum.
- Dialogue: shown in green, which is directly related to critical pedagogy, Paulo Freire, literature, transformation of teaching, education, language, conversation, interaction, orality, and reflection.
- Education: shown in blue, where teachers, pedagogy, humanism, methodologies, children, psychology, students, and language appear.

According to bibliometric indicators, we can appreciate that the greatest scientific production is related to the search for teaching and learning strategies in classrooms, social practices, the importance of generating critical pedagogy, because it is necessary to strengthen research in generating reflective dialogical practices, discursive practices that generate critical capacity in individuals to question ideas, express themselves freely and with arguments, to impact all areas of knowledge and close the learning gaps that exist in many countries. (6,7,8)

Through the bibliometric indicators, different changes obtained in scientific production from 2012 to 2021 were accessed, in relation to the number of most cited research, which shows the interest in the use of dialogical pedagogy as a teaching and learning method to overcome the difficulties presented by individuals and improve teaching practice. The bibliometric co-occurrence map of keywords was also visualized, highlighting pedagogy as the essence of teaching, critical pedagogy as the one that helps generate reflections for improvement, dialogue as the essence of freedom and oral expression, and education as a fundamental pillar of humanity. The impact of this pedagogy on the processes of education and learning improvement can also be observed in each cluster.

### **REFERENCES**

- 1. Rodríguez LM, Marin C, Moreno SM, Rubano M del C. Paulo Freire: una pedagogía desde América Latina. Ciencia, docencia y tecnología 2007:129-71.
- 2. Santos Gómez M. Ideas filosóficas que fundamentan la pedagogía de Paulo Freire. Revista Iberoamericana de Educación 2008;46:155-74.

### 7 Bayona Arévalo Y, et al

- 3. Forneris SG, Peden-McAlpine CJ. Contextual Learning: A Reflective Learning Intervention for Nursing Education. International Journal of Nursing Education Scholarship 2006;3. https://doi.org/10.2202/1548-923X.1254.
- 4. Lewthwaite S, Nind M. Teaching Research Methods in the Social Sciences: Expert Perspectives on Pedagogy and Practice. British Journal of Educational Studies 2016;64:413-30. https://doi.org/10.1080/00071 005.2016.1197882.
- 5. Alexander R. Developing dialogic teaching: genesis, process, trial. Research Papers in Education 2018;33:561-98. https://doi.org/10.1080/02671522.2018.1481140.
- 6. Skidmore D, Murakami K. Dialogic pedagogy: The importance of dialogue in teaching and learning. Bristol: Channel View Publications; 2016.
- 7. Nind M, Lewthwaite S. Methods that teach: developing pedagogic research methods, developing pedagogy. International Journal of Research & Method in Education 2018;41:398-410. https://doi.org/10.1080/1743727X.2018.1427057.
- 8. Teo P. Teaching for the 21st century: A case for dialogic pedagogy. Learning, Culture and Social Interaction 2019;21:170-8. https://doi.org/10.1016/j.lcsi.2019.03.009.

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### **CONFLICT OF INTEREST**

There are no conflicts of interest.

### **AUTHORSHIP CONTRIBUTIONS**

Conceptualization: Yanir Bayona Arévalo, Matilde Bolaño García. Data curation: Yanir Bayona Arévalo, Matilde Bolaño García. Formal analysis: Yanir Bayona Arévalo, Matilde Bolaño García. Investigation: Yanir Bayona Arévalo, Matilde Bolaño García. Methodology: Yanir Bayona Arévalo, Matilde Bolaño García.

Writing - original draft: Yanir Bayona Arévalo, Matilde Bolaño García.

Writing - review and editing: Yanir Bayona Arévalo, Matilde Bolaño García.