

# Directory of Open Access Journals: A Bibliometric Study of Sports Science Journals

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(Received 5 December 2014; Revised 28 January 2015; Accepted 15 February 2015; Available online 19 February 2015)

**Abstract - Bibliometric techniques were applied to analyze the Directory of Open Access Journals (DOAJ) during the period 2003-2012. A total of 67 sports science journals were examined by subject specific distribution of sports science, interdisciplinary aspects, country of origin, language used and other language characteristics, numbers of titles first appearing in given years, publication fees, and the existence of license agreements having journals in the Directory.**

## I. INTRODUCTION

Directory of Open Access Journals (DOAJ) is an online directory that indexes and provides access to quality open access, peer-reviewed journals. The aim of the DOAJ is to increase the visibility and ease of use of open access scientific and scholarly journals, thereby promoting their increased usage and impact. The DOAJ aims to be comprehensive and cover all open access scientific and scholarly journals that use a quality control system to guarantee the content. In short, the DOAJ aims to be the one-stop shop for users of open access journals.

## II. REVIEW OF LITERATURE

Rajeev & Jat (2012) studied 33 free full texts with abstracts online journals were accessed through DOAJ and analyzed based on subject headings, languages, country, keywords, and their accessibility of archives of online journals in Health Sciences- Nursing.

Jamdade & Jamdade (2013) traced Directory of Open Access Journals (DOAJ) provides open access to scientific and scholarly journals, the total 137 free full text with abstracts online journals were accessed through DOAJ and analyzed based on subject headings, languages, country their accessibility of archives of online journals in Library & Information Science.

Kumar (2013) analyzed by country, keywords, frequency in the DOAJ. It indicates that there was only one open access journal i.e. Bulletin of the Medical Library Association was available before 1990 in the field of library and information science (LIS). Only 19.04% journals have

their EISSN. Almost one fourth journals were publishing on half yearly basis.

Thavamani (2013) examined 151 library-focused journals represented in the Directory of Open Access Journals (DOAJ) by number of issues: subject-specific distribution of library journals, interdisciplinary aspects, country of origin, language-used and other language characteristics, numbers of titles first appearing in given years, publication fees, the existence of license agreements, and the types of organizations having journals in the Directory that focus on libraries.

Bansal (2014) studied 44 information about of all free access music e-journals in DOAJ. All music journals are analyzed on the basis of their originating country, language and year of emergence.

## III. OBJECTIVES OF THE STUDY

The following a profile of the Directory itself, a study of sports science - focused journals gathers and presents date on:

1. To trace country of origin,
2. To study language of publications,
3. To identify language patterns,
4. To study subject distribution of Sports Science - related journals,
5. To trace interdisciplinary aspects of these journals,
6. To identify year commenced publications,
7. To trace publication fees,
8. To study licenses for published items and
9. To study published with EISSN and ISSN.

## IV. METHODOLOGY AND DATA COLLECTION

The data was collected from Directory Open Access Journals (DOAJ) website (<http://www.doaj.org>) covering the period from 2003 to 2012. Sixty seven sports science journal titles and related information have been selected for the current study. These data are organized, calculated,

tabulated, analyzed, and presented by using simple arithmetic and statistical methods in order to provide analysis.

**V. LIMITATION OF THE STUDY**

There are 18 different major subject areas represented in the Directory, only those related to the sports science (67) journals only considered this study. For the purpose of this study only those titles identified under the subject heading

“Sports Science journal” were considered during 2003 – 2012 period only.

**VI. ANALYSIS AND FINDINGS**

A total of 67 Sports Science e-journals were analyzed based on sports science - related journals. The flowing tables and brief analyses represent the substance of this research.

TABLE I JOURNALS BY YEAR COMMENCE PUBLICATIONS

Year	Total	Percentage (%)
2008	10	14.925
2011	10	14.925
2009	8	11.940
2010	8	11.940
2007	7	10.447
2005	4	5.970
1998	3	4.477
2006	3	4.477
1999	2	2.985
2002	2	2.985
2003	2	2.985
2012	2	2.985
1992	1	1.492
1993	1	1.492
1994	1	1.492
1996	1	1.492
2001	1	1.492
2004	1	1.492
<b>Total</b>	<b>67</b>	<b>100.000</b>

