

# ANALYSIS OF THE DIMENSIONS OF INFORMATION LITERACY COMPETENCY

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## 1. INTRODUCTION

Information Literacy is the array of knowledge and skills necessary to identify the information needed for a task and then to locate, understand, evaluate, and use that information efficiently and effectively within appropriate ethical and legal limits (West Chester University of Pennsylvania, 2006). What is the importance of information literacy, and how best this information literacy help an individual are some of the questions to be addressed. Donham (1999), has stressed the importance of information literacy and according to him, “if the ability to access information efficiently, to discern quality and authority to apply information to decision making and problem solving are keys to success in a world of rapidly growing information, information literacy is indeed a basic survival skill for today's students. He also highlighted that the students leaving the schools need to be independent learners as they are expected to be lifelong learners, intelligent and informed decision makers in the 21st century”.

The importance of information literacy to the students is well explained by Eisenberg, et al (1998) as under:

- Information literacy is a process – because it makes the students to understand how to find information, how to evaluate information and how to use the information in the context;
- Information literacy represents a shift in thinking – because information literate students will have to analyse the information and critically evaluate the information before using the same;

- Information literacy is valuable – because it makes the students independent and lifelong learners;

## 2. OBJECTIVE OF THE STUDY

To analyse the dimensions of information literacy competency among the full-time research scholars of the University of Madras and its affiliated colleges.

## 3. STATEMENT OF THE PROBLEM

Research degree is the highest level of higher education. Information literacy is expected and inculcated even at the school level. Being the students of the highest degree of education, what is the current status of the research scholars with regard to the information literacy? This question pondered in the mind of the researcher hence this study was conducted among the full-time research scholars of the University of Madras. Assessment of information literacy competency is often done either to know the level of information literacy competency of the individuals or to know the effectiveness of a particular information literacy programme. In this study, it is done to know the level of information literacy competency of the research scholars.

## 4. METHODOLOGY

Research scholars pursuing their Pre-doctoral (M.Phil) or Doctoral (Ph.D) programmes under the University of Madras (either in the University department or in the colleges affiliated to the University) on full-time basis during the year 2009 were the respondents of the study.

## ABSTRACT

This study reports on the data collected with regard to information literacy competency from the full-time research scholars of the University of Madras and its affiliated colleges for their overall information literacy competency. Data has been analysed on the dimensions of information literacy competency viz., information management competency, information search literacy competency, information need assessment competency, competency of information search through technology and competency of ethical use of information.

**Keywords :** Information Literacy, Competency, Information Management, Search Literacy, Competency, Literacy Assessment

According to McBride (1999), there are seven basic steps to designing an assessment: (1) what is the purpose of the assessment? (2) What decisions will be made with the information from the assessment? (3) Does the test parallel the work covered in class? (4) Are there at least ten questions for every skill area (selected response/ fill in the blank)? (5) Is it focused on the most important information, rather than small irrelevant facts? (6) Is the test too difficult? (7) Is it relevant to the students? By keeping most of these steps in mind a questionnaire to assess information literacy competency was prepared. The questionnaire was based on the standards developed by the Association of College and Research Libraries of American Library Association (ACRL, 2000). A tool to assess Information Literacy Competency was developed based on the Association of College and Research Library (ACRL) Competency Standards for Higher Education (2000). This ACRL standard includes five competency standards under which there are 22 performance indicators available. Based on the ACRL standards, a pool of items (totalling 90) were generated to measure information literacy competency and modified based on the opinions received from four experts in the field of library and information science. The tool was pre-tested on 30 individuals to get inputs regarding instrument design by interview method. A pilot study was carried out on 100 respondents during the month of March and April 2009. The data so collected was subject to exploratory factor analysis to study the factor structure of the variable 'information literacy competency'. Based on factor analysis, five dimensions of information literacy competency were identified as information management competency, information search literacy competency, information need assessment competency, competency of information search through technology and competency of ethical use of information and data collected under each dimension. A total of 750 questionnaires were distributed at the various University departments and its affiliated colleges, out of which 500 fully complete questionnaires were received, indicating a return rate of 66.67 per cent. Statistical package for Social Science (version 16.0) was used for analysis of data.

