

# Importance of Information Literacy skills for an Information Literate society

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## Abstract

The purpose of this paper is to present a broader analytical insight to the information literacy concept, in order to achieve an information literate society. The concept and its practical approach towards achieving an information literate society will be discussed in detail in this paper. Information literacy is a set of skills required by a person to find, retrieve, analyze and use information. Information literacy is directly linked with lifelong learning, critical thinking, and learning to learn concepts of education. Many Sri Lankans are badly handicapped with a lack of need of the essential skills to enter the information literate society. There are many reasons for this inadequacy, and the lack of information literacy skills have been identified as one of them. Information literacy skills are achieved by students, through student centered, resource based teaching learning methods that direct them towards deep learning, thus creating an information literate society. To achieve this goal all sectors of library staff in Sri Lanka need to be educated to commence information literacy projects. Basically information literacy programmes are action oriented, while helping to solve the real life problems and making the correct decisions. In addition this paper also proposes to discuss the available information literacy models and their practical approach, information literacy standards, and available frame works. A sample information literacy programme, curriculum, and assessment methods, are also elaborated in this study; with their practical approach in relation to the Sri Lankan context.

Keywords : Information literacy; Information retrieval; Information Skills;

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## **What is information literacy?**

Traditionally, Literacy means the ability to read and write. But there seems to be various types of literacy. Such as audiovisual literacy, print literacy, computer literacy, media literacy, web literacy, technical literacy, functional literacy, library literacy and information literacy etc. Nominal and active literacy too focuses on making people aware to read and write in their day to day activities. Information literacy is quite different to the above. It is a combination of all these concepts but goes beyond them.

According to the American Library Association, information literacy is the ability to **"recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information"** (ACRL, 2000, p. 1).

Information Literacy is the set of skills needed to find, retrieve, analyze, and use information. The twenty-first century has been named the information era, owing to the explosion of information and the information sources. One cannot achieve the study target without practicing special information literacy skills. In other words information literacy skills empower the people with the critical skills which will help them to become independent life long learners. These skills will enable people to apply their knowledge from the familiar environment to the unfamiliar.

Due to information explosion it has become increasingly clear that students cannot learn everything they need to know in their field of study, within a few years, at school or the university. Information literacy equips them with the critical skills necessary to become independent lifelong learners.

As the American Library Association Presidential Committee on Information Literacy (1989) explains. "Ultimately, information literate people are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them. They are people prepared for lifelong learning, because they can always find the information needed for any task or decision at hand."

Information literacy elements were defined by Bundy (2004) under three main elements..

1. Generic skills

- a. Problem solving
- b. Collaboration
- c. Team work
- d. Communication
- e. Critical thinking

2. Information skills

- a. Information seeking
- b. Information use
- c. Information technology fluency

### 3. Values and beliefs

- a. Using information wisely and ethically
- b. Social responsibility & community participation

Bruce (1997) has defined several concepts influencing and coexisting with information literacy.

