

# Bibliometrics Analysis Of Primary Education Policy On The Scopus Database

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**Abstract:** Primary education is one of the most essential educational sectors, not only because it offers the foundation for learning but also because it gives the early knowledge of an individual's life following grades. As a result, the primary education policy must meet all of the following needs in terms of both text content and guidelines, objectives, and associated concerns to aid the educational policy. Primary education is designed to influence the function and meaning of this sector. The volume bibliography used in this study is to review primary education policy research conducted, the most influential authors, and the countries with the majority of publications in the community, science, and other aspects to give a broad picture of policy research over the past five decades. The only reference from a single database is the Scopus database, so this study has limitations on publications on primary policy research in languages other than English if studies on primary school policy are available in primary education policy in other languages, the picture in this field will be richer and more complete.

**Keywords:** primary education, education policy, bibliometrics, Scopus database.

## Introduction

Primary education is the foundation level of any education system, with the task of building and developing children's emotional, moral, intellectual, aesthetic, and physical skills in order to form the initial basis for the comprehensive development of the human personality. Primary education must ensure that students master the skills of speaking, reading, and writing; acquire the necessary understanding of nature, society, and people; and establish a basic understanding of science, mathematics, geography, history, and social sciences; they should be learned to have good behaviors towards grandparents, parents, and siblings; respect teachers, be polite to the elderly; help friends, children; love labor; have discipline; have a cultural lifestyle; have the habit of exercising the body and maintaining hygiene; love their country and peace.

Because of the importance of this level of education, primary education policy has been studied by many authors with a variety of topics under a number of basic groups. The first group of topics is politically relevant primary education (Bennell, 2021), attainment and private costs in rural Uganda (Nishimura et al., 2008), and the potential role of an asset-based development policy (Ssewamala et al., 2011). This group of research themes points to the strong link between the policy of universal primary education and political issues, private costs, and educational achievement, as well as the policy potential for asset-based development.

Next are the socially relevant aspects, such as primary school teacher training related to work policies (BİLİR, 2010), school dropout (Itthida, 2015), equity in educational policies and interventions (Shi et al., 2022), notably the impact of free primary education on women's access to

family planning and health decisions (Bose & Heymann, 2019) and income (Chatterjee et al., 2018), on gender issues (Maruyama et al., 2022), determinants of boys and girls' schooling (Lincove, 2009), enrollment prices in Uganda (Lincove, 2012), (Oketch, Mutisya, Ngware, Ezeh, et al., 2010a), associated with lower infant and neonatal mortality (Quamruzzaman et al., 2014), informal fee charge and school choice (Sakaue, 2018). In addition, primary education policy is related to computer issues (Brummelhuis & Plomp, 1994); digital technology (Gunnars, 2021) or language problems, and minority languages (Rogers & McLeod, 2006), English education (Terasawa, 2022).

In summary, the research topic groups mentioned above show not only affecting issues in the field of education but also closely related primary education policy with many social issues. Therefore, primary education policy is not only limited to schools and the education sector but also has a great influence on all important aspects of social issues. This is also the basis for an overview study of primary education policy research trends over a long period of time to identify the extent of the problem for education policy and primary education policy in particular and for social issues related to primary education policy in general. And in order to have a overall picture for researching into the primary education policy, this bibliometric review of research is aimed to answer the following research questions (RQs):

Research Question 1. What is the status and growth pattern of research literature on primary education policy?

Research Question 2. Who are the most influential authors in terms of the volume of publications and citations in this field?

Research Question 3. Which are the most significant sources in terms of the volume of publications and citations in this field?

Research Question 4. Which documents evidenced the greatest impact in this field?

Research Question 5. What are the most relevant research topics on primary education policy?

## Methods

The bibliographic approach investigates relationships between scientific publications using data from databases such as Web of Science, Scopus, and others (Zupic & Čater, 2015). Using mathematical and statistical methods, the bibliography explores trends and structures knowledge based on scientific literature in various fields (White & McCain, 1998). Thus, quantitative bibliographic analysis, unlike other traditional assessment methods, provides important findings on a research topic and predicts future research trends (Zupic & Čater, 2015). In this study, the salary directory method is used to examine global research trends in the field of digital transformation policy based on data extracted from the Scopus database. Although there are popular databases such as Scopus and Web of Science that is often chosen by scholars for bibliographic evaluation (Zhu & Liu, 2020), the Scopus database has outstanding advantages such as consistency in classification standards, covering more areas (Hallinger, 2020; Martín-Martín et al., 2018).

The keywords selected simultaneously to search for data are "education policy", "education policy" and "primary education", but variations of the keywords "educational policy\*" and "polic\*" are used to avoid omission. Scientific publications are limited to the English language and are searched in August 2022. Specifically, the command to query data in the Scopus database is as follows:

```
TITLE-ABS-KEY ( ( "Education
polic*" OR "Educational
polic*" ) AND "Primary
education" ) AND ( LIMIT-
TO ( DOCTYPE , "ar" ) ) AND ( LIMIT-
TO ( LANGUAGE , "English" ) ) AND ( LIMIT-
TO ( SUBJAREA , "SOC" ) OR LIMIT-
TO ( SUBJAREA , "ARTS" ) OR LIMIT-
TO ( SUBJAREA , "PSYC" ) )
```

**Subject areas:** Social Sciences, Arts and Humanities, and Psychology

Data obtained from the Scopus database includes 648 scientific publications, including journal articles, conferences, books, and book chapters. To ensure that the publications used were appropriate, the research team reviewed the articles to remove 176 inappropriate publications and retained 472 scientific publications for quantitative

bibliographic analysis. By using the popular VOSviewer software for bibliographic analysis (van Eck & Waltman, 2014), visual maps of authors, published sources based on co-citation data, or visual maps of words data locked on co-occurring keyword data (van Eck & Waltman, 2010), and analysed by R application with Bibliometrix package (Aria & Cuccurullo, 2017).

