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A Bibliometric Keyword Analysis on Lexicography
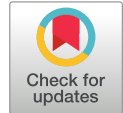
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Abstract

This study aims to analyse the research contributions in *the Lexikos* journal during 1991-2022. In the first step, the authors manually collected and classified the necessary data. In the next step, the collected data were analysed based on the keywords of the abstracts and titles. Then, a diachronic approach was taken to study the number of pages, authors, types of issues, departments, universities, and even the countries that contributed to this journal during the mentioned years. The findings indicated that keywords such as the *dictionary, lexicography, language, English*, and *Afrikan* had a high frequency in article keywords and titles. However, the diachronic study of these keywords indicated a boost in the case of investigations regarding online and corpus-based lexicography, because online dictionaries offer convenient and up-to-date information and corpus studies facilitate extensive data analysis. On the other hand, African universities and language departments mainly contributed to this journal.

Keywords   Bibliometric · keyword analysis · lexicography journal · corpus linguistics · research trends

Introduction

Numerous studies have been conducted on the various aspects of lexicography, such as dictionaries, meaning, language, etc. *Lexikos* is a hundred of academic journals in this field, and it has published various articles related to lexicography since 1991. Bibliometric analysis is very helpful in tracking the evolution of academic literature and the body of knowledge on a particular topic over time. It helps us to find patterns or networks of knowledge in a specific field and generally gather and evaluate meta-information from journal articles, including citations, authors, research institutions, keywords, and countries (Yoon and Park, 2005).

Derek de Solla Price, a futurist who used bibliometric methods in science of science, Eugene Garfield, the creator of the Science Citation Index, and Francis Narin, who coined the phrase evaluative bibliometrics, all carried out groundbreaking work in the 1960s and 1970s (Moed, 2017). Pritchard (1969) defined it as the application of mathematical and statistical methods to books and other media of communication. The definition shows that bibliometrics can be used in books and other forms of communication as a statistical tool. Norton (2000) presumed bibliometrics as a field of research that examines the bodies of knowledge within and across disciplines. According to Kurtz and Bollen (2010), bibliometrics is the statistical examination of how academics access their technical literature. Later, this technique was used to analyse patterns in the topics of papers published in several journals relevant to the field of science (Thompson, 2018), and it has also been used to show the trends of a journal through time (Abdi et al., 2018). In addition to helping academics improve their publication strategies and increase their overall exposure, bibliometrics is a valuable assessment tool that complements peer review systems (Gorraiz, Wieland, & Gumpenberger 2016).

Given that bibliometrics is neither entirely reliant on citations nor is it always a byproduct of a normative ideology of science. Scientists use textual material to survive the battle for survival on the research front. Therefore, instead of citations, text or its attachments (titles, abstracts, keywords) can be analysed and evaluated to find consistent correlations of scientific concepts for outlining topic areas, expanding subfields, or disciplinary trends. Besides, the text, packaged into journal papers, contains relevant information about authors, institutions, and organisations (De Bellis, 2019). Therefore, keywords are the most effective bibliometric measures for comprehending the main research topics examined in an area of study (Zhang, 2020). Authors must include keywords in their publications to indicate the broad concept their study intends to address. Using keywords and assessing them is an innovative quantitative method that offers impartial statistical insights (Qian et al., 2019). Keywords are the most important indications of an article's substance (Weismayer and Pezenka, 2017) and often communicate authors' understandings of their work within the thematic context of research areas and the core idea of a research paper (Ali et al., 2019). Although keywords identify the study's topic and main variables or theories, they do not communicate critical conclusions, such as the connection between keywords. On the other hand, the keyword co-occurrence network focuses on building knowledge because authors often use keywords to condense the main ideas of a document.

Review of the Literature

In language and linguistics, bibliometrics is a recent and significant area of study that offers a practical technique to gauge the amount of research on a particular topic (Pei et al., 2021). Numerous works in this field aim to identify publication metrics in linguistics and language. These studies can be divided into three categories: linguistic subfields, worldwide publications analysis, and linguistic research outputs in particular publication venues (Mohsen, 2021).

Two groundbreaking works by Kurtz et al. (2005a; 2005b) examined usage primarily of the NASA Astrophysics Data System (ADS) and compared the number of electronic accesses in the fields of astronomy and astrophysics with the number of citations.

Bibliometrics has been applied in fields other than social work, such as agriculture, science, library and information sciences, medicine, social sciences, and technology (Sellen, 1993). A comprehensive survey of analyses in the area of lexicography was carried out by Schryver (2009a; 2009b). The Journal of Lexicography, one of the oldest publications on lexicography, was brought to the focus of Schryver (2009a). He also compared lexicographic periodals, Lexikos and Dictionary, which are two significant publications in the lexicography and linguistics area. In the second study, the Lexikos journal was the subject of an investigation by Schryver (2009b), who also took an 18-year statistical snapshot of the publication. Recent advances in scientometric methods, particularly those using tools like VOSviewer and CiteSpace, have enriched the global understanding of lexicographic research landscapes (Dong, 2024), showing that bibliometric mapping has become a central approach in assessing thematic clusters and research dynamics across decades.

Much of the current literature on bibliometrics pays particular attention to keywords. De Bot (2015) used expert views and citation analysis to examine applied linguistics between 1980 and 2010 in good-sized research. To identify top researchers in the discipline and emerging trends, de Bot surveyed more than 100 applied linguists. He also identified trends in applied linguistics due to the growing influence of cross-disciplinary theories (such as complexity theory and sociocultural theory) and methodologies (like corpus linguistics, sociolinguistics, and neurolinguistics).

