Mathematical and Statistical Bibliometric Indicators for Scholars in the Field of Romance Languages and Linguistics

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ABSTRACT
The rapid development of using information technology enables scholars to present their work in the worldwide databases, to read works of other colleagues, to be read, to get citations. The primary objective of this study is to show the scholars of Romance languages and linguistics who meet with their projects and publications in Agence Universitaire de la Francophonie (AUF) how to work with databases. The second objective is to point out that to present research made in the field of Romance languages and linguistics written in a Romance language is a difficult task for a number of scholars across the world.

Keywords: WOS, WOK, SCOPUS, journals with romance languages and linguistics scope, jbitechnology, scholars, citations, indicators

INTRODUCTION
The science of bibliometrics, scientometrics or journal metrics includes mathematical and statistical methods in order to analyze and measure the quantity and quality of scientific publications and of the performance of a researchers’ output. In our article, we deal with some quantity indicators (cites, cites core, SNIP, SJR, IF and one quality indicator (field-weighted citation). Some structural indicators (measurement of connections between publications, authors, and areas of research) are shown inductively in our research paper, too. Indicators in question are important for scholars and institutions they work for. In our case, it particularly goes on scientific or university institutions in Slovakia, Algeria, Russia, Slovenia, Czech Republic. Outcomes published in journals indexed in the most important databases Wos, Wok, and Scopus provide a researcher with the mentioned indicators. The measurements are often a mark of the quality of the researcher. They help gain scientific grants or another sort of research promotion. As research results are published, read and then cited by other researchers, bibliometric indicators are becoming a significant guide to quality. This article promotes the work with bibliometric databases as well as it summarizes some important indicators when searching for data relevant for the Romance-languages-and-linguistics scope and the challenge to exchange knowledge in Romance languages.

The corps of the paper is divided into these chapters.
1. Scopus
   1.1 Cites
   1.2 How to work with citations
   1.3 Citescore, SNIP, SJR
   1.4 Field-weighted citation

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2. Web of science
   2.1 How to work with citations
   2.2 IF
3. Research Methodology
   3.1 Journals with Romance languages and linguistic scope
   3.2 Best cited journals
   3.3 Best cited journals in Romance languages and linguistics scope

Purpose and Objectives of the Study

Are cites equal to being read? Let’s suppose that the number of citations equals a number of readings or studies of what the scholar has written. The more citations the scholar completes, the more he is read; thus, he/she influences the scientists of his field, and he becomes a recognized personality with his impact in the field, with social changes and an economic contribution.

The purpose of this paper is to present the operation of the two global tools in order to organize research in French language and thus to connect with the scientific world in French thanks to cites that appear in the databases from the data of uploaded papers into researcher’s account. Articles published with the help of financial support, project or inter-university cooperation (where the authors come from several universities around the world) are of greater importance than home-made articles.

Another objective of the study is to point out that the number of the journals in which scholars might publish in Romance languages is still too small.

The Relevance of the Research

The specific conditions of the modern scholar are characterized by new patterns of innovative, more reliable technology tools. These are the worldwide recognized databases related to different domains or field of research.

The Wos, Wok and Scopus databases house a number of journals, books and conference proceedings published in the fields of science, technology, medicine, social sciences, arts and human sciences. It is a favor for Russian, Slovak, Algerian, Slovenian researchers seeking scientific legitimacy from the international scientific community. This recognition is based on the publication of the results of the survey and the peer-review evaluation which subsequently leads to large-scale dissemination of research products. Bibliometric indicators measure the quality of researchers’ work and the influence of the journals in which they publish” (Dassa, Kosmopoulos, & Pumain, 2018).

Thus, the databases allow scholars not only to have international visibility but also to gain notoriety like their peers around the world. In this sense, the Ministries of (Higher) Education and Scientific Research of Slovakia, Russia, Algeria, Slovenia, the Czech Republic through decisions on the sustainability and recognition of scientific journals encourage all scholars and academic institutions to get published and get classified their work in several databases. The databases are cited in documents of the national character of the cited countries distributed as a basis for categorizing journals. Slovakia’s system enables researchers to publish in Scopus, Wos and Wok databases where publications in Wok are the most precious. Algeria recognizes mainly Scopus.

Thus, Scopus allows Slovak, Russian, Slovenian, Algerian researchers not only to have international visibility but also to gain notoriety like their peers around the world.
LITERATURE REVIEW

The first base of citations was founded in the 70s; it was called Science Citation Index (SCI). This tool at the beginning strictly defined for the analysis of scientific articles has developed over a period of time. Presently, the global importance is accentuated. Reading and being read in the field of research in the circle of internationally recognized scholars has become the main goal of bibliometrics.

