Online Learning Policy Evolution Study: Bibliometric Analysis

Rethorika Berthanila[1], Rachmi Yulianti[1], Marthalena[2], Indra Nizar Purnama[1]

[1] *Department of Public Administration, Universitas Serang Raya, Serang, Indonesia*
[2] *Department of Communication Studies, Universitas Serang Raya, Serang, Indonesia*

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ABSTRACT

This study aims to analyze the scientific literature on online learning policies, from the first published paper (2001) to the present (2022) through bibliometric analysis and visualization using the Scopus database-based VOSviewer software. This study draws on 384 articles from international authors that focus on the topic of online learning policy. Articles are classified according to the year of publication, country of author, co-author, affiliation, keywords and journal-title. Furthermore, articles are examined based on several indicators, including the contribution of the state/institution/author. Journal distribution, highly cited articles, combined bibliographies and keyword analysis. Search results show that the United States serves as the home country of the most prolific author affiliates in publishing articles, the Department of Early Childhood Education, The Education University (Hong Kong) serves as the home for the most prolific author affiliates, and Agaton CB, of The Open University (America States), is considered the most prolific writer. In addition, the Journal of Sustainability (Switzerland) is the source of its journal's most discussed publication topics. Furthermore, the Impact of the Covid-19 Pandemic on the Life of Higher Education Students: A Global Perspective is considered the article with the most references. In addition, the most discussed topic is. namely e-learning, online learning, education, online teaching, Covid-19, decision-making, policy, learning, teaching, public policy

INTRODUCTION

According to Kessler (1963), evolutionary or scientific development studies attract researchers to navigate and research these types of studies. Bibliometric analysis is generally used to reveal the evolution of science from scientific literature publications in reputable published sources (Widianingsih et al., 2021). Online learning policies or e-learning

(electronic learning) have long been a popular method of providing education in developed countries. This term describes education solely through websites, meaning that it does not involve physical learning materials or direct contact with students. Online learning consists of using e-learning media in a distance learning mode by using the internet as the only medium for students to interact and learn, according to Nichols (2003) (Nhan et al., 2022).

The use of ICT in education has given rise to various pedagogical models and methods, including networked learning, multimedia education, online and open education, and blended learning. Likewise, e-Learning has changed society's concept of time and place for learning so that now people can learn anytime and anywhere (Al-Azawei et al., 2016) E-learning has the potential to enhance learning and improve student achievement by using new technologies and giving rise to online learning and fostering deeper understanding among students compared to traditional teaching (Assyaqireen et al., 2022). Learning itself is a form of the concept of distance learning. The form of e-learning itself is quite broad, for example, a site that contains scientific information which can be said to be an e-learning site, so e-learning or internet-enabled learning combines teaching methods and technology as a means of learning (Faza et al ., 2023)

Previous studies have shown that effective e-learning policies solve authentic learning and achievement problems. The main advantages of e-learning as summarized from the literature (Al-Din & AlRadhi, 2008; Derouin, Fritzsche, & Salas, 2005; Sife et al., 2007; Zhang, Zhao, Zhou, & Nunamaker, 2004).Al-Azawei et al., (2016) first information accessibility: students can easily access learning content anytime and anywhere. Another possible advantage of information accessibility is that instructional technology can serve the special needs of learners. Both adaptability and adaptability are possible. it is very difficult to accommodate teaching approaches, content presentation, and learning pathways for individual learners in traditional learning modes, but it is possible in e-learning Efficient interaction e-learning can provide additional and alternative interaction opportunities outside of campus and normal working hours. Cooperation and collaboration: both can be enhanced by using the communication tools available in the LMS, such as forums, wikis, and chats, and assigning students to different groups to work together. Teach and learn in synchronous or asynchronous mode: students and teachers can choose the most appropriate method for delivering and receiving learning content. Fourth, reduce costs: students can avoid tuition fees by taking e-learning courses. Plus, studying can eliminate travel costs and save time and effort. Promoting teaching quality: e-learning functions can integrate pedagogical theory and make lessons more interactive. Fifth, ease of managing and tracking student activity: LMS provides rich log files that track student activity. Independent learning and a student-centered face-to-face approach are very dependent on the teacher. This does not work effectively, given the inequality of age groups and background knowledge; this does not work effectively for all students. The scientific literature on online learning policies over the last 22 years explores the structure and trends of networks over that period. Bibliometric analysis is expected to be useful for addressing research gaps involving key actors such as authors, institutions, countries, and research areas. It is hoped that this research can provide information on scientific publications over the past thirty years regarding online learning (e-learning) policies.

METHODS

The data sources in this study utilized a literature review from the database and used a bibliometric study with the help of the VOSviewer software to visualize the results according

to Van Eck and Waltman (2011) in (Widianingsih et al., 2021. The articles taken in this study come from the Scopus database performed on July 23, 2022. The research strategy uses search operations which include ((TITLE-ABS-KEY(" e-learning ") OR TITLE-ABS-KEY(" online learning ") AND TITLE-ABS-KEY("policy") AND PUBYEAR < 2021)). AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "cp")) AND (LIMIT-TO (SUBJAREA, "SOCI")) AND (LIMIT-TO (LANGUAGE, "English"))

To answer this research, researchers used three stages; in the first stage, the researcher found 9,345 based on article sources; the second stage was elimination by limiting the field of study to "social science" with the type of source "journal", and "conference papers" found 384 articles. In the third stage, bibliometric analysis was carried out using VOSviewer software version 1.6.16, producing a literature analysis and visualization including the contributions of authors based on country of origin, distribution of highly cited journals and articles, and Keyword analysis. This research found that the number of papers on online learning received two articles from 2000 to 2003, and then from 2005 to 2021, it increased. Bibliometrics is used to direct the development of science and technology by producing all scientific literature at a certain level of specialization. Bibliometric data visualization was performed by VOSviewer (an analysis software for mapping analysis based on keywords, authors, countries, and journals). Furthermore, a bibliometric analysis was generated using VOSviewer software version 1.6.16 to visualize and map the analysis based on bibliographic data, including a year of publication, foreign affiliation, authors and co-authors, journals, keywords, and citations. The study measured the number of papers written from early 2000 to 2021, looking at publication trends and author institutions and affiliations. Therefore, this study analyzes journals that publish online learning policies and articles with the highest citations.

