SCIENTOMETRIC PROFILE OF LIBRARIANS IN ERIC

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ABSTRACT: - *The study is based on the Scientometrics analysis of 327 research article published on "Librarians" in (Education Resources Information Center) ERIC databases during the periods of 2010-2014.This Study will review on Journal-Wise Distribution of contributions, To study the year wise Distribution of articles, Length of Title Wise Distribution of Contributions, To study Most Productivity of author, To study Distribution of contributions. (Authorship Pattern),To find out Institution-wise distribution of contribution, To find out country-wise distribution of contribution, To study Domain name wise distribution of the contribution, To Study Length Of pages wise distribution of the article, To identify Type Documents wise distribution of contribution, To find out the reference in the contribution. (Print as well as Web).*

KEY WORDS – Scientometrics, Bibliometrics, Librarians

Introduction

Scientometrics:

Scientometrics is the science of measuring and analyzing science. In practice, Scientometrics is often done using Bibliometrics which is a measurement of the impact of (scientific) publications.

pScientometrics is the science of method scientific output similar to Bibliometrics used by librarians and information scientist. (Agrawal, aruna, 1982); related fields are the history of science and technology philosophy of science and sociology of scientific knowledge. (Eugene Garfield, 1995) ; application of mathematical and statistical methods of scientific literature (Derek de solla, 2000) ; to identify national an

international network and to map the development of new fields of science and technology as well as to know the inner logic of science development (yadavJaisi Ram, 1984) ; this enables to evaluate the size of scientific production on the assumption that the essence of scientific activity is the assumption the production of knowledge (Eugene Garfield, 2002); open access has emerged in the last few years as serious alternative to additional commercial publishing models taking the benefits offered by technology one step further (Wasudevan K T 1995); one significant finding in the field is principle of cost escalation to the effect that achieving further findings at a given level of importance grow exponentially more costly in the expenditure of efforts and resources (Manavalan R 1982) ; other characteristics of open access journals are that author relation copyrights and they must self achieved content in an independent repository (David Wilson, 2001); modern Scientometrics is mostly based on latter founded the institute for scientific information which is heavily used for Scientometric analysis (Derek, J. 1995); currently prepares and international methodological manual that will contain guidelines for creating applying and interpreting the indices based on Bibliometric data (Eva Rodenas, 2001).

1.2 Definition Analysis:

1.2.1 Scientometrics:

According to bankapur, M.B. and Kumabar, (1993) "Scientometrics is a more general that Bibliometrics. It is interesting to know, that both disciplines have a large overlap. It is surprised to learn certain comments stating that both disciplines have a large overlap. It is surprised to learn certain comments stating that Scientometrics, using Bibliometrics techniques id a part of Bibliometrics".

1.2.2 Scientometric Analysis:

According to (2006), wouters, a cart intension has always existed between academic Scientometrics and political /practical, Scientometrics, the letter of which has been described as a hybrid of social science and bur rerate expertise (2006).

1.2.3 E- Journal:

"A journal is publications in any medium issued in successive part's bearing numerical or chronological designations and indented to be continued indefinitely (AACR2) - (WWW library.iitkgp.ernet. in.): E- journal is defined as the grouping of information that is sent out in electronic form with some regularity. It covers any serial or serial like publication available in electronic format, which is produced published and distributed electronically (Ramesh,

yeranagula, 2003); A journal is academic in nature which is published using the world wide web; such a journal usually uses internet technology refereeing of papers. Many e- journals pride themselves on rapid refereeing and consequent repaid publication. (Gupta, 1998)

1.2.4 ERIC:

The Education Resources Information Center (ERIC) is an online digital library of education research and information. ERIC is sponsored by the Institute of Education Sciences of the United States Department of Education. The mission of ERIC is to provide a comprehensive, easy-to-use, searchable, Internet-based bibliographic and full-text database of education research and information for educators, researchers, and the general public. Education research and information are essential to improving teaching, learning, and educational decision-making.

ERIC provides access to 1.5 million bibliographic records (citations, abstracts, and other pertinent data) of journal articles and other education-related materials, with hundreds of new records added every week. A key component of ERIC is its collection of grey literature in education, which is largely available in full text in Adobe PDF format. Approximately one quarter of the complete ERIC Collection is available in full text. Materials with no full text available (primarily journal articles) can often be accessed using links to publisher websites and/or library holdings.

- journal articles
- books
- research syntheses
- conference papers
- technical reports
- dissertations
- policy papers, and other education-related materials

ERIC provides the public with a centralized Web site for searching the ERIC collection and submitting materials to be considered for inclusion in the collection. Users can also access the collection through commercial database vendors, statewide and institutional networks, and Internet search engines. To help users find the information they are seeking, ERIC produces a controlled vocabulary, the Thesaurus of ERIC Descriptors. This is a carefully selected list of education-related words and phrases used to tag materials by subject and make them easier to retrieve through a search.