Cocitation analysis and keyword analysis were both used by Lei and Liu (2019) to research the area of applied linguistics. According to their study, significant changes have occurred in the previous decade due to the introduction of theories from other fields. They also saw a rise in interest in subjects like sociopsychology and multilingualism. Zhang (2020), in his study examined the area of second language acquisition (SLA) between 1997 and 2018 using the bibliometric technique to discover significant trends and changes. The scientific network maps and keyword analysis found effective modifications and fresh trends in the field.

In line with these studies, the present study aims to analyse the research contributions of the Lexikos journal from 1991 to 2022; the specific questions that drive the research are as follows:

- What are the most frequent keywords in articles, and how have they changed over the decades?
- What are the most frequent keywords in the title of articles, and how have they changed over the decades?
- What are this journal's most frequent text types, and how have they changed over the decades?
- How has the author's name been represented in this journal?
- How is the distribution of the countries, cities, and affiliations of the contributing authors?
- Which universities have the most frequent contributions to this journal?

Methodology

Bibliometrics is a quantitative method used to measure and analyse the impact of scholarly publications. It involves using statistical techniques to examine publication patterns, citations, and collaboration within a particular field or discipline. Bibliometric analysis can provide valuable insights into the research output and impact of individual researchers, institutions, and countries. Bibliometric studies in lexicography are unquestionably significant for determining the development of this field of study over time and guiding future studies. Making statistical analyses of academic publications, which are likely to be the primary meeting point of academic research such as articles, presentations, reviews, and so on, will influence future scientific investigations (Bozkurt, 2019).

This study involves articles published between 1991 and 2022. The reason for adopting 1991 as the starting year is that the Lexikos has started to publish its articles this year. This article analysed different

bibliometric indices: publication over the years, abstract and title keywords analysis, authors' affiliation analysis, institutions, countries, and the number of authors who contributed to writing articles. To conduct this article, authors within the Excel file made a list of the articles' names in each issue, the names of their authors, co-authors, affiliations, and keywords. The data analysis may encounter several difficulties, one of which is the availability and completeness of the data gathered. On the other hand, the database used to compile the data, whether from downloads or citations, may not be complete (Moed, 2017).

Findings

In this section, we will analyse the data. Table (1) shows the distribution of keywords in the Lexikos journal. As can be seen in the table, the most frequent words in the corpus during 1991-2001 were *dictionary* (174); *lexicography* (106); *language* (90); *user* (42); *and lexical* (40). The most frequent words in the corpus during 2002-2012 were *dictionary* (221); *lexicography* (135); *language* (82); *dictionaries* (76); *user* (58); and *corpus* (50). The most frequent words in the corpus during 2011-2022 were dictionary (223); *dictionaries* (148); *lexicography* (125), *English* (64), *language* (55), *corpus* (47); *online* (42). These frequencies indicate that the authors of the journal within these years tried to follow the same trend in the case of their keywords.

Table 1

High Frequent Keywords Used by Authors in Lexikos Journal

1991-2001			2002-2012			2013-2022		
Term	Count	Relative	Term	Count	Relative	Term	Count	Relative
dictionary	174	17.74%	dictionary	221	17.35%	dictionary	223	17.64%
lexicography	106	10.81%	lexicography	135	10.60%	dictionaries	148	11.71%
language	90	9.17%	language	82	6.44%	lexicography	125	9.89%
user	42	4.28%	dictionaries	76	5.97%	English	64	5.06%
lexical	40	4.08%	user	58	4.55%	language	55	4.35%
terminology	34	3.47%	corpus	50	3.92%	corpus	47	3.72%
information	31	3.16%	word	43	3.38%	online	42	3.32%
African	31	3.16%	lexicographic	43	3.38%	lexicographic	40	3.16%
English	28	2.85%	languages	40	3.14%	data	36	2.85%
structure	26	2.65%	text	36	2.83%	use	34	2.69%
dictionaries	26	2.65%	information	36	2.83%	user	32	2.53%
access	26	2.65%	bilingual	35	2.75%	bilingual	30	2.37%
languages	25	2.55%	translation	33	2.59%	learners	29	2.29%
semantic	24	2.45%	monolingual	33	2.59%	lexicographical	28	2.22%
translation	21	2.14%	structure	31	2.43%	information	27	2.14%
target	21	2.14%	function	30	2.35%	theory	26	2.06%
standard	21	2.14%	terminology	28	2.20%	African	26	2.06%
corpus	21	2.14%	African	27	2.12%	word	25	1.98%
word	20	2.04%	culture	24	1.88%	terminology	24	1.90%
lexicographic	19	1.94%	matter	23	1.81%	languages	24	1.90%
usage	17	1.73%	English	23	1.81%	structure	22	1.74%
items	17	1.73%	learners	22	1.73%	lexical	21	1.66%
afrikaans	17	1.73%	needs	20	1.57%	monolingual	19	1.50%
meaning	16	1.63%	functions	20	1.57%	function	19	1.50%
lemma	16	1.63%	lexical	19	1.49%	analysis	18	1.42%

1991-2001			2002-2012			2013-2022		
entry	15	1.53%	**meaning**	18	1.41%	**tools**	17	1.34%
definition	15	1.53%	**equivalence**	18	1.41%	**article**	17	1.34%
polysemy	14	1.43%	**lexicographical**	17	1.33%	**learning**	16	1.27%
examples	14	1.43%	**access**	17	1.33%	**translation**	15	1.19%
electronic	14	1.43%	**theory**	16	1.26%	**linguistics**	15	1.19%

Table (2) also indicates the map file of the article keywords. A map file is a text file containing information on the map's objects. Each line in the map file corresponds to a single entity. X indicates the horizontal coordinate of an item. Y indicates the vertical coordinate of an item. Only non-negative numbers are allowed in the weight column (Van Eck and Waltman, 2011). The higher the weight of an item, the more prominent that thing would be, so in this map file, the dictionary and lexicography are distinguished.

