

## Information Literacy Skills among Faculty Members of Polytechnic Colleges in Karnataka: A Study

**Mahadeva Prasad M S**

Lecturer Senior Scale

Dept. of Library Science and Information Management,

Government Polytechnic for Women

Hassan – 573201(Karnataka)

e-Mail: mahadevap@gmail.com

**Dr. Mallinath Kumbar**

Professor

Department of Library and Information Science

University of Mysore

Manasagangothri, Mysore-570006.(Karnataka)

e-Mail: mallinathk@yahoo.com

### ABSTRACT

*The present study is focused on members of faculty of Selected Polytechnic Colleges situated across Karnataka State. For the collection of data structured questionnaire was prepared based on ACRL standard and random survey method was used. All the respondents 100.00% are in need of information. 90.90% faculty members use basic search to search information.70% faculty members can recognize the different sources of information for their requirement. Only 23.01% faculty members can able to identify the correct keywords for a given topic. About 39.04% faculty members are facing virus problem for accessing electronic information. The output of the study shows that more than 60% of the faculty members acquire Information Literacy Skills.*

**Keywords:** Information Literacy Skills, Information Literacy Competency, Lifelong Learners, Information Sources, ACRL.

### Introduction

The present world is the world of information, everything is based on knowledge and technology, there is no doubt that the internet and other web technology has improved access to information. As more information is available on the web, people need the skills and competencies to find, evaluate, access and use it an effective manner. As a result, information literature is becoming a necessary skills to survive in the technology based information world. Information literacy is recognized as lifelong learning and has its roots in educational system.

Paul Zurkowski, president of the Information Industrial Association first used the term “Information Literacy” in 1974, has taken place in the field of library profession and educational system throughout the world. According to Paul Zurkowski “ information literacy is the people trained in the application of information resources to their work can be called information literates, they have learned techniques and skills for utilizing the wide range of information tools as well as primary sources in moulding information, solution to their problem”.



Thus information literacy is a set of essential skills, which extends learning beyond established education system from school to university. Information literacy skills have become essential skills to become lifelong learning. The literacy rate of India is 70%, so the nation is concentrating on its people to become 100% literate. In India no such major studies have taken place in the field of information literacy. As the faculty members of the educational institutions are considered to be lifelong learners. The investigators made an attempt to study on Information Literacy Skills of faculty members of selected polytechnic colleges.

## Objectives of the Study

The main objectives of the study are as follows:

1. To find out the information literacy skills among faculty members.
2. To find out the need for information both print and electronic format by faculty members.
3. To find out the effective use of information both print and electronic format by faculty members.
4. To identify different information search techniques used by faculty members for accessing information sources.
5. To find out knowledge on economic, legal and social issues for accessing and using required information among faculty members.
6. To identify the barriers encountered while accessing print as well as electronic information sources.
7. To obtain the opinion of the members of faculty towards the need of training programme on Information Literacy.

## Methodology

The investigators started the study by searching previously available literature on information literacy through scanning online and offline databases such as LISA (Library and Information Science), LISTA (Library, Information Science & Technology Abstract and conference proceedings, etc. For the purpose of the study the selected polytechnic colleges of Karnataka state faculty members are randomly under taken which consist of 68 polytechnic colleges, among 68 colleges, 30 colleges are government polytechnic, 20 Colleges are aided polytechnic and 18 are private Polytechnic College. Keeping in view of the objectives of the study the structured questionnaire was designed according to ACRL Standard of Information Literacy competencies for higher studies. Total 1000 questionnaires were randomly distributed among the faculty members and 730 filled-up questionnaires were received back. The rate of response is 73.0%. In addition to questionnaire method, interview schedule and observation method were also used to collect required information as a supplement to the questionnaire method. The data collected has been analyzed, interpreted and presented in the form of tables.