Prior to January 2004, the ERIC network consisted of sixteen subject-specific clearinghouses, various adjunct and affiliate clearinghouses, and three support components. The program was consolidated into a single entity, with upgraded systems, and paper-based processes converted to electronic, thus streamlining operations and speeding delivery of content.

1.2.5 Review of Literature

Scientometric / Bibliometric / Citation studies have done earlier by different authors on the different individual journal publications and literature on specific subject areas. The following studies related to the objectives of this study have been reviewed.

Srimurugan A & Nattar S [6] analyzed the D-LIB magazine published during 2000 – 2007 which revealed that highest number of paper was published in 2005 and the lowest in 2007.

Vijay K R & Raghavan I [7] analyzed the Journal of Food Science & Technology published during 2000 – 2004 and found that above 93% of contributions were by multiple authors.

A Scientimetric Analysis on Indian Journal of Physics was made by Nattar S [8] during 2004 – 2008 which revealed that the year 2004 records the highest % of contributions regarding single, two and three authored.

Kannappanavar B U, Swamy C & Vijay Kumar M [9] analyzed the publishing trends of Indian Chemical Scientists during 1996 – 2000, which revealed average number of authors per paper has increased from 7.52 to 8.39.

An attempt was made by Tilak Hazarika, Kusuma Goswami & Pritimoni Das [10] to analyze the contributions of Indian Forestor which found Degree of Collaboration was 0.64 among the authors.

Guan & Ma [11] examined the China's Semiconductor Literature and found mega authored papers records the higher value for Co-Authorship Index.

Senthamilselvi & Srinivasa Raghavan [12] analyzed the issues of IEEE Trans on Power Electronics published during 2006 – 2008 which revealed that maximum number of papers was published between 6 – 10 pages category.

A bibliometric study has been carried out by Kalyane V L and Sen B K [13] on the Journal of Oilseeds Research published during 1984 – 1992 which revealed that the keyword "Groundnut" tops the list with 53 records.

Sanni S A and Zainab A N [14] examined the contributions published in Medical Journal of Malaysia during 2004 – 2008 and found 4.82% (28) of contributions were published by Malaysian authors with foreign collaboration.

2.0 Objectives of the Study:

Scientometric analysis is a branch of bibliometrics. It is an important research tools for understanding of the subject it aims at measuring the utility of documents and relationship between documents and fields.

The present study is based on "Librarians" in ERIC databases, total 327 articles caring out during 2010-2014

The main objective of the study is to present the growth of literature, and make quantitative and qualitative assessment of the research by analyzing the research outputs towards identifying the Scientometrics Profile of

information sources in ERIC databases as per the following parameters:

1. To study the Journal-Wise Distribution of contributions.
2. To study the year wise Distribution of articles.
3. Length of Title Wise Distribution of Contributions
4. To study Most Productivity of author
5. To study Distribution of contributions. (Authorship Pattern)
6. To find out Institution-wise distribution of contribution.
7. To find out country-wise distribution of contribution.
8. To study Domain name wise distribution of the contribution
9. To Study Length Of pages wise distribution of the article
10. To identify Type Documents wise distribution of contribution
11. To find out the reference in the contribution. (Print as well as Web)

2.2 Scope and Limitation of the Study:

The present study is based on the Scientometrics Profiles of Librarians in ERIC databases during 2010-2014. The present study is based on over all 327 articles during 2010-2014.

2.3 Data Collection:

Data can be numerically expressed that is quantified quantifiable or objective (Fasibs off and Dely, 1990) the data was collected from *article published on* "Librarians" in (Education Resources Information Center) ERIC databases during the periods of 2010-2014. with the help of SPSS . Total 327 articles, during 2010-2014.

2.4 Data Analysis and Interpretation:

Scientometrics analysis is a branch of bibliometrics. It is an important research tools for understanding of the subject it aims at measuring the utility of documents and relationship between documents and fields.

The present study is based on the Scientometrics Profiles of Librarians in **ERIC**

during 2010-2014.The present study is based on over all 327 articles during 2010-2014.

