

Principal Spiritual Leadership: A Bibliometric Analysis with the VOS Viewer App

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Abstract—The goal of this research is to examine the development of research particularly in the area of spiritual leadership. This research was conducted using the VOSviewer App through a bibliometric approach to analysis Spiritual leadership. 222 articles were found in google scholar that are considered relevant. The research period covers the three years from 2020 – 2022. The results show that this research can be separated into 2 terms: “Spiritual leadership” and “Principal”. The term “Spiritual Leadership” is associated with 40 links for a total link strength of 383. The term “Principal” has 36 links for a total link strength of 266. The results of the analysis of the development of publications on spiritual leadership in the last 3 years are overall quite stable. The highest number of publications was in 2021 with 84 publications. I examined how many articles were published on the spiritual leadership of principals and their approach to problem -solving or their relation to problem area using VOSviewer. This review can be a starting point for further research related to the spiritual leadership of school principals..

Keywords:---*bibliometrics, principal, spiritual leadership*

INTRODUCTION

As the highest leader in a school, a principal has influence and can determine the school’s progress. They must have administrative abilities, be highly committed and flexible in carrying out their duties. Good principal leadership must be able to seek to improve teacher performance through the implementation of capacity building programs for the educational staff. Therefore, the principal must have the personality, traits, abilities and skills to lead an educational institution [6].

Principal leadership has the ability to motivate educational staff, so that the educational goals that have been set can be achieved effectively and efficiently. The principal’s leadership is one of the factors that can encourage schools to realize the school’s vision, mission, goals, and objectives through programs that are

implemented in a planned and gradual manner. In directing the vision and mission, the leader must set goals in the direction of the appropriate activities and encourage them to be implemented.

The principal in the school is the leader who is responsible for the continuity of the organization. Efforts to manage and develop schools through administrative, management and leadership activities depend on the ability of the principal. [11]. The principal is someone who determines the center point and rhythm of a school. Because schools are complex institutions, schools as organizations need coordination. The success of the school depends on the success of the principal. Principals succeed if they understand the existence of the school as a complex and unique organization, and can carry out the principal’s role as someone who is motivated? committed?

The principal is a professional in the school’s organization, whose task is to manage all the resources of the school and to work together with teachers, staff and other employees in educating students to achieve their educational goals. A professional school principal will make adjustments to the needs of the world of education and be able to develop according to the times in the era of globalization. [9] [10].

The principal is a person who has a major role in achieving the success of managing a school. The spirituality of leadership is a combination of values, attitudes, and behaviors needed to motivate themselves and others inherently, so that they possess spiritual leadership as a call of duty. [8].

Spiritual leadership is leadership that brings the worldly dimension to the spiritual dimension (divinity) and relies more on spiritual intelligence within leadership activities. Spiritual leadership is also leadership that strongly maintains ethical values and upholds spiritual values [14]. Several studies have stated the importance of spiritual values in organizations. The importance of employee participation and motivation in

organizations has become a recent concern in the field of management and leadership.

The issue of spirituality is increasingly accepted in the 21st century, as proposed by futurologists, such as Aburdene and Fukuyama as the value of Spirituality has proven to be a tremendous force to create individuals of integrity and high ethical standards. Therefore, the application of spiritual leadership in an organization ospiritualtyr company will be able to inspire and motivate people in achieving the vision and organizational culture based on spiritual values. [13].

There are many leadership styles that can be used, but many leaders pay little attention to the use of spiritual leadership styles in leading their colleagues. Spiritual leadership does not mean anti-intellectual leadership. Spiritual leadership is not only very rational, but it makes use of a rationality guided by conscience. [5].

There have been many studies on bibliometric analysis, including bibliometric analysis in leadership [1] [2] [3] [10] [12] however, research on bibliometric analysis of the computational mapping of published data in the field of spiritual leadership of principals in order to identify research developments has not been carried out, in particular, bibliometric analysis for the last 3 years in the period 2020 to 2022 through the VOSviewer application by retrieving data on Google Scholar.

Therefore, this study was conducted to perform a bibliographic analysis of articles indexed by Google Scholar using VOSviewer software. This research was conducted with the hope that it can be a reference for researchers in the implementation and identification of research topics to be carried out, especially those related to the field of spiritual leadership.