## Data Analysis

**Table 1 - Gender wise distribution of respondents**

Sl.No	Gender	Frequency	Percentage (%)
1	Male	411	56.3
2	Female	319	43.7
Total		730	100.0

Table 1 presents the gender wise distribution of faculty members out of 730 Respondents, 411 are Male faculty members representing 56.3% of total sample and the remaining 319 are female faculty members amount to 43.7%. This shows that male faculty members are more responded for the study when compare to female faculty members.

**Table 2 - Opinion about Information Need**

Sl. No	Responses	Frequency	Percentage (%)
1	Yes	730	100.0
2	No	00	00
Total		730	100.0

Table-2 indicates the opinion about the need for information by respondents. Out of 730, 730 faculty members are in need of information representing 100% of the total sample.

**Table 3 - Type of information needed by respondents**

Sl. No	Types of Information	Frequency (N=730)	Percentage (%)
1	Academic Information	641	87.80
2	General Information	583	79.86
3	Health Information	412	56.43
4	Financial Information	281	38.49
5	Political Information	249	34.10
6	Environmental Information	350	47.94
7	Current information	511	70.00
8	Information related to Govt. Programmes	379	51.91
9	Any other (please Specify)	00	00

Faculty members are in need of different types of information to satisfy their information need table-3 provides different types of information needed by faculty members out of 730 respondents 641 faculty members need academic information representing 87.80% of the total sample. About 583(79.86%) faculty members need general information then followed by 511(70%) respondents need current information. 412(56.43%) faculty members need health information. Then followed by 379 faculty members need information related to government programs and policies amount to 51.91% of the total sample. 350(47.94%) faculty members need environmental information. About 281(38.49%) respondents need financial information. 249(34.10%) faculty members need political information.

Majority of the respondents need academic information as the faculty members always work in academic environment it is obvious that they need academic information compare to other types of information.



**Table 4 – Availability of Information Needed by Respondents**

Sl. No	Types	Frequency (N=730)	Percentage (%)
1	Library	490	67.12
2	Internet/Web	661	90.54
3	Medias(TV, Radio, etc)	336	46.02

Now a day's information are available in many places from table-4 presents that out of 730 respondents 661 faculty members say that they will find needed information in internet/web representing 90.54% of the total sample. Then followed by 490(67.12%) faculty member says they will find the needed information in library. 336(46.02%) respondents opines that they will find the needed information in media such as TV, Radio, etc.

**Table 5 - Types of sources that you use to satisfy your information need**

Sl. No	Document Types	Frequency (N=730)	Percentage (%)
<b>Printed Sources</b>			
1	Books	676	92.60
2	Journals	416	56.98
3	Back Volumes of Periodicals	131	17.94
4	Reference Sources	376	51.50
5	Standards and Specification	99	13.56
6	Technical Reports	322	44.10
7	Patents	28	3.83
8	Government Publication	125	17.12
<b>Electronic Sources</b>			
9	E-Books	396	54.24
10	E-Journals	238	32.60
11	E-Reference Sources	198	27.12
12	CD-Rom Sources	132	18.08
13	Database	95	13.01
14	Online Virtual Resources	183	25.06

In the present study sources of information is broadly divided in to printed sources and electronic sources. Table-5 indicates the types of sources used by the respondents to satisfy their information need. In printed sources out of 730, 676(92.60%) respondents use books to satisfy their information need. Then followed by 416(56.98%) faculty members use journal to satisfy their information need. About 376 respondents use reference sources to satisfy their information need amount to 51.50%. About 322(44.10%) faculty members use technical report to satisfy their information need. 131(17.94%) faculty members used back volume of periodicals to satisfy their information need. 125(17.12%) respondents use government publication to satisfy their information need. 99(13.56%) faculty members use standards and specification to satisfy their information need. 28(3.83%) faculty members use patents to satisfy their information need.

In Electronic Sources out of 730 respondents, 396(54.24%) faculty members use E-Books to satisfy their information need then followed by 238(32.60%) faculty members use E-Journals to satisfy their information sources. About 198(27.12%) faculty members use E-Reference Sources satisfy their information sources. Then followed by 183(25.06%) faculty members use Online Virtual Resources to satisfy their information need. 132(18.08%) faculty members use CD-Rom Sources to satisfy their information sources. 95(13.01%) faculty members use E-Database to satisfy their information sources.