Table 2

Map File of Article Keywords

| id	label	x	y	cluster	weight<links>	weight<total link strength>	weight<Occurences>
1	**African language**	1.0591	−0.1666	1	1	1	41
2	**Afrikaan**	−0.0373	0.0999	2	1	1	25
3	**definition**	−0 1381	0.0439	5	1	1	61
4	**dictionary**	−0.0473	0.0392	2	10	41	564
5	**etymology**	−0.3622	0.7512	4	1	1	17
6	**example**	−1.2907	−0.3281	3	2	2	35
7	**function**	−0.1041	0.1042	6	1	1	62
8	**information**	0.8082	−0.1202	1	2	2	44
9	**language**	−1.2487	−0.3157	3	2	2	160
10	**learner**	0.4109	−0.0471	7	2	35	73
11	**lexicography**	0.895	−0.1363	1	4	7	339
12	**linguistic**	−0.3581	0.7419	4	2	2	26
13	**synonym**	−0.0528	−0.0232	2	1	1	19
14	**terminology**	1.0474	−0.1644	1	2	2	65
15	**translation**	−1.3019	−0.3314	3	1	1	39
16	**user**	0.8386	−0.1259	1	2	2	62
17	**word**	−0.1179	−0.0214	8	1	2	55

Figure (1) was extracted using the VOS online data mining tool to indicate the relationship between keywords and their collocates in published articles from 1991 to 2022. According to this figure, a relationship exists between the dictionary, learner, linguistics, language, lexicography, and function.

Figure 1

Relationship Between Keywords 1991-2022
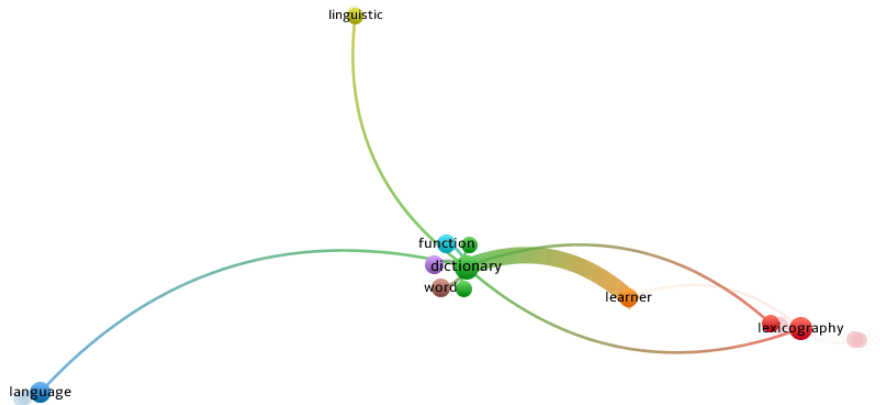
According to Figure (1), lexicography entails gathering, analysing, and presenting data. This area is related to language, lexical content, and the users through the dictionaries that accurately reflect lexical structure. On the other hand, to comprehend the meaning of a particular word, the user relies on the dictionary's accuracy, and since the language's lexical content is continually changing, dictionaries use corpus and, consequently, text.

Figure 2

Relationship Between Keywords 1991-2001
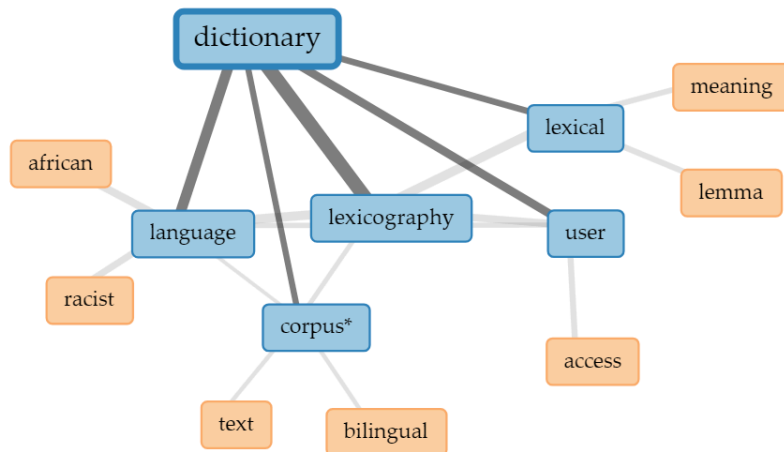
Based on Table (1) and Figure (1), the authors assumed that the same trend would be followed during 2002-2012 and 2013-2022. Figure (2) indicates that the keyword dictionary has intensified the relationship between the keywords lexicography*, language*, dictionary*, and user*. However, the role of the corpus, language policy, and online methods in creating such networks is evident. There was a trace between 1991 and 2001 regarding the use of corpus in dictionaries. Later, in 2002-2022, this relationship became bold and robust (Figure 3).
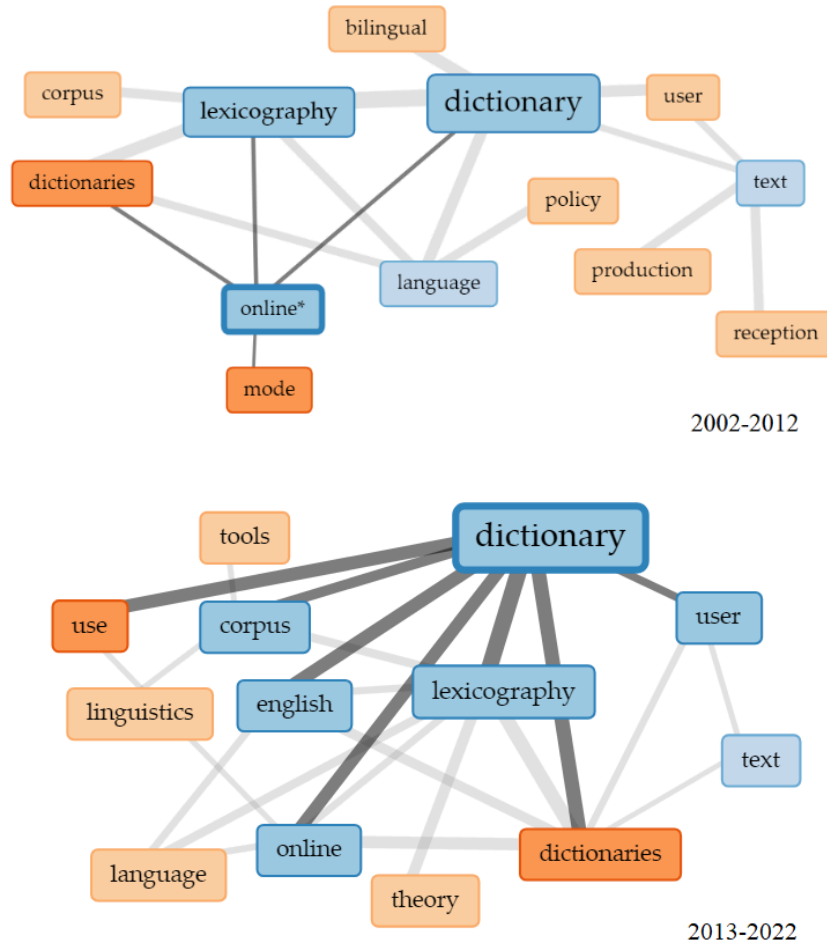
Figure 3

