Assessment to students' information literacy skills at Polytechnic University of Tirana

Ederina Demo

Department of Processing and Information, Scientific Library of Polytechnic University of Tirana
demoederina@yahoo.com
Sheshi " Nene Tereza", Nr. 4, Tirane, Albania

Abstract

Information Literacy is a concept that is largely discussed in the context of higher education and is closely related to academic libraries. Nevertheless, little is known on appropriate investigative methods that Albanian students use to access the needed information. In the frame of this issue during the winter session of exams February, 2013 at The Scientific Library of Polytechnic University of Tirana is conducted a survey to collect data on the Information Literacy of first-year undergraduate students of Tirana Polytechnic University, which are regular users of its library. As instrument of this method we developed a questionnaire based on The Standard Two of Information Literacy Competency Standards for Higher Education. The survey' main objective is to assess the level of achievement of the Standard Two of the first-year undergraduate students of Tirana Polytechnic University, in order to develop strategies to solve the difficulties they face to accomplish a specific purpose or information need. The aim of this paper is to demonstrate some findings on the students' knowledge gaps, as the proper understanding of the role of the Boolean operators, disabilities in identifying bibliographic references, difficulties on assessing information etc. The findings point to the need to develop strategies and training courses on student information literacy skills in order to apply them in the electronic information environment to help the learning process and their university career.

Keywords: first-year undergraduate students, information literacy, Polytechnic University of Tirana; Scientific Library of Polytechnic University of Tirana

Introduction

The concept of ***Information Literacy*** (IL) was originally connected to democratic ideals, throughout the years, the view of Information Literacy has evolved towards a more technical one and has been connected to the development of the information society (Webber and Jonston, 2000 cited in Roes, 2001). There are many definitions of IL, but the most cited and used is the one adopted by the American Library Association (ALA), 1998: "To be information literate, a person must be able to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information. The information literate individuals are those who have learned how to learn" (cited in Lau, 2006). IL is often mentioned together with the concept of critical thinking skills, also it is conceptually closely linked to terms like "active learning", "problem-based learning", "student-centered learning", "lifelong learning", and "learning to learn" (Roes, 2001). 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 content and extend their investigations, become more self-directed, and assume greater control over their own learning. An information literate student:

1. Determines the nature and extent of the information needed
2. Accesses needed information effectively and efficiently
3. Evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system
4. Individually or as a member of group, uses information effectively to accomplish a specific purpose
5. Understands many of the ethical, legal and socio-economic issues surrounding information and information technology (ACRL, 2000)

   IL is a concept that is largely discussed in the context of higher education and is closely related to academic libraries. As the environments of academic libraries have changed, the terminology and definition have changed and broadened. "What started as library orientation grew to be library instruction and bibliographic instruction and finally became information literacy" (Campbell, 2004). We in academic libraries consider the user information literate when he/she is able to determines, accesses, evaluates and uses information effectively, efficiently, ethically and legally to accomplish a specific purpose or information need. This is important for us. One of the most important tasks of librarian's work in academic libraries is to help students to be information literate and to equip them with the necessary information skills (Somi and De Jager, 2005). Academic libraries are still heading towards a model of education that focuses on students' needs, and that aims at empowering the student by improving their information literacy, both for legitimate membership in the academic community and for lifelong learning. Torras and Sætre (2009) give their opinion on the relationship between Net Generation and information. They do not master critical evaluation of sources. They do not find library-sponsored resources intuitive and prefer the use of searching engines such as Yahoo and Google. They view and power browse documents, instead of reading them. In their interaction with information, they fail to blend the necessary skills in finding information, using technology, and thinking critically.

Students expect to find vast amounts of information quickly and easily. They consider their searches successful when short search strings on popular Internet search engines yield many results. They are satisfied when they identify multiple sites from which to choose. Most often, they do not consider the type of site or the validity of the information and are generally unaware of the concept of evaluation criteria. Students often have no concept of how information is

organized. They do not understand indexing and are unaware of controlled vocabulary. They do not necessarily understand the distinction between Internet resources and information available from electronic databases. They must understand the difference between an index and a Web search engine and differences among the databases, as well as how to select appropriate databases. They must be able to apply the principles of Boolean logic, to identify and narrow a topic, and they must know how to evaluate information.