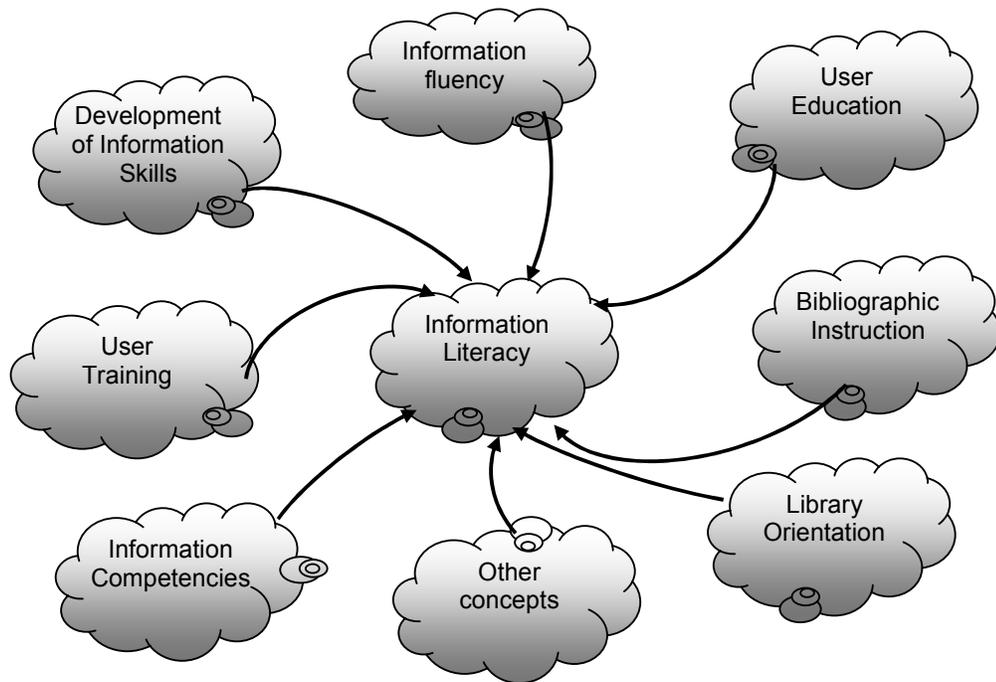
1. Computer literacy
2. IT literacy
3. Library skills
4. Information skills
5. Learning to learn

According to Californian University Information literacy fact sheet, (2000); an information literate individual is able to:

- ♦ Determine the extent of information needed
- ♦ Access the needed information effectively and efficiently
- ♦ Evaluate information and its sources critically
- ♦ Incorporate selected information into one's knowledge base
- ♦ Use information effectively to accomplish a specific purpose
- ♦ Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

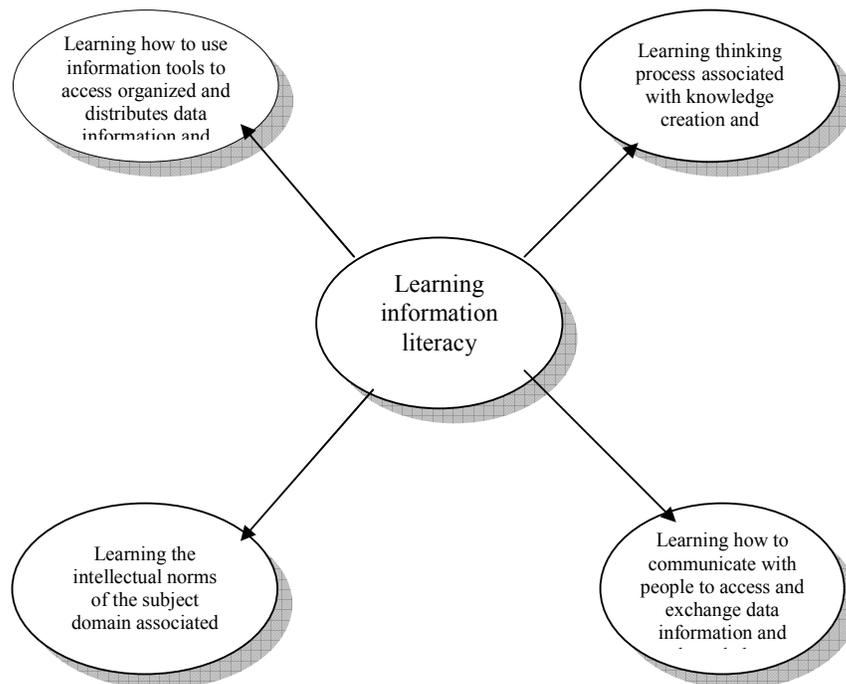
"Despite the information literacy's wider significance within the educational environment, information literacy has evolved from library education practices, and therefore the debate presented is based on the examination of the literature generated by the library and information science (LIS) disciplines. As the literature clearly illustrates, information literacy has developed to address the requirements generated by the phenomena such as information over load caused by the rapid developments in digital technologies, by the needs of the information society for competent information consumers, and to meet the requirements of the knowledge economy for a responsive and informed work force". (Andretta 2005, 5p)

Information literacy concept evolved from several basic library concepts such as library instructions, bibliographic education, user education, and information literacy programmes.



