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#4488 Review

SUMMARY

REVIEW

EDITING

Submission

Authors	R. Siti Pupu Fauziah, Irman Suherman, Abdul Kholik, Muhammad Rendi Ramdhani, Zahra Khusnul Lathifah
Title	A Bibliometric Analysis of Instructional Technological Leadership Research Using VOSviewer
Section	Articles
Editor	Chusnul Muali

Peer Review

Round 1

Review Version	4488-14758-1-RV.DOCX 2023-03-15
Initiated	2023-03-15
Last modified	2023-03-23
Uploaded file	Reviewer B 4488-14841-1-RV.DOCX 2023-03-23 Reviewer A 4488-14843-1-RV.DOCX 2023-03-23

Editor Decision

Decision	Accept Submission 2023-03-24
	Editor/Author Email Record 2023-03-23

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Authors	R. Siti Pupu Fauziah, Irman Suherman, Abdul Kholik, Muhammad Rendi Ramdhani, Zahra Khusnul Lathifah
Title	A Bibliometric Analysis of Instructional Technological Leadership Research Using VOSviewer
Original file	None
Supp. files	None
Submitter	Irman Suherman
Date submitted	October 14, 2022 - 10:30 AM
Section	Articles
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Abstract Views	23

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Country	Indonesia
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Title and Abstract

Title	A Bibliometric Analysis of Instructional Technological Leadership Research Using VOSviewer
Abstract	This study aims to analyze the development of research on technology-related instructional leadership. The research method used is bibliometric analysis. The articles used in this study were sourced from the Google Scholar database with the help of the Publication of Perish from 2015-2022; 498 papers were found. Data analysis using the VOSviewer application. The results showed that the number of publications decreased yearly, where the most occurred in 2015, namely 102 publications. The results of the density visualization analysis shown in yellow circles indicate the themes most frequently used in recent research, namely instructional technology, technology integration, instructional leadership practice, school leader, transformational leadership, covid, time and student. Meanwhile, based on network visualization, the topic of instructional leadership has a relationship with the term development, effect, effectiveness, instructional leader, instructional leadership, instructional leadership practice leader leadership model principal research school school leader school

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leadership practices, leader, leadership, model, principal, research, school, school leader, school leadership, school principal and transformational leadership. These results illustrate that technology-based instructional leadership can be developed by referring to instructional technology, technology integration, as a term rarely used based on visualization overlay.

Indexing

Academic discipline and sub-disciplines	—
Keywords	Instructional Leadership, Technology, VOSviewer
Language	en

Supporting Agencies

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A Bibliometric Analysis of Instructional Technological Leadership Research Using VOSviewer

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Abstract:

Instructional Leadership merupakan sebuah riset yang berfokus pada kepemimpinan guru yang digambarkan dengan kemampuan guru mengelola kelas dan menentukan arah pembelajaran. Penelitian ini bertujuan untuk menganalisis perkembangan riset tentang kepemimpinan intruksional yang berhubungan dengan teknologi. Metode penelitian yang digunakan adalah bibliometric analysis. Artikel yang digunakan dalam penelitian ini bersumber dari database google scholar dengan bantuan publish of perish dari tahun 2015-2022 ditemukan 498 paper. Analisis data menggunakan aplikasi VOSviewer. Hasil penelitian menunjukkan bahwa jumlah publikasi setiap tahunnya mengalami penurunan, dimana publikasi terbanyak terjadi pada tahun 2015 yaitu sebanyak 102 publikasi. Hasil analisis overlay visualitation yang ditunjukkan dengan bulatan berwarna kuning menandakan tema yang paling sering digunakan dalam penelitian terbaru, yaitu instructional technology, technology integration, instructional leadership practice, school leader, transformational leadership, covid, time and student. Sedangkan berdasarkan network visualitation topik instructional leadership memiliki hubungan dengan term development, effect, effectiveness, instructional leader, instructional leadership, instructional leadership practice, leader, leadership, model, principal, research, school, school leader, school leadership, school principal dan transformational leadership. Hasil ini menggambarkan bahwa topik instructional leadership berbasis teknologi dapat dikembangkan dengan mengarah pada instructional technology, technology intergration sebagai term yang masih jarang dilakukan berdasarkan overlay visualitation.

Keywords: *Instructional Leadership, Technology, VOSviewer.*

INTRODUCTION

Instructional Leadership merupakan sebuah riset yang berfokus pada kepemimpinan guru yang digambarkan dengan kemampuan guru mengelola kelas dan menentukan arah pembelajaran. Menurut Hallinger dan Murphy (1985) dalam Munna (2021), kepemimpinan instruksional merupakan konsep kepemimpinan yang kuat yang berfokus pada kurikulum dan proses pembelajaran. Pemimpin instruksional adalah orang-orang yang membawa keefektifan lembaga, terutama dalam hal pengajaran dan pembelajaran. Sedangkan penelitian shaked (2021) menyatakan bahwa instructional leadership dilakukan karena dua alasan, yaitu pertama hubungan kepala sekolah dengan orang tua siswa (masyarakat) yang berfokus pada monitoring dan kontrol, kedua karakteristik orang tua yang menginginkan pada pembelajaran dan prestasi.