2.1.1 Journal-Wise Distribution of contributions

The Distribution of contributions Journal-Wise is shown in Table

Table No. 1: Journal-Wise Distribution of contributions

Sr.No.	Name of Journal	Frequency	Percentage	Rank
1	SCHOOL LIBRARY MONTHLY	46	14.07	**1**
2	COMPUTERS IN LIBRARIES	36	11.01	**2**
3	School Library Monthly	34	10.40	**3**
4	LIBRARY MEDIA CONNECTION	29	8.87	**4**
5	LIBRARY JOURNAL	16	4.89	**5**
6	School Library Research	16	4.89	**5**
7	School Library Journal	11	3.36	**6**
8	Australian Academic & Research Libraries	9	2.75	**7**
9	Knowledge Quest | Coteaching	8	2.45	**8**
10	Knowledge Quest | Futurecasting	6	1.83	**9**
11	American Association of School Librarians	5	1.53	**10**
12	Knowledge Quest | Caring is Essential	5	1.53	**10**
13	Knowledge Quest | The Solo Librarian	5	1.53	**10**
14	Knowledge Quest | Inquiry	4	1.22	**11**
15	Knowledge Quest | Participatory Culture and Learning	4	1.22	**11**
16	Knowledge Quest | Personal Learning Networks	4	1.22	**11**
17	Scbool Library Journal	4	1.22	**11**
18	Information Research	3	0.92	**12**
19	Knowledge Quest | Turning the Page in Minneapolis	3	0.92	**12**
20	Library Media Connection	3	0.92	**12**
22	Knowledge Quest | Educational Gaming	2	0.61	**13**
23	Knowledge Quest | Everyone's Special	2	0.61	**13**
24	Knowledge Quest | Reversing Readicide	2	0.61	**13**
25	Knowledge Quest Turning the Page in Minneapolis	2	0.61	**13**
26	Learning & Leading with Technology	2	0.61	**13**
27	School Librarians	2	0.61	**13**
28	TechTrends	2	0.61	**13**
29	Single Journal Publication 1x59	59	18.04	**14**
	Not mentioned	3	0.92	**15**
	Total	**327**	**100.00**	

The Distribution of contributions (Journal-Wise) is shown in Table No. 1 & Figure no. 1 out of the total 327 contributions majority of the contributions i.e. 46 contributions. were as minimum contributions i.e. 59 contributions.

2.1.2 Year- wise Distribution of contributions

Table No.2: Year- wise Distribution of contributions

Sr. No.	year	Frequency	Percentage (%)
1	2010	95	29.05
2	2011	95	29.05
3	2012	84	25.69
4	2013	36	11.01
5	2014	17	5.20
	Total	**327**	**100**

The Distribution of contributions (year- wise) is shown in Table No. 2 & Figure no. 1 out of the total 327 contributions majority of the contributions i.e. 95 contributions in the year of 2010 & 2011. Were as minimum contributions i.e.17 contributions in the year of 2014.

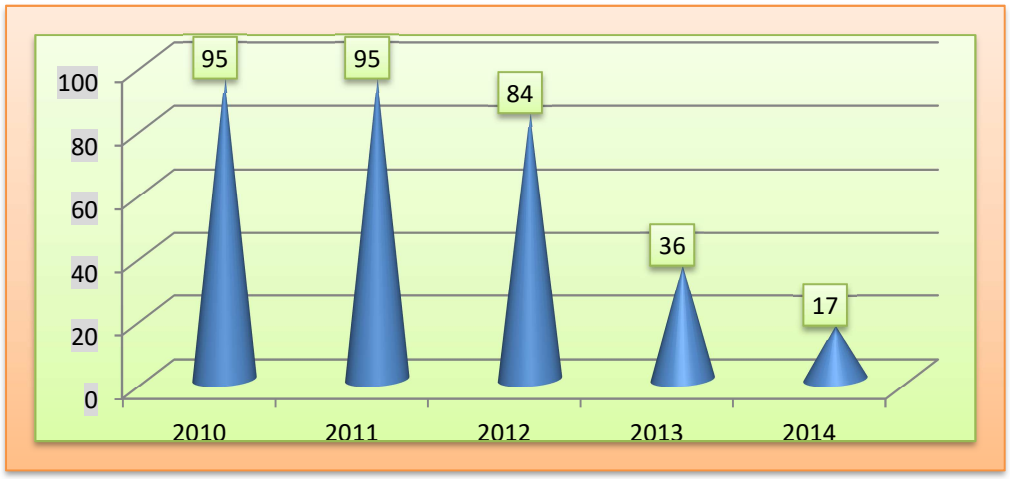

Figure No.1 Year- wise Distribution of contributions

2.1.3 Length of Title Wise Distribution of Contributions

Table no. 3. Length of Title Wise Distribution of Contributions

length of title	frequency	percentage
01 to 05	120	36.70
06 to 10	159	48.62
11 to 15	44	13.46
15 to 20	4	1.22
total	**327**	**100.00**

Table no.3 shows that, Length of title wise distribution of article, there were as many as total 327 articles caring in ERIC databases on information sources during 2010-2014. The highest length of title are from 06 to 10 words are 159 paper contribution. And minimum papers length of title from 15 to 20 words.

