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Vellaichamy Alagarsamy

Librarian, NPR College of Engineering and Technology, Natham, vellaichamy19@gmail.com

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# Mapping inferences from literature review in social science research

**Dr. A. Vellaichamy**

Librarian, NPR College of Engineering and Technology  
Natham, Dindigul - 62440, [vellaichamy19@gmail.com](mailto:vellaichamy19@gmail.com)

&

**Dr. R. Jeysankar**

Assistant Professor, Dept. of Library & Information Science  
Alagappa University, Karaikudi – 630 003, [jeysankar71@gmail.com](mailto:jeysankar71@gmail.com)

## **Abstract**

In the present study summarizes some crucial information on how to write inferences from literature review. The ability to make inferences helps readers develop an understanding of the author's perspective by grasping the subtle underlying meanings in a text. Without inference, readers usually end up translating a text word by word, missing out on the associations an author is trying to make. In the present study summarized that year-wise growth of literature, size of publications, Pattern of authorship, nativity of authors and categorization of review.

**Keywords:** Authorship pattern, Information resources, Research Gap, Information literacy and Electronic Resources

## **Introduction**

The literature review forms one main step within the overall research process, which is usually situated quite at the outset of the research project. The literature review is an essential component of any research investigation, which gives necessary impact of the researcher to frame the research study on the chosen topic. The aim of the literature review is to provide background information needed to understand the study. It helps the researcher to choose the right research problem for any research investigation after reviewing the earlier studies related to the study undertaken. It will help to the researcher to move towards right direction in his / her research. Literature review would facilitate the researcher to have a comprehensive knowledge on the concepts used in earlier studies and enable him to adopt, modify and formulate an improved conceptual framework. The literature review may be carried with various information resources such as Journal articles, Conference proceedings, Book chapters, Research abstracts, Project, Dissertation, and Thesis so on. Literature reviews providing a base for a researcher's own work, it creates a solid starting point for all members of the community interested in a particular area or topic (Mulrow, 1987).

Literature review was the backbone of almost every academic piece of writing. Condensed overviews of relevant literature allow for grounding the authors' research on the state of the art of existing research, thus highlighting the particular scholarly contribution to the research field. Hart (1998) argues that literature review help to narrow down the research topic as well as explaining and justifying research objectives, overall research design, and methodology used. The primary goal of a descriptive review is to determine the extent to which a body of knowledge in a particular research topic reveals any interpretable pattern or trend with respect to pre-existing propositions, theories, methodologies or findings (King & He, 2005; Pare et al., 2015)

### **Purpose of Literature Review**

The literature review has been described as a "report of primary scholarship" (Cooper, 1988) and "an interpretation and synthesis of published work" (Merriam, 1988, quoted by Murray, 2002). The two key words here are scholarship and synthesis: a literature review relates particular research to the wider field. The purpose of the literature review is to locate the research project, to form its context or background and to provide insights into related into previous work (Blaxter et al., 2010). There are two main purposes of a literature review:

1. To show awareness of the present state of knowledge of a particular field. Not just who has written what, but the main empirical research, theoretical positions, controversies, and breakthroughs as well as links with other related areas of knowledge.
2. To provide a foundation for the author's research. The process of reviewing the literature should provide, according to Steane (2004: p. 124), a rationale for the choice of problem to be investigated and the methodology selected. It should help the researcher define a hypothesis or a research question, and show how answering the question will contribute to the body of knowledge. Analysis of the literature can also help provide a particular theoretical lens, support the argument, or identify gaps.

### **Objectives of the Study**

The aims of literature review are twofold: mapping, consolidating and evaluating the intellectual territory of a certain field, and identifying knowledge gaps to be filled in order to develop the existing body of knowledge further (Tranfield et al., 2003). The study has been designed with the following objectives;

1. Authorship Pattern of the Review;
2. Year-wise distribution of Review and Authorship Pattern;
3. Nativity-wise distribution of Authorship Pattern;
4. Subject-wise Categorization of Review and Authorship Pattern;
5. Year-wise Category-wise and nativity-wise distribution of Review;
6. Geographical contributions and Subject-wise distribution of Review; and
7. Page Length of Review collected Vs. Nativity of the Authors

## Methodology

- The researcher had collected 106 articles in the various information resources like journals, periodicals, conference proceedings, projects, and thesis so on.
- The collected data has been analyzed with the MS Excel spreadsheet and presented in the form of tables and figures.
- The study limited to the periods from 1991 to 2016.