Of the five ACRL information literacy standards, academic librarians would seem to have the most credibility contributing to the realization of Standard Two, which is helping students to effectively and efficiently discover and access relevant information. Learner outcomes of the standard two include knowledge and experience of where to search, how to search and how to locate material found in the course of a search (Stanger 2009). These outcomes are related to appropriate investigative methods that student use to access the needed information. Student needs to know to create and implement search strategies by developing a research plan and to identify keywords and related terms that are necessary for finding relevant information. Very important is that student should selects controlled vocabulary specific to the discipline or information retrieval source and to use appropriate commands such as Boolean operators, truncation for search engines. Student should knows how to retrieve information online and to use different methods, such as various search systems to retrieve information in different formats, various classification schemes to locate information resources inside and outside the library. Student should be able to use surveys, letters, interviews, and to use specialized services, such as library and interlibrary loan to retrieve the needed information. Student should know to refine the search strategy if he/she is not satisfied by the information retrieved. In this case student should improved search using the new revised strategy. At the end student should be able to manage all the information retrieved and its sources, choosing which technology is most appropriate, creating a system for organizing the information and distinguish between differ types of sources recorded for later use.

The Scientific Library of Polytechnic University of Tirana is located near the Polytechnic University of Tirana, where there are and the greatest number of students and serves primarily the students and faculties of its institution, academic staff of different faculties, other academic institutions, researchers, individuals etc.

Now, with the implementation of the Bologna Declaration, in our system of higher education academic staff and students face new challenges in terms of educational programs. Students must do more individual and team work, and that means more reading, browsing and study of professional literature. For that reason students must be technologically capable and have the knowledge required to be information literate.

First-year undergraduate students come from different high schools, some of them are oriented in general education, and the others oriented in professional education, therefore they have different backgrounds, in consequence their information needs and skills are different. All of them are very familiar with the Internet as they belong to the Net Generation and have extensive experience using the World Wide Web. Many students have little basic knowledge of how information is produced, organized, and disseminated. They often expect that searching any electronic information resource should be like Google; you type in some terms and obtain some results.

During the winter session of exams February, 2013 at The Scientific Library of Polytechnic University of Tirana is conducted a study on appropriate investigative methods that first-year

undergraduate students use to access the needed information based on following research questions:

- How students develop search strategies?
- How students select the most appropriate resources?
- How students are able to identify citations?

Methodology

The survey is selected as the most appropriate methodology to collect the data on the information literacy skills of first-year undergraduate students of Polytechnic University of Tirana. As instrument of this method we developed a questionnaire related to The Standard Two of Information Literacy Competency Standards for Higher Education, based on the Albin O. Kuhn Library & Gallery Information Literacy Survey 2003.

This questionnaire includes twelve closed questions where students have to select one or more correct answers. Eight of questions related to Standard Two of Information Literacy focusing on the research questions.

The main objective of this survey is to assess the level of achievement of the Standard Two for first-year undergraduate students of Polytechnic University of Tirana, in order that, we as librarians, to develop strategies and training courses that will enhance students' ability to access, evaluate and use information effectively and efficiently.

The Scientific Library of Polytechnic University of Tirana was used as the venue for the distribution of the questionnaires. The distribution was conducted during the winter session of exams (February 2013). A total of fifty questionnaires were distributed among first-year undergraduate students entering to the reading room of the library. Before completed the questionnaire students are asked if they wish to participate in this survey and are informed of the purpose of the study. They are all randomly selected from the first-year undergraduates that frequent our library, and their names are kept anonymous. There are also collected demographic data, which relate to the first four questions of the questionnaire. This questionnaire was completed by all students to whom it distributed.

