

Evaluation of Scientific Work through Education in University Library “Svetozar Markovic” in Belgrade

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Abstract

Scientific work in Serbia is valued through citation and point rating published results published in scientific journals, symposiums, monographs, etc. That is why University Library decided to conduct courses about evaluation to educate high school librarians, researches and postgraduate students. In 2005 we have conducted 7 courses, entitled Citation in SCI data bases, with over 120 participants. Last year we conducted 14 courses and workshops with near 500 attendants. Subjects were Citation data bases (SCI, SCOPUS, Serbian Citation index) and Google Scholar and Evaluation of scientific work. The most successful courses were lectures for the postgraduate students from different faculties. All target groups were interested in ranked lists of journals by IF in subject categories in Social and Science Journal Citation Report (JCR). The most interested groups of attendants were postgraduate students, whose evaluation of our courses was very high.

Our Consortium KoBSON (Consortium of Serbian Libraries for Coordinated Acquisition) has brought out all relevant facts about journals IF and subject categories in JCR on its web portal. Numerous attendants had become aware of that information for the first time on our lectures. The second frequently questions were about hetero-citations, co-citations and self-citations. The courses will be continued.

Key words: education, evaluation, scientific work, University Library, postgraduate students, citation data bases, JCR.

Introduction

Evaluation of scientific performance for researchers in Serbia until the nineties of the 20th century was based on the number of publications – articles in journals, conference papers and scientific monographs, number of PhD theses they lead and number of conducted research projects. In 1996, in the Bylaw at the election for professors and researchers¹ honored international journals were first mentioned. The quality was determined according to the rank of the journal on the Social and Science Journal

Citation Report subject category . Data about Impact Factor of journals and their rank at first were available at the University Library “Svetozar Markovic” in Belgrade and later also in the Library of Matica srpska in Novi Sad. Citation Indexes are present in Serbia since 1979. In 2007 all data about Impact Factors and ranks of the journals included in those databases were collected and made available online to all members of the Serbian Consortium for Coordinated acquisition KoBSON.

JCR list

In 2001 publishing in the journals from Journal Citation Report list became a criterion for financing researchers by the Ministry of Science. In 2007 and 2008 Bylaw it is defined that academic staff must have articles published in journals on the JCR list². The numbers of points that determine their scientific competence are dependent on the number of papers published in those journals and with the rank of the journals in their subject category.

In the Bylaw that was brought by the Ministry of Science in 2007, precise number of points was determined according to the rank of every journal on the Subject category list of Journal Citation Report. Journals that were not on the list did not bring any points, except if the Commission for that group of sciences, formed on the state level at the Ministry of science, explicitly defined in advance that those journals should be included as most important for that subject field.

Articles published in international scientific journals	M20	Article in international high level journal	M21	8 points
		Article in international middle level journal	M22	5 points
		Article in international journal	M23	3 points
		Article in international journal certified by special commission	M24	3 points

Table 1. Quantification of individual scientific results

The change of criteria for determination of scientific competence from the simple number of publications to the number of publications in journals on the predefined lists provoked a lot of reactions. Broadly speaking, researchers from natural sciences and experimental medicine were satisfied, researchers from small disciplines were not satisfied, and researchers from social sciences and humanities were strictly against those criteria, even thaw they were not used in evaluation of their performance.

Education in University Library

A lot of questions were posed to librarians, both in the University Library “Svetozar Markovic” as the center where all those data about Impact Factor and rank of a journal could be gathered, and to librarians in other academic libraries. That is why University Library decided to conduct courses about evaluation to educate faculty librarians, researches and postgraduate students.

To get a better insight how data about citations of Serbian authors and their different publications – monographs, articles in journals on the JCR list and articles from other journals and conference proceedings, a research was performed at the Department for Scientific Information of the University Library “Svetozar Markovic”, and the results were used as examples for practical part of our courses³. Citation analysis for five Serbian authors from different scientific fields was performed last ten years according to their full bibliographies in two commercial databases (Web of Science and Scopus) and one freely available on the Internet (Google Scholar). The results show big differences between numbers of citations gathered in those databases, suggesting that citation analysis in the Web of Science should not be used as a main indicator for scientific performance for Serbian authors, at least not in all scientific disciplines. The most relevant results from Web of Science, the resource used officially for citation analysis in Serbia, were acquired for author working in oncology, and the least relevant for computer sciences.

Project of education started with groups of academic librarians. In 2005 we have conducted 7 courses, entitled Citation in SCI data bases, with over 120 participants. Courses lasted 6 hours.