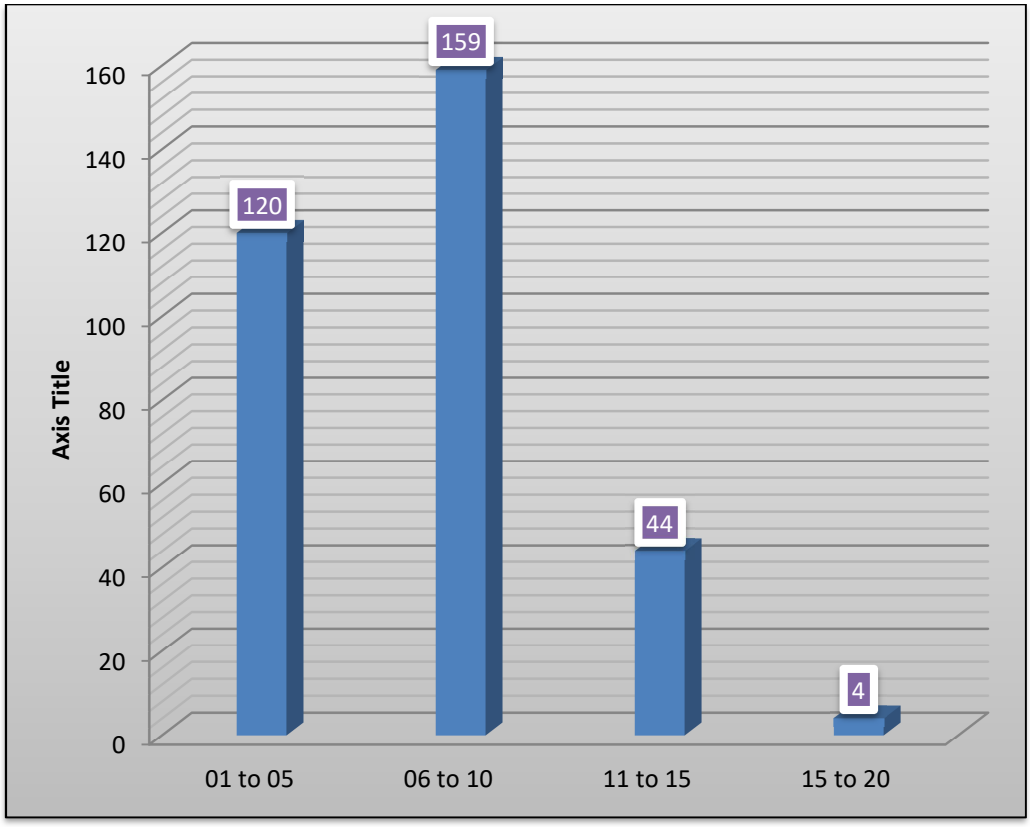

Figure No.2: Length of Title Wise Distribution of Contributions

2.1.4 Author wise distribution of article

The Author wise distribution of article shown in Table no. 04.

Table no. 04. Author wise distribution of article

Sr. No.	Name of Author	Frequency	Percent
1	Kristin Fontichiaro	6	1.83
2	Jean Donham	4	1.22
2	Sue C. Kimmel	4	1.22
3	Helen R. Adams	3	0.92
3	John N. Berry	3	0.92
4	Lisa Perez	3	0.92
4	Paige Jaeger	3	0.92
5	Sandra Hughes-Hassell	3	0.92
5	terence k. huwe	3	0.92
6	Ann Dutton Ewbank	2	0.61
6	Barbara Fister	2	0.61
7	Barbara Genco	2	0.61
7	Beth Dempsey	2	0.61
8	Gail Bush	2	0.61
8	Jana Varlejs	2	0.61
9	Joyce Kasman Valenza	2	0.61
9	Judi Moreillon	2	0.61
10	Margaux DelGui(Jice	2	0.61
10	Mega Subramaniam	2	0.61
11	Melissa L. Rethlefsen	2	0.61
11	Melissa Purcell	2	0.61
12	Pat Franklin	2	0.61
12	Patricia L. Owen	2	0.61
13	Rebecca Miller	2	0.61
13	Ross J. Todd	2	0.61
14	Ruth V. Small	2	0.61
14	Sherry R. Crow	2	0.61
15	Single Journal Publication 1x59	259	79.20
	Total	**327**	**100.00**

Table no. 04 shows that, the Author names, the total 327 authors has published the papers in the ERIC databases on information resources during 2010-2014, the most productive authors are three they, Kristin Fontichiaro who has the highest number 6(1.83%) publication, Six authors Kristin Fontichiaro, with single times author publication 259(79.20%) publication.