RESULTS AND DISCUSSION

Total of 384 online learning policy articles through the bibliographic analysis process revealed that 2001 the first article was published. Initially, research on online learning policies was published by Australian Academic and Research Libraries Volume 32, Issue 3, 2001, pages 222-239 with the article Integration library services into the e-learning environment at Queensland University of Technology. This article provides perspectives on leveraging information and communication technology advances to meet changing client expectations. It seems that the topic of policy online learning has not attracted the attention of researchers around the world, this can be seen from the lack of international publications discussing this topic. Subsequent articles and those on the Scopus index began to experience an increase from the number of publications of onetwenty-seveneven articles in 2011-2016 and again decreased in 2017-2018. Then in 2019-2021, there was a fairly high increase of 125 articles **(Figure 1)**. The COVID-19 outbreak that hit the whole world forced all activities worldwide to use information technology. The COVID-19 pandemic became a nightmare for all sectors of the field (Septiningrum, 2022). Maine (2020); Sun, Tang, and Zuo (2020) the education sector is one of the fields that has experienced a change in the learning process by utilizing technology so that there is a change in the traditional learning model and switching to a learning model using the internet network this event is of interest to researchers around the world. to conduct research related to online learning policies.

Figure 1. Trend publication of online learning policies
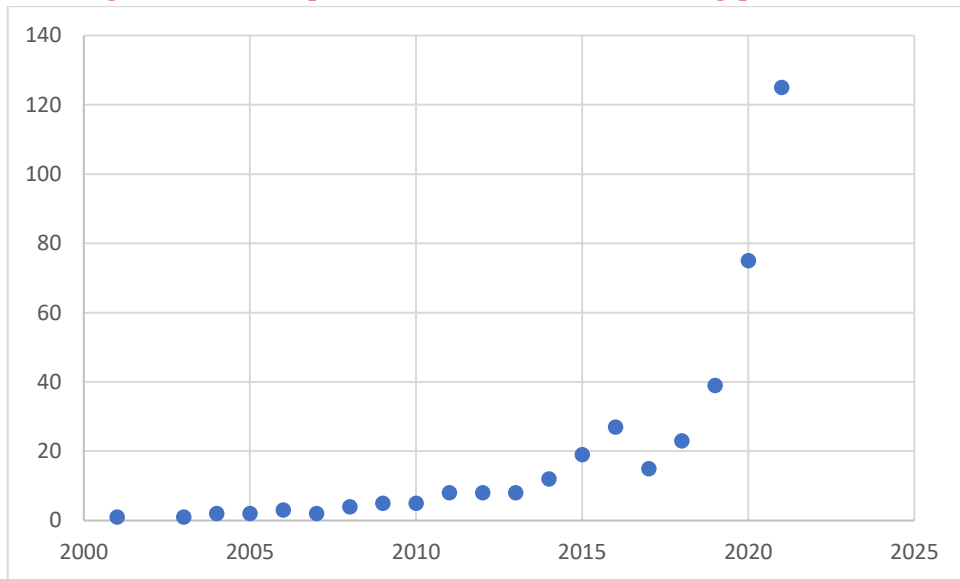
Source: Scopus Database, Processed by the Author

Author contributions by country of origin

Based on the metadata of online learning policy research areas, there are 31 countries of origin of the authors. Researchers bring out the top 7 countries based on the most productive authors producing articles as well as citations and link strength, the United States produces 60 articles (30%) listed as the country with the most author affiliations and has 39 citations and link strength 4 followed by the United Kingdom with 47 articles (23.5%) had 47 citations with a total link strength of 4, followed by Indonesia with 30 articles (15%) with 261 citations and a link strength of 5. then Australia 25 articles (12.5%) with 457 citations and 2 link strengths. China 20 articles (10%) have 143 citations and 5 link strength, Malaysia 18 articles (9%) have 52 citations and 5 link strength and in Spain, 17 articles (8.5%) have 118 citations and link strength th 1. as shown illustrated in **Figure 2.**