Relationship Between Keywords and Their Collocates 2002-2022

2002-2012

2013-2022

Table (3) indicates the keywords used in the article titles during 1991-2022. The initial data analysis revealed a high frequency of determiners like "*die, en, van, la, vir*" but we eliminated them. According to this table, the keyword *dictionar*,* including keywords such as "*dictionaries* and *dictionary*" had the highest frequency. The second, third, and fourth highest frequency keywords are "Afrikaanse, lexicography, and English" increased frequency of these keywords is due to the reason that the Bureau of the Woordeboek van first published Lexikos journal die Afrikaanse Taal (WAT) in 1991 and with the establishment of the African Association for Lexicography (AFRILEX) and has become the voice of this association in 1995.

Table 3

High Frequent Keywords Used by Authors in Article Titles

1991-2001			2002-2012			2013-2022		
Term	**Count**	**Relative**	**Term**	**Count**	**Relative**	**Term**	**Count**	**Relative**
dictionar*	97	22.15%	**dictionar***	164	28.13%	**dictionar***	151	31.72%
lexicograph*	50	11.42%	**lexicograph***	90	15.44%	**lexicograph***	78	16.39%
afrikaan*	43	9.82%	**English***	56	9.61%	**English***	49	10.29%
English*	39	8.90%	**language***	40	6.86%	**learn***	31	6.51%
africa*	33	7.53%	**afrikaan***	40	6.86%	**language***	23	4.83%
woordeboe*	32	7.31%	**africa***	38	6.52%	**afrikaan***	21	4.41%
south*	21	4.79%	**word***	27	4.63%	**woordeboe***	18	3.78%

1991-2001			2002-2012			2013-2022		
word*	20	4.57%	woordeboe*	22	3.77%	online*	18	3.78%
language*	20	4.57%	bilingual*	20	3.43%	corpus*	16	3.36%
bilingual*	14	3.20%	afrilex*	20	3.43%	africa*	16	3.36%
terminolog*	13	2.97%	terminolog*	15	2.57%	bilingual*	14	2.94%
Tamil*	12	2.74%	Shona*	14	2.40%	terminolog*	11	2.31%
afrilex*	12	2.74%	isichazamazwi*	14	2.40%	Chinese*	11	2.31%
voorwoord*	11	2.51%	voorwoord*	10	1.72%	south*	9	1.89%
foreword*	11	2.51%	foreword*	10	1.72%	monolingual*	9	1.89%
leksikografies*	10	2.28%	leksikografies*	3	0.51%	afrilex*	1	0.21%

As can be seen in the table, the most frequent words in the corpus during 1991-2001 were *dictionar**(97); *lexicography**(50); *afrikaan** (43); *english** (39); *africa**(33). The most frequent words in the corpus during 2002-2012 were dictionary (214); lexicography (129); language (92); dictionaries (61); and user (60). The most frequent words in the corpus during 2011-2022 were dictionary (89); dictionaries (88); English (52), lexicography (50), lexicographic (23), learners (21); online (18). These frequencies indicate that the authors of the journal within these years tried to follow the same trend in the case of their keywords. Therefore, in earlier years, the frequency of African-related keywords was high. Still, in later ones, corpus and online methods of language learning, as well as Chinese language-related keywords, were high.

Table (4) indicates all the keywords used in the article titles from 1991 to 2022. The data analysis was somehow the same as in Table 3.