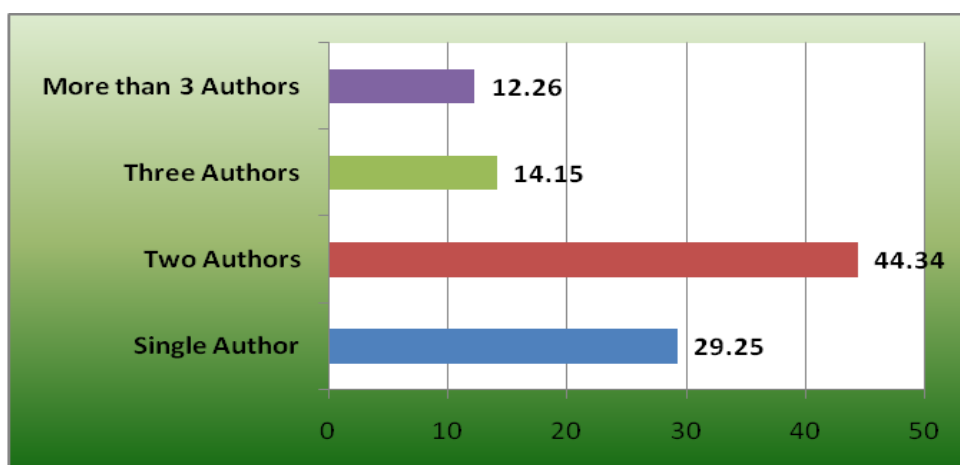
## Mapping Inferences Drawn from the Literature Review

### Authorship Pattern

In the information world, Authors are trying to write jointly than the single. Analysis of documents on how many authors wrote that document whether by single author, joint authors, three authors and more than three authors is called as authorship pattern. Single authorship is against multi authorship. Single authorship means an author (only) who writes an article in journals or writes a book and expresses his own views is called single author.

**Table 1- Authorship Pattern**

<b>Authorship Pattern</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Single Author	31	29.25	29.25
Two Authors	47	44.34	73.59
Three Authors	15	14.15	87.74
More than 3 Authors	13	12.26	100.0
<b>Total</b>	<b>106</b>	<b>100.0</b>	



**Figure 1: Authorship Pattern**

It is clear from Table 1 and Figure 1 that out of 106 review, a majority of 47 (44.34%) review are in two author's style followed by 31 (29.25%) review in single-author style. There are just 28 (26.41%) review which are contributed by multiple author style. Thus, joint authorship pattern is popular in the research area of 'Information Literacy Skills in the use of electronic resources'.

### **Year-wise Distribution of Review and Its Authorship Pattern**

Table 2 shows the year-wise distribution of review collected by the researcher and their authorship pattern. Year 2010 is the most productive year with 14 (13.21%) review followed by 2011 and 2012 with 12 (11.32%) review, 2005 with 10 (9.43%) review, 2008 with 9 (8.49%) review, 2013 & 2015 with 8 (7.55%) review, 2014 with 7 (6.60%) review and 2016 with 6 (5.66) review. There are 4 years with 2 reviews each and another 4 years with 1 review each.

**Table 2-Year-wise distribution of Review and Authorship Pattern**

Year	Authorship Pattern				Total	Percent	Cumulative Percent
	Single Author	Two Authors	Three Authors	More than 4 Authors			
1991	1	0	0	1	2	1.89	1.89
1996	1	0	0	0	1	0.94	2.83
1997	0	1	0	0	1	0.94	3.78
1999	1	1	0	0	2	1.89	5.66
2001	0	0	0	0	0	0.00	5.66
2002	1	0	0	0	1	0.94	6.61
2003	1	0	0	0	1	0.94	7.55