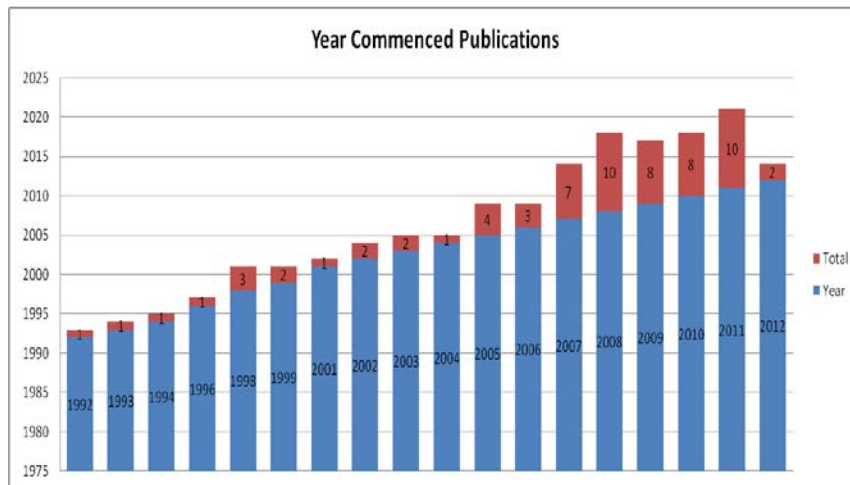


Fig. 1 Year Commenced Publications

Table I and Figure 1 show the year in which publication commenced for the Sports Science journals. The greatest

number of journals began publication in the years 2011 and 2008; each with 10 titles (14.925%).

TABLE II DISTRIBUTION OF JOURNALS PUBLISHED BY COUNTRY

Countries	Total	Percentage (%)	Rank
Brazil	12	17.910	1
United States	7	10.447	2
Spain	7	10.447	2
Romania	6	8.955	3
Turkey	4	5.970	4
Poland	4	5.970	4
Serbia	3	4.477	5
Bosnia	3	4.477	5
United Kingdom	2	2.985	6
Ukraine	2	2.985	6
Portugal	2	2.985	6
Macedonia	2	2.985	6
Greece	2	2.985	6
Czech Republic	2	2.985	6
Canada	2	2.985	6
Australia	2	2.985	6
Sweden	1	1.492	7
Slovenia	1	1.492	7
Hungary	1	1.492	7
France	1	1.492	7
Colombia	1	1.492	7
Total	67	100.000	

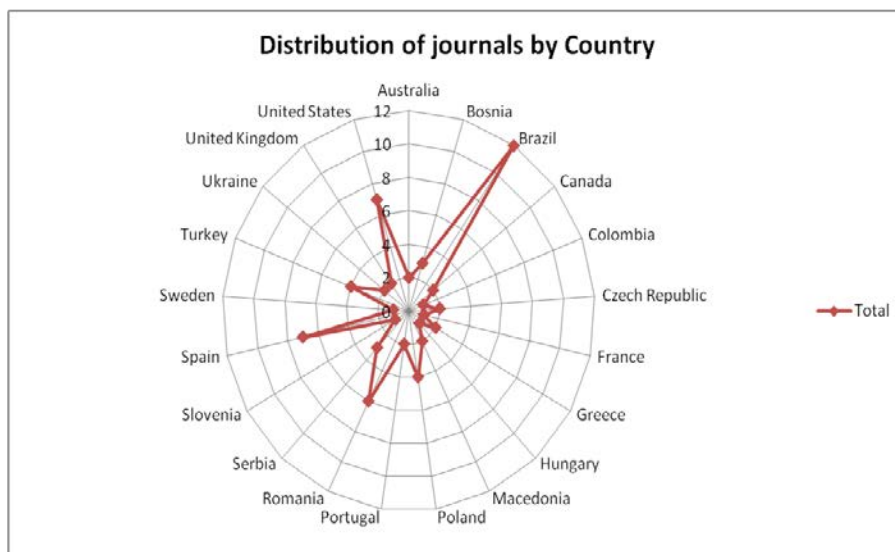


Fig.2 Distribution of journals by Country

Table II and Figure 2 show the distribution of journals according to country of origin. There are 21 countries represented in DOAJ publishing journals related to sports science journals. The highest number, 12 (17.910%),

originated or are based in the Brazil. Five countries (Sweden, Slovenia, Hungary, France and Colombia) had only one (1.492%) sports science journal.

