

Promoting the Use of Open Sources via Delivery of Information Literacy Module for Science Students

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Abstract

The investigator delivered the Information Literacy Programme in which she has presented the Information Literacy Module for Science students. The module designed was topic for research undertaken for the PhD degree. The eighth module emphasised the promotion and utility of open resources. In this paper the researches briefly mentions about the various modules. The feedback received after the delivery of ILP was very favourable and inspiring to the entire library team.

Keyword: Information Literacy, Open Access Resources

1. Introduction

In the era of information technology information storage and retrieval has become unbelievable simple, information can be accessed remotely. All individual will agree to the situation that today the information retrieval process has become comparatively very fast but the decision making process regarding the use of that information has become relatively very difficult and challenging. This chaotic situation is due to globalization of information technology and sheer abundance in quantity of information from all sources like various types of documents, multimedia and multilingual form including graphical, aural and textual. This have raised question about the authenticity, credibility and reliability of information creating a strong need of its evaluation. The uncertain quality and expanding quantity of information poses challenges to information users as well as to information science professionals. Thus one desires to be dexterous in the use of this information.

Holistic learning is required in today's rapidly changing technological environment. The learning must go beyond the class room instructions to resources and information based education. Thus, IL has become a need of time and has become a global issue calling for greater attention. IL teaching for these undergraduates is a remedial activity, where the learners are tended to have come from a enclosed learning culture of information feeding, during the school education , where information tend to be given, dictated or pointed out rather than providing an opportunity to independently sought the needed information.

Today the students need to be encouraged to seek for information independently and have the skills to determine its relevance and usefulness for the various academic purposes. They also have either no experience or very little experience of searching information from various information sources, especially from the library as well as from latest information medias like internet and databases. There seems to be an information breach. Hence at the Information Literacy Programme (ILP) conducted by the librarian will tends to orientate the students to a new world of information.

IL forms the basis for lifelong learning. It is common to all disciplines, to all learning environments, and to all levels of education. It enables learners to master contents and broaden their investigations, so they can be more self directed, and assume better command over their own learning.

IL should be introduced wherever possible within national curricula as well as in tertiary, non-formal and lifelong learning

Thus the librarian's responsibility increases. To cope up with the present situation ILP acts as a tool. ILP has raise its momentum in today's global environment and has become an indispensable device to handle information. In some developed countries USA, Australia, New Zealand. The IL instructions are offered as a full credit course and are the part of the UG curriculum. ILP provides the better opportunity to educate and train the UGs in their first step towards higher learning, in building and exploiting academic assets. The information professional must be not only catalyst but also partner in teaching learning process.

IL in the context of the Information Technology (IT) and supporting teaching and learning strategies has great potential to transform the face of education. The three major approaches of using technology are: (1) technology-as-aid, (2) technology-as-subject, and (3) technology-as-empowerment. (Ramesha B, 2009)

2. Objectives of the Study

To deliver the Information Literacy Programme for the Science Students

To promote and convey availability and importance of Open Access Resources to the students.

3. Methodology

The investigator took Information Literacy Programme for entire on week in the month of August for the Science students and PPT presentations were conducted. The students were asked for the feed back about the programme at the end which was found very inspiring.

4. Proposed Information Literacy Module

The present study it was observed that the information literacy level of the UG Science students is low. The UG students need to be made aware of the requirement of the information needed for the academic tasks like for completing projects /assignments. They must determine the nature and form of information required to accomplish that task. The skill required for the accessing the information for academic purpose depends upon the locating skills of the students. Information is available in library, via internet and also in various databases. The students must be empowered with the techniques and skills to handle and use these tools such as catalogue (OPAC), shelf lists and Indexes to locate required information.

The students need to **Access** the information coming from various format such as print as well as electronic form. They must know the path of flow of information from primary (Journals), secondary (text books, reference books from syllabus, reference books like subject encyclopaedia, dictionaries, manuals etc) and

tertiary sources (catalogues, subject lists, bibliographies, periodical indexes etc) of information. As all the sources of information are unique and the as per the need the students can effectively access the required information. As voluminous information is coming from internet effective 'search techniques' (Boolean, truncation, range search, etc) are required to retrieve precise information saving the time of the individual. The information available in data bases also requires certain search strategies to retrieve information efficiently, which depends upon the data base vendors. These features also must be taught to the students.

The credibility and authenticity of the retrieved information is very important, especially for the information coming from the internet, where anybody can upload any information. Thus the students must be taught to **evaluate** the retrieved information. The domain name etc can be explained to the students.

The student can chooses any best suitable communication medium and format that best supports the purposes of the project and assignment. The **use** of information technology applications in creating the project and assignments can enhance the performance of the students.

The ethical use of the information can take place when the students are demonstrates with an understanding of intellectual property, copyright, and fair us of copyrighted material avoiding **plagiarism**.

The importance of **citations** must be introduced to the student's so the students can appropriately in their projects.

Secondly the effectiveness of ILP will be possible only by the **collaboration with the faculty members**. The Librarian can become a partner in teaching learning process only by understanding the pedagogies associated in teaching. Thus the role of faculty member is crucial in promoting the effective utility of the library resources.

Lastly the ILP at libraries undertaken for the study is at elementary state. Considering all these interdependent and crucial factors a comprehensive Information Literacy Module for UG student is strongly recommended.

The IL Module for UG Science Students is as follows.