**Table 6 - Knowledge about the parts of book**

Sl. No	Responses	Frequency	Percentage (%)
1	Yes	641	87.8
2	No	89	12.2
Total		730	100.0

The above table 6 shows the knowledge about the parts of Books by faculty members. out of 730 respondents 641(87.8%) have the knowledge about the parts of books. Remaining 89(12.2%) lack the knowledge about the parts of book.

**Table 7 – Skill of assessing the required information in book.**

Sl. No	Knowledge about the sections of book	Frequency N=730	Percentage(%)
1	The title includes the work of my topics	118	16.16
2	Find the book and see that the table of contents	267	36.57
3	Search the related word in index of books	93	12.73
4	All of the above	318	43.56

Table-7 depicts the skill of assessing the information based on their requirement. It is observed from the table that out of 730 respondents, 267 (36.57%) faculty members opine that they will find the book and see that the table of contents lists are on their topic. Then followed by 118(16.16%) respondents says the title includes the work of their topics. About 93(12.73%) respondents opine that they will search the related work in index of books. Remaining 318(43.56%) faculty members says that they look in to all the above mention points. It is clear from the discussion that about 36.57% faculty members have the skill in assessing the information based on their requirement in book.

**Table 8 – Skill of Identifying the concept of Journals**

Sl. No	Document Types	Frequency (N=730)	Percentage (%)
1	Journals	501	68.63
2	Patents	50	6.84
3	Indexes	143	19.58
4	Biography	36	4.93
Total		730	100.00

The above table-8 shows the skill of indentifying the concept of journal. Out of 730 respondents, 501 faculty members are having the skill to indentify correctly the concepts of journal amount to 68.63%. Remaining 50(6.84%), 143(19.58%) and 36(4.93%) faculty members are identified journal concept as patents, indexes and biography respectively.

**Table 9 – Skill of Identifying the concept of Dictionary**

Sl. No	Document Type	Frequency (N=730)	Percentage (%)
1	Dictionary	672	92.1
2	Directory	25	3.4
3	Bibliography	32	4.4
4	Patents	1	.13
Total		730	100.00



The above table-9 shows the skill to identify the dictionary concept by faculty members. It is observed from the table that out of 730 respondents, 672 faculty members have the skill to identify the concept of dictionary representing 92.1% of the total sample. And remaining 25 (3.4%), 32(4.4%) and 1(.13%) faculty members are identified the dictionary concept as directory, bibliography and patent respectively.

**Table 10 – Skill to identify the concept of Encyclopaedia**

Sl. No	Document Types	Frequency (N=730)	Percentage (%)
1	Encyclopaedia	585	80.1
2	Dictionary	53	7.3
3	Year book	23	3.2
4	Guide Book	69	9.45
Total		730	100.00

Table 10 depicts the skill to identify the encyclopedia concept by faculty members. Out 730 respondents, 585(80.1%) faculty members identified correctly the concept of encyclopedia; Then followed by 69(9.45%) faculty members identified the encyclopedia concept as guide book, about 53(7.3%) faculty members identified it as dictionary and remaining 23(3.2%) faculty members identified the encyclopedia concept as year book. About 145 (19.99%) faculty members lack the skill to identify the concept of encyclopedia.

**Table 11 -Aware of the type of cataloguing tools by Respondents**

Sl.No	Responses	Frequency	Percentage (%)
1	Yes	564	77.3
2	No	166	22.7
Total		730	100.0

The above table-11 presents the awareness of cataloguing tools by the respondents. From the table it is evident that out of 730 faculty members, 564(77.3%) faculty are aware of the different cataloguing tools and the remaining 166(22.7%) faculty members are not aware of the different cataloguing tools. Majority (77.3%) of the faculty members are aware of the different cataloguing tools available in the library.