## 5. REVIEW OF LITERATURE & RATIONALE FOR THE STUDY

Chu & Law (2007) conducted a study among research students, in particular Doctor of Philosophy students' development of information search expertise. He focused on their growing understanding of different types of information sources as they progressed through their research studies. This research study confirmed past finding that the source types - refereed journals, books, theses, students' supervisors, conference papers, outside experts and bibliographies, were important to research students. Accessing right information sources and using them with appropriate citation are part of information literacy competency. According to Webber and Johnston (2001), 'Information Literacy' as "the adoption of appropriate information behaviour to obtain, through whatever channel or medium, information well-fitted to

information needs, together with critical awareness of the importance of wise and ethical use of information in society".

Dunn (2002) described the assessment of information literacy skills of about 3,70,000 students of California State University. Six competencies and corresponding scenarios formed and assessment was done on a phased manner. Phase I was a survey method which revealed that students quickly thought of using Internet, computer and other books, reference books and so on as various information resources. Phase II was a qualitative study that captured what students did when they searched for information on particular tasks assigned to them. Students' computer work was captured using Camtasia Recorder, screen capture software. It was found in Phase II that students spent maximum time for searching in web and internet in library databases.

With respect to information literacy, many models have been developed by various associations and institutions in almost all the developed countries. Developing countries like India are following the existing models and standards. Information literacy assessment is to find out the level of information literacy of people or to find out the efficiency of information literacy programmes. However, there should be a standard tool to assess the information literacy. In the Indian context, there is dearth of standardized tool to assess information literacy. Hence a standardized tool was developed by the author based on ACRL (2000) standard and used for this study.

## 6. DATA ANALYSIS AND INTERPRETATIONS

Collected data have been presented below in the forms of tables and diagrams and analysed with the help of descriptive statistics and by levels of information literacy competency.

**Table. 1**  
**Descriptive Statistics of the**  
**Variables of the Study**

S. No.	Variables	Min. Score Obtained	Maxi. Score Obtained	Mean	Standard Deviation
1	Information Literacy Competency	77	225	182.60	19.68
2	Information Literacy Competency Dimension 1: Information Management Competency	17	65	53.96	6.40
3	Information Literacy Competency Dimension 2: Information Search Competency	17	45	36.47	4.78
4	Information Literacy Competency Dimension 3: Information Need Assessment Competency	22	60	49.51	5.4
5	Information Literacy Competency Dimension 4: Competency of Information Search through Technology	12	35	26.39	4.72
6	Information Literacy Competency Dimension 5: Competency of Ethical Use of Information	6	20	16.27	2.5

From the above table, with regard to five dimensions of information literacy, it is evident that the mean values of the variables range from 16.27 to 53.96. The highest mean score is for information management competency ie, 53.96 and the lowest mean score is 16.27 for competency of ethical use of information. This indicates that majority of the respondents are good at information management competency and poor at competency of ethical use of information. The consistency in responses (as revealed by the standard deviation) is high for Competency of ethical use of information (standard deviation = 2.50) and low for Information Literacy Competency (standard deviation = 19.68). High consistency shows low variation in responses, hence though the respondents have good information management competency, the responses have much variation and low in case of competency of ethical use of information.

**Table. 2**  
**Respondents by level of Information Literacy Competency and its Dimensions**

Variable	Level			Total
	Low	Moderate	High	
Information Literacy Competency	4 (0.8)	167 (33.4)	329 (65.8)	<b>500 (100.0)</b>
Information Management Competency	4 (0.8)	75 (15.0)	421 (84.2)	<b>500 (100.0)</b>
Information Search Competency	11 (2.2)	148 (29.6)	341 (68.2)	<b>500 (100.0)</b>
Information Need Assessment Competency	3 (0.6)	154 (30.8)	343 (68.6)	<b>500 (100.0)</b>
Competency of Information Search through Technology	44 (8.8)	228 (45.6)	228 (45.6)	<b>500 (100.0)</b>
Competency of Ethical use of Information	16 (3.2)	125 (25.0)	359 (71.8)	<b>500 (100.0)</b>