4.1 Module 1: The Library Virtual Tour

4.1.1 College Mission

4.1.2 Mission of the Library

4.1.3 Sections of the Library

4.1.4 Services we offer

4.2 Module 2: Identify your Information requirements

4.2.1 Determine Your Topic

4.2.2 Get Acquaintance

4.2.3 Map Your Thoughts

4.2.4 Types of Assignment

4.2.5 Amount of Information

4.2.6 Know the Information Flow

4.2.7 Know the peculiarities of information sources

4.3 Module 3: Explore your information needs

4.3.1 Develop Effective Search Strategies

- Key word searching is the default search in most search tools but it is usually less precise than subject searching and often returns irrelevant results
- Subject searching searches the subject field of the record.
- AND operator ensures only records that include all the term
- OR ensures record that include either term are found
- NOT ensures the record that includes the first term but not the second term.

4.3.2 Select the most appropriate tool for identifying information

Reference Material, Library catalogue, Internet search tools Books , Periodicals, Databases Conference proceeding, Legislation, Standards, Web pages, Internet search tools. Obtain information in a variety of format to keep up to date with literature. Explore – resources required information available;

4.4 Module 4: Select the information of your requirement

4.4.1 In terms of Quality

Quantity

Relevance

4.4.2 Revise your search strategy

Too many result

Not enough result

Revise your search strategy

4.4.3 Evaluate your resources see the reliability of the resources

For web page publication one has to check the domain (a group of networked computers that share a common communication address name with in the URL. a domain name consists of four domain parts

www.qut.edu.au www = host name, qut = organisation, edu = organization type and au = country Organization types are useful to determine the authority of a site eg

.com	commercial	www.sony.com.au
.edu	educational	www.agc.edu
.ac	academic	www.unipune.ac.in
.gov	government	www.maharashtra.gov
.org	organization	www.apa.org
.net	network organisation	www.aspe.net

4.4.4 Validity manipulation of the image is possible

4.4.5 Accuracy key fact should be verified to ensure accuracy

4.4.6 Authenticity of the author

4.4.7 Timeliness

4.5 Module 5: Organize and present your information

Organize–information earlier selected, between fact, fiction and opinion.

- ◆ To recognize the importance of managing information.
- ◆ Create a strategy for managing your information.
- ◆ Compile reference in the required bibliographic format.

4.6: Module 6: Create your information

Create – Information in your own words, revise and edit and create bibliography.

4.6.1 Why manage your Information

Relationship between citing and cited documents, Authenticity, Uniformity/Standardization, Further Readings , Identification of the cited documents Distinguishing among the same type of documents Locating the cited documents, Importance of high quality reference list: To avoid duplication of research

4.6.2 Avoid Plagiarism

Plagiarism using another 's words and ideas and passing them on as your own. Words, ideas, or knowledge are considered the Intellectual Property of the original author. U.S. Copyright Law protects the author. When others, including students, use an author's work and present it as their own without giving proper credit, they are dishonest, and this leads to plagiarism

4.6.3 Annotate and note take

4.6.4 Know the importance of Citation and reference.

4.7 Module 7: Present your information requirements

Present – Share information with audience; display in appropriate format.

4.7.1 Sort

By grouping similar pieces of information together.

Return to assignment question.

Describe ? Compare? Explain ? Solve?

4.7.2 Label your information.

Annoying and note taking

4.7.3 Structure your information.

Categories

4.7.4 Develop your Information

Generating new ideas and drawing conclusion.

4.8 Module 8: Access the information from the free Open Sources

Assess – feedback; self- assessment and assessment with teacher.

- ◆ Why are you communicating
- ◆ Submitting formal assessment
- ◆ Corresponding with a friend
- ◆ Engaging with audience
- ◆ Disseminating information to the community
- ◆ What are you communicating
- ◆ Have you been given guidelines
- ◆ How much detail is needed
- ◆ How much time u have.
- ◆ What are you communicating with
- ◆ Are you communicating to one person or more
- ◆ Will u use technology
- ◆ What hard ware or software they have
- ◆ What are their computer skills.
- ◆ Hardware and software available

The examples of open sources software are

Open J-gate Open J-Gate is an electronic gateway to global journal literature in open access domain. Launched in 2006, Open J-Gate is the contribution of Informatics (India) Ltd to promote OAI. Open J-Gate provides seamless access to millions of journal articles available online. Open J-Gate is also a database of journal literature, indexed from 7754 open access journals, with links to full text at Publisher sites

4.8.1. DOAJ

4.8.2 Free Medical Journals

Bioline International operates on a not-for-profit basis, focused on improving the distribution of scientific information despite borders and barriers All material on the Bioline International website is available on an open access (free) basis. However, copyright of all material remains with the journal publishers / authors

4.8.3 MedIND

One point resource of peer reviewed Indian biomedical literature covering full text of IndMED journals

Online Biology Books

Initiatives from India

- ◆ Inflibnet Shodhganga
- ◆ Journals of Indian Academy of Sciences
- ◆ NISCAIR Online Periodical Repository

4.9 Module 9: Apply information

Apply – review feedback and apply to next learning activity.

- ◆ Understand concept related to privacy and security in the electronic environment.
- ◆ Understand the concept related to censorship and freedom of speech.
- ◆ Apply acceptable practices
- ◆ Understand what information you can legally use under the concept of fair use and intellectual property
- ◆ Understand what constitute plagiarism and know the importance of how to acknowledge the work and ideas of others.

5. Conclusion

All the academic libraries procure basic resources; and provide services needed to enhance utility of library resources. Student emerging from UG educations are facing higher education expectation of research skills and career changes that require flexibility in the thinking and the ability to solve problems. If academic institute has to succeed in the goal of creating IL graduate, capable productive lifelong learners then the

education system has to revamp, Where student must get an opportunity to assess, evaluate and use information for the academic task. The projects, assignments etc are such opportunities, where students can independently search information. The investigator analysed the feed back form of the students are found it very favourable . Thus certain suggestions can to incorporate to develop this module elaborative.

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