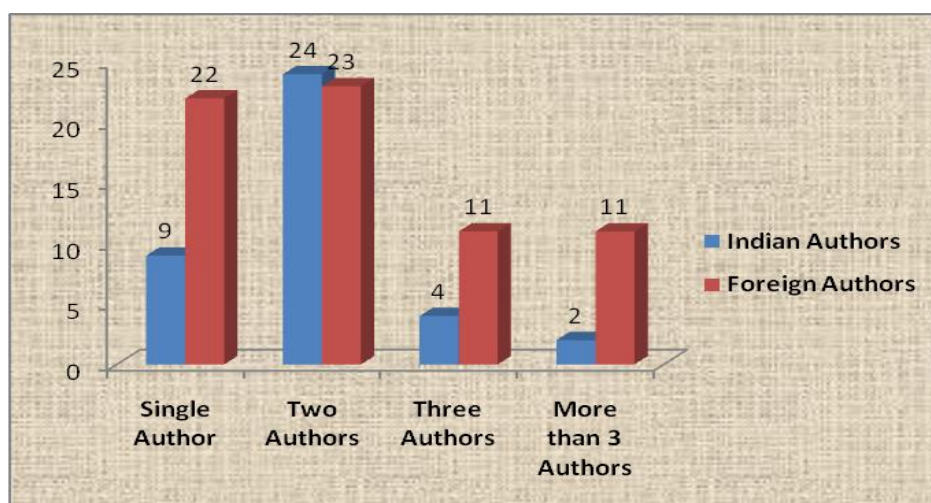
2004	1	0	0	1	2	1.89	9.44
2005	4	3	1	2	10	9.43	18.87
2006	1	1	0	0	2	1.89	20.76
2007	3	1	1	0	5	4.72	25.47
2008	1	4	3	1	9	8.49	33.97
2009	0	2	1	0	3	2.83	36.80
2010	2	8	3	1	14	13.21	50.00
2011	3	5	2	2	12	11.32	61.32
2012	4	7	1	0	12	11.32	72.64
2013	2	4	1	1	8	7.55	80.19
2014	1	4	1	1	7	6.60	86.80
2015	2	4	0	2	8	7.55	94.34
2016	2	2	1	1	6	5.66	100.0
<b>Total</b>	<b>31</b>	<b>47</b>	<b>15</b>	<b>13</b>	<b>106</b>	<b>100.0</b>	

Out of 106, 31 papers were single authored review, maximum of 4 were published in 2005 & 2012 followed by 3 in 2007 and 2011. In joint authorship style, maximum of 8 review were published in 2010 followed by 7 in 2012 and 4 review were published in 2008, 2013, 2014 and 2015. As far as three-authored review are concerned, maximum of 3 were published in 2008 and 2010 followed by 2 reviews published in 2011. Out of a meager number of more than 3 authored reviews, maximum of 2 were published in 2005, 2011 and 2015.

### Nativity of the Authors

**Table 3-Nativity-wise distribution of Authorship Pattern**

Nativity	Authorship Pattern				Total	Percent	Cumulative Percent
	Single Author	Two Authors	Three Authors	More than 3 Authors			
Indian Authors	9	24	4	2	39	36.79	36.79
Foreign Authors	22	23	11	11	67	63.21	100.0
Total	31	47	15	13	106	100.0	



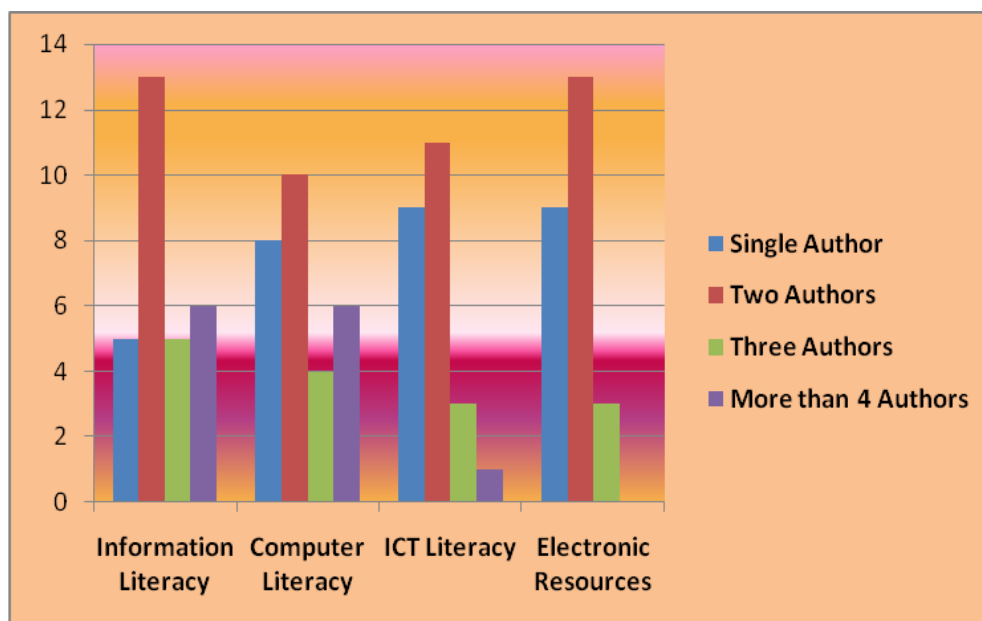
**Figure 2 - Nativity-wise distribution of Authorship Pattern**

Table 3 shows that a majority of authors contributing research papers in the field of ‘Information Literacy Skills in the Use of Electronic Resources’ are foreign authors. 63.21 % (67) of the papers were contributed by foreign authors and the remaining 39 (36.79%) papers were contributed by Indian authors. More foreign publications were found in two author’s style (23) and single author style (22) while more Indian publications were found in two author’s style (24) and single author style (9).