**Table 12 – Knowledge about Catalogue tools**

Sl. No	Type of catalogue	Frequency	Percentage (%)
1	Library Catalogue	397	70.39
2	OPAC	44	7.80
3	Web OPAC	66	11.70
4	Bibliography	57	10.10
5	Any others	0	.0
Total		564	100

The table-12 indicates the types of catalogue tools used by the faculty members. Out of 564 faculty members, 397(70.39%) faculty members are using library catalogue to search documents in the library, then 66(11.70%) faculty members are using web OPAC to find document in the library, about 57(10.10%) faculty members are using bibliography to find document in the library and the remaining 44(7.80%) of faculty members are using OPAC to search documents in the library. From the discussion it is can conclude that more than 70% of faculty members are aware of library catalogue.



**Table 13 - Searching methods in library catalogue**

Sl.No	Searching methods	Frequency (N=397)	Percentage (%)
1	By author	167	42.06
2	By Title	220	55.41
3	By subject	354	89.16
4	Any Other	3	0.75

The above table-13 presents the searching methods used in library catalogue by faculty members. Out of 397 faculty members who uses library catalogue, 354(89.16%) faculty members search the required document by subject. About 220(55.41%) respondents use title of the document to search the required material. About 167 faculty members search the required document by its author amount to 42.06% and the remaining 3(0.75%) faculty members search document other than author, title and subject. The above discussion shows that about 89.16% faculty member uses subject to search the required document in library catalogue.

**Table 14 - Type of Search option used in web OPAC**

Sl.No	Searching methods	Frequency (N=66)	Percentage (%)
1	Basic search	60	90.90
2	Guided Search	48	72.72
3	Expert search	18	27.27

Table 14 reveals the types of search option used in web OPAC by faculty members of Polytechnic colleges. Out 64 faculty members who uses web OPAC, 60 faculty members use basic search to search the required information in the web amount to 90.90%. Then the followed by 48(72.7%) faculty members use guided search to search the required document in the web OPAC. Remaining 18(27.27%) faculty member uses expert search to search the required document in the web. It is observed from the above discussion that about 90.90% faculty members uses basic search to search the required information in web OPAC.

**Table 15 – Sources used to search journal article**

Sl.No	Sources	Frequency (N=730)	Percentage
1	Indexing Journals	351	48.08
2	Abstracting Journals	150	20.54
3	Databases	107	14.65
4	Any others	00	00

The above table-15 presents the journal article search in different tools by faculty members. Out of 730 respondents, 351 faculty members find the required journal article in indexing journals amount to 48.08%. Then followed by 150 (20.54%) faculty members find the journal article in abstracting journals and the remaining 107(14.65%) faculty members find the journal article in databases.

**Table 16 – Search Strategy used to search information in Search Engine**

Sl.No	Search Strategy	Frequency(N=730)	Percentage (%)
1	Type the required statement is search box	217	29.72
2	Type the keywords in search box	441	60.41
3	Type the keywords using Boolean operators	42	5.75
4	Use wildcard/truncations	14	1.91
5	Don't Know	36	4.93
6	Any other	00	00



Table – 16 indicates the search options used in search engine for required information by faculty members. Out of 730 faculty members, 441 faculty members type the keywords in search box amount to 60.41% of the total sample. Then followed by 217(29.72%) respondents type the required statement in search box. About 42(5.75%) faculty members type the keywords using Boolean operators. 14(1.91%) faculty members use wildcard/truncations to search information and about 36(4.93%) faculty members say they don't know the way of searching in the search engine.

**Table 17 – Knowledge about the use of keywords on a given topic**

Sl.No	Key words for a given topic	Frequency	Percentage
1	Women, Empowerment, India, Villages	168	23.01
2	Women Empowerment, Indian Villages	381	52.19
3	Indian Villages	32	4.38
4	Women Empowerment	149	20.41

Table-17 shows the knowledge about the use of correct key words in search engines by faculty members of polytechnic colleges. Out of 730 respondents, 168 faculty members use correct key words for a given topic to search in the search engine representing 23.01% of the total sample and the remaining 562(76.98%) faculty members lack the skill of using correct key words for a given topic in search engines.