Two scientific databases are recognized as those that collect high-quality scientific articles, studies and monographs – ISI (Wos – Web of science and Wok – Web of knowledge) and Scopus.

Within the ISI by Thomson Reuters, Wok, and Wos with these basics of citations in sections Arts and Humanities Citation Index (AHCI) and Social Sciences Citation Index (SSCI) become for Romance languages important. Among the journals accepted by these two sub-bases or sections of WOS, a small number of journals allow eligible authors to write articles in French or other Romance language. It seems impossible to get published in these journals.

Scopus (whose editor is Elsevier) enables the scientific knowledge exchange in a limited number of languages, but still, the database is more open to the language diversity than Wos or Wok. The tests of sheltering the results of research in lingua franca – English – are the tendencies of this century.

Cites counted either in SCI in the Wos or SCI in the Scopus are considered a bibliometric tool widely used in the natural sciences but not so frequent in humanities and social sciences. In particular, because the AHCI and SSCI Wos are incomplete. Hence the challenges of Elsevier which embarked on the development of a database of citations with wider coverage.


In addition to these two global databases, in 2007 the lists of scientific journals ERIH of the European Foundation for Science and in 2008 the lists of the AERES (Agency for the Evaluation of Research and Higher Education in France) were born. These databases do not inform the users of the cites core, nor do they demonstrate the scientific index of the journals or the researcher’s profile and so are not taken into consideration as much as two gigantic databases presented above. Scopus retains every year the interest not only for the size of its database but also for its highly developed services, offered to researchers: help with publication criteria formulations, transparency, improper practices, plagiarism, the behavior of publishers and co-publishers.

MATERIALS AND METHODS

Procedure

The leading methods to study the problem were the following ones:
− the demonstrative, explicative method
− the content analysis.

These methods allow us to provide accuracy of the calculations made.

Cites

How to Work with the Cites and Citations in the Database of Scopus

Before starting work with the Scopus and Wos databases, researchers must connect to these two databases, either through the university network or by creating their account directly in the databases.

1st step

It is necessary to enter the Scopus database from the university network or from the personal account (Figure 1).
2nd step

Click on the icon to highlight the field with an orange color and fill in the name of the searched scholar, (example Birova J). In order to achieve the works and cites of the searched researcher, it is recommended to add other particularities as the place of work or country (University of SS Cyril and Methodius or abbreviation University SS Cyril*), we click then on Search (Figure 2).

3rd step

We tick the desired personality, then Show documents (Figure 3).
4th step
The documents published by the personality appear. In this case, 21 documents of Birova Jana for the date of September 13, 2018 (Figure 4).

5th step
On the high facet, we check the possibility at the same time. We click on View citation overview which is in the same part on the same line of the facet (Figure 5).
6th step

After a minute, the search engine generates a report with author’s h-index and cites. They might be treated separately for the individual years but also from the global point of view. In the case of Birova Jana, there are 51 citations for the year 2018; in the icon Total, we found 164. Two of them are self-citations (Figure 6).

7th step

If we do not want to count the auto citations, we click on Exclude self-citations, then Update (Figure 7).
8th step

After clicking on Update, the total number of citations takes place without counting self-citations with the author’s scientific index (Figure 8).

Citescore

Citescore is a journal metrics which indicates a number of citations. Citescore of the journal XLinguae, e.g., represents the value 0.61 for the year 2016. The citation count – 57 citations in 93 cited documents ranks position the journal on the 82nd place out of 452 journals ranked in the field Philosophy, Arts and Humanities on the 138th place out of 582 journals ranked in the field Language and linguistics, Arts and Humanities and on the 154th place out of 628 journals from the field Linguistics and language, Social sciences (Figure 9).
Source Normalized Impact per Paper (SNIP)

Source normalized impact per paper is a journal’s citation count per paper or / and citation potential in its subject field. It is one of the measurement that reflects the journal’s excellence. More https://blog.scopus.com/posts/journal-metrics-in-scopus-source-normalized-impact-per-paper-snip.

Scientific Journal Ranking (SJR)

The SJR indicator refers to the count of received citations in 2 (previously 3) years in a ratio with published articles in the journal. It seems that more articles the journal publishes, more difficult the journal gains the high position in SJR as scholars focus mainly on publishing the research results and less on popularizing their publications at other scholars.