Using information from scientific publications of the Scopus database (keywords, author, author's organization, countries, references, and so on), a bibliographic analysis was carried out. Co-authoring networks define collaborative research networks. Co-citation analysis shows the number

of times two publications are also cited by a publication, helping to uncover the possibility of a relationship between documents being co-cited. The co-occurrence of keywords in the analysis suggests research topics of interest. While bibliographic coupling considers that two publications are cited by the same publication, it is found that the same number of multiple citations indicates a higher degree of association between the two publications.

## Results and discussion

Research Question 1. What is the status and growth pattern of research literature on primary education policy?

Table 1 the main information about data

1	Timespan	1970:2022
2	Sources (Journals, Books, etc)	223
3	Documents	472
	Average years from publication	9.51
	Average citations per documents	13.98
	Average citations per year per doc	1.372
	References	19704
4	DOCUMENT TYPES	
	article	472
	DOCUMENT CONTENTS	
5	Keywords Plus (ID)	680
	Author's Keywords (DE)	870
6	AUTHORS	
	Authors	870
	Author Appearances	951
	Authors of single-authored documents	191
	Authors of multi-authored documents	679
7	AUTHORS COLLABORATION	
	Single-authored documents	204
	Documents per Author	0.543
	Authors per Document	1.84
	Co-Authors per Documents	2.01

This research studied 472 documents from 223 sources of different types such as journals, books, etc. over the period of 52 years from 1970 to 2022 to review primary education policy research conducted, the most influential authors, and the countries with the majority of publications in the community, science, and other aspects to give a

broad picture of policy research over the past five decades. To find out the most influential authors, the total of 870 authors were reviewed. Authors worked independently and collaborated with others to published documents on primary education policy. 191 documents were published by independent authors and 679 documents were

published by groups of authors. In terms of author collaboration, the average number of documents per author was 0.543, average number of authors per document was 1.84 while the average number of co-authors per document was 2.01. To find out

the greatest impact documents, 472 documents were studied and the findings showed that the average years from publication was 9.51, the average citations per documents was 13.98 and average citations per year per doc was 1.372.



Figure 1 the yearly publications related to primary education policy in Scopus from 1970 to 2022

Only 1 publication published each year was the reality over the 16-year period from 1971 to 1986. The second period, from 1986 to 2005, saw significant fluctuations in the number of publications published from 1 to 11 publications each year. After a decrease in the number of publication from 11 to 5 in 2006 was the slight increases and decreases again before a remarkable growth from 12 to 34 publications in 2011. After a fall to 19 publications per year in 2012, there was another increase to 31 publications per year in the following year. There was a stable period from 2013 to 2016 with minor changes in the number of publications each year but a big fall happened when the number of publications each year reduced from 32 to 18. The year 2021 saw a leapfrog increase to 37 publications before a significant decrease to a half in the following year. The overall

trend over the period from 1971 to 2022 was an increase in the number of publications published each year which meant that primary education policy was paid more and more attention. From the analyzed information, it can be concluded that the number of publications, although unequal, has increased in recent decades, which means that primary education policy issues have not decreased. They are, on the contrary, more researched and published. Furthermore, the primary education policy issue under study may be not only because the primary education sector is seen as developing in relation to other educational and social issues, but also because many more scientists consider this to be the most important foundation level in terms of the education system and can create the most effective education as well as any socio-economic economy.

## Country Scientific Production

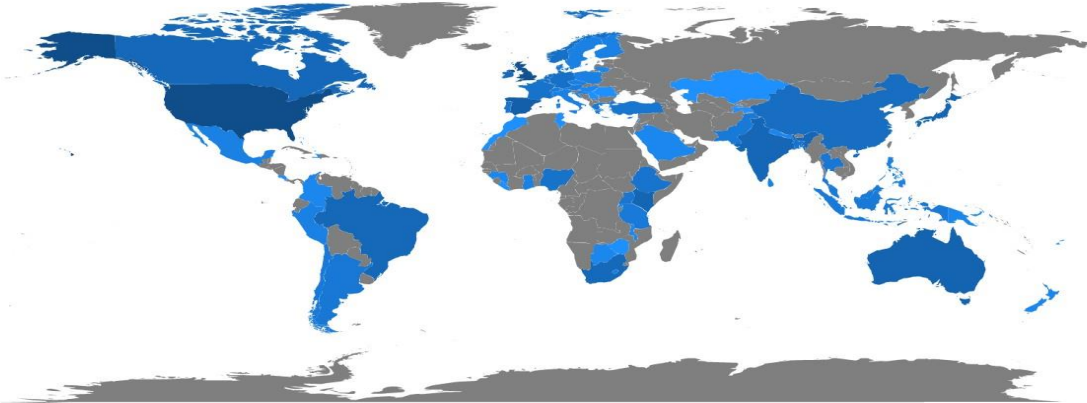


Figure 2 the countries published the most publications related to primary education policy in Scopus from 1970 to 2022

Table 2 the top ten countries published the most documents of primary education policy

region	Freq
USA	162
UK	114
SPAIN	40
AUSTRALIA	27
JAPAN	24
KENYA	24
INDIA	22
BRAZIL	20
CANADA	19
SOUTHAFRICA	18

Among 10 countries that had publications on primary education policy in the Scopus database listed in the table above, the Americas had 3 countries (USA, Brazil and Canada). 3 continents, each of them had 2 countries having publications on primary education policy were Europe (UK, Spain), Asia (Japan, India) and Africa (South Africa, Kenya). Australia was the only country in its continent whose primary education policy publications had been published in this study period. The USA ranked first in the list with outstanding number of primary education policy publications (162), followed by the UK (114). In third place was Spain (40) with only a third compared to UK. Brazil, India, Kenya, Japan and Australia had around 20-30 publications. Canada and South Africa were at the bottom of the list with 19 and 18 publications, respectively. 7 out of 10 countries (USA, UK, Spain, Australia, Japan, Canada, South Africa) were developed countries. It

can be seen that, although there are developing countries in the list of countries that publish the most primary education policies in the world, most of the publications on primary education policies for which data are available are published by developed countries. This can be explained by the fact that primary education has received much attention in developed countries, both in terms of scope and policy level, and is also gradually receiving attention in research and development in developing countries. However, these two aspects need further research and analysis in the national context and the conditions of primary education policy development if disaggregated by these two development groups. In addition, it is also necessary to discuss the characteristics of population size and level of socio-economic development of typical countries that have contrasting points but have the same level of

publication of primary education policy research as Japan, India, and some other countries.