Table 4

Keywords Used by Authors in Article Titles 1991-2022

keywords of article titles 1991-2022					
Term	**Count**	**Relative**	**Term**	**Count**	**Relative**
dictionary	231	11.65%	online	21	1.06%
dictionaries	181	9.13%	foreword	21	1.06%
English	143	7.21%	towards	20	1.01%
lexicography	119	6.00%	compilation	20	1.01%
African	70	3.53%	sotho	19	0.96%
afrikaans	55	2.77%	analysis	19	0.96%
lexicographic	53	2.67%	word	18	0.91%
afrikaanse	49	2.47%	Shona	18	0.91%
corpus	46	2.32%	information	18	0.91%
language	45	2.27%	woord	17	0.86%
bilingual	44	2.22%	user	17	0.86%
south	43	2.17%	problems	17	0.86%
woordeboek	37	1.87%	lexical	17	0.86%
words	36	1.82%	electronic	17	0.86%
languages	36	1.82%	school	16	0.81%
afrilex	33	1.66%	oxford	16	0.81%
use	31	1.56%	multilingual	16	0.81%
new	31	1.56%	leksikografiese	16	0.81%

keywords of article titles 1991-2022					
monolingual	30	1.51%	few	16	0.81%
learners	29	1.46%	editor	16	0.81%
lexicographical	28	1.41%	development	16	0.81%
woordeboeke	27	1.36%	approach	16	0.81%
terminology	27	1.36%	Africa	16	0.81%
treatment	26	1.31%	Zulu	15	0.76%
study	26	1.31%	terms	15	0.76%
based	22	1.11%	northern	15	0.76%
voorwoord	21	1.06%	learner's	15	0.76%

Table (5) indicates the number of articles published during each year. According to this table and diagram 1, the number of published papers has increased over the years, and a sharp increase can be seen in the number of articles after the publication of the supplement issue. The diachronic trend in the number of articles and pages indicates a slight increase over the years.

Table 5

Number of Articles Published During 1991-2022

Number of volumes	Year	Number of articles	Percentage	Number of pages	Percentage
Lexikos 1	1991	18	1.91	316	2.12
Lexikos 2	1992	18	1.91	297	1.99
Lexikos 3	1993	24	2.55	342	2.30
Lexikos 4	1994	22	2.33	333	2.24
Lexikos 5	1995	20	2.12	305	2.05
Lexikos 6	1996	32	3.40	358	2.40
Lexikos 7	1997	27	2.28	339	2.28
Lexikos 8	1998	26	2.76	351	2.36
Lexikos 9	1999	26	2.76	340	2.28
Lexikos 10	2000	25	2.56	354	2.38
Lexikos 11	2001	38	4.03	365	2.45
Lexikos 12	2002	27	2.28	374	2.51
Lexikos 13	2003	30	3.18	384	2.58
Lexikos 14	2004	35	3.71	481	3.23
Lexikos 15	2005	33	3.50	373	2.51
Lexikos 16	2006	29	3.08	376	2.53
Lexikos 17	2007	42	4.46	522	3.51
Lexikos 18	2008	28	2.97	486	3.27
Lexikos 19	2009	54	5.73	559	3.76
LEXİKOS 19 (Supplement)	2009	15	1.59	194	1.30
Lexikos 20	2010	45	4.78	800	5.38
Lexikos 21	2011	25	2.56	423	2.84
Lexikos 22	2012	29	3.08	444	2.98
Lexikos 23	2013	37	3.93	667	4.48
Lexikos 24	2014	27	2.28	462	3.10

Number of volumes	Year	Number of articles	Percentage	Number of pages	Percentage
Lexikos 25	2015	26	2.76	554	3.72
Lexikos 26	2016	23	2.44	472	3.17
Lexikos 27	2017	33	3.50	641	4.31
Lexikos 28	2018	26	2.76	522	3.51
Lexikos 29	2019	17	1.80	349	2.34
Lexikos 30	2020	31	3.29	666	4.48
Lexikos 31	2021	26	2.76	515	3.46
Lexikos 32	2022 no1	22	2.33	405	2.72
Lexikos 33	2022 no2	10	1.06	242	1.62
Lexikos 34	2022 no3	10	1.06	248	1.66
		941		14859	

It was interesting that there was a direct relationship between the number of published articles and the number of pages in that issue (Figure 5).

Figure 5
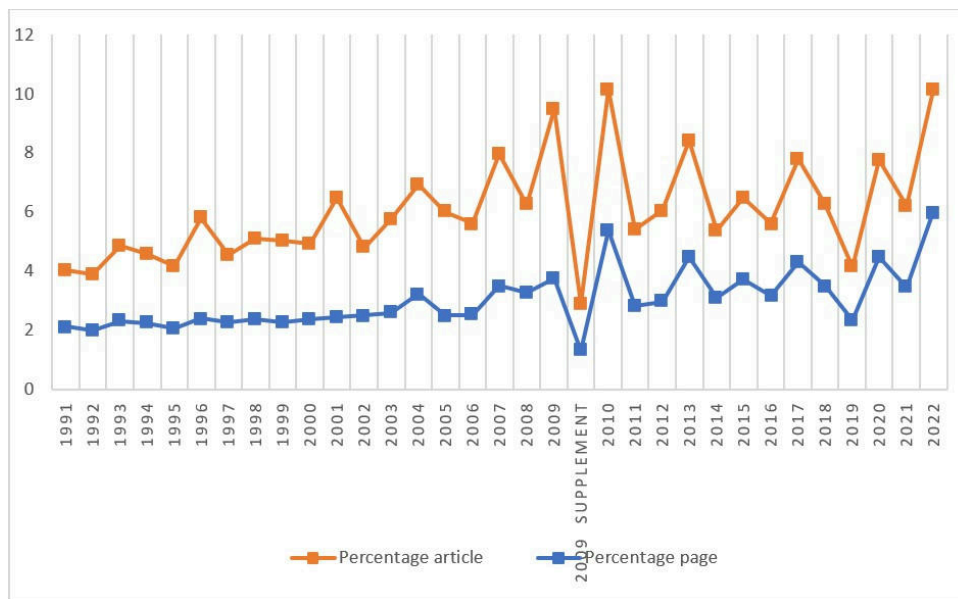*Frequency of Articles Published During 1991-2022*

Table (6) reveals the changes in the type of articles published every ten years in lexicography (except 2013-22). According to this table and diagram 2, except for 1991-01, after 2002, the general type of articles continuously increased. Regarding contemplative articles, there was explosive growth until 2001, but after that, the publication of such papers has been stopped, which seems that authors have changed the type of their articles. From 1991 to 2022, there was a dramatic decrease in the number of reviews.

