



Shaping up Information Literacy in a New Venue, a University in Bangladesh

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Abstract

The purpose of this study is to rationalize the Information Literacy Education (ILE) and to initiate a small scaled ILE programme for the Freshman undergraduate students who determined to study business at Independent University, Bangladesh (IUB). As most of the students of IUB are from the business discipline so the target group is specified only for this group for this exploration. This study intended to suggest ILE programme with specific goals, objectives, activities and resources which may be relevant for the target group and may fit with the institutional mission of IUB. Freshman students were asked to fill a set of structured questionnaire which assessed their level of information skills and Information Literacy (IL) behaviour. A number of real life cases concerning IUB business students were also observed. Based on basic IL competency assessment and real life problems the necessity of ILE and a suitable programme are proposed for the target group. Though IUB business students are secured in job market and contribution is notable, but they require more competencies to solve Information related problems critically. Regarding perception of IL behaviour, a changed attitude of the respondents is observed which is significant and visible in general. It is assumed that most of them realized their need for IL Education to solve their information related problems. A small scaled programme in present infra-structure of the library and concerned school is suggested for the newcomers. Though this type of ILE research result may be described elsewhere, but programme-based ILE study is for the first time in Bangladesh. Undoubtedly, this is basic by nature, but

this study will foster more research in this context of information literacy in Bangladesh. Here, the topic of this paper is in a new venue, a university in Bangladesh, contributes to the knowledge in the discipline of information literacy education program based on explorations, perception and review.

Key words: Information literacy; Higher education; Information competency; ILE Curriculum; Bangladesh

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INTRODUCTION

Using information resources are appearing difficult and challenging due to the production of massive and complicated information resources gradually. So, continuing information literacy programme is useful and significant. Globally different institutes for higher education, secondary, even primary level have responded by providing instructions for information literacy. A number of institutions have adopted policy for it; though to achieve a policy is not a guarantee that all students will be given appropriate information literacy education, but it indicates that academics cannot ignore information literacy. It is really tough to achieve the policy outcome for which a lot of hard work is required by information literacy instructors and administrators. Independent University, Bangladesh (IUB) is a leading private university located in Dhaka, Bangladesh. Currently the university has more than 4,000 undergraduate and graduate students. IUB is dedicated to make graduates who will be equipped for providing new leadership and for applied research. IUB curriculum is designed

to provide students with communicative skills with socio-cultural background. Applied skills or project based experience and an area of sub-specification are also part of IUB curriculum (IUB Green Book, 2012). The category of IUB students are: *Freshman* (earned/enrolled for 0 to 29 credit hours), *Sophomore* (earned 30 to 59 credit hours), *Junior* (earned 60 to 89 credit hours) and *Senior* (earned 90 or more credit hours). At IUB, most of the students are studying in different majors in School of Business (SB). After finishing the Freshman provision, students can declare or eligible for his/her major in different disciplines of different schools. Data collected from the students for this assessment, who had been Freshman and intended to study business. For the convenient of this write-up, the target group is mentioned as Freshman Business Students. In an earlier survey (Shoeb, 2008) it has been revealed that the most frequent visitors at IUB library are business students (65.7%) in comparison to total IUB students. Besides, Freshman students use to go through a process of adopting different basic learning skills through their basic courses, so they have been selected as the target group for this study. Independent University, Bangladesh Library (IUBL) is an integral part of the university since its inception in 1993 with the young university to serve constantly to its conversant community i.e. students and faculty. The library emphasizes services to users, at the same time trying to increase their self-help and self-service capacities. The library is the major contributor to the university's aim of developing independent learners. Most of the collections of IUB library are closely related to the university's courses (IUB Library, 2012).

Previously, IUB Library took some informal initiatives for their library users/members who use to visit library, i.e. information search techniques, identifying and selecting required information, information access and retrieval, technique for future use of information, orientation and informal guidance on using information etc. But basically these unstructured information problem solving programmes did not outreach to the main stream business students. Though IL is nothing new globally but for this context relevant information literacy programme is useful, important and effective to make the students knowledge based independent learner.

1. LITERATURE REVIEW

Concepts of Information Literacy

Information literacy concept first appeared in the literature during the 1970s (Rader, 2002). Earlier in the academic community the term referred library orientation, library instruction, bibliographic instruction, user education, reader education, information skills or any other terms

which are in relation with library education or learning information skills to locate resources or information. Paul Zurkowski introduced the term "information literacy" in 1974. He described information educated people with the techniques and skills for using information tools to provide the information solution (Zurkowski, 1974). Irving (1985) showed in a research that the students with essential information skills can solve different types of information problems for all aspects of life. The concepts of library education and orientation were gradually replaced by the term information literacy during the 1980s which has now extended and with different definitions, substitute terminologies, rationalization, clarifications and justification for information literacy. The American Library Association (ALA, 1989) defines information literacy as "...the ability to recognize when information is needed and the ability to locate, to evaluate, and to effectively use the needed information...."