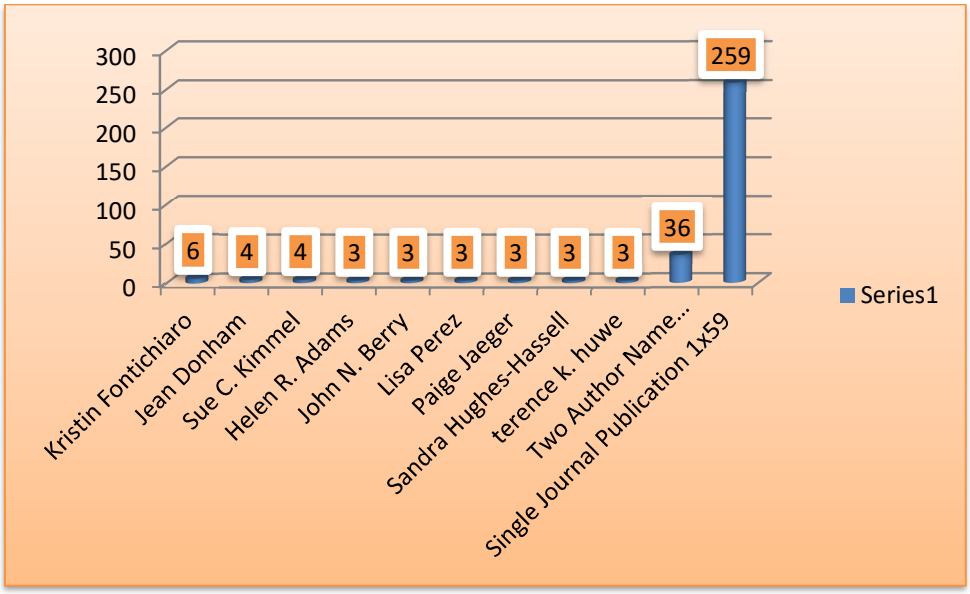

Figure No.4: Distribution of contributions (Author wise)

2.1.5 Distribution of contributions. (Authorship Pattern)

Table No. 5 Distribution of contributions. (Authorship Pattern)

Sr.No	Authorship Pattern	Frequency	Percentage
1	Single Author	224	68.50
2	Two Authors	57	17.43
3	Three Authors	29	8.87
4	Four Authors	11	3.36
5	more than four Authors	6	0.92
	Total	**327**	**100**

The distribution of Authorship pattern is given in the Table No.5. The table shows the single authorship is predominant then multi authors. Table No5 &Figure no. 5 indicates the majority of the contributions are contributed by Single Author. In which hypothesis no. 1 is valid. **"Majority of the contributions are contributed by** Single **authors" Table no, 5.**

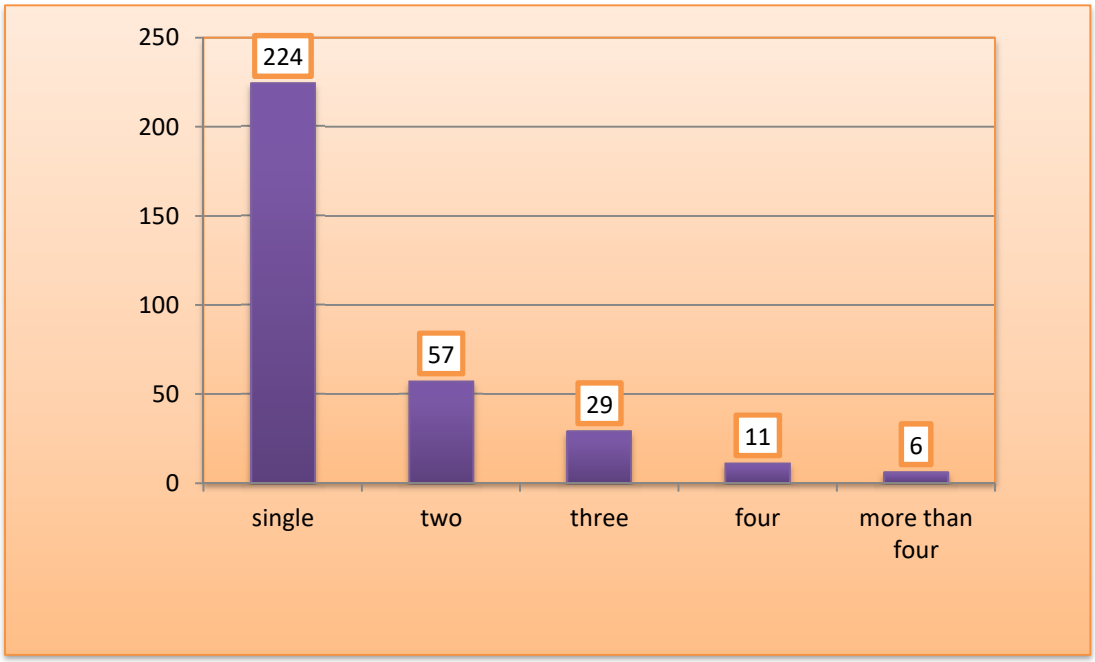

Figure No.5: Distribution of contributions. (Authorship Pattern)

2.1.6 Contributions (Institution wise)

Distribution of institution wise contributors in shown in Table No. 6

Table No. 6: Institution-wise distribution of contribution.