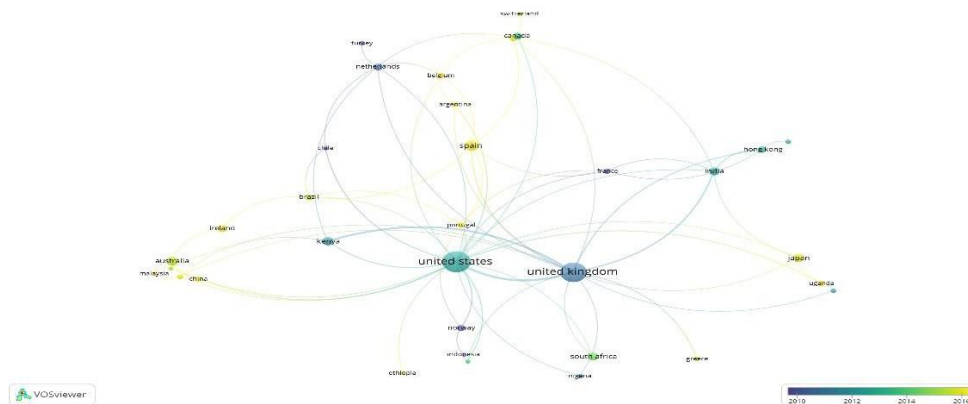


Figure 3 the collaboration of the countries published the documents related to primary education policy in Scopus from 1970 to 2022

Note: The above map shows a collaboration network of 45 countries with at least 4 publications. The link between the two nodes represents the collaboration between two countries. The size of the node indicates the quantity of publications of the country. The color of the node shows the year in which the country published their publications.

There are 9 clusters: Cluster 1: Australia, Brazil, Chile, China, Ireland, Malaysia, Thailand, Vietnam; Cluster 2: France, Hong kong, India, Portugal, Spain, Tanzania; Cluster 3 Argentina, Belgium, Netherlands, Turkey; Cluster 4 Canada, Germany, Switzerland; Cluster 5 Indonesia, Norway, Singapore; Cluster 6 Bangladesh, Japan, Uganda; Cluster 7: Ethiopia, South Africa, United States; Cluster 8: Greece, Kenya, United Kingdom; Cluster 9: Nigeria

In terms of the number of publications published, the USA was the country with the largest number of publications. Second on the map was the UK, third was Spain. The followings were Australia, Kenya, Japan, with the numbers of publications in the range of 20-30. Brazil, India, Canada, South Africa, Ireland, Netherland, Hong Kong, Norway, France were the next group of countries with the number of publications under 20. The group of countries with the number of publications under 10

included China, Thailand, Chile, Turkey, Singapore, Nigeria, Uganda, Portugal, Taiwan, Argentina, Ethiopia. In terms of publication time, Chile, France, Turkey, Taiwan were the countries that had publications published earliest among 10 countries - before 2010. UK, US, Netherlands, Nigeria, Hong Kong, Kenya, India, Norway, Singapore had publications published in the period of 2010-2014. South Africa, Australia, China, Thailand, Brazil, Canada, Japan, Spain, Ethiopia had publications published after 2014.

Regarding collaboration in publishing publications on primary education policy, the US and UK collaborated with most of the countries on the map and throughout the period 2008-2018. Most countries collaborated with other countries whose publications were published during the same period. Some countries have very limited collaborated such as Japan, Chile, Kenya (collaborated with 4 other countries), Uganda, Hong Kong (collaborated with 3 other countries), China, South Africa, Nigeria, Ireland (collaborated with 2 other countries, Turkey (collaborated with 1 country).

Research Question 2. Who are the most influential authors in terms of the volume of publications and citations in this field?

Table 3 the top 20 impacted authors of primary education policy

ID	Author	Documents	Citations	Total link strength
432	lewin k.m.	4	185	0
564	oketch m.	10	184	18
550	nishimura m.	3	130	4
649	rose p.	3	130	1
522	mutisya m.	5	129	13
542	ngware m.	6	129	11
849	yamano t.	2	122	3
237	ezeh a.c.	4	115	11
626	rao n.	4	99	1
729	stern j.m.b.	3	94	2
319	heyneeman s.p.	2	83	1
538	nguyen h.t.m.	2	82	1
686	sasaoka y.	2	75	3
301	hamid m.o.	3	74	0
439	lincove j.a.	3	74	0
318	heyman j.	5	49	2
487	mehrotra s.	2	49	0
719	somerset a.	2	38	0
459	makate m.	3	36	2
26	alcott b.	2	35	1

Table 3 shows the list of top 20 impact authors by number of citations, number of documents published and total link strength. In terms of number of citations and number of documents published, Lewin K.M. was leading with 185 citations despite his number of document published was 4. Oketch M. had a quite similar citation number (184) and 10 documents published which ranked him the first for the number of documents published. Nishimura M. and Rose P. stood in the third rank for citation number with 130 citations and each of them had 3 documents published. 2 authors had the same number of documents (5) but different numbers of citations (129 vs. 49) were Mutisya M. and Ngware M. Ngware M had almost the same number of citations (129) and number of documents (6) as Mutisya M. . Yamano T, although had 2 published documents, his number of citations was very high at 122. Another authors whose citation numbers were high (115 and 99 respectively) despite low number of published documents (4) were Ezeh A.C. and Rao N. 4 authors, each of them had 3 published documents and numbers of citations of 94, 74, 74 and 36, respectively. 7 authors had 2 published documents

and number of citations of 122, 83, 82, 75, 49, 38, 35. In terms of average citations per document, Yamano T. was leading with average 61 citations per document, followed by Lewin K.M. with 46.25 citations per document. The third rank were two authors with the same average number of citations (43.33) - Nishimura M. and Rose P. There was a big gap between the first and the last impact authors in the list whose the average citations per document were 61 (Yamano T.) and 9.80 (Alcott B.)

