

International Journal of Education and Psychological Research: A Bibliometric Study

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Abstract: *This study presents a bibliometric study of 334 articles published in the International Journal of Education and Psychological Research from 2012 to 2016. The study presents various aspects of the journal, such as its distribution of articles, authorship patterns, geographical distribution of authors, state wise distribution of Indian authors, length, reference and subject wise distribution of the articles. The trend of authorship pattern of articles is towards collaboration. Maximum authors are from Karnataka state (113) and highest numbers of articles (259) have the page length of 3-6 pages. Furthermore, topics like psychological basis of 'Teaching profession and job satisfaction' and 'learning and teaching strategies' are the most preferred subjects for publishing papers in the journal.*

1. Introduction

Bibliometrics has been used to study the growth of literature in a discipline and other aspects of literature quantitatively. It helps in the measurements of the patterns of all forms of recorded information and their producers using quantitative descriptions. The bibliometric analysis gives an idea about new trends in a subject and research. Most of the bibliometric studies are undertaken to assess the research productivity of an institution, organization, publications of particular subject or field, research results published in a particular journal or any other similar activity which is confined to literature or research growth and its evaluation through quantitative techniques published during a particular period. Journals since being the primary sources of information as such undertaking bibliometric study to assess the research growth in a particular discipline is always advisable.^[i]

Pritchard who coined the term bibliometrics in 1969, defines bibliometric as “the application of mathematical and statistical methods to books and other media of communication”. He also explained it as “the metrology of the information transfer process and its purpose is to analysis and control of the process.”^[ii]

The British Standard Glossary of Documentation of Terms explained bibliometrics

as “the study of the use of documents and patterns of publication in which mathematical and statistical methods have been applied.”^[iii]

The present bibliometric study has been undertaken with the view to understand the publication distribution pattern of the articles published in *International Journal of Education And Psychological Research* from its initiation 2012 to 2016.

The International Journal of Education and Psychological Research (IJEPR) is a refereed quarterly published International Journal focused on teaching and learning at all levels of education along with psychological aspects in research. IJEPR is indexed in Google Scholar, Copernicus, InfoBase, and IIFS. The articles are published in print form as well as online articles. Present analysis covers the areas like article distribution pattern, authorship pattern, reference, and geographical distribution of authors, etc.

2. Review of Literature

Raja, T., & Murugan, K conducted 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) are state level studies. 15.85% of the articles (42) covered the areas of teaching skills.^[iv]

Ipsita panda, Bulu Maharana and Durllav charan Chatar(2013) analysed citation pattern and publication of The Journal of Information Literacy from 2007-2012. The results shows that the number of research articles 68 is highest among other types of publications such as book reviews,

conference papers etc. a majority of contribution 94 emanating from UK and other countries have very meager contribution. Almost all the papers 124 are from academic institutions and a very few papers from non-academic institutions. The citations demonstrated that individual research 90 much higher than collaborative research. The journal maintains all the features in terms of content, structure, citations, credibility of authorship etc. to be considered as an international journal especially devoted information literacy. ^v

Ramnivas Sharma, Bharvey,HC and Pradeep Kumar presented a bibliometric study of 301 articles published in the Indian Research Journal of Extension Education from 2011 to 2014. The study presents various aspects of the journal, such as its distribution of articles, authorship patterns, author productivity, most prolific authors, state wise distribution of Indian authors, length, reference and subject wise distribution of the articles. The trend of authorship pattern of articles is towards collaboration. Maximum authors are from New Delhi (76) and highest numbers of articles (184) have the page length of 4-6 pages. Furthermore, topics like ‘Women Empowerment’ and ‘Knowledge Management’ are the preferred subjects for publishing papers in the journal. [^{vi}]

3. Objectives of The Study

The study has been designed with the following objectives:

- To examine the number of contributions and the pattern of growth of article published in IJPER during 2012-2016
- To identify the authorship pattern and degree of collaboration
- To examine the length of article
- To find the year wise distribution of citations and Range of references
- To identify the geographic distribution of articles.
- To identify the topic dispersion in articles published in IJPER during 2012-2016

4. Methodology

The data for the study was retrieved from the online issues from 2012-2016 for 5 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.