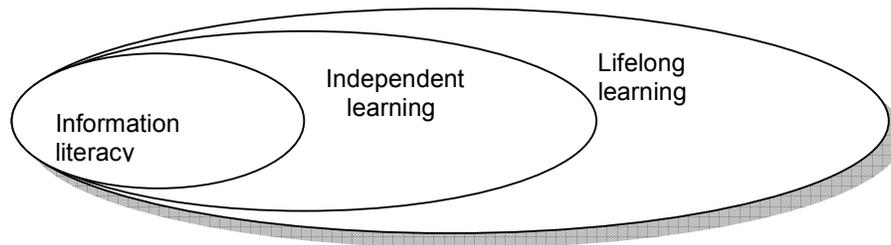
**Figure 1 – The Concept of Information Literacy. Lau, Jasus (2006)**

Hepworth (2000) explains the key area of information literacy learning by the following figure.



**Figure 2 - Key areas of information literacy**

Bundy, (2004) defines the relationship between information literacy and life long learning as follows. "Hence information literacy is the foundation for the independent learning and lifelong learning."



**Figure 3. Relationship between Information Literacy and Lifelong Learning**

### **Why is Information literacy so important?**

Information literacy is important owing to the amount of information that is available in contemporary society. Simply being exposed to a great deal of information will not make people informed citizens; they need to learn how to use this information effectively, ACRL (2000).

Data Smog refers to the idea that too much information can create a barrier in our lives. Especially students and the society require a special skill to handle this fast increasing information, in order to use their educational and economical purposes more effectively. Information literacy is considered as the solution for the data smog. ACRL (2006).

Information literacy allows us to cope with the data smog, by equipping us with the necessary skills to recognize when we need information, where to locate it, and how to use it effectively and efficiently. Consequently it will help decision making and productivity which is beneficial to the society.

Due to the information explosion and data smog all students and the society face many difficulties to locate, evaluate, use, and communicate information. Due to the expansion of internet services we receive a lot of information that is not evaluated, unlike the printed sources. Hence the authenticity, validity, and reliability of this information is in doubt.

Student centered, inquiry based, problem solving, and critical thinking proactive learning environment with the help of information literacy skills, will develop deep learners in the society. Furthermore, information skills are vital to the success in education, occupation, and day to day communication of all citizens. In the twenty-first century, life long learning has become one of the main themes in the higher education sector. Therefore the students need to be educated with regard to the abilities and skills of how to learn, or learning to learn, by developing the aspects of reasoning and critical thinking . Information literacy skills will help students to achieve this target in a broader sense, in student centered learning. Traditionally, we assume that the students will gain information literacy skills automatically by themselves. But it is not. In fact, information literacy skills need to be inculcated among the students, by the teachers and librarians.

Learning mainly focuses on achieving knowledge, skills and attitudes, associated with particular subject areas. Irrespective of the disciplinary stream, each and every student should be able to access, use and communicate information in an innovative manner. The Information literacy curriculum plays a major role in order to cultivate these skills among the university and school students. The curriculum can be implemented by the library professionals with the help of academic and administrative staff.

### **Who needs Information Literacy?**

Information literacy skills are helpful to every body, especially students, in order to succeed academically and in their future job opportunities. Teachers and lecturers are greatly in need of information literacy skills, in order to carry out their occupations efficiently and successfully. Basically, everybody in the society is in need of information literacy skills.

Information literate individuals improve the society's quality of life in general and academically. Information literacy helps us in our day to day life such as buying a house, choosing a school, making an investment, voting for the election, and many more. Information literacy skills are of prime importance in order to achieve every body's academic goals. Truly information literacy is the foundation of the democratic society.