TABLE III PUBLICATIONS OF JOURNALS BY LANGUAGE

Language	Total	Cumulative Total	Percentage (%)	Rank
English	54	54	49.541	1
Portuguese	17	71	65.137	2
Spanish	15	86	78.899	3
French	5	91	83.486	4
Romanian	3	94	86.238	5
Turkish	3	97	88.990	5
Croatian	2	99	90.825	6
Russian	2	101	92.660	6
Serbian	2	103	94.495	6
Czech	1	104	95.412	7
Danish	1	105	96.330	7
Norwegian	1	106	97.247	7
Polish	1	107	98.165	7
Slovenian	1	108	99.082	7
Ukrainian	1	109	100.000	7
Total	109		100.000	

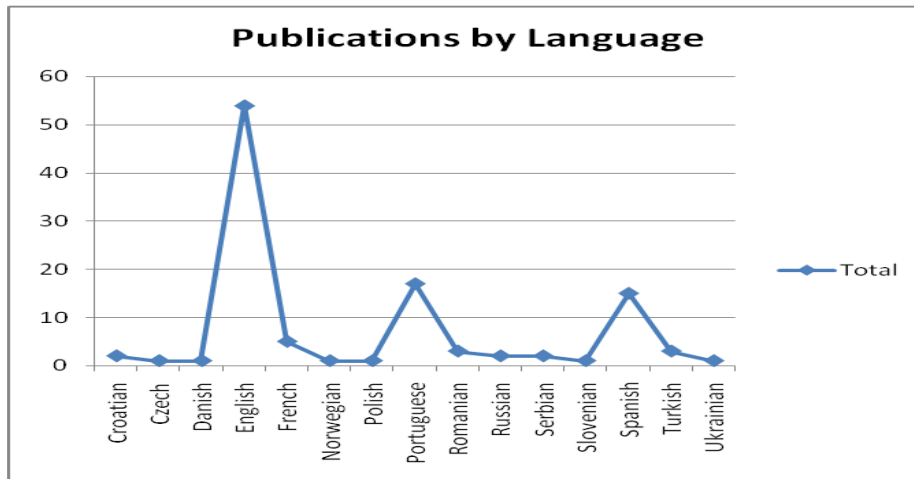


Fig. 3 Publications by Language

Table III and Figure 3 show the language of publication of the journals. The highest number 54 (49.541%) claiming English as its language of publication. Six languages

(Czech, Danish, Norwegian, Polish, Slovenian and Ukrainian) have one (0.917%) of sports science journal titles.

TABLE IV LANGUAGE PATTERNS BY PUBLICATION

Language Patterns	Total	Percentage (%)
One language	38	56.716
Two languages	19	28.358
Three Languages	7	10.447
Four Languages	3	4.477
Total	67	100.000

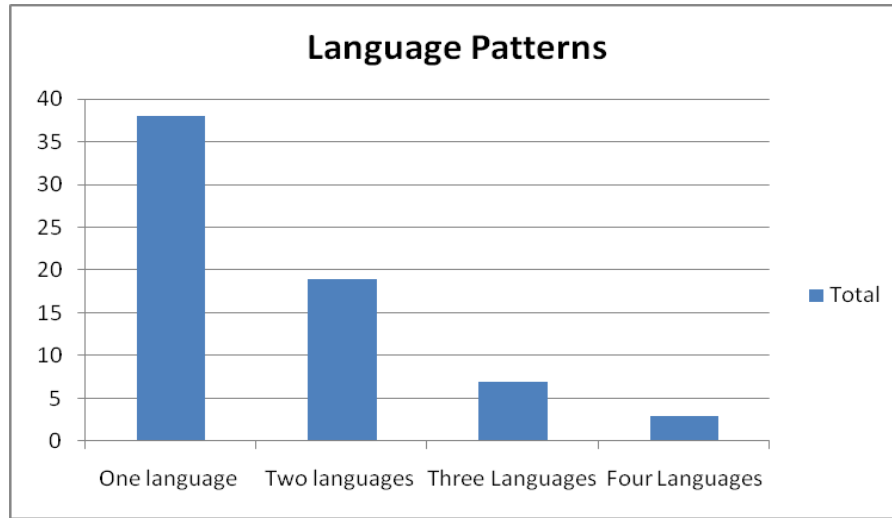


Fig. 4 Language Patterns

Table IV and Figure 4 show the numbers of languages in which individual journals are published. Most of the sports science journals, 38 (56.716%) are published in one

language, while 3 (4.477%) journal report they publish in four languages.