Figure 2. The 7 most affiliated countries publish online learning policies
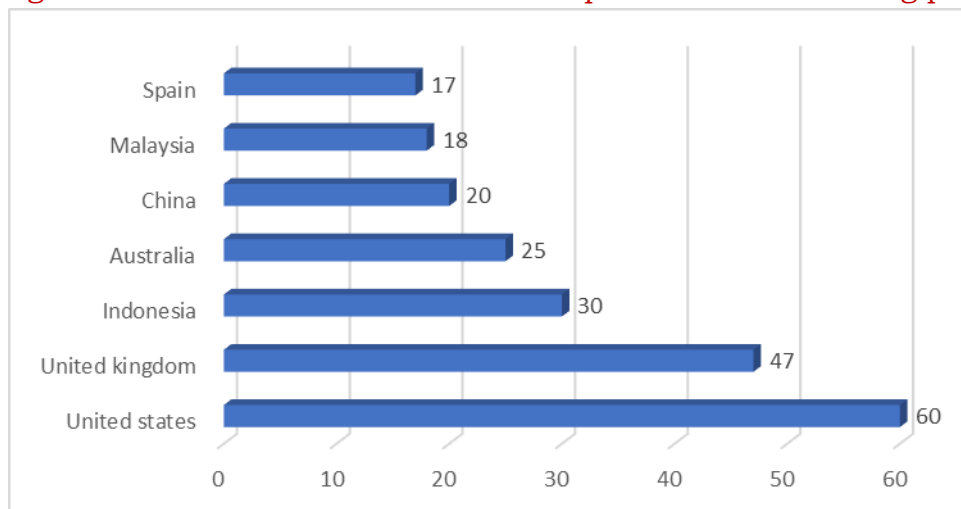
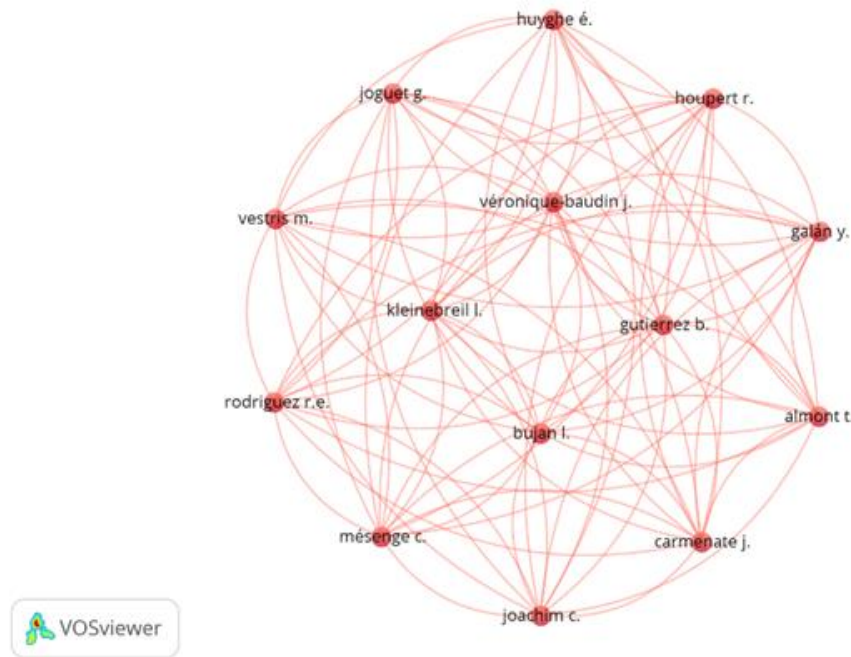Source: Data processed from the Scopus database

The results of the bibliometric analysis show that six network clusters form online learning policies (see **Figure 3)**. Cluster 1 shows a network of authors with affiliates from India, Australia, China, Pakistan, Japan, and India. Cluster 2 consists of a network of authors from affiliated countries in the United States such as the Russian Federation, the Netherlands, Italy, Germany, France and Ireland, China, Spain, India, Saudi Arabia, Pakistan and India. Cluster 3 features a network of writers from the United Kingdom affiliated with Italy, the Netherlands, Nigeria, Germani, Portugal, France, Saudi Arabia, Ireland, Pakistan, Finland, Canada, China, Japan, Australia, the United Arab Emirates and the Emirates. Cluster 4 consists of a network of writers from Dutch countries such as the Philippines, Romania, Italy, the United States, Israel, the United Kingdom, Canada, Ireland and Japan. Cluster 5 shows a network of writers from Pakistan affiliated with Saudi Arabia, India, the UK, Malaysia, Indonesia, Jordan, and Pakistan. Cluster 6 A network of writers from Germany affiliated with Portugal, India, the United States and the United Kingdom. In addition, the researchers found that writers affiliated with the United Kingdom and the United States were connected to all authors in the network in Cluster 16 indicated by the thick connecting lines between these countries, referring to **Figure 4**.