### **Categorization of Review**

**Table 4-Subject-wise Categorization of Review and Authorship Pattern**

Category	Authorship Pattern				Total	Percent	Cumulative Percent
	Single Author	Two Authors	Three Authors	More than 4 Authors			
Information Literacy	5	13	5	6	29	27.36	27.36
Computer Literacy	8	10	4	6	28	26.42	53.78
ICT Literacy	9	11	3	1	24	22.64	76.42
Electronic Resources	9	13	3	0	25	23.58	100.0
Total	31	47	15	13	106	100.0	



**Figure 3- Subject-wise Categorization of Review and Authorship Pattern**

Table 4 reveals the subject-wise categorization of the review collected by the research. A majority of review (29, 27.36%) are on ‘Information literacy’ followed by 28 (26.42%) review on ‘Computer literacy’ and 25 review on ‘Electronic Resources’ (23.58%). The least number of review are found on the category ‘ICT Literacy’ with just 24 (22.64%) review. A majority of joint authored and single authored publications were found on ‘Information literacy’ and ‘Computer literacy’ required for faculty members. Out of 25 publications on E-Resources, thirteen were joint authored and nine were in single author style and leaving just three in three author style.

**Table 5- Category-wise vs. nativity-wise distribution of Review**

Year	Categorization				Nativity		Total
	Information Literacy	Computer Literacy	ICT Literacy	E-Resources	Indian Authors	Foreign Authors	
1991	0	2	0	0	0	2	2
1996	0	1	0	0	0	1	1
1997	0	1	0	0	0	1	1
1999	0	2	0	0	0	2	2
2002	0	1	0	0	0	1	1
2003	0	1	0	0	0	1	1
2004	1	1	0	0	0	2	2
2005	2	3	2	3	0	9	9
2006	0	1	1	0	0	2	2



2007	1	1	2	1	1	5	6
2008	5	2	2	0	2	7	9
2009	2	0	0	1	1	1	2
2010	4	2	4	4	5	10	15
2011	5	2	2	3	6	6	12
2012	2	1	4	5	9	3	12
2013	2	3	0	3	4	4	8
2014	0	2	2	3	5	2	7
2015	2	2	4	0	3	5	8
2016	3	0	1	2	3	3	6
Total	29	28	24	25	39	67	106

It is disclosed in Table 5 that maximum of 4 articles were published in 2010 on ‘Information literacy’ and ‘ICT literacy’. Year 2012 had witnessed the publication of more number of literature review occupied (4 and 5) on the subject ‘ICT skills’ and ‘E-Resources’ followed by 3 review on the topic in 2005. It is also understood that majority of 9 Indian authored review were published in 2012. Foreign authored review were published most in 2005 (13) followed by 2010 with 10 review.

### Geographical contributions

The investigation of geographical contributions by authors is an essential phenomenon to understand the progress of research on a particular field of study in a country.

**Table 6 - Geographical contributions vs. Subject-wise distribution of Review**

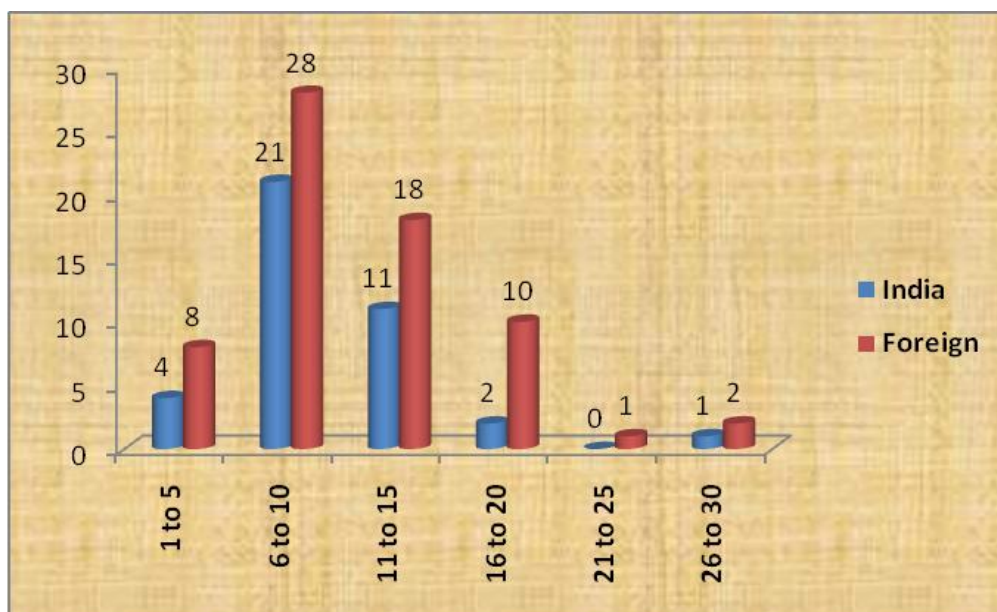
Country	Subject				Total	Percent
	Information Literacy	Computer Literacy	ICT Literacy	E-Resources		
Australia	0	1	1	0	2	1.89
Africa	0	1	0	2	3	2.83
Bangladesh	1	1	0	2	4	3.77
Belgium	0	0	1	0	1	0.94
Canada	0	1	0	0	1	0.94
China	0	2	0	0	2	1.89
Greece	0	0	1	0	1	0.94
India	7	5	12	15	39	36.79
Iran	0	0	3	1	4	3.77