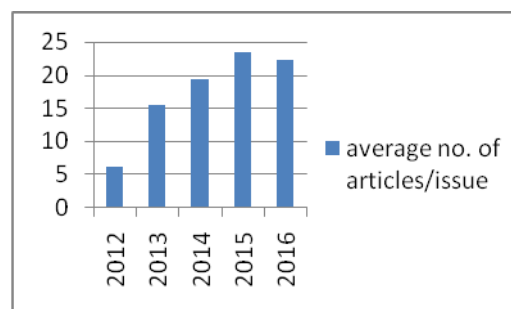
5. Analysis & Results

5.1 Year wise distribution of articles

Table 1: Number of Articles by Year Wise

| year | issues | Articles | average/issue |
|------|-----------|------------|---------------|
| 2012 | 2 | 12 | 6 |
| 2013 | 4 | 62 | 15.5 |
| 2014 | 4 | 77 | 19.25 |
| 2015 | 4 | 94 | 23.5 |
| 2016 | 4 | 89 | 22.25 |
| | 18 | 334 | 18.56 |

Table.1 shows number of articles published year wise. 334 articles were published over a period 5 years i.e. from 2004 to 2014. Maximum number of articles 94, with an average number of articles 23.5 per issue published in the



year 2015. In the year 2006, 31 articles (11.70%) published. On an average 18.56 (~19) articles are published per year

Figure 1: average number of articles/issue

5.2. Lengthwise Distribution of Articles

Table 2: Length wise distribution of articles

| Year | Pages | Range of articles' length | | | | |
|-------|-------|---------------------------|-----|-----|-----|----|
| | | 1-2 | 3-4 | 5-6 | 7-8 | >9 |
| 2012 | 46 | 0 | 2 | 4 | 3 | 3 |
| 2013 | 448 | 0 | 9 | 20 | 17 | 16 |
| 2014 | 354 | 2 | 37 | 31 | 7 | 0 |
| 2015 | 443 | 3 | 44 | 40 | 4 | 3 |
| 2016 | 438 | 4 | 37 | 35 | 11 | 2 |
| Total | 1729 | 9 | 129 | 130 | 42 | 24 |

Table 2 shows length wise distribution of articles published in IJPER during the period 2012-2016. Most of the articles have a range of length between 3-6. The average length of article is 5.

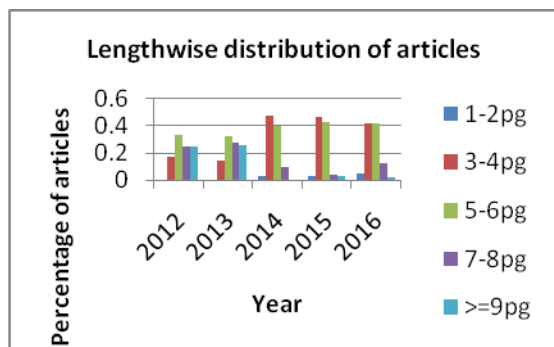


Figure 2: Lengthwise distribution of articles

5.3. Authorship Pattern

The authorship patterns of the articles are shown in Table.No.3 579 authors contributed 334 articles to the publication. The number of single authored articles is comes first in each year except 2016 in which number of 2 authored articles is comes in first. But the degree of collaboration is 0.54 which is significant to the trends to collaborative in nature

Table 3: Authorship Pattern

| Year | No. of Authors | 1 Author | 2 Author | 3 Author | >3author | Degree of Collaboration NM/NM+NS |
|-------|----------------|---------------|---------------|--------------|-------------|----------------------------------|
| | | NS | NM | | | |
| 2012 | 17 | 8 66.67% | 3 25% | 1 8.33% | 0 0% | 0.33 |
| 2013 | 95 | 33 53.23% | 26 41.94% | 2 3.23% | 1 1.61% | 0.47 |
| 2014 | 138 | 35 45.45% | 29 37.66% | 10 12.99% | 3 3.90% | 0.55 |
| 2015 | 158 | 46 48.94% | 34 36.17% | 12 12.77% | 2 2.13% | 0.51 |
| 2016 | 171 | 33 37.08% | 40 44.94% | 11 12.36% | 5 5.62% | 0.63 |
| Total | 579 | 155 46.41% | 132 35.42% | 36 10.78% | 11 3.29% | 0.54 |

Single author publishes 46.41% of the articles over a period of 5 years taken up for the study. 2 authors publishes 35.42% article, 3 authors publishes 10.78% and only 3.29% articles are published by more than 3 authors. Degree of collaboration is highest (.63) in the year 2016 shows a positive attitude of authors towards collaboration to produce articles