TABLE V SUBJECT HEADINGS OF E-JOURNALS ON SPORTS SCIENCE - RELATED JOURNALS

Subject Headings	Total	Cumulative Total	Percentage (%)
Sports Science	58	58	86.567
Education - Sports Science	3	61	91.044
Public Health - Sports Science	1	62	92.537
Sports Science - Law	1	63	94.029
Sports Science - Nutrition and Food Sciences	1	64	95.522
Sports Science - Performing Arts	1	65	97.014
Sports Science - Sports Medicine	1	66	98.507
Sports Science - Therapeutics	1	67	100.000
Total	67		

Table v and Figure 5 show the subject related distribution of Sports Science journals. There have been 67 titles identified in eight subject areas. Within these 8 areas, not surprisingly most journals were published in “Sports Science journal,”

specifically, 58 (86.567%). The lowest percentage, 1 (1.492%) representing one journal, occurs in six different subject areas.

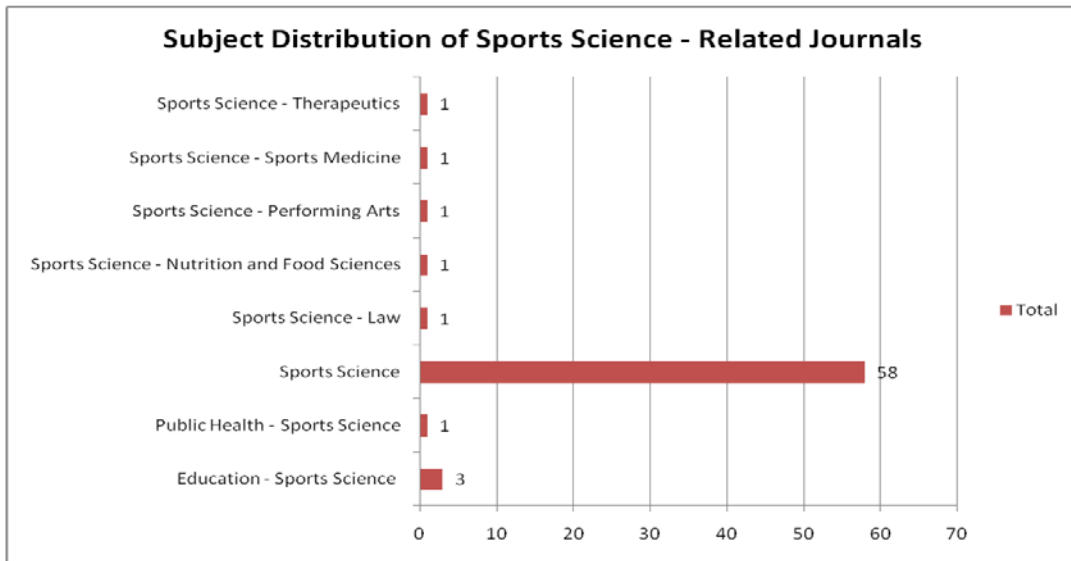


Fig. 5 Subject Distribution of Sports Science - Related Journals

TABLE VI INTERDISCIPLINARY IDENTIFICATION OF JOURNALS BY SUBJECT HEADING

Interdisciplinary Subjects	No. of Subjects Covering	Percentage (%)
Education - Sports Science	3	33.333
Public Health - Sports Science	1	11.111
Sports Science - Law	1	11.111
Sports Science - Nutrition and Food Sciences	1	11.111
Sports Science - Performing Arts	1	11.111
Sports Science - Sports Medicine	1	11.111
Sports Science - Therapeutics	1	11.111
Total	9	100.000