METHODOLOGY

The method used in this study is the bibliometric method. This is useful for identifying similarities and to display the relationship between keyword entities by means of direct and indirect connections between keyword entities which ultimately results in these entities being placed closer to each other on the map.[16] itation analysis underlies the bibliometric method. The increasing interest in this method may be due to the increasing availability of online databases with citation data and the development of new analysis software.[7] The data used in this study were sourced from Google Scholar and amounted to 222 documents. The time span used by the benchmark in this study is limited to 2020-2022. Data analysis was carried out using statistical analysis to calculate the number of documents and

percentages. Meanwhile, to determine the relationship between documents, VOSviewer is used as the instrument [15].

FINDING AND DISCUSSION

Publication Data Search Results

The search data was based on the Publish or Perish application in the Google Scholar database which identified 222 articles that met the search criteria. The number of citations per year is 366.00. The number of citations per article is 3.21. The average of the authors in the articles used is 2.04. All articles have an average h-index of 13, and the g-index is 21. Table 1 shows some examples of published data used in the VOSviewer analysis. The data sample taken is from the top 20 articles with the highest number of citations.

Table 1 Articles with the highest number of citations.

Cites	Authors	Title	year	Source
74	MM Pellegrini, F Ciampi, G Marzi, ...	The relationship between knowledge management and leadership: Mapping the field and providing future research avenues	2020	Journal of Knowledge...
59	AS bin Abdullah	Leadership, Task Load And Job Satisfaction: A Review of Special Education Teachers Perspective	2021	Turkish Journal of Computer and Mathematics ...
52	MA Masyhum	Headmasters Leadership on Task Load and Job Satisfaction of Special Education Teachers In Malaysia	2021	Turkish Journal of Computer and Mathematics ...
34	R Yilmaz, FG Karaoglan	Vertical versus shared leadership approach in	2020	Journal of Computing in Higher ...

Cites	Authors	Title	year	Source
	Yilmaz, H Keser	online project-based learning: a comparison of self-regulated learning skills, motivation and group collaboration ...		
25	AN Husain, DA Matsa, AR Miller	Do male workers prefer male leaders? An analysis of principals' effects on teacher retention	2021	Journal of Human Resources
23	TS Aaron	Black women: Perceptions and enactments of leadership	2020	Journal of School Leadership
23	S Cherkowski, B Kutsyuruba, K Walker	Positive leadership: animating purpose, presence, and passion for play for flourishing in schools	2020	Journal of Educational...
15	D Gurr, F Longmuir, C Reed	Creating successful and unique schools: leadership, context and systems thinking perspectives	2020	Journal of Educational Administration
15	AR Walker	"God is my doctor": mindfulness meditation/prayer as a spiritual well-being coping strategy for Jamaican school principals to manage their work-related stress and ...	2020	Journal of Educational Administration
15	E Chiral	Excellent Leadership	2020	Journal of Educational Leadership

Cites	Authors	Title	year	Source
		Theory in Education.		and Policy Studies
15	IHM Noor, E Sofyaningrum	The academic supervision of the school principal: a case in Indonesia	2020	Journal of Educational and Social ...
14	HW Klar, P Moyi, RM Ylimaki, S Hardie, ...	Getting off the list: Leadership, learning, and context in two rural, high-needs schools	2020	... School Leadership
13	M Tian, SG Huber	Mapping the international knowledge base of educational leadership, administration and management: a topographical perspective	2021	Compare: A Journal of Comparative and ...
13	S zdemir, oban, S Bozkurt	Examination of the relationship between school principals' 21st century skills and their strategic leadership according to teachers' opinions	2020	Pegem Journal of Education and ...
12	C Brewer, N Okilwa, B Duarte	Context and agency in educational leadership: Framework for study	2020	International Journal of Leadership...
12	D Ariyani, M Zuhaery	Principal's Innovation and Entrepreneurial Leadership to Establish a Positive Learning Environment.	2021	European Journal of Educational Research
11	N De Bruyn, R Mestry	Voices of resilience: Female school	2020	South African Journal of Education