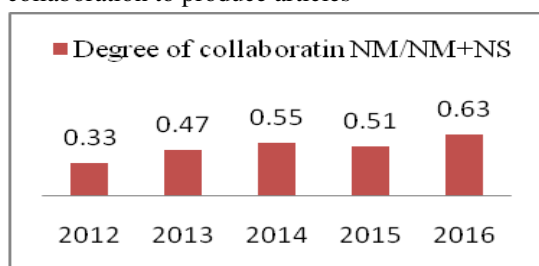


Figure 3: Column chart shows Degree of collaboration

5.4. Geographical distribution of authors

Table 4: Geographical distribution of authors

| sl. no. | Country | No. of authors | sl. no. | country | No. of authors |
|---------|------------|----------------|--------------|------------|----------------|
| 1 | India | 508 | 12 | Hongkong | 2 |
| 2 | USA | 10 | 13 | Indonesia | 2 |
| 3 | Iran | 9 | 14 | Kenya | 2 |
| 4 | Australia | 7 | 15 | Portland | 2 |
| 5 | Bangladesh | 6 | 16 | Qatar | 2 |
| 6 | Canada | 5 | 17 | China | 1 |
| 7 | Egypt | 5 | 18 | England | 1 |
| 8 | Greece | 5 | 19 | Taiwan | 1 |
| 9 | Malasia | 4 | 20 | Zimbabwe | 1 |
| 10 | Japan | 3 | | | |
| 11 | Oman | 3 | Total | 579 | |

Table 4 shows geographical distribution of authors. Authors from 20 countries contributed articles to the Journal. Out of 579 authors 508 are from India. Second place goes to USA with 10 authors and 3rd place goes to Iran.

5.5. State wise distribution of Indian authors

Table 5: State wise distribution of authors from India

| Sl. no. | State | Auth ors | Sl. No | State | Auth ors |
|---------|-------------|----------|--------|------------------|------------|
| 1 | Not Mention | 7 | 14 | Assam | 8 |
| 2 | Karnataka | 113 | 15 | Gujarat | 8 |
| 3 | UP | 80 | 16 | Megalaya | 7 |
| 4 | Tamilnadu | 53 | 17 | Madyapadesh | 6 |
| 5 | Chandigarh | 35 | 18 | Bihar | 5 |
| 6 | New Delhi | 34 | 19 | Uttarakhand | 5 |
| 7 | Kerala | 33 | 20 | Himachal Pradesh | 4 |
| 8 | Rajasthan | 29 | 21 | Jharkhand | 3 |
| 9 | Maharashtra | 24 | 22 | Orisa | 3 |
| 10 | Haryana | 13 | 23 | Pondicherry | 3 |
| 11 | AP | 11 | 24 | Mizoram | 2 |
| 12 | J&K | 11 | 25 | Patiala | 1 |
| 13 | West Bengal | 10 | | Total | 508 |

Table 5 shows state wise distribution of authors from India. On which Karnataka State produce maximum number of articles with 113 authors. Second place goes to UP with 80 authors and 3rd place goes to Tamilnadu with 53 authors.

5.6. Reference

Table6: Year wise distribution of References in the articles

| Year | Articles | Issues | Total Ref | Average No.of References |
|--------------|------------|----------|-------------|--------------------------|
| 2012 | 12 | 2 | 158 | 13.17 |
| 2013 | 62 | 4 | 944 | 15.23 |
| 2014 | 77 | 4 | 1298 | 16.86 |
| 2015 | 94 | 4 | 1610 | 17.13 |
| 2016 | 89 | 4 | 1821 | 20.46 |
| Total | 183 | 8 | 3431 | 18.75 |

The average number of reference used in the article is 18.75~19. The highest number of reference used in the year 2016. There show a increase in the use of references in articles. It is a good sign. The reference reflects the authenticity and depth of awareness of author in the subject.

5.7. Range of Reference

Table 7 :Range of Reference

| Range | 1_10 | 11_20 | 21_30 | 31_40 | 41_50 | >50 |
|--------------|-----------------------|-----------------------|----------------------|---------------------|-------------------|--------------------|
| 2012 | 6 50% | 5 41.67% | 1 8.33% | 0 | 0 | 0 |
| 2013 | 27 43.55% | 20 32.26% | 10 16.13% | 5 8.06% | 0 | 0 |
| 2014 | 32 34.04% | 30 31.91% | 20 21.28% | 8 8.51% | 3 3.19% | 1 1.06% |
| 2015 | 25 34.04% | 29 31.91% | 16 21.28% | 5 8.51% | 0 | 2 2.65% |
| 2016 | 25 28.09% | 32 35.96% | 14 15.73% | 11 12.3% | 4 4.49% | 3 3.37% |
| Total | 115 34.43% | 116 34.73% | 61 18.26% | 29 8.68% | 7 2.1% | 6 1.80% |

The range of reference cited in the article is between 1 and 20 which can be shown in the Table 7. The number of articles published with citation range between 10 and 20 is 116 and between 1 and 10 is 115. The range of reference between 21 and 30 cited in 61 articles and 31-40 cited in 29 articles. The number of articles with range of reference greater than 40 is 13(7+6).