Instructional leadership memiliki fokus bagaimana guru dapat memimpin di kelas terutama dalam kegiatan pembelajaran. Dalam sebuah riset menyatakan bahwa siswa mampu memiliki rencana belajar untuk masa depan pendidikannya dipengaruhi oleh instructional leadership (Lambrecht, et. al. 2022). Pada hasil penelitian lain didapati bahwa siswa yang diajar oleh guru yang memiliki kepemimpinan, telah berhasil secara akademik maupun non akademik dibandingkan dengan siswa yang diajar oleh guru yang kurang memiliki kepemimpinan di kelas maupun di luar kelas (Warren, 2021).

Penelitian ini bertujuan untuk menganalisis perkembangan trend penelitian tentang instructional leadership berbasis teknologi. Pengkajian data publikasi jurnal internasional melalui database google scholar pada tahun 2015-2022. Analisis data menggunakan bibliometric analysis dengan bantuan VOSviewer. Hasil penelitian diharapkan dapat menggambarkan trend perkembangan riset tentang instructional leadership berbasis teknologi serta mencari hubungan dengan term lain, sehingga ditemukan term yang masih jarang dijadikan topik penelitian tentang instructional leadership yang hubungannya dengan teknologi.

Method

Metode penelitian yang digunakan dalam penelitian ini adalah bibliometric analysis. Pengumpulan data mengumpulkan database google schooler dengan publish or perish. Publish or perish didesain untuk membantu individu secara akademik dapat melakukan analisis pada dampak penelitian. Publish or perish dapat menggambarkan metrik sitasi dengan berbagai bentuk (Immawati, 2022). Publish or perish akan memudahkan penulis untuk menemukan penelitian sebelumnya yang sebanding dengan pekerjaan mereka saat ini (Bellour, 2021). Peneliti melakukan pencarian data dengan memasukan kata kunci "instructional leadership, technology dan science". Hasil data yang diperoleh melalui pencarian publish or perish, selanjutnya diseleksi sesuai dengan kriteria, yaitu publikasi merupakan sebuah jurnal dan sudah mendapatkan sitasi. Berdasarkan kriteria tersebut didapatkan data sebanyak 498 paper.

Kemudian pada tahap berikutnya dilakukan analisis data dengan menggunakan aplikasi VOSviewer. VOSviewer digunakan untuk memvisualkan bibliographi, atau data set yang berisi field bibliographi (judul, pengarang, penulis, nama

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jurnal, dan sebagainya). Dalam dunia penelitian, VOSviewer digunakan untuk analisis bibliometrik, mencari topik yang masih ada peluang untuk diteliti, mencari referensi yang paling banyak digunakan pada bidang tertentu dan sebagainya (Immawati, 2022)

Result and Discussion

Network Vizualitation

hasil analisis network vizualitation perkembangan penelitian tentang instructional leadership berbasis teknologi menggunakan VOSviewer dibagi menjadi 5 cluster, dapat dilihat pada figure1 berikut ini:

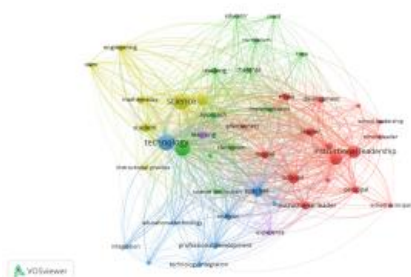


Figure 1. Network Vizualitation

Cluster 1. Ditunjukkan dengan warna merah. Term yang paling sering digunakan adalah Instructional Leadership. Term ini memiliki 42 hubungan dengan term lain, memiliki kekuatan hubungan sebesar 380 dan accurances 114. Ada 16 item yang muncul pada cluster 1, yaitu development, effect, effectiveness, instructional leader, instructional leadership, instructional leadership practice, leader, leadership, model, principal, research, school, school leader, school leadership, school principal dan transformational leadership.

Cluster 2. ditunjukkan dengan warna hijau. Term yang paling sering digunakan adalah instruction. Term ini memiliki 44 hubungan dengan term lain, memiliki kekuatan hubungan sebesar 609 dan accurances 167. Ada 12 item yang muncul pada cluster 2, yaitu approach, challenge, classroom, covid, curriculum, educator, implementation, instruction, science instruction, science teacher, teaching, time.

Cluster 3. ditunjukkan dengan warna biru. Term yang paling sering digunakan adalah technology. Term ini memiliki 42 hubungan dengan term lain, memiliki kekuatan hubungan sebesar 724 dan accurances 186. Ada 9 item yang muncul pada cluster 3, yaitu analysis, educational technology, instructional technology, integration, professional development, relationship, teacher, technology, technology integration.

Cluster 4. Ditunjukkan dengan warna kuning. Terma yang paling sering digunakan adalah science. Term ini memiliki 45 hubungan dengan item lain, memiliki kekuatan hubungan sebesar 706 dan accurances 183. Ada 7 item yang muncul pada cluster 4, yaitu education, engineering, instructional practice, mathematics, science, STEM, student, dan student.