Figure 3. Visualization of the Most Productive Country Publishing Networks policy online learning
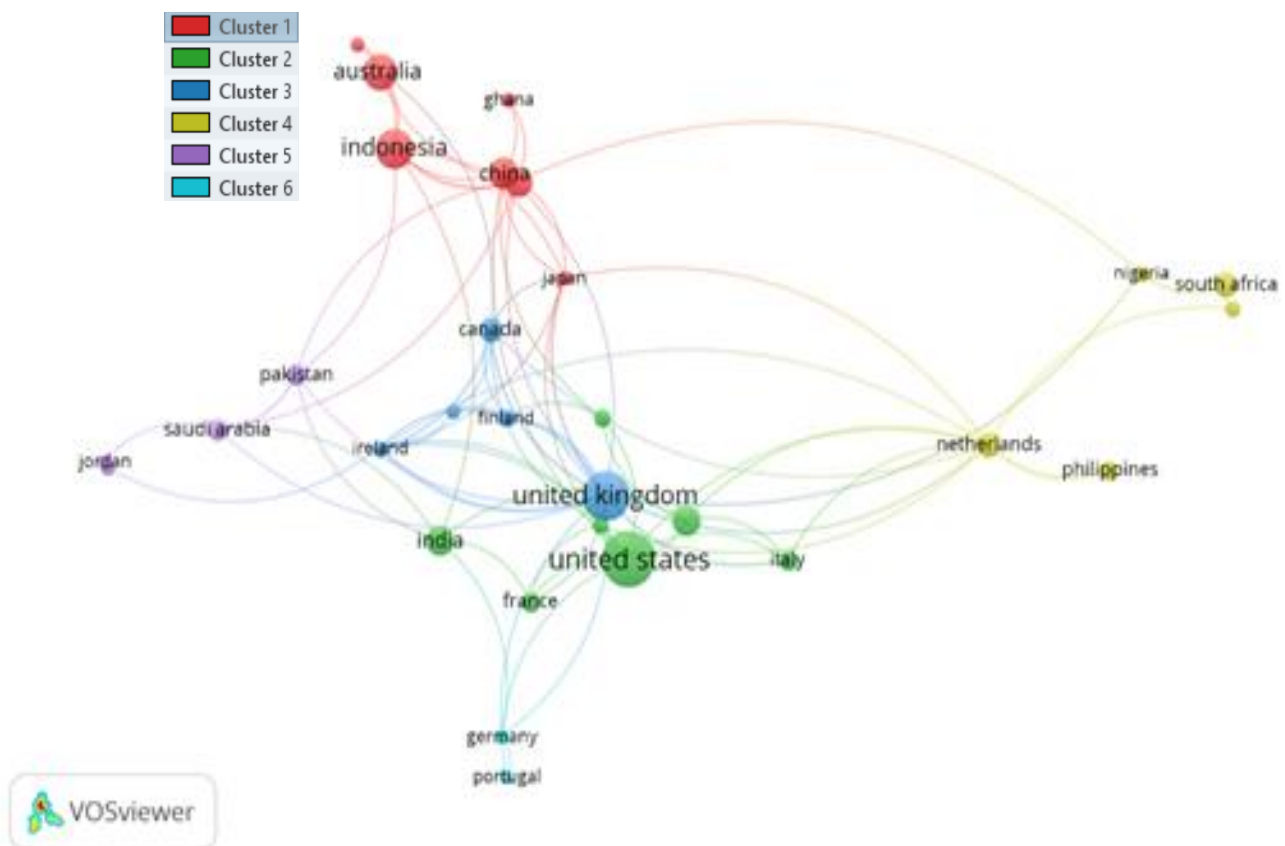
source: Data processed from VOSviewer 1.6.16 software

Figure 4. Visualization of a Network of Authors Collaborating to Produce Articles Titled Online Learning Policy

Source: Data processed from VOSviewer 1.6.16 software

During 1991-2021 there were 160 institutions as affiliated authors in the field of online learning policy who publish Scopus-indexed scientific works. This research presents the 7 most productive institutions that have compiled scientific papers in the field of policy online learning' (see **Table 1**). Based on Table 1 it can be seen that the Department of Early Childhood Education at the University of Education from Hong Kong and the Faculty of Teacher Training and Education at the Open University were the most productive institutions with 3 papers (0.41% of the total publications in the field of Online Learning Policy, followed by 5 institutions, such as Brigham Young University from the United States Department Of Electrical Engineering, the University of Southern California from the United States, Grand Canyon University, University At Albany, State University Of New York, University Of Kansas from the United States each have 2 articles (0.29%) The five institutions are donations from three countries, namely: 1) Hong Kong (1 institution), 2) Indonesia (1 institution), and 3) the United States (5 institutions).

In addition, 160 authors have collaborated to write articles on online learning policies by 2021. The top 10 authors are depicted in **Table 2**. The supreme author's name is Agaton CB (The Open University) published 3 articles, Followed by 9 other authors who published 2 articles each Shea P (Universiti Sains Malaysia, Barbour MK (University of South Africa, China), De Freitas, S. (Brigham Young University, Canada), Martin F (Curtin University) Oliver M (Griffith University, Jordan), Lambert SR (The University of Technology Malaysia) Lambert SR, (University of Technology Malaysia, France), Eynon, R (Birkbeck, University of London, Netherlands), Lan EYH (University of Pretoria, Italy) and Lee K (University of Melbourne, Philippines). When viewed from the quality of the paper, measured by the number of citations/total papers produced, there is a difference in composition where Shea P (University of Science Malaysia, Japan) occupies the first position as a quality writer has the

most citations (146 citations), with the quality of papers/citations each paper published was referred to 73.

Table 1. 7 Top Author Affiliate Institutions Researching "policy online learning"

rank	Institutions	Country	Number of Papers	Citations	Quality of Paper	% of Total Papers
1	Department of Early Childhood Education, |The Education University	Hong Kong	3	68	22.67	0.41
2	Faculty of Teacher Training and Education, Open University	Indonesia	3	11	3.67	0.41
3	Brigham Young University	United States	2	9	4,5	0.29
4	Department of Electrical Engineering, University of Southern California	United States	2	107	53.5	0.29
5	Grand Canyon University	United States	2	13	6,7	0.29
6	University At Albany, State University Of New York	United States	2	148	74	0.29
7	University of Kansas	United States	2	38	19	0.29

Source: Processed by the author from the Scopus database

Distribution of Highly Cited Journals and Articles

      Based on the database Scopus, during 1991-2021 160 publication sources published articles on the topic 'of online learning policies from 1999 to 2020. Most of each were published in the form of 334 journals (86.98%), Proceedings of 50 Conferences (13.02 %), Of the 384 sources of publication, 10 main sources published the most articles on 'online learning policies' (see **Table 3**), that 10 sources of publications 'Online learning policies' based on the number of publications published. British Journal of Educational Technology/Social Sciences: Education, e-learning is a journal published by Wily-Blackwell listed as a publication source that published the most articles (22 articles or 2.29% of the total published papers on this topic, with 3 59 citations, with quality papers/citations 16.13) on the topic 'policy online learning' during 1999-2021.