It is noteworthy that there are authors and collaborators who have studied primary education policy for a long time, from 2010, 2012, and 2019, especially since these studies focus on policy issues in primary education in developing countries (Oketch, 2019), (Oketch et al., 2012b), (Oketch et al., 2012a), (Oketch & Ngware, 2010), (Oketch, Mutisya, Ngware, Ezeh, et al., 2010b), (Oketch, Mutisya, Ngware, & Ezeh, 2010), (Abuya et al., 2015), (Ngware et al., 2013), (Ngware et al., 2011). The findings from the research of these authors not only point out the basic problems of primary education in developing countries but also identify



issues of education policy. Primary education is associated with social problems.

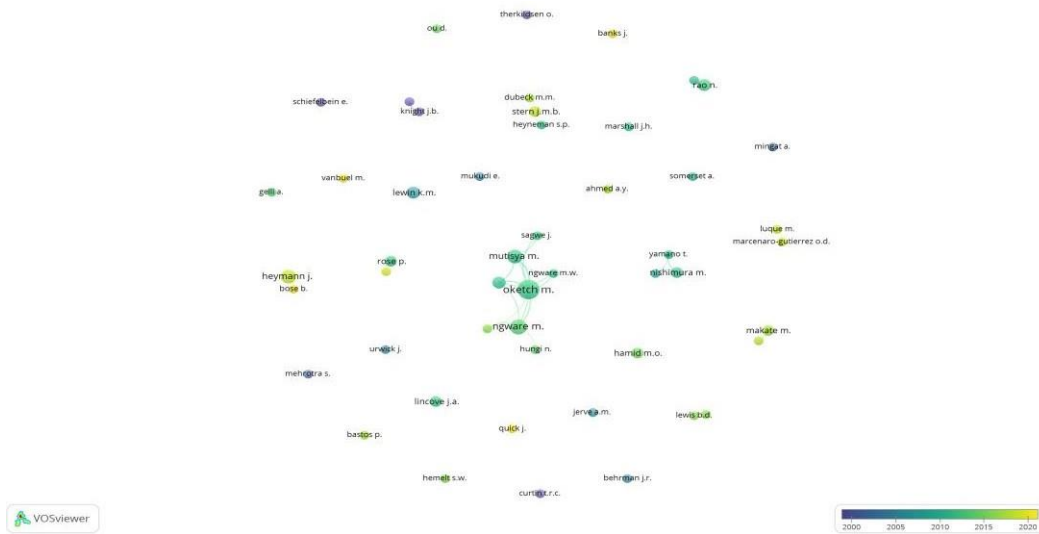


Figure 4 the co-authors of the publications related to primary education policy in Scopus from 1970 to 2022

Note: Each node represents an author. The bigger a node is, the more publications an author had. The links between the two nodes indicates the collaboration between 2 authors. A color of a node indicates the year in which an author has published his/her publications. Science mapping showed a collaboration network of 50 authors with at least 2 published documents.

education policy. The center of the map is the biggest group of 6 authors with published documents in the period 2010-2020. A group of 3 authors includes Dubeck M.M – Stern J.M.B. – Heyneman S.P. in the period 2015-2022. 3 groups with 2 authors including Heyman J. and Bose B., Yamano T. and Nishimura N., Luque M. and Marcenaro Gutierrez O.D had published documents in the period 2010 -2022. In addition, many authors work independently.

Figure 5 shows the collaboration between authors with at least 2 published documents on primary

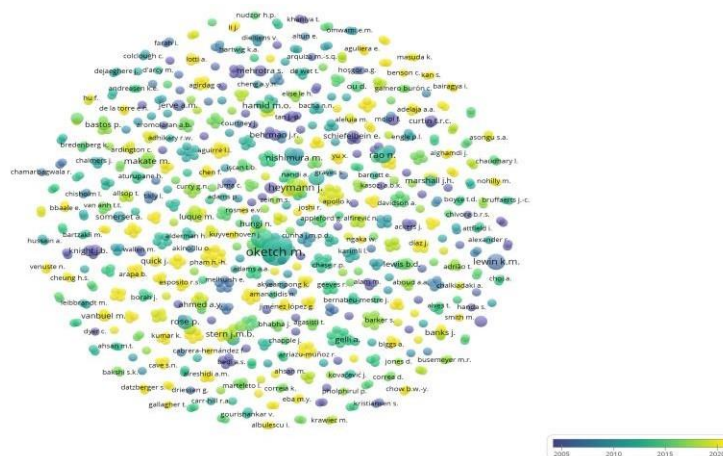


Figure 5 the authors published the documents related to primary education policy in Scopus from 1970 to 2022

Note: Each node represents an author. The bigger a node is, the more publications an author had. The links between the two nodes indicates the

collaboration between 2 authors. A color of a node indicates the year in which an author has published his/her publications. Science mapping showed a



collaboration network of 1462 authors with at least 1 published document.

The network in the map represents 1462 authors with at least 1 published document from 1970 to 2022. The biggest nodes, locates in the heart of the network map, shows the biggest publication

volume of Oketch M. who had collaboration with many other authors in the period 2010-2018. There were smaller groups of several authors.

Research Question 3. Which are the most significant sources in terms of the volume of publications and citations in this field?