Cites	Authors	Title	year	Source
		principals, leadership skills, and decision-making techniques		
11	A Dimopoulos	Educational Leadership Effectiveness. Is it a Matter of a Leader's Characteristics, Behaviors, or Leadership Style?	2020	Journal of Economics and Management Sciences
11	B Farr, M Gandomi, ...	Implementing restorative justice in an urban elementary school: principal's commitment and experiences eliminating exclusionary discipline	2020	... Educational Leadership

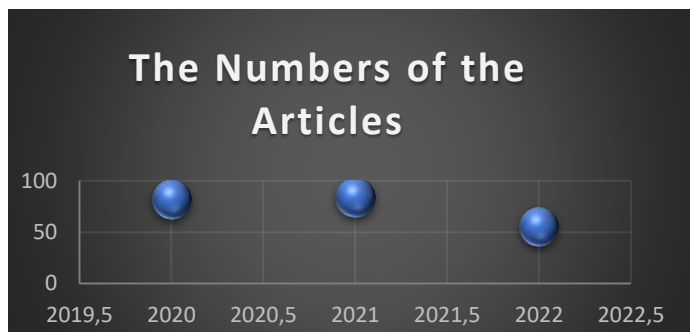
Research Developments in the Field of the Spiritual Leadership of Principals

Table 2 shows the development of research on the spiritual leadership of principals published in Google Scholar indexed journals. Based on Table 2, the total number of studies is 222 articles covering the period from 2020-2022. Figure 1 shows the development of research on the spiritual leadership of school principals for the last 3 years between 2020 to 2022. Based on Figure 1, it is known that the development of research related to kiai leadership has become popular and has begun to be studied further.

Table 2 The total number of studies in the period from 2020-2022

Year	Number of Articles
2020	82
2021	84
2022	56
Total	222
Average	74

Fig 2. Research Developments on Principal Spiritual Leadership



Visualization of Kiai Leadership Topic Areas Using VOSviewer

Computational mapping was carried out on the article data. VOSviewer was used in the computational mapping. From the results of the computer mapping, many entries were found. Each item found which was related to the leadership of the kiai in data mapping was divided into 7 groups, namely:

- 1) Cluster 1: Development, Implementation, Inclusive Education, Leader, Leadership style, Practice, Principal Leadership, School; Principal, Transformation leader
- 2) Cluster 2: Impact, Influences, Mindfulness, Organization, Organization culture, Performance, School Culture, Servant Leadership, TeacherJob Performance
- 3) Cluster 3: Culture, Perception, Perspective, School Administrator, School Leadership, Spiritual Leader, Spirituality
- 4) Cluster 4: Education, Educator, Importance, Indonesia, Job Satisfaction, Management, Position
- 5) Cluster 5: Administration, Critical Spirituality, Curriculum, Educational Leadership, Educational Management, Program
- 6) Cluster 6: Examination, Framework, Instructional Leadership, Leadership, Strategic Leadership
- 7) Cluster 7 : Phenomenon, Principalship, Role

The relationship between each element is shown in each existing cluster. Labels are assigned to each term with colored circles. The size of the circle for each cluster varies depending on the frequency of occurrence of the cluster. The more often the term is mentioned, the larger the size of the label. The mapping image analysed in this study consists of 3 parts: network visualization

(see Figure 4), density visualization (see Figure 5), and overlay visualization (see Figure 6) .

Figure 4 shows the relationship between the terms. The relationship between terms is described in an interconnected network. Figure 4 shows the clusters of each term that is frequently researched and related to the topic of kiai leadership research. From the clusters contained in the network visualization, the kiai leadership research consists of 7 clusters with 316 links with 1130 total links strength which can be separated into 3 fields, namely the terms leadership, kiai and science.