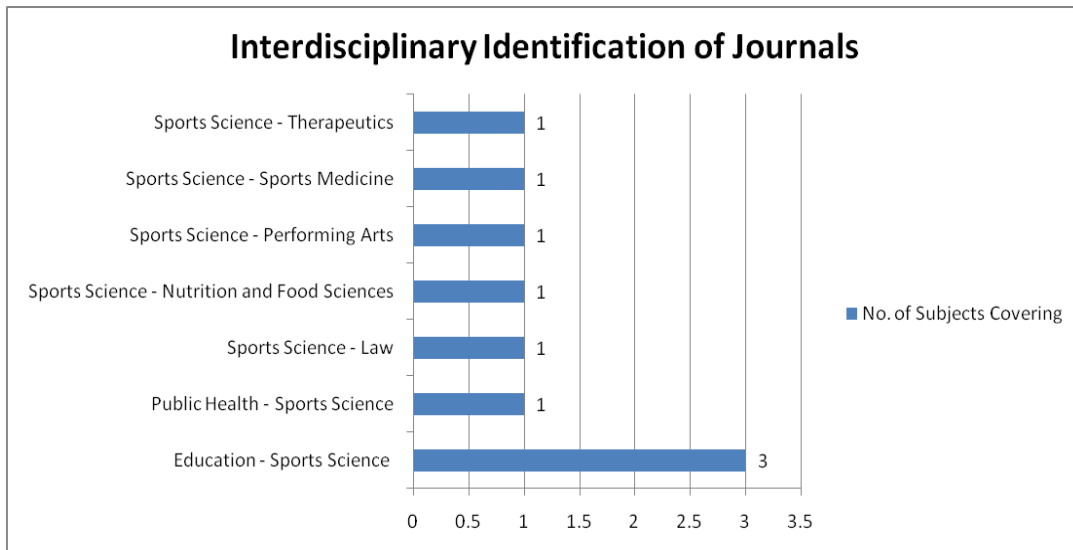


Fig. 6 Interdisciplinary Identification of Journals

Table VI and Figure 6 show the interdisciplinary nature of Pediatrics related journals. Among these sixteen interdisciplinary areas, the greatest numbers 3 (33.333%) of journals were published in Education - Sports Science.

TABLE VII DISTRIBUTION OF JOURNALS BY PUBLICATION FEES

Publication Fee	Total	Percentage (%)
No	56	83.582
Yes	10	14.925
Conditional	1	1.492
Total	67	100.000

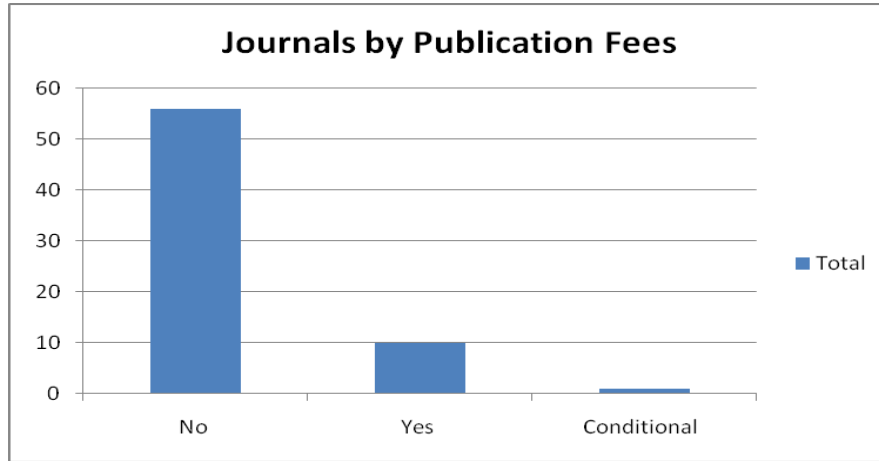


Fig. 7 Journals by Publication Fees

TABLE VIII LICENSES FOR PUBLISHED JOURNALS

License	Total	Percentage (%)
No	49	73.134
Yes	18	26.865
Total	67	100.000

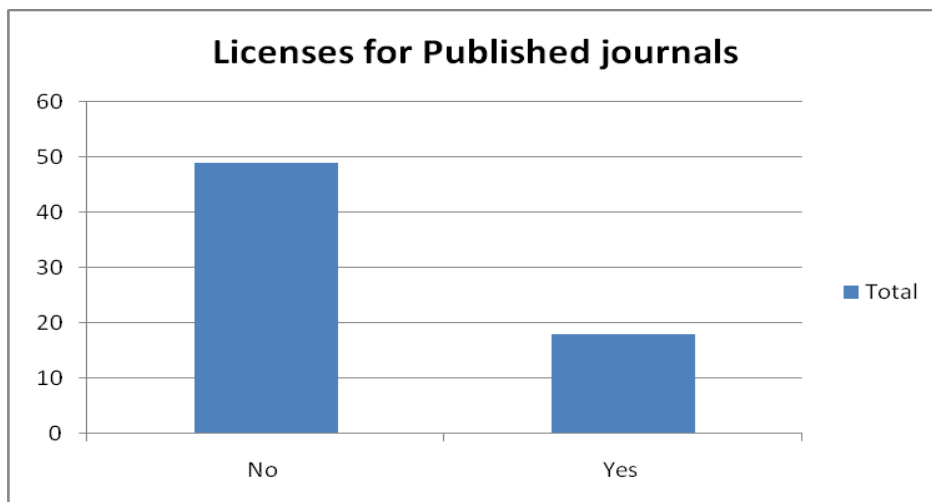


Fig. 8 Licenses for Published journals

Table VII and Figure 7 show whether or not fees are associated with the publication. These fees may be assessed to authors or institutions, but given the open access standards of DOAJ, no fees are required for access to any of the Directory of journals. The majority of the journals, 56

(83.582%) do not have to assess a fee; while 10 Sports Science journals (14.925%) have fee for assess the journals. Table VIII and Figure 8 shows the numbers of journals have license requirements. Most of the journals 49 (73.134%) do not have licenses to publish. And only 18 (26.865%) sports science journals have licenses.