Table 4 the top 20 impacted sources of primary education policy

No	Element	h_index	g_index	m_index	TC	NP	PY_start
1.	3L: LANGUAGE, LINGUISTICS, LITERATURE	1	1	0.142857143	52	1	2016
2.	AFRICA EDUCATION REVIEW	1	1	0.125	5	1	2015
3.	AFRICA TODAY	2	2	0.083333333	8	2	1999
4.	AFRICAN AFFAIRS	2	2	0.066666667	6	2	1993
5.	AFRICAN DEVELOPMENT REVIEW	2	2	0.153846154	12	2	2010
6.	AFRICAN JOURNAL OF FOOD, AGRICULTURE, NUTRITION AND DEVELOPMENT	1	1	0.166666667	1	1	2017
7.	AFRICAN STUDIES REVIEW	1	1	0.047619048	6	1	2002
8.	AFRICAN URBAN QUARTERLY	1	1	0.032258065	1	1	1992
9.	AMERICAN SOCIOLOGICAL REVIEW	1	1	0.0625	351	1	2007
10.	ASCLEPIO	1	1	0.1	11	1	2013
11.	ASIA PACIFIC EDUCATION REVIEW	2	2	0.2	9	2	2013
12.	ASIA PACIFIC JOURNAL OF EDUCATION	1	1	0.166666667	4	1	2017
13.	ASIA PACIFIC JOURNAL OF SOCIAL WORK AND DEVELOPMENT	1	1	0.25	5	1	2019
14.	ASIA PACIFIC MEDIA EDUCATOR	1	1	0.333333333	1	1	2020
15.	ASIA PACIFIC VIEWPOINT	2	2	0.166666667	18	2	2011
16.	AUSTRALIAN JOURNAL OF LEARNING DIFFICULTIES	1	1	0.333333333	2	1	2020
17.	BRITISH JOURNAL OF EDUCATIONAL STUDIES	1	2	0.2	4	2	2018
18.	BULLETIN OF INDONESIAN ECONOMIC STUDIES	1	2	0.045454545	29	2	2001
19.	CAMBRIDGE JOURNAL OF EDUCATION	1	1	0.083333333	40	1	2011
20.	CANADIAN JOURNAL OF DEVELOPMENT STUDIES	1	1	0.045454545	2	1	2001

Figure 6 the most impacted publications related to primary education policy in Scopus from 1970 to 2022

Note: TC: total citations; NP: number of publications; PY: published year of the first document

Top 20 impact sources between 1987 and 2012 is listed in the above table. INTERNATIONAL JOURNAL OF EDUCATIONAL



had. The color of a nodes concerned the theme of source; sources in a theme if nodes had same color. The links between the two nodes indicates the relationship between 2 sources based on co-citation

analysis. The green node in the center of the map is the theme of primary education which was cited most.

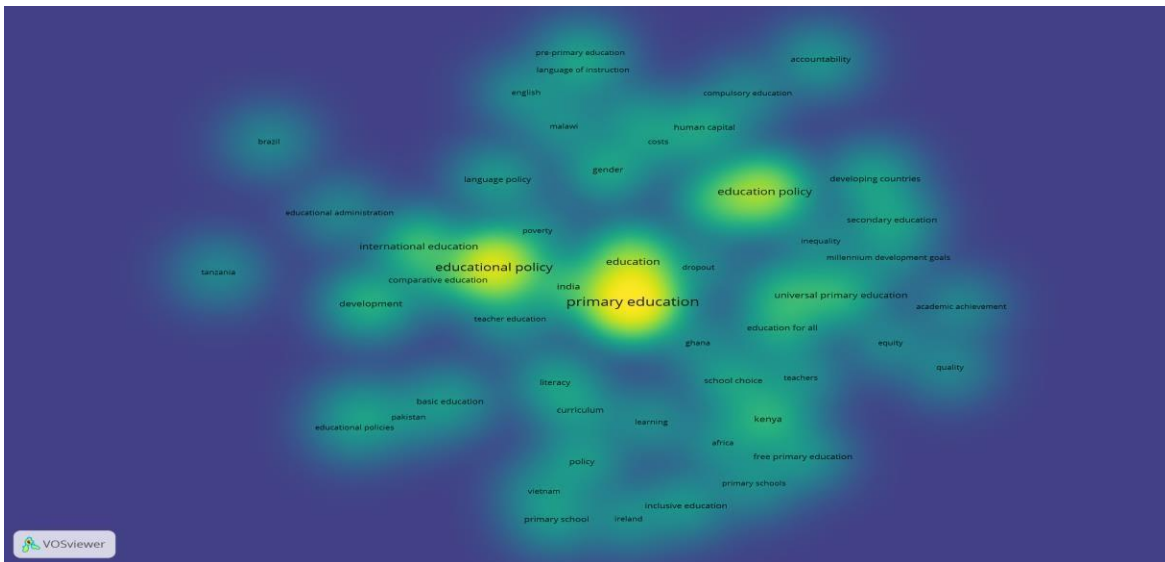


Figure 8 the most impacted publications related to primary education policy in Scopus from 1970 to 2022

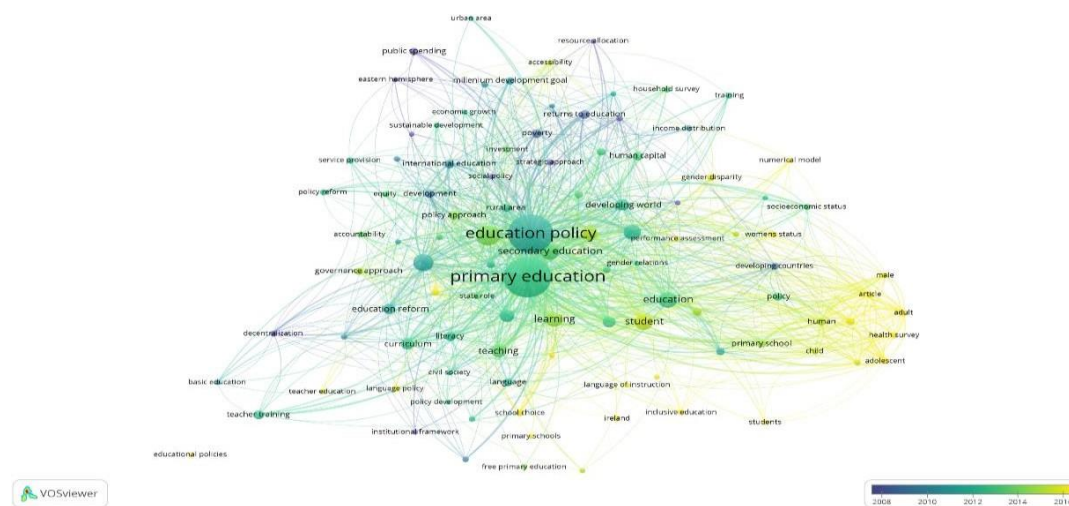


Figure 9 the most most used keywords related to primary education policy in Scopus from 1970 to 2022

The very tangled network above shows the keywords that most used in publications on primary education policy between 2008 and 2022. Each node represents a word. The bigger a node, the more frequent the word appears in publications. The link between the two nodes indicate the relationship between the two words. The color of a node shows the theme of words. The big green node in the center of the map showed that the word “primary education” was the most frequently used in publications, followed by the word “education policy”, “education development”. These two

keywords were used in connection with most of the keywords in the map which meant that primary education and education policy were the focus of the publications.