Findings and discussion

The following responses presented below are referring to questions 5-12, results of which will help us to measure the level of first-year undergraduate students' information literacy skills.

5th Question provided 6 options and asked students to respond to **"Where do you go to find information?"** Students were not asked to rank the order, and were able to select as many options as were applicable. For that reason we have counted, ranked, and summarized the responses.

Table 1. Where do you go to find information?

Options	Responses	Percentage of respondents
Use Internet search engine	32	64%
Ask a friend	29	58%
Go to the library	17	34%
Ask a professor	11	22%
Go to the library catalog database	5	10%
Other	0	0

TOTAL	**94**	**(n=50)**

Findings above show that students use the most search engine and asking a friend to find information, than to go to the library, asking a professor or to search on the library catalog database.

6ᵗʰ Question provided 10 options and asked students to respond to **"Where would you go or what would you do to find current information on the following topic? – "Impact of information technology in a knowledge society"** Students responded as follows:

Table 2.

Options	Responses	Percentage of respondents
Online-Internet	40	80%
Friends/colleagues	36	72%
Librarian	28	56%
Encyclopedias	9	18%
Abstracts and indexes-print	9	18%
Faculty/professors	7	14%
Abstracts and indexes (databases)-electronic	5	10%
Newspaper archives	3	6%
Magazines	2	4%
Other	0	0
TOTAL	**139**	**(n=50)**

After asking about sources and ways of information that respondents use to find information on a specific topic, as seen from the replies on the top is the Internet, followed by friends/colleagues, and the librarian. This question highlights a strong preference of first-year students to rely open the Internet as a source of current information. Also responds to 5ᵗʰ and 6ᵗʰ questions reinforce each other and give the same conclusion about Internet and friends/colleagues as the primary source to find information. Related to library and librarian they trusted more the second one. Apparently they believe more to a person than in an institution.

7ᵗʰ Question provided 12 options and asked students to respond to **"Other than "books" and "journals", what other types of information are you familiar with or might you use for a research/project paper?"** Student responded:

Table 3.

Options	Responses	Percentage of respondents
Web sites	50	100%
Images/pictures	41	82%
Videos/movies/DVDs	41	82%
Magazines	37	74%
Newspapers	31	62%
Interviews	15	30%
Television/radio transcripts	11	22%
Dissertations/theses	9	18%
Conference proceedings	7	14%
Manuscripts	0	0

Options	Responses	Percentage of respondents
Diaries/letters	0	0
Other	0	0
TOTAL	**242**	**(n=50)**

It is clear that the Web sites topped the list followed by Images/pictures, Videos/movies/DVDs, Magazines, and Newspapers. Less familiar are Dissertations/theses and Conference proceedings, while Manuscripts and Diaries/letters are not known based on the responses.

On the other hand, when asked **when they would consult a librarian for assistance**, the students responded:

Table 4.

Options	Responses	Percentage of respondents
You need advice about where to look for information	37	74%
You don't know how to use an information source	35	70%
You don't know when you would consult a librarian for assistance	29	58%
You need help choosing the best information source	11	22%
All of the above	7	14%
None of the above	0	0
TOTAL	**119**	**(n=50)**

As seen from the answers the highest percentage belong to options "You need advice about where to look for information", followed by "You don't know how to use an information source", and "You don't know when you would consult a librarian for assistance'. These responses indicate that students are not sure to find information in library environment and they need the help of librarian to advice them and to retrieve the information needed.

In relation to **the 9th Question**: "**In order to find more documents on your topic you can include synonyms in your search statement. To connect those synonyms in your statement you use:"**, students responded as follows:

Table 5.

Options	Responses	Percentage of respondents
AND	23	46%
Don't know	17	34%
OR	10	20%
+	0	0
NOT	0	0
Other	0	0
TOTAL	**50**	**(n=50)**

Regarding to **the 10th Question** "**To find all the documents about Ismail Kadare in the library catalogue, you should do a search:**" responses are as follows:

Table 6.