Table 2. Top 10 Authors of Policy online learning Based on Number of Published Papers

Rank	Author Name	Institution	Country	Number of Papers	Quote	Paper Quality	% of Total Papers
1	Agaton CB	open university	United States of America	3	17	5,67	0.35
2	Shea P.	Malaysian Science University	Japan	2	146	73.00	0.23
3	Barbor MK	South African University	China	2	110	55.00	0.23
4	DeFreitas, S.	Brigham Young University	Canada	2	94	47.00	0.23
5	Martin F.	Curtin University	Israel	2	94	47.00	0.23
6	Oliver m.	Griffith University	Jordan	2	94	47.00	0.23
7	Lambert SR	Malaysian Technological University	France	2	68	34.00	0.23
8	Eynon, R.	Birkbeck, University of London	Dutch	2	60	30.00	0.23
9	Lau EYH	Pretoria University	Italy	2	57	28.50	0.23
10	Lee, K.	University of Melbourne	Philippines	2	57	28.50	0.23

Source: Processed by the author from the Scopus database

This finding means that each published paper is referred to 22 times. The second position is occupied by the journal Australasia Journal of Educational Technology/Social Sciences: Education, e-learning ' from the publisher Australian Society For Computers in Learning Tertiary Education, consisting of 18 articles with 140 citations. The third place is occupied by the International Review of Research in Open and Distance Learning/Social Sciences: Education, e-learning published by Athabasca University which consists of 18 articles with 448 citations. Fourth place is occupied by the International Journal of Emerging Technologies in Learning/Engineer, Sciences: Education, e-learning publisher of the International Association of Online Engineering with 13 articles receiving 56 citations. Five Journals of Online Learning/Computer Science: Computer Networks and Communications, Social Sciences: Education The Online Learning Consortium publishers have 12 articles with 143 citations. The Sixth Sustainability (Switzerland) is published by Springer Nature Switzerland AG with 11 articles and has 616 citations. Seventh Medical/Medicine Education Bmc, Social Sciences:

Education publisher BioMed Central Ltd. With six articles and 325 citations. Eighth, Education and Information Technologies, Kluwer Academic Publisher, has 6 journals and 325 citations. Elsevier's Ninth Computer and Education Publishing has 5 articles and 430 citations. Finally, Education Sciences publisher of the American Society for Cell Biology, has 5 articles and 63 citations. Based on the results of the mapping and shown in Table 3, of the 10 publication sources that published the most 'online learning policy' articles, most of the articles were published in journals. Journals with the Scopus quartile Q1 published the most online learning policy articles (90% or 9 journals), Q2 (10% or only one journal). This shows that the article 'policy online learning' is an interesting topic to be published in a highly reputable journal (Q1). In Table 3, the field of study of the journal is the field of Social Sciences: Education and e-learning (60%). Medicine, Social Sciences Education. Chemical Engineering (10%), Computer Science: Computer Science, Social Sciences Education, E-learning (10%) Biochemistry, Genetics and Molecular Biology, Social Sciences: Education (10%) Chemical Engineering, Energy: Renewable Energy, Sustainability and Environment Engineering: Control and Systems Engineering, Environmental Science: Management, Monitoring, Policy and Law, Pollution, Waste Management and Disposal, Social Sciences, Geography, Planning and Development (10%). This suggests that 'policy online learning' is addressed within the field of Public Administration as well as being a concern of other fields within the social sciences and computer science families.

Table 3. Top 10 Policy Online Learning Resources Publications Based on Number of Publications

Rank	Source Title/subject area of the journal	Publishers	Type of Source	Scopus quartiles	Number of Papers	Citations	Quality of Paper	% of Total Papers
1	British Journal of Educational Technology/Social Sciences: Education, e-learning	Wiley-Blackwell	Journals	Q1	22	359	16.31	2,29
2	Australasian Journal of Educational Technology/Social Sciences: Education, e-learning	Australian Society For Computers in Learning Tertiary education	Journals	Q1	18	140	7,78	1.88
3	International Review of Research in Open and Distance Learning/ Social Sciences:	Athabasca University	Journals	Q1	18	448	24.89	1.88

Rank	Source Title/subject area of the journal	Publishers	Type of Source	Scopus quartiles	Number of Papers	Citations	Quality of Paper	% of Total Papers
4	Education, e-learning International Journal of Emerging Technologies in Learning/Engineer, Sciences: Education, e-learning	International Association Of Online Engineering	Journals	Q1	13	56	4,31	1.37
5	Online Learning Journal/Computer Science: Computer Network and Communications, Social Sciences: Education	The Online Learning Consortium	Journals	Q1	12	143	11.92	1.26
6	Sustainability (Switzerland)/Chemical Engineering: C Chemical Engineering, Energy: Renewable energy, Sustainability and the environment, Engineering: Control and System Engineering, Environmental Science Management, Monitoring, Policy and Law, Pollution, Waste Management and Disposal, Social Science, Geography, Planning and Development	Springer Nature Switzerland AG	Journals	Q2	11	616	56.00	1.17
7	Bmc Medical Education/Medicine, Social	BioMed Central Ltd.	Journals	Q1	6	45	7.50	0.66