A society that is capable to access, evaluate, use and communicate information in an effective and efficient manner is called an information literate society. When we educate our children with the necessary information literacy skills, consequently, the society becomes information literate.

### **What is learning?**

Information Literacy Skills are linked with learning and learning theories. Therefore, to implement a successful information library programme basic learning concepts need to be studied.

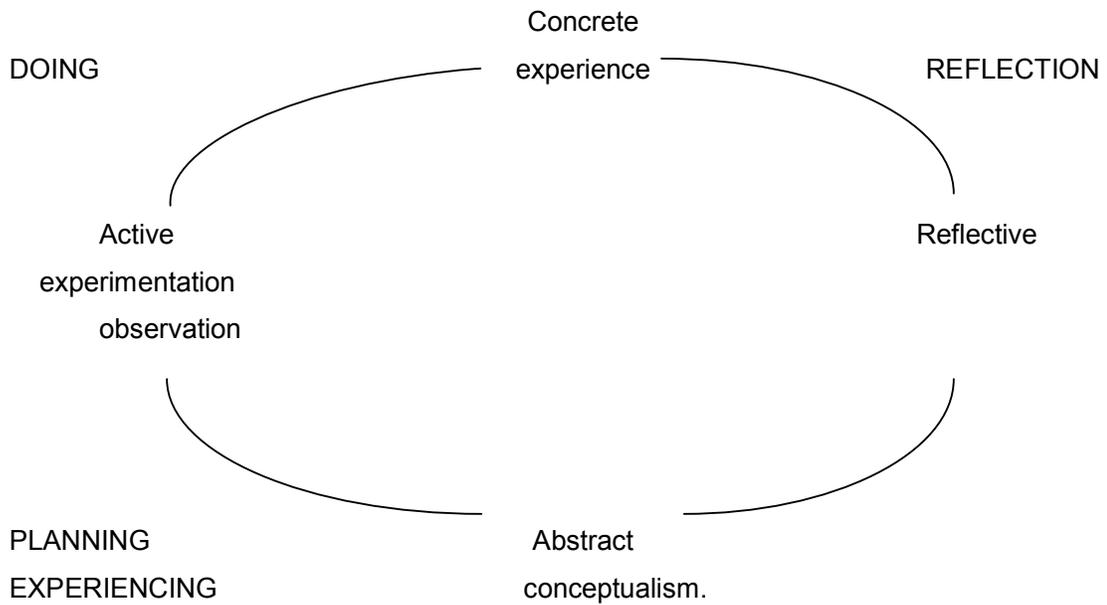
"The effect of the learning process that is defined as a durable change produced in the behaviour or capabilities of an individual, thanks to practice or other forms of experience" (Shuell, 1986).

"Learning is defined as a behavioral change and the construction of the knowledge. An obtaining a behavioral change using knowledge to enhance the personal and social development can be considered as learning which starts from the mother's womb and ends in the tomb as life long concept". (Pemadasa 2006).

