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A Bibliometric Study on Research and Reflections on Education

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Abstract

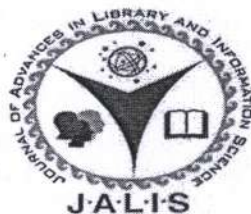
This paper presents the Bibliometric analysis of the Journal of Research and Reflections on Education from 2004 to 2013 (Ten Years). To assess the growth of journal in the mentioned period, pattern of number of articles published, number of authors contribution, number of studies related to the geographic jurisdiction , number of pages contribution , number of references cited in the articles, designation wise authors contribution, and topics covered in the journal. Maximum number of articles (31) published in the year 2006. 60.76% of the articles (161 articles) are contributed by double authors. 71.94% of the authors from colleges and universities.83.39% of the articles (221) ate state level studies.15.85% of the articles (42) covered the areas of teaching skills.

Keywords

Bibliometrics; Research and Reflections on Education; Teacher Education.

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INTRODUCTION

Bibliometrics is of recent origin and relatively a new area, which emerged as a research front in its own way in Information Science. The Terms like 'Librametrics', 'Bibliometrics', 'Infometrics' and 'Scientometrics' have been used synonymously in order to study the growth of literature in a discipline and other aspects of literature quantitatively. Bibliometric analysis is the quantitative descriptions of literature and helps in the measurements of the patterns of all forms of recorded information and their producers. It has extensive applications in the field of library science particularly with regard to studying the trends in a subject. Bibliometrics as a sub-discipline information science is known to have been applied by Cole and Eales in 1917, a subsequent study was conducted by Hulme in 1923. Both these studies were designated "statistical bibliography". The term bibliometrics was perhaps first coined by Prichard (1969). However, it may be noted have that the term bibliometry was coined by Dr. S.R. Ranganathan in 1948 during a discussion in the ASLIB conference held in Lamington Spa and the terms was used more or less in the same sense as bibliometry in India for quite some time. Roy has defined bibliometrics as a 'study of the process of information use by analyzing the characteristics of documents and their distribution by statistical methods.

St. Xavier's College of Education Profile

St. Xavier's College of Education is one of the three Educational Institutions owned by the Society of St. Francis Xavier, a body registered under the Societies Registration Act, (S.No.3 of 1920-21) having its office at Palayamkottai. The College was started in 1950. UGC conferred the Autonomy status to this college in 2006. The college has been re-accredited (3rd Cycle) by NAAC as "A" Grade with CGPA: 3.67 in 2013. Journal of Research and Reflections on Education is peer reviewed quarterly journal in the field of teacher education and is most cited journal published from 2003. This journal is very useful for student teachers, teacher educators in colleges and universities, research scholars, and project investigators. This journal covers topics such as field experiences and teacher education; cognitive science, critical thinking, preparing teachers for urban schools, mental health, value education, women education, special education, soft skills, ICT and electronic resources, recruitment of minority teachers and teacher leadership; perspectives on

leadership, professional ethics in teacher education, emotional intelligence, and restructuring teacher education.

2. LITERATURE REVIEW

Rao, Nageswara, K. (2014) used a Journal of Propulsion and Power (JPP) is a bi-monthly peer reviewed journal published by American Institute of Aeronautics and Astronautics (AIAA). The present bibliometric analysis is based on 4047 articles published from 1985 to 2013. It is found that 1205 different institutions were involved in publication of articles. 'Purdue University' contributed highest number of 163 articles. Out of ranked list of 21 affiliations which produced more than 50 articles, 18 institutions were from USA, 2 from Japan, and 1 from Germany, etc. It is observed that highest numbers of 2672 articles were contributed by USA. articles. Prathap, Gangan (2014) evaluated with concerns about climate change and its impact on the monsoon cycle over South Asia and its ramifications elsewhere on the globe, there has been renewed interest in the science behind the forces that drive the annual cycle and its variability from year to year and within the season. This is reflected in the growing research output in this area, particularly from India and China. In this paper, a comprehensive and in-depth bibliometric analyses that breaks down scholarly performance into three components - quantity, quality and consistency have been conducted. The citation data is retrieved from the Web of Science. Kademani, Sagar, Kademani and Bhanumurthy, K (2014) analyzed a study on Agriculture Research in India: A Scientometric Mapping of Publications. The study analyses the agriculture research publications in India during 1993-2012 based on the Web of Science database. The parameters studied include growth of publications and citations, domain-wise distribution of publications and citations, activity index, international collaboration, highly productive institutions, highly preferred journals, and highly cited publications.