Rank	Source Title/subject area of the journal	Publishers	Type of Source	Scopus quartiles	Number of Papers	Citations	Quality of Paper	% of Total Papers
8	Sciences: Education Education and Information Technologies/Social Sciences: Education, E-learning, Library and Information Sciences	Kluwer Academic Pulisher	Journals	Q1	6	325	54,17	0.66
9	Computers and Education/Computer Science: Computer Science, Social Science: Education, E-learning	Elsevier	Journals	Q1	5	430	86.00	0.57
10	Education Sciences/Biochemistry, Genetics and Molecular Biology, Socal Sciences: Education	American Society for Cell Biology	Journals	Q1	5	63	12,6	0.57

Source: Processed by the author from the Scopus database

Based on Table 3, the resulting visualization of publication sources 'online learning policy' forms two groups, the first group with red nodes consists of the British Journal of Educational Technology/Social Sciences, Computers and Education/Computer Science, Education, E-learning, the second with the green nodes are the Australasian Journal of Educational Technology/Social Sciences: Education, e-learning, Sustainability (Switzerland) (see **Fig 6**).

<p style="text-align:center;color:red;">Figure 6. Analysis of the publication source network</p>

Source: Data processed from VOSviewer 1.6.16 software

Moreover, out of 384 published 'online learning policy' articles, it has 10,980 citations. **Table 4** shows the 10 most cited publication titles. Article entitled ' The Impact of the COVID-

19 Pandemic on the Life of College Students: A Global Perspective ' from Sustainability, 12 (20), p. 1-34 (Aristovnik et al., 2020) is listed as the article with the most citations, containing 424 citations with an annual citation average (C/Y) of 424.00. The second article is entitled 'Exploring the critical challenges and factors influencing the Use of the E-learning System during the COVID-19 Pandemic, (Almaiah et al., 2020) which has 250 citations with an average of 250.00 citations per year. Third position A multidimensional approach to the determinants of computer use in basic education: teacher and school characteristics, (Tondeur et al., 2008) with 201 citations has an annual average citation of 15.46. Fourth, Not So Revolutionary: The Role of Amplifier Frames in US Magazine Discourse on Microcomputers (Kelly, 2009) with a total of 115 citations, the average annual citations is 9.58. Next is the article Effects of CCOVID-19 in E-learning on college students: a group comparison between Men and Women (Shahzad et al., 2020) with 112 citations. Sixth Research and Practice in K-12 Online Learning: A Review of Open Access Literature, has 106 citations with an annual citation average of 8.83. Seventh Decentralized Learning for Multiplayer Multiarmed Bandits (Kalathil et al., 2014) with a total of 95 citations with an annual average of 13.74 citations. The eighth Online Active Reward Learning for Policy Optimization in Oral Dialogue Systems (Su et al., 2016) has 95 citations with an average of 19.00 citations per year. Furthermore, Nine Internet Use Terrorists with Total Quantification of Behaviors, Patterns, and Processes (Gill et al., 2017) has 92 citations with an average of 23.00 citations per year. Finally Faculty Readiness for Online Crisis Teaching: Shifting to Online Teaching During the COVID-19 Pandemic (Cutri et al., 2020) with 84 citations with an average of 84.00 citations. Table 4 presents the top 10 articles with the most citations from Springer Nature Swiss AG and Kluwer Academic Publishers. Furthermore, **Figure 7** shows that the visualization of article networks with a minimum of 5 citations per article has formed 16 network groups.

<p style="text-align:center;color:red;">Table 4. 10 articles about 'policy online learning' with the most citations</p>

Rank	Title	year	SourceTitle _	Publishers	Citation	C/Y
1	Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective, (Aristovnik A, 2020)	2020	Sustainability (Switzerland)	Springer Nature Switzerland AG	424	424.00
2	Exploring the critical challenges and factors influencing the E-learning system usage during the COVID-19 pandemic, (Almaiah et al., 2020)	2020	Education and Information Technologies	Kuluwer Academic Publishers	250	250.00
3	A multidimensional approach to determinants of computer use in primary education: teacher and school characteristics, (Tondeur et al., 2008)	2008	Journal of Computer-Assisted Learning	Wiley Blackwell Publishing Ltd	201	15,46
4	Not so revolutionary after all: the role of	2009	New Media and Society	SAGE Publications	115	9.58

Rank	Title	year	SourceTitle _	Publishers	Citation	C/Y
	reinforcing frames in US magazine discourse about microcomputers, (Kelly, 2009)					
5	Effects of COVID-19 in E-learning on Higher education institution students: the group comparison between Male and Female, (Shahzad et al., 2020)	2021	Communications Biology	Springer Nature	112	112
6	Research and Practice in K-12 Online Learning: A Review of Open Access Literature, (Cavanaugh et al., 2009)	2009	International Review of Research in Open and Distance Learning	Athabasca University	106	8,83
7	Decentralized Learning for Multiplayer Multiarmed Bandits, (Kalathil et al., 2014)	2014	IEEE T Transactions on Information Theory	Institute of Electrical and Electronics Engineers Inc	95	13.74
8	On-line Active Reward Learning for Policy Optimization in Spoken Dialogue Systems, (Su et al., 2016)	2016	Research on Language and Computation	Kuwe Academic Publishers	95	19.00
9	Terrorist Use of the Internet by the Numbers Quantifying Behaviors, Patterns, and Processes, (Gill et al., 2017)	2017	Criminology & Public Policy	Wiley-Blackwell P Publishing Ltd	92	23.00
10	Faculty Readiness for online crisis teaching: transitioning to online teaching during the COVID-19 Pandemic, (Cutri et al., 2020)	2020	European Journal of Teacher Education	Routledge	84	84.00