Field-Weighted Citation Impact

The influence of citations on the field of research is another important bibliometric aspect. If the scholar’s area of research is language and linguistics and his/ her article is published in the journal of technology, this kind of impact will most likely be less than the impact of work published in a journal focused on linguistics. The other fact that is taken into consideration is the proportion of the citations that the article has received and the citations that are attributed on average to an article in the research field. If the number exceeds 1, it means that the article is quoted more than it was expected. The article that is below has up to day 13 September 2018 been cited 17 times, and the field-weighted citation impact is 5.18 (Figure 10).
But in this one, the field-weighted citation impact is only 0.97 even though there are 7 citations. The problem is that even the title of the journal is Komunikacie (Communications) and seems to be adequate to publish there an article about Romance languages and communication, this is not really a case. The accent must be put on the scope of the journal, not on its title. The scope of the journal Komunikacie is engineering and technology (Figure 11).

**Quartile**

Counting the quartile is not difficult. The total number of journals ranked according to the cites core and SJR indicator is divided by 4. The best journals with the best citescore and SJR gain the 1st quartile.

This bibliometric indicator shows how the journal is read, used and spread among the scholars. The higher readiness ensures, the higher quartile. The quartile is a mark of quality.

**Web of Science (WOS)**

**1st step**

The database Web of Science Core Collection presents several icons. The icon Cited Reference Search, serves for searching the data, like name, affiliation, etc.; example Birova J*, then Search (Figure 12).
2nd step

After generating the WoS, a table of the works cited will appear. The scholar must identify his/her work (the name Bírová can also introduce another person), click on Select all * where there are 11 results with this name, click on Finish Search: in 16 records, 48 quotes were found (Figure 13).

3rd step

These are records with citations in bibliographic references. In some records, the name Bírová can be quoted several times. In the searched records (in this case it is 32 records), we click on the right facet with the name Create Citation Report. (Figure 14).
4th step

Citation report appears (Birova J*) (Figure 15).

Research Methodology

In this work, the research methodology that follows was applied.

Research Question

Which of the presented databases offers a bigger range of the journals with another worldwide language than English (French, Italian, and Spanish)?
Research Objective

To analyze data presented within the corpus of the journals of the mentioned databases.
To point out on the number of the scholarly journals which enable researchers to write scientific papers on linguistics in Romance languages.

Research Method

Content analysis, interpretation of mathematical and statistical results.

RESULTS

Table 1. Quantitative analysis of journals indexed in two databases

<table>
<thead>
<tr>
<th>Databases</th>
<th>Total number of journals with the Language and linguistics scope</th>
<th>Number of journals with &quot;Romance languages and linguistics&quot;</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>WoS</td>
<td>181</td>
<td>28</td>
<td>15.46 %</td>
</tr>
<tr>
<td>Scopus</td>
<td>689</td>
<td>153</td>
<td>22.20 %</td>
</tr>
</tbody>
</table>

Table 1 shows the results obtained during the research phase. It is evident that Scopus is more expanded.

DISCUSSIONS

French, Spanish are the languages spoken throughout the world. They deserve to have the position of the language of science at least to a certain extent. However, publishing a study in a Romance language in a worldwide recognized database seems difficult. The reason is a small number of scientific journals indexed in these databases which would enable scholars writing in these languages. Specifically, it is less than 16% in Wos, Wok, and in Scopus, less than 22% of all considered journals. The numbers in the tables and in the graph are distorted, and, in fact, the total sum up of the journals is smaller. The reason is that a certain number of journals are indexed in both databases Wos and Scopus.

CONCLUSION

In our article, we intended to demonstrate work with databases at the citation level. The cites might be made once the scholar arrives to be published in a journal accepted by one of the worldwide databases. The researcher will promote his work, his name, the French language or other Romance language and the establishment for which he/ she works. Articles resulting from research or support are better valued than articles written without project funding.
During the research phase that was running in 2017, we worked with databases and processed data from other relevant sources. Research has shown that databases prefer publishing in English. Writing a research paper in a particular Romance language in the domain of Language and linguistics and publishing it is possible in 15.38% of journals indexed in Wos and Wok, which represents specifically 28 journals. Regarding the Scopus database, eligible authors might publish their studies in Romance languages in 182 journals, representing 21.25% of the journal’s share of language and linguistics in Arts and Humanities and Social Sciences.

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REFERENCES


Larsen, P. O., & von Ins, M. (2010). The rate of growth in scientific publication and the decline in coverage provided by Science Citation Index. *Scientometrics, 84*(3), 575-603. https://doi.org/10.1007/s11192-010-0202-z


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