Ramesh Pandita (2013) studied the areas as article distribution pattern, authorship pattern, references and geographical distribution of authors etc., At the time of data mining of said journal, 310 articles were published during the period 2002 to 2012. On average 7.04 articles have been published in each issue of each volume. After analyzing 5307 references, on average 17.11 references have been assigned to each article. Researchers from 16

different countries across the world have contributed research articles to the journal during the period of study. Alka Bansal (2013) made a bibliometric analysis of the DESIDOC journal of Library and Information Technology: A Bibliometric Analysis. It was found that 391 papers were published in 2012. Maximum of articles (65) was published in 2012. Almost all of the contributions (88%) are from India and 12% are foreign contributions. The maximum of articles (65%) has the length of 6 – 10 pages. Maximum of special issues (5) published in 2012. Ahila, M. et.al (2013) described this Pharmacology Research in India analysis the research output performance. A total of 363 research articles published in Web of Science were analyzed to find the performance of Indian scientists in terms of growth during the period 1999-2011 (up to May). Patterns related to authorship, bibliographic forms, citations, contributing institutions and subjects were analyzed. Based on these details ranking of journals in the field of pharmacology has also been done.

3. OBJECTIVES OF THE STUDY

The study has been designed with the following objectives:

- To study the pattern of growth of articles published during 2004 – 2013.
- To analyse the authorship pattern.
- To identify designation /institutions wise authors distribution of articles
- To identify the geographic distribution of articles.
- To analyse the number of pages and
- To identify the topics covered in the ranking of articles published subject – wise

4. DATA AND METHODOLOGY

The source journal is a quarterly journal. The data for the study was retrieved from the printed issues from 2004 – 2013 for 10 years. The data consists of year of publication with its volume number, name of the author with their designations, total count of authors, length of the articles in terms of the number of pages, number of references cited by the article and topics covered in the articles. Data was analyzed to meet the objectives mentioned above. For studying several parameters mentioned under the objectives, complete count method has been followed for the analysis of the data. The data was analysed using the MS-Excel format with standardized formulas like using the percentage analysis only.

Table 1: Number of Articles by Year Wise

Sl.No	Year	No. of Articles	Percentage
1	2004	25	9.44
2	2005	28	10.57
3	2006	31	11.70
4	2007	30	11.32
5	2008	29	10.95
6	2009	26	9.82
7	2010	24	9.05
8	2011	24	9.05
9	2012	24	9.05
10	2013	24	9.05
Total		265	100

Table.1 shows number of articles published year wise. Nearly 265 articles were published over a period 10 years i.e. from 2004 to 2014. In the year

Table 3: Designation /Institutions wise Authors' Distribution of Articles

S.No	Designation	Type of Institutions	No. of Authors	Percentage
1	Professors, Associate Professors & Assistant Professors	Colleges/ Universities	323	71.94
2	BT Assistants/PG Teachers	Schools	17	3.79
3	Research Scholars	Colleges/Universities	104	23.16
4	Others	Guest Lectures	5	1.11
Total			449	100

Table.3 indicates Designation/ Institutions wise authors' distribution of articles in Journal of Research and Reflections on Education. Among the 449 authors, a maximum number of the 323(71.94%) authors were contributed college/universities faculty of Professor, Associate Professor and Assistant Professors. There were 104 (23.16%) articles contributed by research scholars in various colleges and Universities. There were 17(3.79%) articles contributed by BT Assistants/PG Teachers in various schools. The remaining 5(1.11%) articles have been contributed by others like guest lectures.