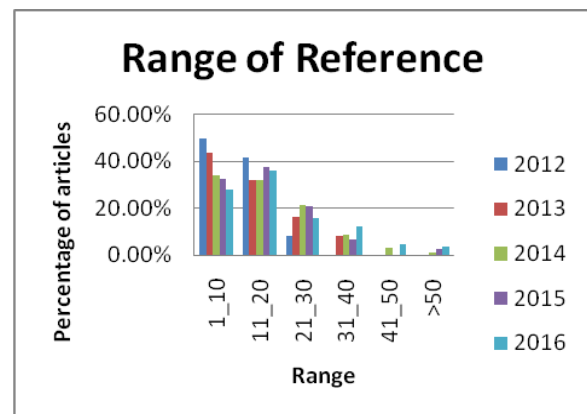


Figure 4: Column chart shows Range of Reference

5.8. Subject wise distribution of articles

Table 8: Subject wise distribution of articles

| Subject | Number of articles | Percentage of article |
|--|--------------------|-----------------------|
| Teaching Profession And Job Satisfaction | 46 | 13.77% |
| Learning And Teaching Strategies | 44 | 13.17% |
| Educational Psychology | 41 | 12.28% |
| Self Efficacy And Cognitive Psychology | 37 | 11.08% |
| Behavioral And Social Psychology | 34 | 10.18% |
| Social And Economic Problems | 33 | 9.88% |
| ICT In Educaiton | 18 | 5.39% |
| Educational Management | 17 | 5.09% |
| Special Eduation | 15 | 4.49% |
| Value Education | 13 | 3.89% |
| Educational Philosophy | 11 | 3.29% |
| Women Studies | 10 | 2.99% |
| Gender Studies | 10 | 2.99% |
| Environmental Education | 5 | 1.50% |
| | 334 | 100.00% |

Table 8 shows subject wise distribution of article published in the journal. Majority of articles covered psychological aspect of teacher education, teaching profession, and student's attitude. Of these

Teaching profession and Job satisfaction comes first in the subject distribution of article (46 articles), second place goes to Learning and teaching strategies and third one is educational psychology with 41 articles. The subject related Self efficacy and cognitive psychology discussed articles took 3rd position.

6. Findings and conclusion

- The total number articles published in the period of study is 334.
- The average number of articles published per issue is 19.
- Most of articles are single authored. But there is a collaborative trend in the recent years. Degree of collaboration is .54 which is significant
- The papers have an average length of 5 pages, which more or less conform to international practice
- India , where from the journal originates contribute majority of articles. Karnataka state contribute more articles in India
- Most of the papers have emanated from academic institutions
- Subject wise distribution is very justifies the name and purpose of journal. The most discussed subject is teaching profession and Job satisfaction.
- The range of reference between 1 and 20 with 131 articles. The average number of citation per article is 19 which is a remark to the good research.

7. Conclusion

The finding of the study confirms that the IJPER is an international journal of educational psychological research in its true sense as the papers are contributed by authors across the world. It is expected that *IJPER* will grow its stature further by augmenting its influential characteristics and impact among its readers, peers and academic community at length consequently taking its reputation to a lofty height!

[1] Shatton, D. (2009). "Semantic publishing: the coming revolution in scientific journal." *Learned Publishing* 22: 85-94.

[2]Pritchard, Alan. "Statistical Bibliography or Bibliometrics." *Journal of documentation* 25.4 (1969): 348-349.

[3]British Standard Institution. British Standards of Documentation Terms. London: BSI,1976:7

[4]Raja, T., & Murugan, K. (2015). A Bibliometric Study on Research and Reflections on Education. *Journal of Advances in Library and Information Science*, 4(3), 228-232.

[5] Panda, I., Maharana, B., & Chhatar, D. C. (2013). "The Journal of Information Literacy:a bibliometric study". *International Journal of Scientific Research Publication*, 3(3).

[6] Ramnivas Sharma, Bharvey, HC and Pradeep Kumar.(2016). "Indian Research Journal of Extension Education: A bibliometric study". *International Journal of Library & Information Science (IJLIS)* 5(1):12
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