**Table 18 – Knowledge about Meta Search Engine**

Sl. No	Skill to identify meta search engine	Frequency (N=730)	Percentage (%)
1	Launch a search simultaneously in many search	435	59.58
2	Execute a search in all the existing web sites	186	25.47
3	Extend the search in to foreign language website	48	6.57
4	Execute the search in all databases available in the library	55	7.53
5	Not Responded	6	0.82

Table 18 reveals the knowledge level of faculty members on meta search engine. Out of 730 respondents, 435 faculty members identified Meta search engine correctly by saying Launch a search simultaneously in many search engines representing 59.58% of the total sample. Remaining 295(40.42%) are lack the knowledge about meta search engine.

**Table 19 - Parameters to evaluate the information**

Sl.no	Parameters	Frequency(N=730)	Percentage(%)
1	Authenticity	387	53.01
2	Accessibility	284	38.90
3	Coverage	250	34.24
4	Usability	241	33.01
5	Reliability	355	48.63

Table 19 indicates the parameters to evaluate the information by faculty members. Out 730 respondents, 387(53.01%) faculty members are evaluate the information based on authenticity, then followed by 355(48.63%) respondents evaluate information based on reliability. About 284(38.90%) faculty members evaluate the information based on accessibility. 250(34.24%) faculty member evaluate information based on coverage and the remaining 241(33.01%) respondents evaluate the information based on usability.





**Table 20 – Knowledge about copy rights.**

Sl.No	Opinion	Frequency	Percentage (%)
1	Seek permission from the Authority	403	55.20
2	Consult for fair use of information	133	18.21
3	Download the whole text without acting on the above(1,2)	96	13.15
4	Don't Know	98	13.42
Total		730	100.0

Table-20 shows the faculty opinion about the use of document which is copy right bound. Out of 730 faculty members 403(55.20%) faculty members seek the permission from the authority to use the document which is copy right bound. The followed by 133(18.21%) faculty members consult for fair use of information which is copy right bound. About 96(13.15%) faculty members download the whole test without consult the authority. Remaining 98(13.42%) faculty members don't know how to use the information which is copyright bound. The result shows that more than 70% of faculty members have the skill in using copy right bound document.

**Table 21 – Knowledge about Plagiarism**

Sl.No	Responses	Frequency	Percentage (%)
1	Yes	427	58.49
2	No	303	41.50
Total		730	100.0

The above table-21 shows the knowledge of plagiarism. It is observed from the respondents that out of 730 faculty members 427(58.49%) faculty say yes they have the knowledge of plagiarism. And the remaining 303(41.50%) faculty members lack the knowledge of plagiarism. Further it can be concluded that more than 58% of faculty members have the knowledge about plagiarism.

**Table 22 – Barriers Faced While Accessing Information(Print and Electronic format)  
a. Printed Sources**

Sl.No	Barriers	Frequency	Percentage (%)
1	Lack of knowledge about use of library catalogue	258	35.34
2	Lack of knowledge about arrangement of books on shelves in library	286	39.17
3	Lack of Assistance from library staff	186	25.47
Total		730	100.00

Table-22a presents difficulties face by faulty members while accessing printed information sources. Out of 730 respondents, 286 have faced the lack of knowledge about the arrangement of books on shelves amount to 39.17%. Then followed by 258(35.34%) faculty member opine that they lack the knowledge about use of library catalogue. And the remaining 186 faculty members says they lack of assistance from library staff representing 25.47% of total sample. Maximum number of faculty opines that they lack the knowledge about the arrangement of books on the shelves which shows the lack knowledge about the classification of books in the library.