Distribution of publication in types of documents is shown table.4. Most of the research works are published in state level studies 221(83.39%) are Tamil Nadu and surrounding areas and 44(16.61) articles were published in national level studies are neighbor in Kerala, Andhra Pradesh, Karnataka and Pondicherry.

2006, 31 articles (11.70%) published. On an average of 26 articles are published per year.

Table 2:Authorship Pattern

Sl. No	Authorship Pattern	Total No. of Citations	Percentage
1	Single Author	92	34.72
2	Two Author	161	60.76
3	Three Author	12	4.52
Total		265	100

The authorship patterns of the articles are shown in Table.No.2 Most of the articles (95%) is collaborative in nature. Single author publishes only 34.72% of the articles over a period of 10 years taken up for the study. Even in collaborative nature 60.76% belongs to two – author contribution.

Table 4.Geographical Distribution of Publication in Types

S.No	Geographical Distribution	No. of articles	Percentage
1	National Level Studies	44	16.61
2	State Level Studies	221	83.39
Total		265	100

Table 5:Number of Pages Covered By Articles

S.No	No. of pages	No. of articles	Percentage
1	01-05	225	85.20
2	01-10	31	11.75
3	01-15	9	3.05
Total		265	100

Table.5 shows the 85.20% of the papers cover 01 – 05pages, followed by 11.75% appears 01-10 pages and 3.05% followed by 01-15 pages. The information are represented the following diagram

Table.6 shows the121 (54.51%) of the range of references 01 – 05, followed by 92 (42.34%) appears 01-10 and 7(3.15%) followed by 01-15. The information are represented the following diagram

Table 6:References Cited in the Articles

S.No	Range of References	No. of References	Percentage
1	01-05	121	54.51
2	01-10	94	42.34
3	01-15	7	3.15
Total		222	100

Table 7: Ranking of Articles Published Subject – Wise

S.No	Subject	No. of articles published	Percentage	Ranking
1	Special Education	17	06.41	8
2	Teaching Skills	42	15.85	1
3	ICT & Electronic Resources	28	10.57	4
4	Mental Health	7	02.65	11
5	English, Communication Skills, Soft Skills and Errors	21	7.93	6
6	Higher Education	7	2.65	11
7	Academic Achievement	31	11.7	3
8	Cognitive Style & Emotional Intelligence	27	10.18	5
9	Women & Value Education	16	6.03	9
10	Environmental Education	11	4.15	10
11	Teaching Competency	20	7.55	7
12	Others	38	14.33	2
Total		265	100	

From the table.7 indicates subject wise use of articles are ranked as 1 in citations of 15.85% followed by others 14.33%, Academic Achievement (11.7%), ICT & Electronic Resources (10.57%), Cognitive Style & Emotional Intelligence (10.18%), English, Communication Skills, Soft Skills and Errors(7.93%), Teaching Competency (7.55%), Special Education(6.41%), Women & Value Education(6.03%),Environmental Education(4.15%) and mental health and higher education both are (2.65%). The information are represented the following diagram.

6. FINDINGS OF THE STUDY

- A Total of 265 Articles produced during year 2004 – 2013.
- The number of articles cited is more in the year 2006.
- The two author pattern was high compared to the others (60.76%)

- The number of articles are 71.94% contributed by college and university faculties
- The number of articles are from state level studies are 83.39%.
- Increases in the 85.22% of articles are contributed in 1 – 5 pages
- The 1 - 5 references are 54.51% of articles are cited
- The 15.85% of articles are covered teaching skills (42 out of 265 articles).

7. CONCLUSION

From the analysis of the study, journal of research and reflections on education is slowly and steadily improved in publishing articles. This journal has maintained a standard for publishing the article cum issue as follows: 1) only 24 pages per issue of the journal 2) only 6 articles are published in single issue 3) Privilege to publish the article by the research scholar within the state. This journal also promoting to publish the national level studies by the scholars

across the country for cultivating the depth knowledge in teacher education.

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