The above table gives an insight into the level of information literacy competency and its dimensions of the respondents. The above table reveals that a little more than two-third (65.8%) of the respondents had scored high on information literacy competency. Hence it is understood that information literacy competency of the majority of the research scholars of university of Madras was high. However, a great majority (84.2%) of the respondents had high level of information management competency. Information management competency has been the highest among the research scholars probably because of their learning during their under gradation and post-graduation. Almost one-third (29.6%) of the respondents had moderate level of information search competency. About seven-tenth (68.6%) of the respondents had high level of information need assessment competency. Equal percentage of the respondents (45.6% each) had moderate and high levels of

competency of information search through technology. Almost three-fourth (71.8%) of the respondents had high level of competency of ethical use of information. Data on level of information literacy competency and its dimensions are presented as a sub-divided bar diagram given below.

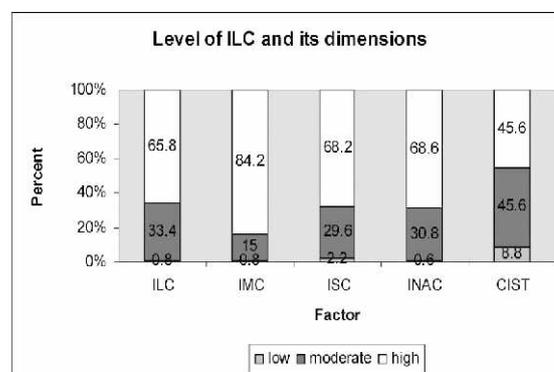


Figure 1 Diagram on Level of Information Literacy Competency and its dimensions

## 6. DISCUSSION

Only information management competency is high for great majority of the respondents. For three competencies - information literacy competency, information search competency and information need assessment competency, about two third of the respondents are in the higher category. For competency of ethical use, one fourth of the respondents are in the moderate category. For competency of search through technology, only less than half of the respondents are in the high category. These are pointers for improvement.

## 7. SUGGESTIONS AND CONCLUSION

Information literacy competency among the research scholars of university of Madras and its affiliated colleges were high especially in the dimension of information management competency and competency on ethical use of information. At the same time, information search through technology dimension was high only with less number of research scholars. Hence attention should be given to improve the information search through technology competency among the research scholars. Searching the right source of information with right keywords/ search techniques and using the appropriate technology for an appropriate search will enhance the competency of information search through technology. Hence it may be analysed that the research scholars need more input and training on information search through technology. Providing hands on training programmes, workshops and periodic intensive orientations would help the research scholars to improve the same. Hence the overall information literacy competency of the research scholars would be enhanced. It is understood from many studies that the information literacy competency of the students has remarkably enhanced after attending the information literacy programme or training.

## REFERENCES

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1. Association of College and Research Libraries (2000). *Information Literacy Competency Standards for higher Education*. Retrieved from <http://www.ala.org/ala/mgrps/divs/acrl/standards/standards.pdf>
2. Chu, S.K., & Law, S. (2007). Development of information search expertise: Research students' knowledge of source types. *Journal of Librarianship and Information Science*. 39(1), 27-40.
3. Donham, J. (1999). Collaboration in the media Center: Building partnerships for learning. *NASSP Bulletin*, 83, 20-26.
4. Dunn, K. (2002). Assessing information literacy skills in the California State University: A Progress Report. *Journal of Academic Librarianship*. 28(1/2), 26-35
5. Eisenberg, M.B., Lowe, C.A., & Spitzer, K.L. (1998). *Information Literacy: Essential Skills for the Information Age (2nd ed.)*. Chennai: Train Tree Publishing Private Limited
6. Martin, A. and Radr, H. (Eds.), *Information and IT literacy: Enabling Learning in the 21st Century*, Facet, London, pp.101-111
7. McBride, A. (1999), "Letting students shine: assessment to promote student learning", *Focus 31*, Educational Testing Service, Princeton, NJ.
8. Webber, S. and Johnston, B. (2003). *Assessment for Information Literacy: Vision and reality?*
9. West Chester University of Pennsylvania (2006). *Middle States Commission on Higher Education Periodic Review Report*, West Chester University of Pennsylvania, June 2006. retrieved from [PRR/PRR\\_Final\\_2006.pdf](#)