Source: Processed by the author from the Scopus database

Figure 7. Network Visualization of the Article Titled online learning policy
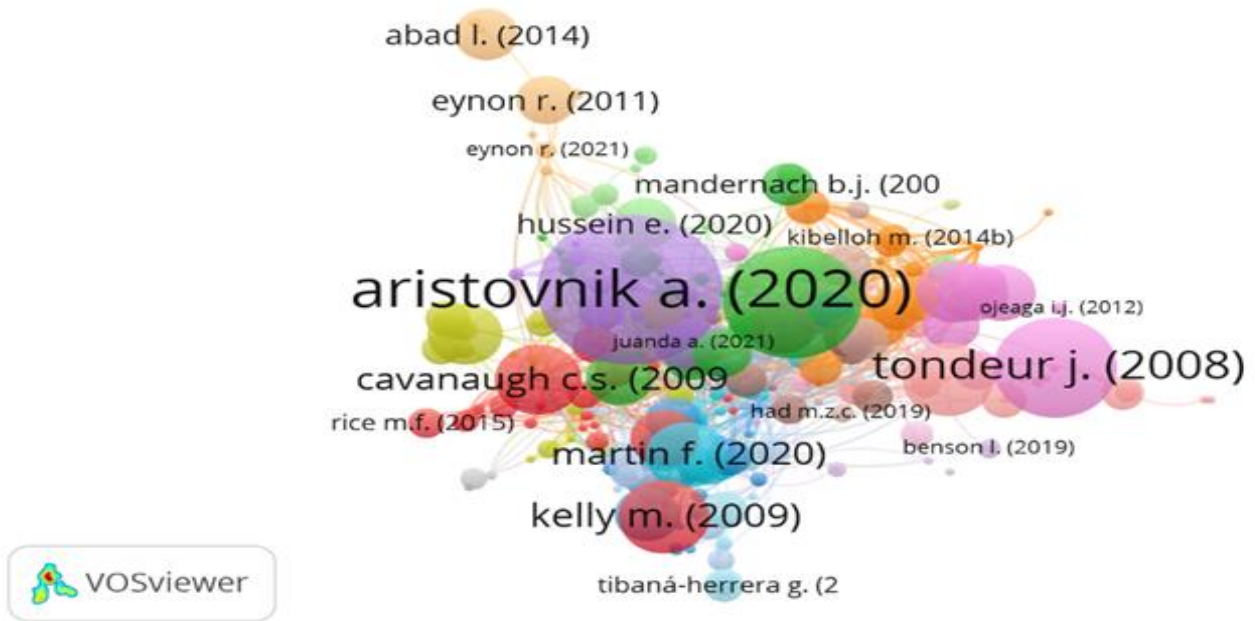
Source: Data processed from VOSviewer 1.6.16 software

Keyword analysis

This analysis as co-occurrence aims to visualize the network between keywords. Figure 8 shows an analysis using keywords from 384 online learning policy articles, there are 65 keywords and 3 repetitions of keywords. The result is 65 keywords that meet the constraints and form 5 groups **(Figure 8)**, it can be seen that the topic of educational research has the largest node in group 1 (red), this indicates that this topic has been discussed the most. Group 2 (green) is bigger and has been discussed in scientific journals about e-learning.

Figure 8. Keywords of online policy learning co-occurrence network.
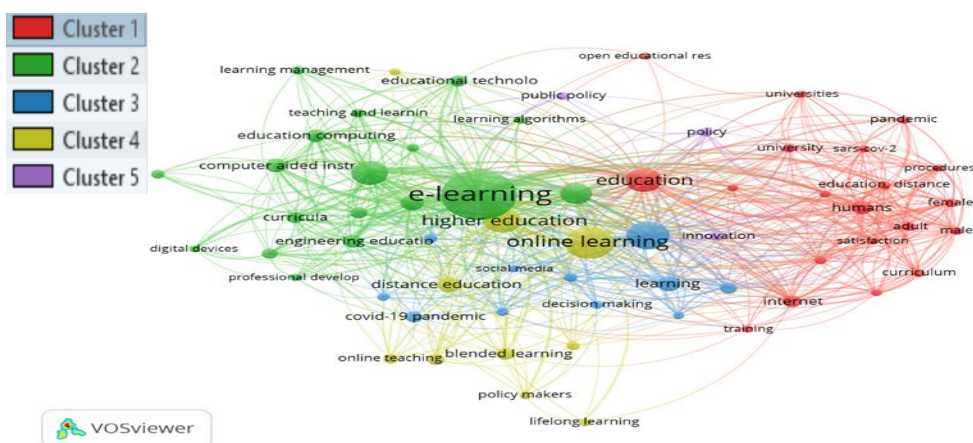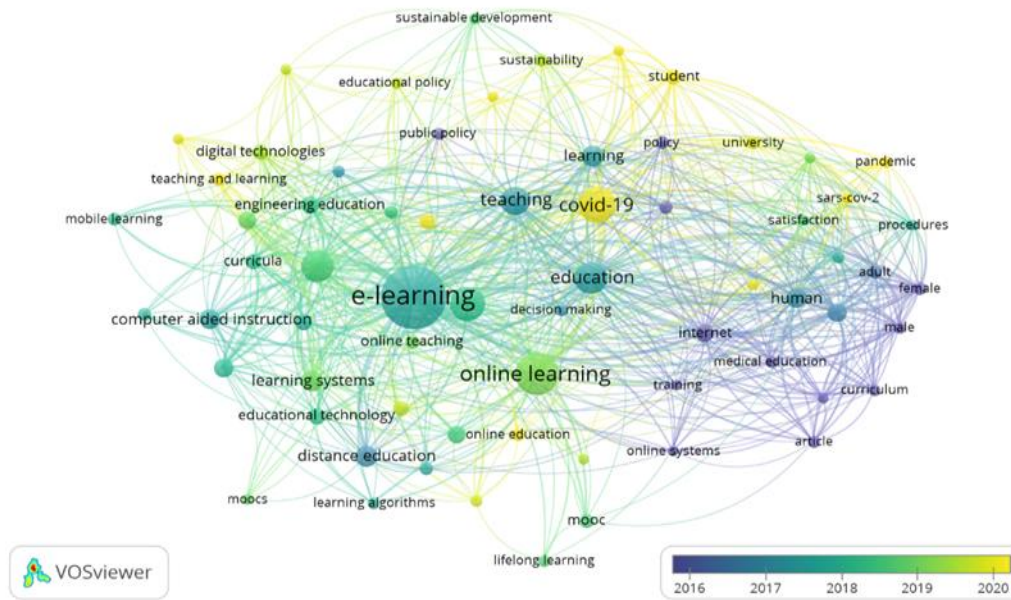