### **Kolb's Experiential Learning theory**

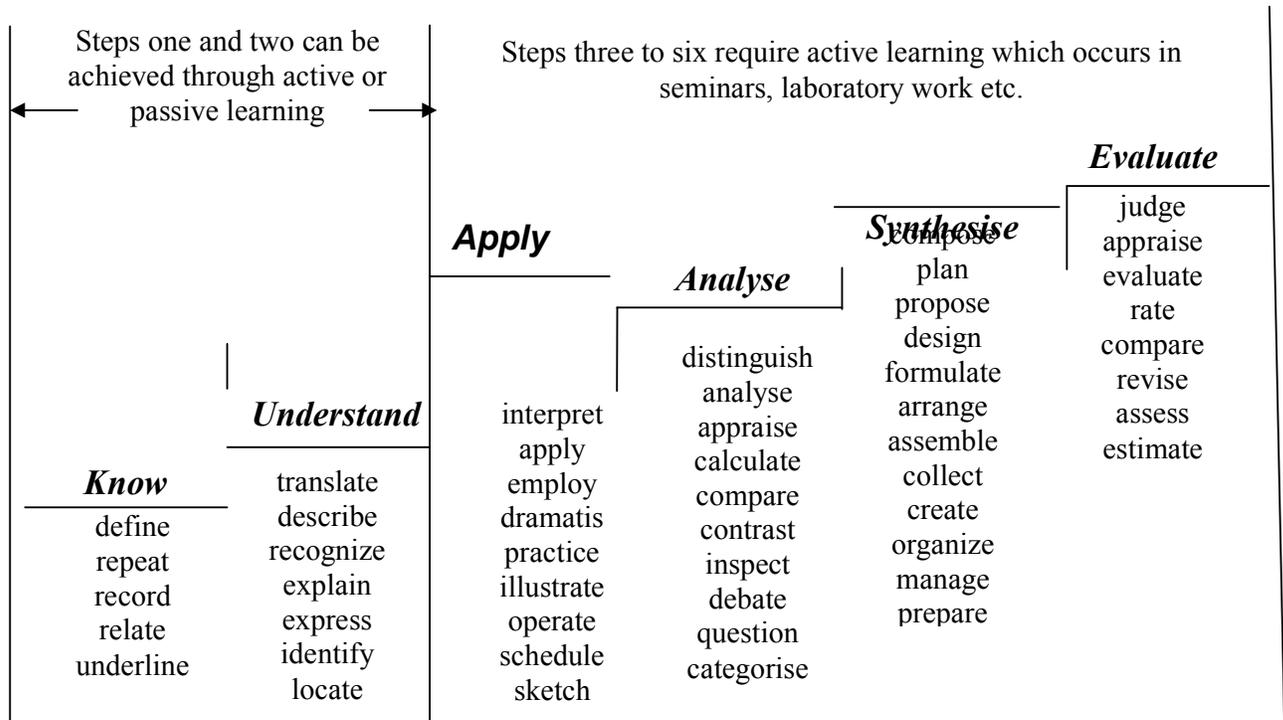
The Information literacy process too is a cycle like Kolb' Learning Cycle. It starts with planning stage and ends with applying stage to facilitate the abstract conceptualization of the learning theory.

David Kolb's model of the Learning Cycle (LC) has also been explained by various authors and researchers over the years. The cycle describes the system by which individuals, teams, and organizations attend to and understand their experiences, and as a result modify their behaviors. Planning, doing, reflecting and experiencing or formulating the theory are four stages.



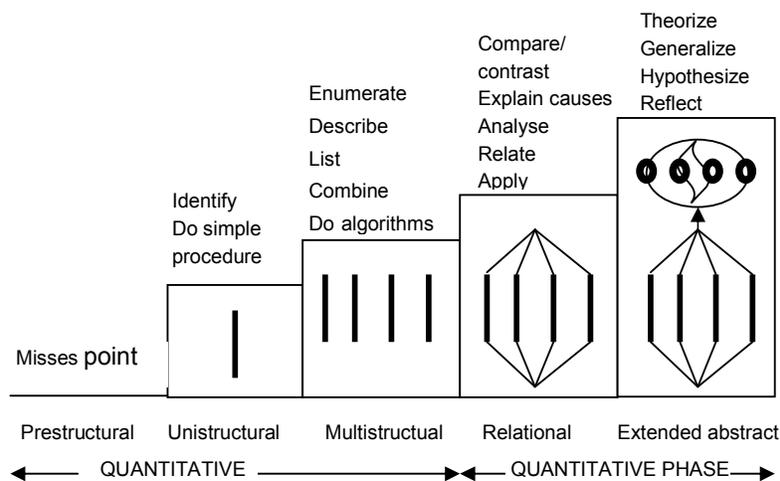
**Figure 4 – Kolb's Learning Cycle**

Learning is coined with teaching as well. Teaching can be performed by anybody, but effective teaching is quite a different task. The effective lecturer takes the students to the higher cognitive level, from surface learning to deep learning. Information literacy models/programmes pave the way to achieve the higher cognitive level in learning, similar to Bloom's taxonomy.