Sr. No.	Institution-wise	Frequency	Percentage
1	Chicago Public Schools Department of Libraries.	2	0.61
2	the University of Northern Iowa	2	0.61
3	Timber Creek High School in East Orlando	2	0.61
4	University of California-Berkeley	2	0.61
5	University of California Berkeley	2	0.61
6	single times 1X309	309	94.50
7	Not mentioned	8	2.45
	Total	**327**	**100.00**

The distribution of published papers by institution wise the table 06 reveals that, out of 327 contributors, the highest number not mention 8(2.45%) of contributors are contributed form the Chicago

Public Schools Department of Libraries stands the second place with 2(0.61%) institution stands on fourth place and 4 publication, the 38(9.09%) institution stands on five place with two publication, and 1 times 309(94.50%) institution stands on place with one publication.

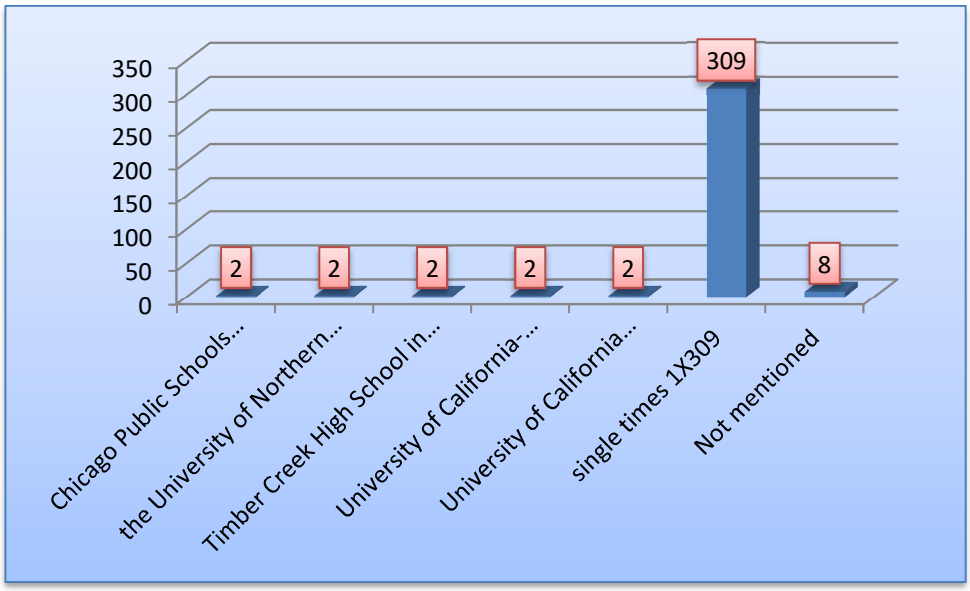

Figure No.6. Distribution of contributions (Institution wise)

2.1.7 Geographical Distribution of contributions at international level (Country-Wise)

Geographical distributions of contributions at International level. Geographical distribution of contributions at international level is shown in Table No.7

Table No. 7: Geographical Distribution of contributions at international level (Country-Wise)

Sr. No.	Country-Wise	Frequency	Percentage
01	USA	295	90.21
02	Australia	12	3.67
03	UK	10	3.06
04	India	5	1.53
05	Canada	2	0.61
06	China	1	0.31
07	TURKEY	1	0.31
08	Not mentioned	1	0.31
	Total	**327**	**100.00**

Table No. 7 shows the Geographical distribution of contributions at international level. Table No. 6 indicates that the majority of the contributions where contributed by USA 295 (90.21%) were as the minimum contributions were contributed by two countries i.e. china turkey, 1 (0.31%) respectively. Hypothesis No. 2 is valid **"USA is the highest productive country."**