Subjects were:

- **Principles of evaluation of scientific performance**
- **Citation databases - SCI, SSCI, AHCI, SCOPUS**
- **Serbian Citation index**
- **Google Scholar as a citation database**
- **Evaluation of scientific journals**
- **Impact Factor**
- **Journal Citation Report**
- **KoBSON portal**

All attendants had the opportunity to try to search all citation databases and to get understanding of the principles how those databases are established, what they cover and what they do not cover, etc. Courses were conducted by the most experienced librarians from the Department for Scientific Information of the University Library “Svetozar Markovic”. Last year we conducted 14 courses and workshops with near 500 attendants. We also conducted courses in Nis and Kragujevac, at the university libraries there⁴.

All target groups were interested in ranked lists of journals by IF in subject categories in Social and Science Journal Citation Report (JCR). The next frequently questions were about hetero-citations, co-citations and self-citations. Practical work on the courses helped all attendants to understand in detail all the subjects that they had problems to deal with before the courses. The result of those courses was that researchers got much more qualified answers to their questions in the network of academic libraries of Serbia⁵. The courses will be continued, and the program will be changed according to demands from the potential audience. During the General Assembly of the Serbian Association of Academic Libraries in November, questionnaire is always distributed to all delegates, with the question about what subjects for courses they are interested in.

There is a huge literature about the importance of education of users in all subjects concerning information literacy⁶. The next idea was to start with systematic education of young researchers, postgraduate students who are starting their career in science, to help them understand better the whole system of communication and evaluation processes in science⁷. Ministry of Science of the Republic of Serbia gave the initiative that Consortium for coordinated acquisition KoBSON should organize courses that would encompass all the subjects of interest for young researchers, which usually are not covered by the curriculum.

We prepared the program, and the 4 groups of 50 students enrolled in doctoral studies at Serbian state universities attended those courses last year. The courses consisted of lectures and practical work with databases. Three lessons were about details about KoBSON website, the online catalogue OPAC, electronic databases and access to full text. Two lessons were about evaluation of scientific work and citation. The program of those two lessons is listed below:

1. Evaluation of scientific performance:

- **JCR**
- **IF**
- **Subject category of JCR**
- **Bylaw (List of regulations) brought by Ministry of Science**
- **Appraise of international scientific journals**
- **Appraise of national scientific journals**

2. Citation

- **Bibliometric laws (Lotka`s and Bradford`s)**
- **Citation indexes Thompson ISI**
- **New measures of impact (H-index)**
- **Other citation indexes (Scopus, Google Scholar ...)**
- **Serbian citation index SCIndeks**
- **Ranking of scientific institutions and individuals according to bibliometric indicators**

In 2009. the same theme was lectured for the faculty librarians. The lecture was organized as panel discussion. There were 30 participants. Because the librarians had solid precognition from the last courses, the discussion was very successful.

Conclusion

University Library "Svetozar Markovic", being aware of the new role of academic libraries started with intensive educational activities in 2005. We suppose that in the years to come those activities would become more intensive.

Literature

¹ Pravilnik o postupku i načinu vrednovanja, i kvantitativnom iskazivanju naučnoistraživačkih rezultata istraživača, Ministarstvo nauke, 1996

² Pravilnik o postupku i načinu vrednovanja, i kvantitativnom iskazivanju naučnoistraživačkih rezultata istraživača ("Sl. glasnik RS", br. 38/2008)

³ Filipi-Matutinovic S.: Citation analysis for five Serbian authors in Web of Science, Scopus and Google Scholar, *Infotheca*, 2007, vol. 8, 1-2, 25a-34a

⁴ Filipi-Matutinović Stela, Popović Aleksandra: Promene u ostvarivanju funkcija informacionog i edukacionog centra u Odeljenju za naučne informacije Univerzitetske biblioteke «Svetozar Marković» u Beogradu. – *Informaciona pismenost i doživotno učenje : Međunarodni naučni skup*, Beograd, 5-7 oktobar 2007 : knjiga rezimea. – Beograd : Filološki fakultet Univerziteta : Bibliotekarsko društvo Srbije, 2007. str. 137-139

⁵ Antonić Sanja, Sofronijević Adam, Filipi Matutinović Stela: University library in Belgrade and promotion of e-learning in Serbia: reach out to those who need to know. – *The Fourth International Conference on Informatics, Educational Technology and New Media in Education*, Faculty of Education in Sombor, Vol. 4, 2007, pp. 115-122.

⁶ Eisenberg M.B: Information Literacy: Essential Skills for the Information Age, *DESIDOC JI. Lib. Inf. Technol.*, 2008, **28**(2), 39-47

⁷ Information behaviour of the researchers of the future. Cyber briefing paper, 11.01.2008, London, UCL, www.bl.uk/news/pdf/googlegen.pdf , accessed 20.04.2009