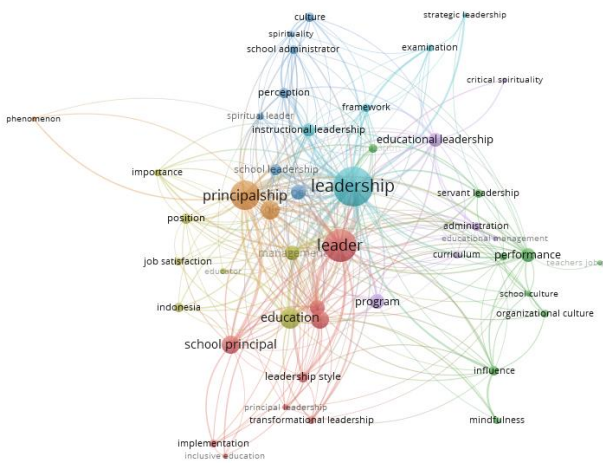


Figure 4 Network Visualization in Spiritual Leadership Research

Figure 5 shows the density visualization. Density visualization means that the brighter the colour yellow and the larger the circle diameter of the label, the more often the term appears in research. This means that a lot of research on these related terms has been done. On the other hand, if the color of the term fades closer to the background color, then the number of studies on the term is still few. Based on Figure 5, it can be seen that a high number of research studies have been carried out related to the terms leadership, kiai and science.

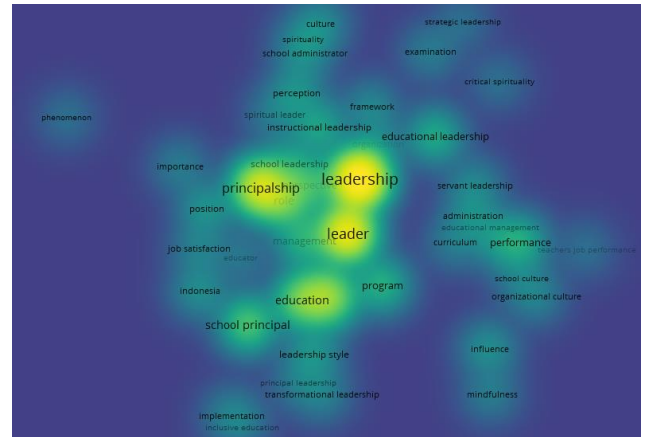


Figure 5 Visualization of Density in Spiritual Leadership Research

Figure 6 shows the overlay visualization in spiritual leadership research. This visualization overlay shows the number of new areas of research on related terms. Figure 4 shows that research on kiai leadership has been widely carried out between 2020 and 2022. The popularity of the term spiritual leadership in research has been present for a long time and many of them have also been studied from various subjects and topics. Thus, we can easily make new research on leadership.

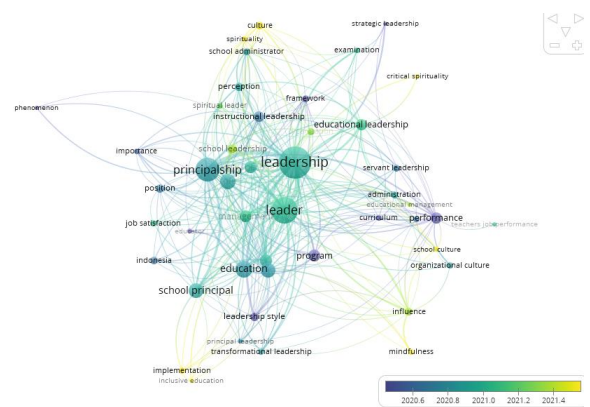


Figure 6 Overview of Keyword Research on Spiritual Leadership and Principals

Figure 7 shows a network of relationships between leadership terms and other terms, namely: educational leadership, school principal, education, transformation leadership, influence, school culture, organizational culture, school leadership, instructional leadership, and others. This terminology consists of 6 clusters with 40 links and 383 total link strength.

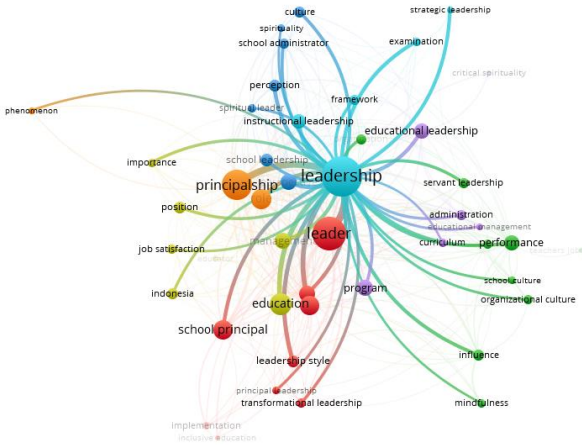


Figure 7 Visualization of Leadership Terminology Network

Figure 8 shows the network of relationships between spiritual terms and existing terms, including: Education Leadership, Principalship, Practice, Spiritual Leader, Leader style, School leadership. This terminology consists of 9 clusters with 10 links and a total link strength of 16.