130 keywords were grouped into 7 clusters.

Cluster 1 includes 26 keywords which were China, costs, demand for schooling, developing world, economic development, economic growth, education policy, gender, gender disparity, gender issue, gender relations, household survey, human

capital, India, investment, low income population, policy analysis, policy approach, primary education, primary schooling, resource allocation, secondary education, strategic approach, sustainability, sustainable development, women's status.

Cluster 2 includes 22 keywords adolescent, adult, article, child, developing countries, education, female, fertility, health survey, human, humans, Malawi, male, performance assessment, policy, primary school, regression analysis, socioeconomic status, students, Uganda, United States, universal primary education.

Cluster 3 includes 21 keywords which were academic performance, accessibility, Bangladesh, child development, education for all, education development, equity, Ethiopia, inclusive education, international aid, Ireland, learning, policy implementation, policy reform, service provision, social policy, state role, student, Tazania, training, World Bank.

Cluster 4 includes 21 keywords which were accountability, Asia, basic education, comparative education, decentralization, development, eastern

hemisphere, education policy, Eurasia, human rights, Indonesia, international education, Pakistan, poverty alleviation, public sending, South Asia, Southeast Asia, teacher training, world.

Cluster 5 includes 16 keywords which were Brazil, East Africa, free primary education, implementation progress, institutional framework, Kenya, Lethoso, policy making, poverty, primary school, private sector.

Cluster 6 includes 13 keywords which were Africa, curriculum, education reform, education attainment, Ghana, higher education, income distribution, millenium development, numerical model, South Africa, Southern Africa, sub-Saharan Arfica.

Cluster 7 includes 11 keywords which were civil society, education policies, English, governance approach, language, language of instruction, language policy, literacy, policy development, pre-primary education, teacher education.

Research Question 4. Which documents evidenced the greatest impact in this field?

Table 5 the top 20 impacted sources of primary education policy

No	Paper	DOI	Total Citations	TC per Year	Normalized TC
1.	ALEXANDER KL, 2007, AM SOCIOL REV	10.1177/000312240707200202	351	21.9375	6.024
2.	LEWIN KM, 2009, COMP EDUC	10.1080/03050060902920518	136	9.7143	4.4228
3.	SKELTON C, 2002, INT STUD SOCIOL EDUC	10.1080/09620210200200084	133	6.3333	4.474
4.	CHISHOLM L, 2008, INT J EDUC DEV	10.1016/j.ijedudev.2007.04.003	116	7.7333	3.8033
5.	POLAT F, 2011, INT J EDUC DEV	10.1016/j.ijedudev.2010.06.009	110	9.1667	5.389
6.	MEELISSEN MRM, 2008, COMPUT HUM BEHAV	10.1016/j.chb.2007.03.001	108	7.2	3.541
7.	HANDA S, 2002, J DEV ECON	10.1016/S0304-3878(02)00055-X	88	4.1905	2.9602
8.	KADZAMIRA E, 2003, INT J EDUC DEV	10.1016/S0738-0593(03)00026-9	84	4.2	3.907

9.	HÄRMÄ J, 2011, INT J EDUC DEV	10.1016/j.ijedudev.2011.01.003	81	6.75	3.9683
10.	NGUYEN HTM, 2011, CURR ISSUES LANG PLANN	10.1080/14664208.2011.597048	80	6.6667	3.9193
11.	HEYNEMAN SP, 2014, INT J EDUC DEV	10.1016/j.ijedudev.2013.01.002	78	8.6667	6.8023
12.	TROMAN G, 2007, J EDUC POLICY	10.1080/02680930701541741	76	4.75	1.3043
13.	SMITS J, 2006, INT J EDUC DEV	10.1016/j.ijedudev.2006.02.002	75	4.4118	4.9763
14.	HOLT L, 2007, ENVIRON PLANN D SOC SPACE	10.1068/d73j	74	4.625	1.27
15.	OKETCH M, 2010, INT J EDUC DEV	10.1016/j.ijedudev.2009.08.001	71	5.4615	3.7054
16.	ASONGU SA, 2019, SUSTAINABLE DEV	10.1002/sd.1914	69	17.25	9.3129
17.	NISHIMURA M, 2008, INT J EDUC DEV	10.1016/j.ijedudev.2006.09.017	67	4.4667	2.1967
18.	BANTWINI BD, 2010, INT J EDUC DEV	10.1016/j.ijedudev.2009.06.002	64	4.9231	3.3401
19.	AKYEAMPONG K, 2009, COMP EDUC	10.1080/03050060902920534	63	4.5	2.0488
20.	ALTINYELKEN HK, 2010, INT J EDUC DEV	10.1016/j.ijedudev.2009.03.004	60	4.6154	3.1313