Table 6

Type of Articles Published in Lexicography

TYPE	1991-01	2002-12	2013-22	Total
Artikels/Articles	46	150	216	**412**
Beskouende artikels/Contemplative Articles	44	21		**65**
Byeenkomste/Meetings	1			**1**
Korpusse/Corpora			1	**1**
Leksikobibliografie/Lexicobibliography		1		**1**
Leksikoeerbewys/Lexicohonour		1		**1**
Leksikofokus/Lexicofocus		10		**10**
Leksikohuldeblyk/Lexicotribute		1	2	**3**
Leksikonuus/Lexiconews	1	1		**2**
Leksiko-opname / Lexicosurvey		4	3	**7**
Lexikonotas/Lexiconotes	5	33	7	**45**
Lexikoprogrammatuur/Lexicosoftware		9		**9**
Lexikovaria/Lexicovaria	16	5	1	**22**
Navorsingsartikels/Research Articles	41	6		**47**
On Learners' Dictionaries		5		**5**
Samestelling van eentalige woordeboeke Compilation of the Monolingual Dictionaries		2		**2**
Projekte/Projects	9	14	16	**41**
Publikasieaankondigings/Publication Announcements	11	11	10	**32**
Redaksioneel/Editorial	18	19		**37**
Resensieartikels/Review Articles	19	18	5	**42**
Resensies/Reviews	63	62	27	**152**
Terminologiebestuur/Terminology Management		2		**2**
Verslae/Reports	2			**2**

Yet, reviews and articles were the two highest from 1991 to 2022. The lowest frequency types of articles were *meetings, corpora, lexicobibliography, lexicohonour, lexicons, monolingual dictionaries, terminology management,* and *reports.* Figure (6) also indicates the type of articles published in this journal during each decade. The differences between the percentage of contemplative articles, research articles, reviews, and review-type articles are highlighted in yellow as the total. From the chart, it can be seen that by far, the most significant demand is for publishing articles and reviews in the Lexikos, so the number of articles peaked during 2013-2022.

Figure 6

High-frequent Type of Articles Published During 1991-2022
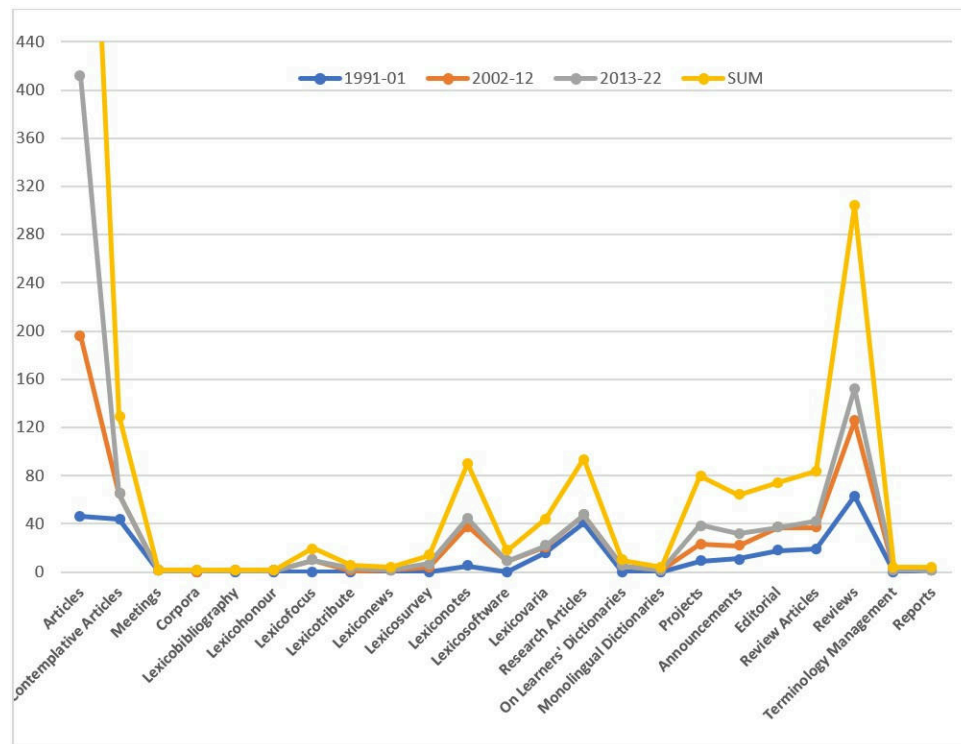
Regarding the number of authors, about 80.57% of the articles had single authors, and 15.41% had two authors. Only 3.22%, 0.60% and 0.17% had three, four and five authors, respectively. To find out about the gender of the author, we decided to use a gender analyser, which indicated that most of the authors are male, but the point was that 187 out of 1148 authors (tokens) used to introduce themselves with the initial letters, this was trend only in the early decades, and later authors used to familiarise themselves with their full names (n= 961). This finding indicates the high quality of the articles as these articles were just merely conducted as the original articles for this journal.