Options	Responses	Percentage of respondents
Author	47	94%
Title	2	4%
Don't know	1	2%
Publisher	0	0
Subject	0	0
TOTAL	**50**	**(n=50)**

As shows the majority parts of students 47 or 94% responded to *author option*. This is happened, probably because the author's name is well known and respondents have made the connection to that option.

Regarding to **the 11th Question "In an online database which combination of keywords below would retrieve the greatest number of records?"** responses are:

Table 7.

Options	Responses	Percentage of respondents
Computer and information technology	37	74%
Don't know	13	26%
Computer or information technology	0	0
Computer not information technology	0	0
Computer and information technology not information networks	0	0
TOTAL	**50**	**(n=50)**

While as regards the last question **"Which one of the following citations refers to a journal article?:"** none of the students being able to distinguish which one of the citations refers to a journal article.

After analyzing the results obtained from the questionnaire noted that students first turn to the Internet and friends to find information. Few students use the library as their primary source for information, they refer to the Internet, friends and very few refer to abstracts and indexes whether in print or electronic version. "According to OCLC's 2005 report, *College Students' Perceptions of Libraries and Information Resources*, 89 percent of college students typically use a search engine to begin a search for information. Search engines were rated higher than libraries.... Peking University Library's 2007 survey, *Faculty/Graduate Students Information Behavior* also shows that "search engines", as the user preferred methods" (Liu, Liao & Guo 2009). Wang and Artero (2005) had confirmed, based on the survey questionnaire, that undergraduates were active users of the Web. They considered the Web an important resource and used it for their academic studies.

However, in relation to 8th Question they responded that consult a librarian for assistance when they need advice about where to look for information. By comparing the results of 5th Question and 6th Question with the results of 8th Question it emerges that in the first cases they are not referred to the librarian, but Internet and friends. Even they have knowledge about other

types of information such as images/pictures, videos/movies/DVDs, magazines, and newspapers, their main source again remain WWW.

Another finding of this survey is that students considered information received from the Web as much familiar to use in their research papers. They are not yet aware that the quality of the information on the Web is problematic and unfiltered. Although they consider the Web as much familiar, among other sources the data related to 9th and 11th question shows that students overestimate their ability developing successful search strategies, yet they are unfamiliar with basic search concepts such as Boolean operators and keywords.

The purpose of the 12th Question is to determine if the participants are able to interpret a bibliographic reference and recognize its corresponding document type. Thus the importance of being able to identify the document type corresponding to a citation. In the case of a journal article, it comes as no surprise that none of the respondents would be able to select it.

Conclusion

The survey highlighted some important issues relating to the level of IL skills of first-year undergraduate students.

- Incomplete skills in terms of Information Literacy.
- Difficulties in developing effective search strategies.
- Insufficient knowledge of appropriate keyword selection and the use of Boolean operators.
- Preference of easy access over quality information.
- Poor mastery of critical evaluation of sources and information.
- Poor understanding of information needs.
- Disabilities in identifying bibliographic references.

These results indicate the importance of IL training for first-year undergraduate students about the diversity of resource discovery tools available to them and to improve the quality of information used by them.

It is our responsibility to equip students with adequate IL skills to help them succeed in this age of exploding information. IL skills are not only essential for student academic success, but also for success after their university career, because IL is closely related to life-long learning. IL offers the best chance for students to become successful life-long learners. We should not simply guide students to this vast ocean of information and abandon them there, leaving their survival to chance. We need to make a commitment to teach them useful information literacy skills so that they can sail safely across this ocean.

Since our higher education did not include in their curricula teaching of IL, there is not an excuse for librarians to wait and see. It just implies that we have to find alternative routes. With or without an institutional strategy, it is still a librarian's task to support teaching and learning, and to develop relationships with Polytechnic University further and in the direction of supporting teaching of IL.

Appropriate and timely IL skills training can lead to students becoming independent and life-long learners, as well as improving the standard of their academic work.

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