**Figure 5 –Levels of learning**  
(Haycock and Haycock 1981) Bloom, B. 1956

Solo taxonomy too is based from pre-structural knowledge to extended abstract conceptualization, which students must achieve ultimately. The information literacy models too direct the students to achieve the meta cognitive goals.



**Figure 6 - SOLO taxonomy, Biggs (1999)**

A hierarchy of verbs that may be used to form curriculum objectives for teaching and evaluating purposes too.

"Access to and critical use of information is absolutely vital to lifelong learning, and accordingly no graduate-indeed no person can be judged educated unless he or she is information literate"

(Candy, Crebert and O'Leary, 1994 p.xii)

### **Information literacy models**

In order to achieve the information literacy goals the information scientists have invented different models. These models help students and teachers to reach the ultimate goal of the education, with a specific guided plan. Several such popular models are given below.

#### **5.1. Big 6 Eisenberg/Berkowitz (1987)**

Task definition, Information seeking strategies, Location & access, Use of information,  
Synthesis, Evaluation

#### **5.2. The PLUS model-Herring**

Purpose, Location, Use, Self evaluation

#### **5.3. Research Process-Pitts/Stripling (1988)**

#### **5.4. Information Seeking -Kuhlthau (1993)**

Initiation, Selection, Formulation of focus, Exploration, Collection,  
Presentation, Assessment

#### **5.5. Australian School Library Association (1993)**

Defining information need, Locating, Selecting, Organising, Creating &  
Sharing, Evaluating

#### **5.6. Empowering 8- NILIS (2004)**

Identify, Explore, Select, Organize, Create, Present, Assess, Apply

### **Information literacy curriculum**

Information literacy models are more successful with the well defined information literacy curriculum The information literacy curriculum / programmes that are implemented by libraries need to include the following aspects in their curriculum, viz. outcomes, tasks, procedure and evaluation.

American library association in its position paper (2000) on Information literacy has created a curriculum under the seven components for the academic institutions.

- i. "Defining the need for information
- ii. Initiating the search strategy
- iii. Locating the resources
- iv. Assessing and comprehending the information
- v. Interpreting the information
- vi. Communicating the information
- vii. Evaluating the product and process"

### **Information Literacy educational programmes at NILIS**

All students who enroll at NILIS undergo an 08 day orientation programme under the "Empowering 08" information literacy model. At the end of the orientation program their performances in product as well as process is assessed by means of a working portfolio and a written assignment. The students of the Bachelor of Education course who learn the Information Literacy model for over 45 hours too are assessed, by means of a portfolio, pre and post test and a three hour written examination. In addition to these information literacy programmes it is taught as a separate subject for Masters and Post-graduate diploma courses in teacher librarianship.

It is important to note that most of the students had acquired the information literacy skills on completion of the relevant programmes. For example, most students who joined the programmes were not cognizant of the methods used to search for information, to use the library catalogue, to evaluate the information and to present the information. According to their pre-test results, it was established that they had not received education on academic writing, reading, note taking, note making, direct quoting, paraphrasing and reference in styles. Many of the students were surface and teacher centred learners. After completing the information literacy programmes conducted by NILIS the students were better equipped to be deep learners and life long learners, while being critical thinkers.

The portfolios, pre/post test results and students' evaluation sheets, confirm the success of the NILIS information literacy programmes.

### **Conclusion**

The development of Information Literacy competencies among the library users and throughout the society, has become a vital requirement to face the challenges of the 21<sup>st</sup> century.

Information literacy programmes need to be implemented mainly by the library staff in schools, universities, public and other libraries in order to achieve library goals and to convert their users to lifelong learners and critical thinkers. However it is very important to note here that these programmes would be more successful, if the library staff is able to enlist the co-operation of the teaching and administrative staff too. In addition to this, information literacy programmes will enable librarians to play a more prominent and meaningful role among their clients.

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