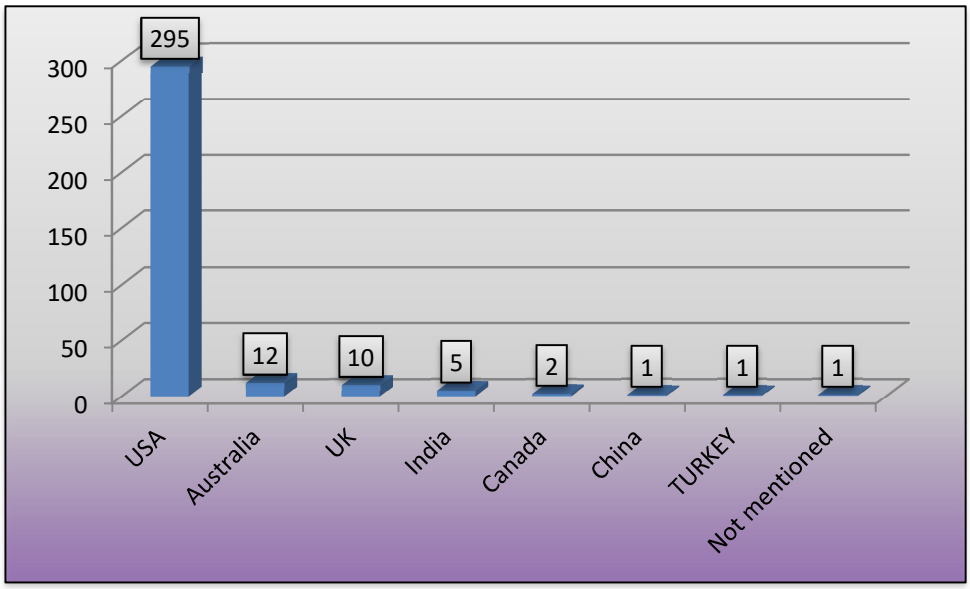

Figure No.7: Distribution of contributions (Country-Wise)

2.1.8: Contributions (E-Domain Name)

Table No.8: Contributions (E-Domain Name)

Sr. No.	Domain Name	Frequency	Percentage
1	Edu	98	29.97
2	Com	53	16.21
3	Org	27	8.26
4	Us	14	4.28
5	Net	13	3.98
6	Ac.Nz	2	0.61
7	Eclu	2	0.61
8	Uk	2	0.61
9	One Time publication E-Domain 1x9	9	2.75
10	Not Mentioned	107	32.72
	Total	**327**	**100.00**

Table no. 08. Shows that, there were as many as 98 authors used the edu. Domain name, and 107 authors has not mention their domain name in the papers, 53 authors used the org. Domain name,14 authors use the us. Domain name, 13 authors used the net. domain name,14 authors used the us domain name, 13 authors used the net. followed by ac.nz,esluand uk and remaining 09 papers contribution with one publication.

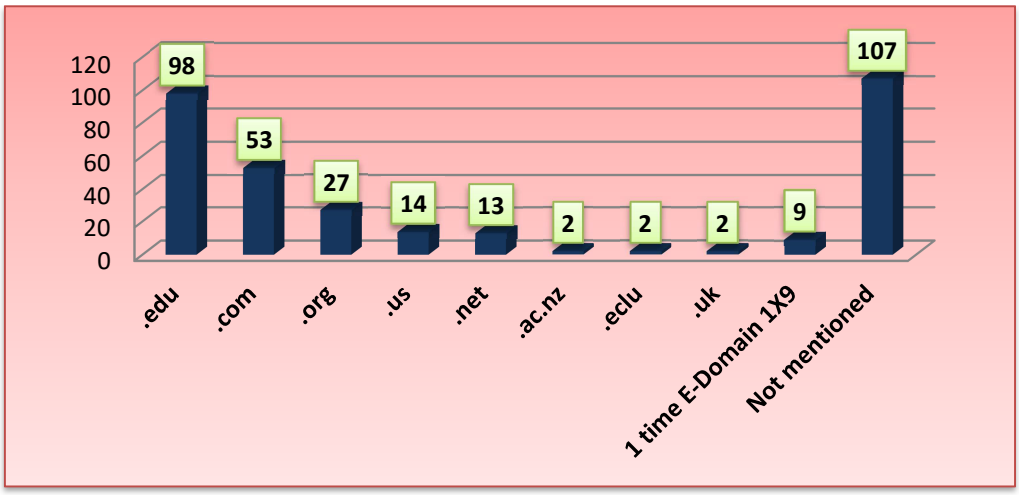

Figure No 8: Contributions (E-Domain Name)

2.1. 9: Contributions (Length Of pages)

Table No.9: Contributions (Length Of pages)

length of title	frequency	percentage
01 to 10	275	84.10
11 to 20	32	9.79
21 to 30	15	4.59
more than 30	5	1.53
total	**327**	**100.00**