Source: Data processed from VOSviewer 1.6.16 software

In **Figure 9** there is the biggest node (e-learning) was most discussed around 2018, while online learning topics were most discussed around 2019. **Figure 10** shows that there are several research topics in the field of 'policy online learning' that are rarely discussed (have a dark colour), such as: 'Learning management systems', decision making and blended
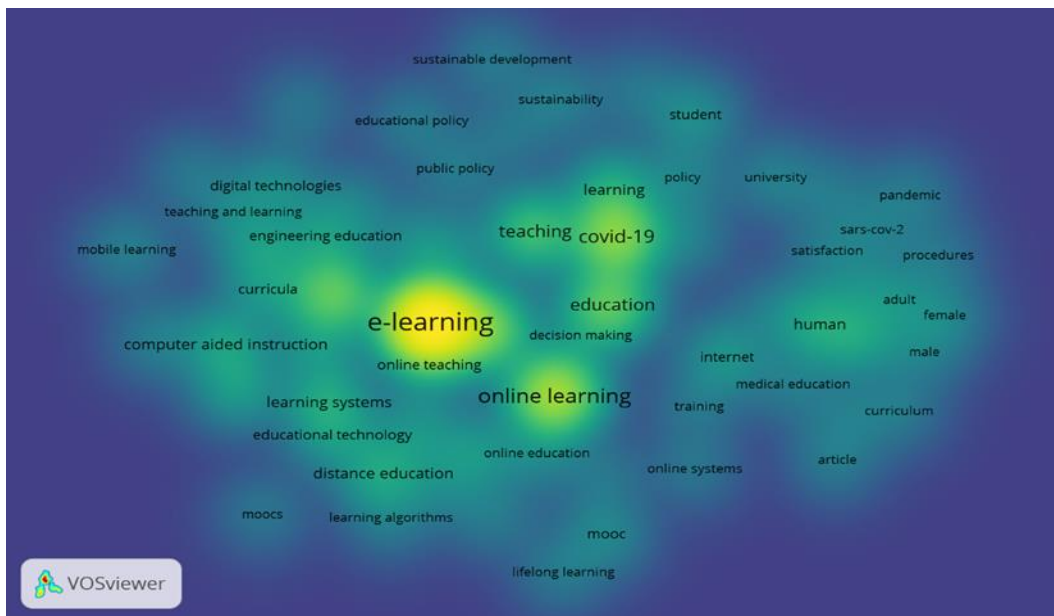
learning, 'distance education', digital technology, public policy and education policy. This explains the keyword analysis supports the researcher's goals.

Figure 9 . Visualization of the Top Keywords in the field of online learning

Source: Data processed from VOSviewer 1.6.166 software

Figure 10. Visualization of Keyword Density online learning policies

Source: Data processed from VOSviewer 1.6.16 software.

CONCLUSION

Statistical results of 384 policy online learning articles during 2000 -2021 show that there has been an increase in publications in the last 21 years on the topic of 'policy online learning'. The United States, United Kingdom, Indonesia, Australia, China, Malaysia, and Spain are the affiliated origin countries that publish the most articles. Meanwhile, agencies affiliated with the author, namely the Office of Early Childhood Education, The Education University (Hong Kong), the Faculty of Teacher Training and Education, The Open University (Indonesia), five institutions from the same country of origin, United States of America, including Brigham Young University, Department Of the Electrical Engineering University Of Southern California, Grand Canyon, University At the Alban State University of New York and the University of Kansas. The University of Education's Department of Early Childhood Education is listed as the affiliated institution that has published the most articles on major topics of online learning policy. Authors such as Agaton CB from The Open University (USA), Shea P from Universiti Sains Malaysia (Japan), and Barbour MK. (University of South Africa), De Freitas, S) Brigham Young University), Martin F (Curtin University), Lambert SR (the University of Technology Malaysia (France), Eynon, R Birkbeck (University of London), Lau EYH the University of Pretoria and most recently Lee, K (University of Melbourne (Philippines). Based on publication sources, journals published by Wiley-Blackwell publishers are the most widely published articles related to online learning policies. Journals from Wiley-Blackwell publishers include online learning, e-learning, policy public education, education policy, sustainable development, digital technology teaching and learning, Covid 19, mobile learning, blended learning, and distance education, while on research topics in the field of 'policy online learning,' the most discussed keywords are e-learning, online learning, education, online teaching, Covid-19, decision making, policy, learning, teaching, public policy.

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