Table (7) shows the departments, countries, universities, and cities that contributed to the Lexikos journal. While analysing the contributed departments, the frequency of the determiners and words such as "*departments, school, bureau, centre, institute, unit, faculty,*" were eliminated. It can be seen from this table that the languages departments, Afrikaans, Dutch, lexicography, culture, English, and linguistics, contributed highly to this journal.
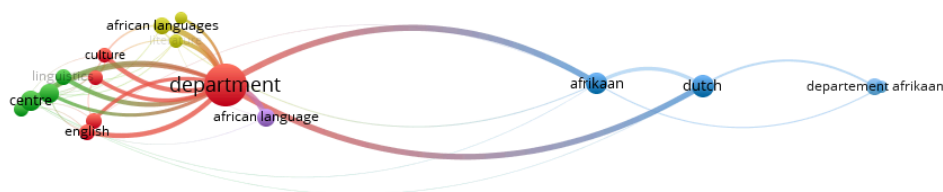
Table 7

Departments, countries, cities, and universities that contributed lexicography

Departments			Countries contributed			Cities contributed			Universities contributed		
language*	245	18.67	**South Africa**	506	58.09	**Stellenbosch**	187	22.80	**Stellenbosch**	149	27.95
Afrikaans*	208	15.85	**Belgium**	45	5.17	**Pretoria**	90	10.90	**Pretoria**	51	9.57
Afrikaans	141	10.75	**Denmark**	38	4.36	**Harare**	33	4.00	**Zimbabwe**	34	6.38
African*	137	10.44	**Zimbabwe**	37	4.25	**Ghent**	32	3.90	**Ghent**	34	6.38
Dutch*	83	6.33	**Germany**	32	3.67	**Aarhus**	29	3.50	**Cape**	33	6.19
English*	62	4.73	**China**	29	3.33	**Grahamstown**	17	2.10	**Aarhus**	32	6
lexicography*	61	4.65	**Poland**	27	3.1	**Windhoek**	12	1.50	**South Africa**	29	5.44
woordeboek*	60	4.57	**UK**	25	2.87	**Ljubljana**	12	1.50	**Rhodes**	16	3

Departments			Countries contributed			Cities contributed			Universities contributed		
culture*	54	4.12	Slovenia	15	1.72	Johannesburg	12	1.50	Bellville	15	2.81
research*	49	3.73	Namibia	14	1.61	Elizabeth	12	1.50	Ljubljana	12	2.25
literature*	42	3.20	Spain	13	1.49	Polokwane	11	1.30	Namibia	11	2.06
foreign*	21	1.60	Netherlands	13	1.49	Guangzhou	11	1.30	Guangdong	11	2.06
education*	21	1.60	Gabon	10	1.15	Potchefstroom	10	1.20	Mickiewicz	10	1.88
business*	18	1.37	Botswana	9	1.03	Poznan	9	1.10	Oxford	9	1.69
technology*	17	1.30	Kuwait	7	0.8	Libreville	9	1.10	Business	9	1.69
technology	17	1.30%	Serbia	6	0.69	Oxford	8	1.00	Botswana	9	1.69
sciences*	17	1.30	Romania	5	0.57	Gaborone	8	1.00	Witwatersrand	8	1.5
art*	15	1.14	Kong	5	0.57	Cape	8	1.00	Vista	8	1.5
dictionary*	13	0.99	Japan	5	0.57	Bloemfontein	8	1.00	Omar	8	1.5
terminology	10	0.76	Hong	5	0.57	Mariëtta	7	0.80	Bongo	8	1.5
humanities	9	0.69	France	5	0.57	Heidelberg	7	0.80	Kuwait	7	1.31
philology	4	0.30	Usa	4	0.46	Bellville	7	0.80	Heidelberg	7	1.31
philosophy	3	0.23	Tanzania	4	0.46	Durban	6	0.70	Afrikaanse	7	1.31
terminologies	2	0.15	Montenegro	4	0.46	Amsterdam	6	0.70	Zululand	6	1.13
human	2	0.15	Kenya	4	0.46	Leipzig	5	0.60	Valladolid	5	0.94
interdisciplinaire	1	0.08	Georgia	4	0.46	Hildesheim	5	0.60	China	5	0.94

Figure (7) shows the relationship between the keyword department and the most frequent ones that their authors have mentioned. There is a relationship between the language, culture, English, Dutch, African, and literature departments.

Figure 7

Relationship Between Contributed Departments

We can see some leading countries that participated in this journal: South Africa, Belgium, Zimbabwe, Denmark, and Germany.

Table 8

Map File of Contributed Departments

id	label	x	y	cluster	weight<Links>	weight<Total link strength>	weight<Occurrences>
1	African language	−0.0182	−0.1134	5	3	51	51
2	African languages	−0.3478	0.1772	4	6	85	43
3	African languages research institute	−0.2856	0.2054	4	3	3	21
4	afrikaan	1.0377	−0.0039	3	6	142	80
8	centre	−0.7669	−0.0578	2	9	64	71

id	label	x	y	cluster	weight<Links>	weight<Total link strength>	weight<Occurrences>
9	culture	−0.5291	0.0862	1	6	62	34
10	departement afrikaan	1.9203	−0.0157	3	2	47	58
11	department	−0.1476	−0.006	1	14	382	335
12	Dutch	1.3725	−0.012	3	4	141	81
13	English	−0.5886	−0.16	1	4	47	42
14	faculty	−0.5658	−0.1242	1	5	21	38
15	languages	−0.5571	0.012	1	6	47	34
16	lexicography	−0.7936	−0.0869	2	6	50	34
17	linguistics	−0.6627	0.018	2	5	39	40
18	literature	−0.3041	0.1318	4	8	51	30
19	nederland	1.9417	−0.0155	3	2	32	32
20	school	−0.7053	−0.0352	2	9	56	58

It is also worth noting that the language department role is significantly more frequent in the Lexikos. There were no significant differences between the contribution of the language and Afrikaans departments as both shared nearly the same percentage.