Kenya	2	0	0	0	2	1.89
Malaysia	2	1	1	2	6	5.66
Nigeria	5	5	4	1	15	14.15
Pakistan	1	1	0	1	3	2.83
Singapore	3	0	0	0	3	2.83
Spain	1	2	0	1	4	3.77
South Africa	1	1	0	0	2	1.89
Taiwan	1	1	0	0	2	1.89
Turkey	0	0	1	0	1	0.94
UK	0	3	0	0	3	2.83
USA	5	3	0	0	8	7.55
Total	29	28	24	25	106	100.00

Table 6 depicts that maximum number (39, 36.79%) of review collected from Indian author's i.e. 15 review from 'E-Resources', Twelve review from 'ICT literacy', Seven review from 'Information literacy' and only five review from 'Computer literacy' followed by 15 review collected from Nigerian authors i.e. 5 review from 'Information literacy', five review from 'Computer literacy', four review from 'ICT literacy' and only single review from 'E-Resources'.

**Table 7-Page Length of Review collected Vs. Nativity of the Authors**

Size of publication in Pages	India	Foreign	Total	% age
One - Five	4	8	12	11.32
Six - Ten	21	28	49	46.23
Eleven - Fifteen	11	18	29	27.36
Sixteen - Twenty	2	10	12	11.32
Twenty one – Twenty five	0	1	1	0.94
Twenty six - Thirty	1	2	3	2.83
Total	39	67	106	100.00



**Figure 4- Page Length of Review collected Vs. Nativity of the Authors**

It is clear from Table 7 that out of 106 literature review, a majority of 49 (46.23%) review have on 6 – 10 pages, followed by 29 (27.36%) review with 11 – 15 pages and 12 (11.32%) review with 6 – 20 pages and 1 – 5 pages. Table 7 also shows that majority of Indian and Foreign authors published their research papers having 6 -10 pages.

### **Discussion and Conclusion**

A review of literature is very essential part of any research work because it gives state-of- the-art of particular area of research field at a glance. The researcher has collected 106 literature reviews on various aspects of ‘Information literacy skills in the use of electronic resources’. The literature output on the aforesaid area has revealed that: There is a dominance of two authorship pattern. Though there is a fluctuation in the number of publications during the period 1991-2016, the research area was more popular during 2010-2012.

Indian research on this research area is comparatively weak as maximum number of publications by foreign authors. Enough quantum of research output was seen on the areas ‘Information literacy’ and ‘ICT literacy’ required for faculty members. The quantity and quality of literature on ‘Information literacy skills in the use of electronic resources’ by foreign authors deserve worth mentioning. The aforesaid literature analysis also reveals that only a few number of research studies were carried on Indian authors. The review of earlier studies indicated that there has been very limited research conducted worldwide. Various studies have been undertaken to know the specific kind of literacy such as Information literacy, Computer literacy, ICT literacy in the context of digital resources only. Several

studies were carried out on specific user community like Research Scholars, Undergraduate Students, Postgraduate Students, Library Professionals, Nurses and Pharmacists and Dentists etc. and in specific disciplines such as Physical Science, Engineering, Science, Management, Chemistry and Microbiology etc. In the present study have reviewed the recent related literatures to enable the investigator to get an idea about various aspects of the topic such as relevance of the study, methodology to be used for data collection, data analysis etc. The existing gap in the research justifies the rationale of the study at hand. The literature review was conducted so as to reduce the existing gap in the research of this important area. It also helped to avoid the duplication of research.

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