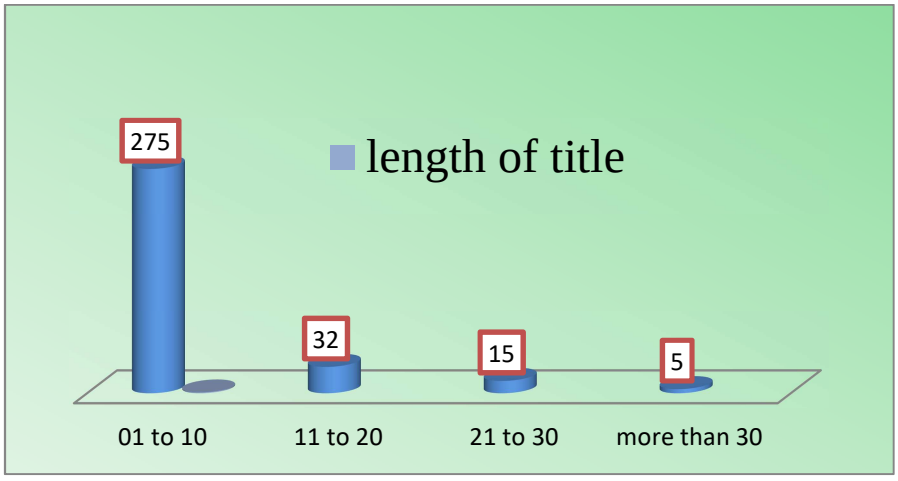

Figure No.9: Distribution of contributions (Length Of pages)

Table no. 9 shows that, Length of Pages wise distribution of article, there were as many as total 327 articles caring in ERIC databases on information sources during 2010-2014. The highest length of title are 275(84.10%) are from followed length of title.

2.1.10 Number of Distribution of the Article (References wise)

Table No. 10 Number of Distribution of the Article (References wise)

year	print references	web references	No. of References	percentage
2010	63	266	329	11.76
2011	205	531	736	26.31
2012	195	566	761	27.21
2013	94	347	441	15.77
2014	161	369	530	18.95
Total	718	2079	2797	100

Table no. 11. Shows that no. of references wise distribution of article, total no. of references 2797 are mention in the ERIC databases on information sources during 2010-2014. The highest no. of references is 2079 in which 3417 are print references and 496 are web references in the year 2012, and lowest no. of references are 1352 in which 329 are print references and 736 are web references, the total no. of print references are718 and 2079 are web references, in the ERIC databases on information sources during 2010-2014. Hypothesis No. 4 is valid **"Majority of the references are print references."**

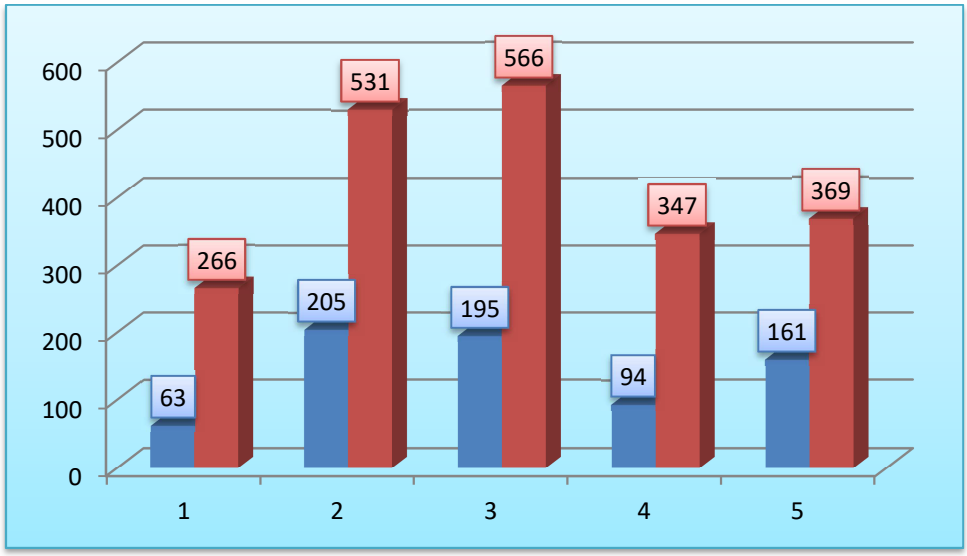

Figure No.10: Distribution of contributions (References wise)

3.0 Finding and conclusion:

Finding:

1. Majority of contribution of distribution were in year 2010 and 2011.and minimum paper contributed in year 2014 were 17 paper.

2**.** journal School Library Monthly this journal contributed majority paper were 46 of total paper.

3. The highest length of title are from 06 to 10 words are 159 paper contribution. And minimum papers length of title from 15 to 20 words.

4. Kristin Fontichiaro who has the highest of contribution number 6 paper (1.83%) publications.

5. Majority of the contributions are contributed by Single authors.

6. "USA is the highest productive country."

7. The highest length of title are 275(84.10%) are from followed length of title.

8. "Majority of the references are print references."

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