Commented [TP3]: Pada hasil penelitian ini, usahakan menyajikan data hasil penelitian secara argumentative, sehingga kontribusi peneliti menjadi jelas

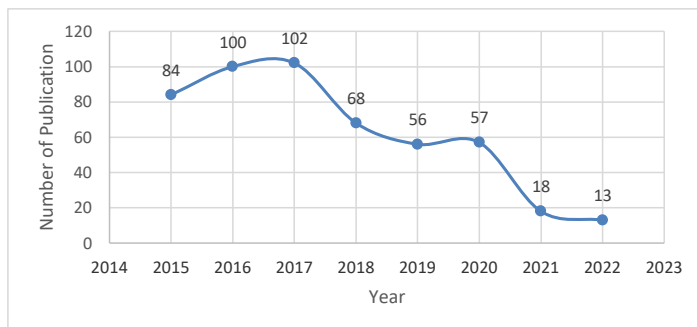


Figure 3. Perkembangan Jumlah Publikasi

Density Vizualitation

Density vizualitation menjelaskan tentang densitas dari kata kunci Instructional Leadership, Science and Technology. Ada beberapa warna yang muncul pada gambar, yaitu warna kuning menggambarkan bahwa topik penelitian yang paling sering dilakukan yaitu science, technology and instructional leadership. Sedangkan pada warna kuning yang semakin redup menggambarkan topik tersebut masih jarang dijadikan sebagai topik penelitian yang hubungannya dengan instructional leadership. Beberapa topik diantaranya, instructional practice, school principal, educational technology, integration, time, STEM (lihat figure 4).

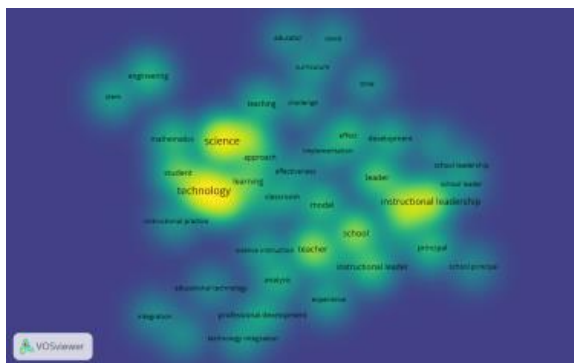


Figure 4. Density Vizualitation

Tabel 1 adalah data tentang publikasi yang telah disitasi oleh peneliti lain. Data tersebut merupakan 10 publikasi yang paling tinggi sitasinya. Adapun sitasi terbanyak yaitu paper yang ditulis oleh GJ Hwang, CL Lai dan SY Wang tahun 2015 dengan judul “Seamless flipped learning: a mobile technology-enhanced flipped classroom” dimana sitasinya mencapai 1442 sitasi. Adapun secara terperinci 10 publikasi paling banyak sitasinya adalah sebagai berikut:

Tabel 1. Jumlah Sitasi Per Paper pada Database Google School (Publikasi tahun 2015-2022)

Cite	Authors	Title	Year	Source
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s				
1442	GJ Hwang, CL Lai, SY Wang	Seamless flipped learning: a mobile technology-enhanced flipped classroom with effective learning strategies	2015	Journal of computers in education
836	KR Clark	The effects of the flipped model of instruction on student engagement and performance in the secondary mathematics classroom.	2015	Journal of Educators online
642	M Tschannen- Moran, CR Gareis	Faculty trust in the principal: An essential ingredient in high- performing schools	2015	Journal of Educationa l ...
630	R Goddard, Y Goddard, E Sook Kim...	A theoretical and empirical analysis of the roles of instructional leadership, teacher collaboration, and collective efficacy beliefs in support of student learning	2015	American journal of ...
605	TR Kelley, JG Knowles	A conceptual framework for integrated STEM education	2016	Internation al Journal of STEM education
507	K McKnight, K O'Malley, R Ruzic...	Teaching in a digital age: How educators use technology to improve student learning	2016	... on technology in ...
497	DJ Leu, CK Kinzer, J Coiro, J Castek...	New literacies: A dual-level theory of the changing nature of literacy, instruction, and assessment	2017	Journal of ...
458	S Andriani, N Kesumawati, M Kristiawan	The influence of the transformational leadership and work motivation on teachers performance	2018	... Journal of Scientific & Technolog y ...
433	AA Shahroom, N Hussin	Industrial revolution 4.0 and education	2018	... Business and Social Sciences
423	AA Fernandez, GP Shaw	Academic leadership in a time of crisis: The Coronavirus and COVID-19	2020	Journal of leadership Studies

Conclusion

Based on the results and discussion above, it can be concluded that from the publication data of international journals through the Google Scholar database in 2015-2022 there were 498 papers and analyzed using VOSviewer, the themes most often used in recent research are instructional technology, technology

integration, instructional leadership practice, school leader, transformational leadership, covid, time and student.

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