TABLE IX PUBLISHING OF JOURNALS WITH EISSN

EISSN	Total	Percentage (%)
No	41	61.194
Yes	26	38.805
Total	67	100.00

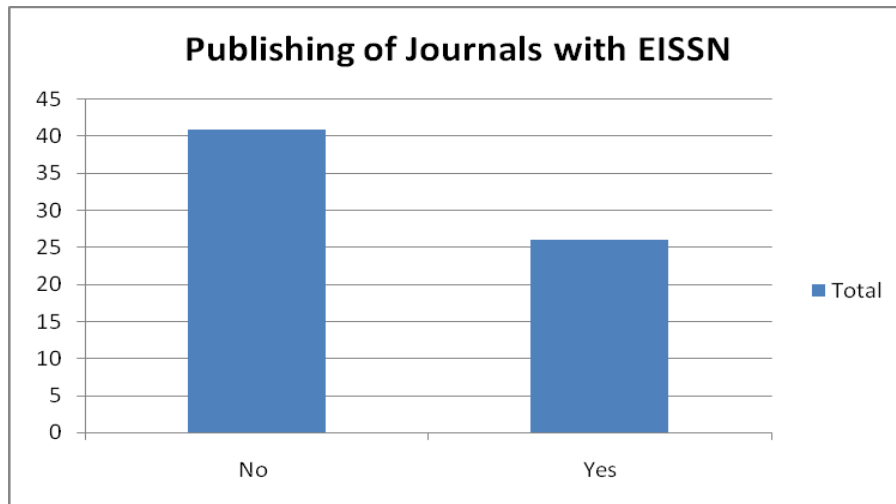


Fig. 9 Publishing of Journals with EISSN

Table 9 Figure 9 shows the numbers of sports science journals with EISSN are published. Most majority 61.194%

(41) of the e-journals is published with EISSN. And only 26 (38.805%) are published without EISSN.

TABLE X PUBLISHING OF JOURNALS WITH ISSN

ISSN	Total	Percentage (%)
Yes	100	100
No	0	0
Total	67	100.00

Table X shows the number of journals with ISSN are published. Hundred (100) percent of journals are published with ISSN.

language patterns; commencement year of publication; publication fees; publication of licenses.

### VII. FINDINGS AND CONCLUSION

This bibliometric study examines Sports Science journals appearing in the Directory of Open Access Journals. Ten topics are considered: subject distribution; interdisciplinary aspects; country of origin; language of publication;

1. The greatest number of journals began publication in the years 2011 and 2008; each with 10 titles (14.925%).
2. There are 21 countries represented in DOAJ publishing journals related to sports science journals. The highest number, 12 (17.910%), originated or are based in the Brazil.



3. The highest number 54 (49.541%) claiming English as its language of publication. Six languages (Czech, Danish, Norwegian, Polish, Slovenian and Ukrainian) have one (0.917%) of sports science journal titles.
4. Most of the sports science journals, 38 (56.716%) are published in one language, while 3 (4.477%) journal report they publish in four languages
5. There have been 67 titles identified in eight subject areas. Within these 8 areas, not surprisingly most journals were published in "Sports Science journal," specifically, 58 (86.567%).
6. The sixteen interdisciplinary areas, the greatest numbers 3 (33.333%) of journals were published in Education - Sports Science
7. The majority of the journals, 56 (83.582%) do not have to assess a fee; while 10 Sports Science journals (14.925%) have fee for assess the journals.
8. Most of the journals 49 (73.134%) do not have licenses to publish. And only 18 (26.865%) sports science journals have licenses.
9. Most majority 61.194% (41) of the e-journals is published with EISSN. And only 26 (38.805%) are published without EISSN

10. Hundred (100) percent of journals are published with ISSN.

The aim of DOAJ is to "increase the visibility and ease of use of open access scientific and scholarly journals thereby promoting their increased usage and impact."As of December 2014, the database contains 10,114 journals, 6,021 searchable at article level, 136 countries and 18,05,369 articles used by the research scholars and academic professionals.

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