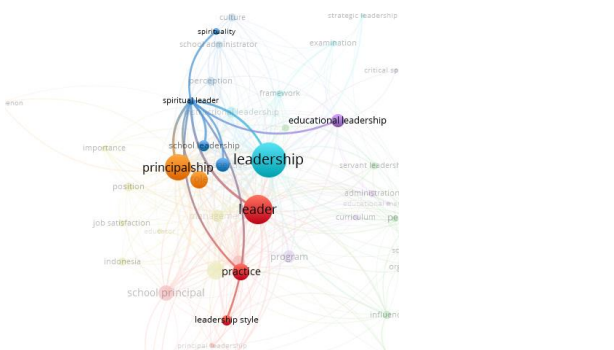


Figure 8. Visualization of Kiai. Terminology Network

Meanwhile, Figure 9 shows the principal relationship network, which is associated with the terms, School Principal, Leadership, Servant leadership, influence, leadership style, job satisfaction, perception, school administration, spirituality, framework. This terminology consists of 7 clusters with 36 links and a total link strength of 266.

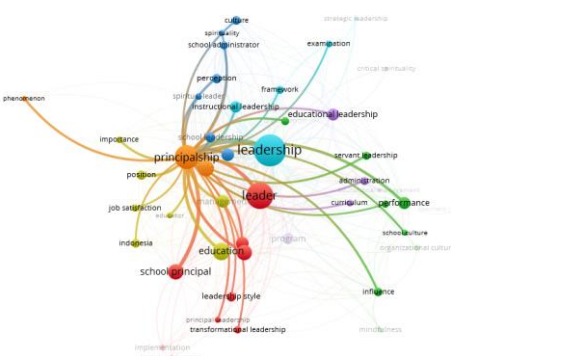


Fig 9. Science Terminology Network Visualization

This data shows that a lot of research on spiritual leadership has been carried out. It is still possible to link it with other terms to produce new research. The terms spiritual leadership and principals tend to have a high level of relevance and are often associated with a variety of terms.

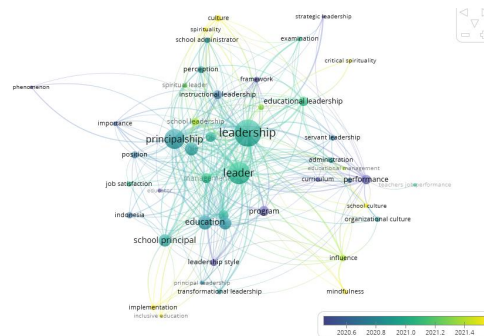


Figure 10. Overview of Leadership Terminology in 2018-2022

Based on the results of mapping the article data which collected as many as 22 articles from Google Scholar, it can be seen that the keyword ‘spiritual leadership’ has been widely researched. This is shown by the large number of articles published each year. From the results of this study, we can look for research on spiritual leadership that is more recent and up to date and has broad implications for the development of leadership models, institutional development and the impact of leadership itself.

CONCLUSION AND RECOMMENDATION

This study examines the leadership of school principals using a spiritual leadership approach and examines the development of the VOS viewer survey through a bibliometric approach to spiritual leadership analysis. Spiritual leadership became a reference in the search process. There were 222 relevant articles found. The research period is used as a document indexed by Google Scholar over the last 3 years (2020-2022). The results show that this research can be divided into two terms: ‘spiritual leadership’ and ‘principal’. The term “spiritual leadership” is associated with 40 links for a total link strength of 383. The term “leader” has 36 links and a total link strength of 266. The results of the analysis of the development of publications on spiritual leadership in the last 3 years are generally quite stable. The highest number of publications were in 2021 with 8 publications. Using the VOS Viewer program, we investigated the number of articles published on spiritual

leadership as well as principals. This review can be a starting point for further research on spiritual leadership as well as school principals.

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