### b. Electronic Sources

Sl.No	Barriers	Frequency (N=730)	Percentage (%)
1	Virus problem for accessing information	285	39.04
2	Unfamiliarity with search methods	136	18.63
3	Unorganized elements/contents in a search page	165	22.60
4	Too much time consuming for searching the information	225	30.82
5	Speed of access in slow	245	33.56

The above table 22b shows barriers faced while accessing electronic sources. 285 faculty members opine that they faced virus problem for accessing information amount to 39.04%. About 245(33.56%) faculty members says the speed of access is slow while accessing required information in the internet. 225 faculty members have the problem of too much time consuming for searching the information represents 30.82%. About 165(22.60%) faculty members faced have the opinion that they face the problem of unorganized elements/contents in a search page of website. 136(18.63%) respondents says that they find unfamiliarity with search methods for accessing electronic information. It is observed from the discussion that maximum numbers of faculty face virus problem while accessing information.

**Table 23 – Opinion about the training on Information Literacy Skills**

Sl.No	Opinion	Frequency	Percentage
1	Yes	551	75.47
2	No	179	24.52
Total		730	100.0

It is observed from the table 23 that out of 730 respondents, 551(75.47%) faculty members need training to improve the information literacy skills. Remaining 179(24.52%) are opine that they do not training on information literacy skills improvement.

### Findings

The major findings of the study are:

- Out of 730, 411(56.3%) faculty members are male. All the faculty members responded to the study 730(100%) are in need of information, out of that 641(87.80%) faculty members need Academic information.
- About 661(90.54%) faculty members find the required information in internet/web. 676(92.60%) use books to satisfy their information need. 641(87.8%) faculty member have the knowledge of different sections of book.
- Only 267(36.57%) faulty members have the skills of identify the required information in the book. More than 70% faculty members have the skill of recognize different document such as journal, dictionary etc.
- About 564(77.3%) faculty members have the knowledge of cataloguing tools in that only 10% faculty members are using web OPAC
- 354(89.16%) faculty members search the document by subject. About 60 (90.90%) respondents use basic search to retrieve information. 351(48.08%) faculty members consider indexing journal to search articles.
- Only 42(5.75%) faculty members use keywords and Boolean operators to search the required information in search engines. About 168 (23.01%) faculty members use



- correct keywords on given topic to search information in the search engine. 435(59.58%) faculty members have the knowledge of meta search engine.
- 387(53.01%) faculty members use authenticity parameter to evaluate information.
  - 536(73.42%) faculty members are aware on how to use copyright bound material
  - About 427(58.49%) faculty members have the knowledge of plagiarism
  - 286(39.17%) faculty members face the problem of lack of knowledge about the arrangement of books on shelves. About 285(39.04%) faculty members are facing virus problems for accessing electronic information.
  - About 551(75.47%) faculty members are in need of information literacy training program to become lifelong learners.

## Suggestion

The following suggestions are made based on the findings:

- Regular library orientation program and workshop on information literacy skills to be conducted in polytechnic college library to faculty members.
- Qualified librarian has to be appointed to the polytechnic college library.
- Librarian has to educate the user (faculty members) in identifying and accessing different information sources (information Literate).
- Faculty members have to get updated with the different technologies such as computer technology, web and network technology and telecommunication technology by training or by self-learning.
- As the majority of faculty members are in need of Information Literacy training program, directorate of technical education, Karnataka has to take initiative to implement regular Information literacy training program to faculty members through libraries.

## Conclusion

The persons who want to survive in the knowledge world have to be a competitor. To become a competitor he must cultivate some essential skills, those skill are the survival skills of information age i.e. information literacy skills. To acquire information literacy skills and to become information literate person is not an easy task, it needs continuous updates of knowledge and skill in the competitive knowledge world.

From this study and personal observation we found that the more than 60% of faculty members acquire some information literacy skills, they can be able to use the print as well as electronic format to satisfy their information need. Some of the faculty members lack the searching techniques in internet, they are not able identify correct key word; they face many barriers while accessing information both print and electronic format. This show faculty member needs training program to improve their information literacy skills. So the Directorate of Technical Education, Karnataka has to take some initiative in providing training on information literacy skills to its faculty members.



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