Table 5 shows the 20 most impact documents by number of citations and citation score. In terms of total citation, ALEXANDER KL, 2007, AM SOCIOL REV topped with 351 citations. 2nd place is LEWIN KM, 2009, COMP EDUC (136 turns, equivalent to 38.75% of the top document) and SKELTON C, 2002, INT STUD SOCIOL EDUC (133 turns, equivalent to 37.89%), followed by 3 documents CHISHOLM L, 2008, INT J EDUC DEV (116 passes, 33.05 %), POLAT F, 2011, INT J EDUC DEV (110 passes, 31.34%) and MEELISSEN MRM, 2008, COMPUT HUM BEHAV (108 passes, 30.77%) ). The next 4 documents have the number of citations in therange of 80-88 times including HANDA S, 2002, JDEV ECON (88 times, 25.07%), KADZAMIRA E, 2003, INT J EDUC DEV (84 times, 23.93%), HÄRMÄ J, 2011, INT J EDUC DEV (81 turns, 23.08%) and NGUYEN HTM, 2011, CURR ISSUES LANG PLANN (80 turns, 22.79%). 5 documents with 70-78 citations include HEYNEMAN SP, 2014, INT J EDUC DEV (78

times, 22.22%), TROMAN G, 2007, J EDUC POLICY (76 times, 21.65%), SMITS J, 2006, INT J EDUC DEV (75 turns, 21.37%), HOLT L, 2007, ENVIRON PLANN D SOC SPACE (74 plays, 21.08%), OKETCH M, 2010, INT J EDUC DEV (71 turns, 20.23%). 5 documents with the number of citations from 60-69 times including ASONGU SA, 2019, SUSTAINABLE DEV (69 times, 19.66%), NISHIMURA M, 2008, INT J EDUC DEV (67 times, 19.09%), BANTWINI BD, 2010 , INT J EDUC DEV (64 turns, 18.23%), AKYEAMPONG K, 2009, COMP EDUC (63 turns, 17.95%), ALTINYELKEN HK, 2010, INT J EDUC DEV (60 turns, 17.09%).

In terms of citation score, ALEXANDER KL, 2007, AM SOCIOL REV led with a citation score of 21,9375 and also led in total citations (351). Coming in second was ASONGU SA, 2019, SUSTAINABLE DEV with a citation score of 17.25 despite its 16th ranking in total citations, followed by LEWIN KM, 2009 COMP EDUC (ranked 2nd for total citations) and POLAT F,



2011, INT J EDUC DEV (ranked 5th for total citations) with citation scores of 9.7143 and 9.1667 respectively. HEYNEMAN SP, 2014, INT JEDUC DEV (11th in total citations) had a citationscore of 8.6667. The 2 sources with a citation scoreof around 7 were CHISHOLM L, 2008, INT J EDUC DEV (ranked 4th for total citations) and MEELISSEN MRM, 2008, COMPUT HUM BEHAV (ranked 6th for total citations). The 3

sources with citation scores at around 6 were SKELTON C, 2002, INT STUD SOCIOL EDUC, HÄRMÄ J, 2011, INT J EDUC DEV, NGUYEN HTM, 2011, CURR ISSUES LANG PLANN, ranked 3, 9, 10 for total citations, respectively. 1 source (ranked 15 in total citation) had a citation score of 5 and 9 sources had citation score of around 4.

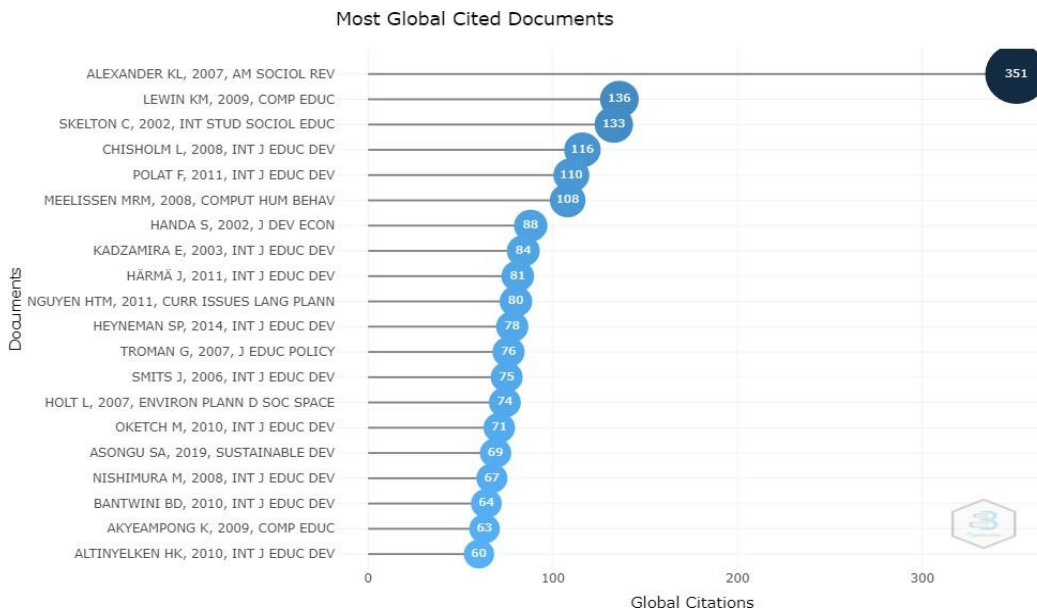


Figure 10 the most impacted publications related to primary education policy in Scopus from 1970 to 2022

The chart shows the 20 most cited documents. ALEXANDER KL, 2007, AM SOCIOL REV topped with 351 citations. There was a big gap between the first and the second ranked documents. Ranking in the second was LEWIN KM, 2009, COMP EDUC (136 citations, equivalent to 38.75% of the top document) and SKELTON C, 2002, INT STUD SOCIOL EDUC (133 citations, equivalent to 37.89%), followed by 3 documents which were CHISHOLM L, 2008, INT J EDUC DEV (116 citations, 33.05 %), POLAT F, 2011, INT J EDUC DEV (110 citations, 31.34%) and MEELISSEN MRM, 2008, COMPUT HUM BEHAV (108 citations, 30.77%). The next 4 documents had the number of citations in the range of 80-88 including HANDA S, 2002, J DEV ECON (88 citations, 25.07%), KADZAMIRA E, 2003, INT J EDUC DEV (84 citations, 23.93%), HÄRMÄ J, 2011, INT J EDUC DEV (81 citations, 23.08%) and NGUYEN HTM, 2011, CURR ISSUES LANG

PLANN (80 citations, 22.79%). 5 documents with 70-78 citations included HEYNEMAN SP, 2014, INT J EDUC DEV (78 times, 22.22%), TROMAN G, 2007, J EDUC POLICY (76 times, 21.65%), SMITS J, 2006, INT J EDUC DEV (75 turns, 21.37%), HOLT L, 2007, ENVIRON PLANN D SOC SPACE (74 plays, 21.08%), OKETCH M, 2010, INT J EDUC DEV (71 turns, 20.23%). 5 documents with the number of citations from 60-69 included ASONGU SA, 2019, SUSTAINABLE DEV (69 times, 19.66%), NISHIMURA M, 2008, INT J EDUC DEV (67 times, 19.09%), BANTWINI BD, 2010, INT J EDUC DEV (64 turns, 18.23%), AKYEAMPONG K, 2009, COMP EDUC (63 turns, 17.95%), ALTINYELKEN HK, 2010, INT J EDUC DEV (60 turns, 17.09%).