Figure 8
Countries and Cities Contributed to the Lexikos
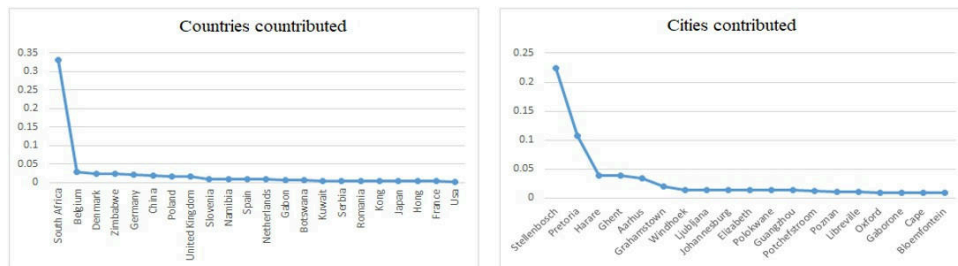
Figure 9
Departments and Universities contributes to the Lexikos
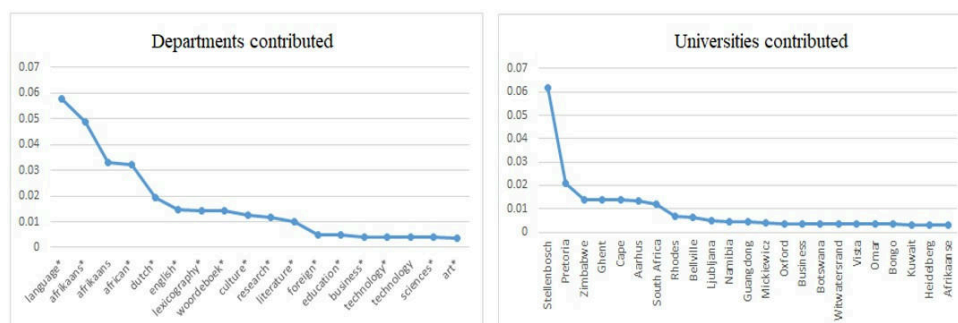
Figure 9 indicates the frequency of the universities. In this diagram, we can see clearly that South African universities (Stellenbosch, Pretoria, Zimbabwe, Ghent, Cape) had the highest participation rank in this journal. Subsequently, the South African cities also had high frequency (Figure 9).

Discussion and Implications

This study has provided a bibliometric portrait of the Lexikos journal over a span of 32 years, with a specific focus on the evolution of thematic interests, authorial dynamics, article types, and institutional affiliations. While the numerical results present a robust descriptive framework, deeper engagement with the historical trajectory of keywords reveals broader theoretical and methodological implications for the field of lexicography.

The longitudinal fluctuation in keyword frequencies—particularly the prominence of terms such as dictionary, lexicography, language, user, corpus, and online—illustrates not only thematic consistency but also shifts in epistemic priorities. For instance, the dominance of dictionary and lexicography is expected given the journal's scope, yet the semantic expansion of these terms over time is noteworthy. In the 1990s, the keyword dictionary primarily referred to traditional print works, often in African languages. In contrast, in the 2010s and beyond, its co-occurrence with terms such as online, learners, and tools reflects a clear transition towards digitalisation, pedagogical orientation, and user engagement.

Similarly, the rising occurrence of corpus and bilingual in the second and third decades signals the influence of corpus linguistics and multilingual education on lexicographic scholarship. These shifts are not arbitrary; they mirror the growing integration of lexicography with applied linguistics, language technology, and education policy. Thus, the keyword trends map not only the journal's evolution but also the transformation of lexicography into a more interdisciplinary and socially responsive field.

Geographically, the increasing representation of institutions from China, Germany, and multilingual African contexts reflects the expanding global footprint of lexicographic inquiry. This diversification urges journal editors to adopt inclusive editorial strategies that accommodate non-Western lexicographic traditions and promote the documentation of minority and endangered languages.

From a methodological perspective, this study reaffirms that bibliometric analysis—especially keyword mapping—can serve as a valid meta-analytical approach for identifying conceptual innovations, thematic dominance, and research inertia in a specialised field. It allows researchers not only to trace what has been studied but also to anticipate what directions the field might take.

The findings of this study carry several important implications for both lexicographic research and editorial practice. First, lexicographic training and dictionary design should increasingly embrace corpus-informed, learner-centred, and digitally enabled methodologies to meet the evolving demands of users and technological environments. Editorial boards, in turn, can benefit from the systematic analysis of keyword trends, which may help them identify underexplored research areas and guide the formulation of special issues or the revision of submission guidelines. Furthermore, future research would do well to attend not only to dominant and frequent keywords but also to those that are absent or declining, as such patterns may reveal critical gaps or overlooked domains within the field's intellectual landscape. In this context, bibliometric keyword analysis has emerged as a valuable strategic planning instrument, particularly for interdisciplinary ventures in terminology studies, digital humanities, and the revitalisation of endangered or minority languages.

Conclusion

This study has demonstrated that Lexikos has developed into a dynamic venue reflecting the theoretical, technological, and pedagogical shifts in lexicographic research since its inception in 1991. While early contributions emphasised traditional dictionaries and African language documentation, more recent decades have witnessed a marked increase in corpus-based, learner-oriented, and online lexicographic research.

The keyword trends analysed in this study underscore how specific terms—dictionary, user, corpus, bilingual, online—have gained salience not only due to evolving technologies but also because of shifting user needs, educational contexts, and institutional agendas. The historical prominence of Afrikaans and African languages aligns with the journal's origins, while the later emergence of English, tools, and learners corresponds with global shifts in language policy and pedagogy.

Moreover, changes in article types—from contemplative and editorial essays to empirical, tool-focused, and data-driven publications—further reflect a field that is adapting to the methodological demands of evidence-based research. Authorship patterns, marked by a predominance of solo authorship, deep individual expertise, yet also reveal opportunities for enhanced collaboration across disciplines and institutions.

In conclusion, this bibliometric analysis not only maps the evolution of a leading lexicography journal but also contributes to our understanding of lexicography as a field undergoing conceptual expansion, methodological modernisation, and international diversification. Future studies should consider comparative analyses across journals and citation networks to deepen the disciplinary insight and strategic relevance of meta-lexicographic inquiry.

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