Research Question 5. What are the most relevant research topics on primary education policy?

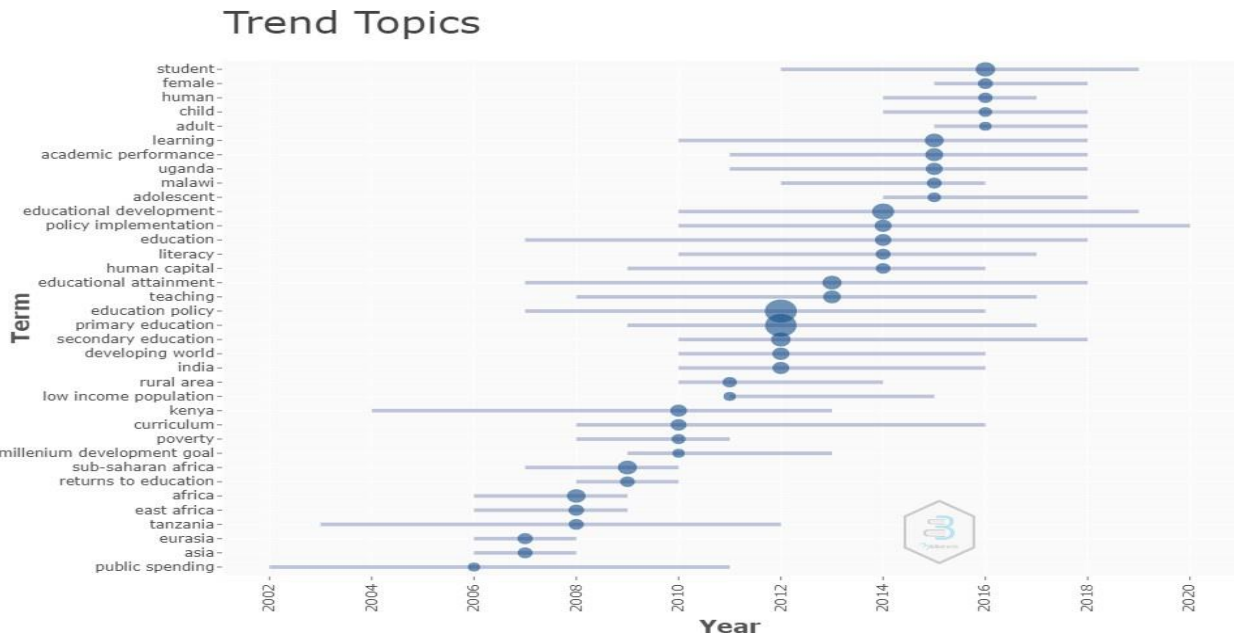


Figure 11 the trend topics of the publications related to primary education policy in Scopus from 1970 to 2022

In general, the trends of research topics related to primary education policy over the past five decades show that they are related to developing regions and countries and are associated with fundamental issues in education. Specifically, regions such as Asia, Africa (East Africa and sub-Saharan Africa); countries such as Tanzania, Kenya, Uganda, Malawi, and India; topics related to issues of developing countries such as returns to education; rural areas, literacy, developing world, low-income population, poverty, millenium development goal, public spending, human capital, adolescents; topics related to education such as curriculum, secondary education, primary education, education policy, teaching, educational attainment, policy implementation, educational development. Besides, it is worth noting that the groups of topics studied above show a trend from social issues to issues in education, and in recent years, the topics have shifted to relevant issues. more developed features, such as female, adult, and academic performance. In summary, the trend of research topics in primary education policy reflects the general development law of education and is related to education, which is the policy related to basic needs followed by basic needs, issues in education, and topics that belong to the general trend of education today because researchers are gradually paying more attention to specific issues affecting education policy in general and the

priorities of primary education policy in particular in the world.

**CONCLUSION**

In terms of annual growth rates, primary education policy studies have focused on the last decade, with an increase many times faster than in previous decades, which could mean that countries are developing rapidly. Developed or underdeveloped countries are more interested in education policy research at this level, which is conducted by development programs to find links between primary education policy and social issues.

The number of countries with the highest level of publication is concentrated in developed countries, while developing countries have the opposite trend. On the one hand, these countries may invest heavily in the basic education system. In addition, developed countries publish research results, but research issues and topics are implemented in developing or undeveloped countries.

As mentioned, the key to querying the literature is that the data used in this study is limited to English-language publications, which means primary education policy publications. belonging to other languages have not been collected and studied in this article. Therefore, there is a need for broader studies with publications in different languages to be able to see the ideas and trends of scientific



research on primary education policy on a global or local scale. featured areas where publications are not in English.

Along with the language limitation, this study also only provides preliminary comments on the relationship between primary education policy and other fields. This is also a research gap that should be filled to better understand the relevance or correlation between primary education policy and other policies or issues in other fields and should be researched in an interdisciplinary and multidisciplinary approach. In addition, because of the regional and global research linkages, there is also a need for regional and global studies on primary education policy. On the one hand, it is possible to recognize the issue of primary education at a national level and align these studies with the educational support policy priorities of regional and international organizations, thereby helping developing countries to facilitate the process of developing national education policies and international integration.

## CONFLICTING INTERESTS

The authors declare no conflict of interest.

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