Doyle (1992) mentioned information literacy as the ability to access, evaluate and use information from diversified sources. Most of the Information Literacy definitions are based on ALA definitions (Rudasill, 1998; Plotnick, 1999). Different models, explanation have been defined and comprehensive programmes have been proposed on information literacy by several authors, researchers and institutes (Shapiro and Hughes, 1996; Bawden, 2001; Avery and Allen, 2002)

The Association of College and Research Libraries' Information Literacy Competency Standards for Higher Education (ACRL, 2009) defines information literacy as:

[...] a set of abilities requiring individuals to recognise when information is needed and have the ability to locate, evaluate and use effectively the needed information.

The Library and Information Association of New Zealand Aotearoa or LIANZA (2002) defines information literacy as "the ability to access, process and use information effectively" and considers it as "a key enabler for New Zealand society as a whole". LIANZA mentioned information literacy as one of the three major elements of a national information policy framework and that the responsibility for an information literate society is a combined effort of everyone. The International Federation of Library Associations and Institutions (IFLA) has a section on Information Literacy to promote and foster international cooperation in the development of information skills education in all types of libraries (International Federation of Library Associations [IFLA], 2004). IL five standards reviewed by the ACRL Standards Committee were approved by the Board of Directors of the ACRL. ANZIIL (ANZIIL Standards, 2010) six core standards of Information Literacy are established by Australian and New Zealand Institute of Information Literacy. These standards are mainly

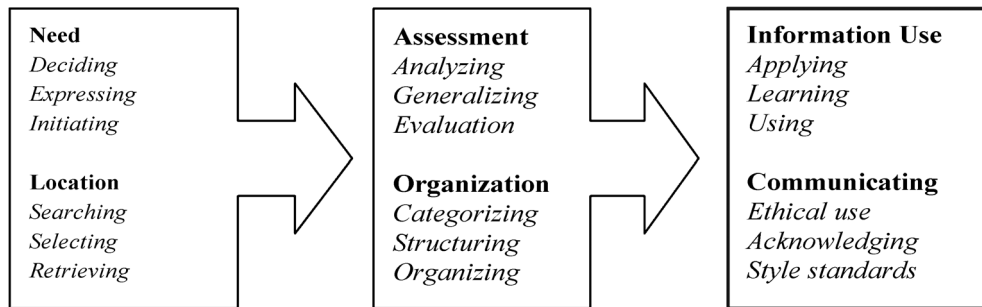


Figure 1
Information Competencies (IFLA, 2006)

competency standards for information literate people. The IFLA (2013) information literacy standards are clustered under three basic IL components like Access, Evaluation and Use as follows-

So, in a nutshell it may be said that IL is a set of required knowledge and skills which is necessary to perform to solve any information related problem such as, to identify information, organize, interpret, ethically use, communicate, interpret and utilize to accomplish effectively.

1.2 Benefit of Information Literacy

Goodin (1991) and Pitts (1996) suggested the requirement of skills in higher education. Loo and Chung (2006) asserted that IL helps to increase the information proficiency of the students who are in higher education. They also stated that:

[...] as such, students are able to develop critical analysis and communication skills, recognize and appreciate the variety of information formats available in today's society, and critically evaluate and ethically use the desired information" (Loo and Chung, 2006).

Ojedokun (2007) stressed on the necessity of higher education institutions, which missions are to develop lifelong learner so that the learners have the intellectual abilities to think critically, to construct them as independent learners and learning how to learn. In a study, Baro and Fyneman (2009) highlighted the significance of incorporation of information literacy skills and activities into existing curriculum. Schilling et al. (1995) mentioned about the students view regarding information literacy, proper teaching and learning methods, valid curriculum, effective cooperation and coordination between IL students, faculty and library staffs etc. According to Parker (2003), curriculum-based information literacy programmes are the most useful approach to provide effective and quality information literacy education.

Nowadays, beside basic IL activities, curriculum or programme based IL education received much attention. This is because programme-based and curriculum integration supposedly leads to better learning outcomes. The need for higher education institute to equip their

graduates with information literacy skills that would enable them to be successful academically. The integration of IL in their learning may make them developed with leadership role in the information society.

1.3 IL and Information Seeking Behaviour

Regarding IL behaviour, Heinstrom (2006) demonstrated that students have the tendency to seek only the "right" answers and they like to evaluate the importance on the basis of convenient access to information sources. O'Brien and Symons (2007) identified the limited information search skills among undergraduates. Moreover, Urhquhart and Rowley (2007) observed simple searching skills that prioritize ease and convenience way of seeking information. There is a relationship as well overlapping between information literacy and information seeking. Lloyd (2006, 2007) observed information literacy instrumentally which may have obvious different standard according to the national policy and more instructional as well conceptual. Whereas Limberg and Sundin (2006) mentioned information seeking as an entity of learning which is strongly associated to the information literacy thought. In the following lines the overlap is made clear as Limberg et al. defined mentioned that:

[...] a set of abilities to seek and use information in purposeful ways related to task, situation and context in which information seeking practices are embedded" (Limberg *et al.* 2008).

So, as both are the information seeking behaviour is lying in the information literacy practice which may be addressed through standard, skill, competency and also assessment. It has been observed at IUB that students' information seeking behavior affects information literacy outcome and information literacy skill also influence information seeking behavior.

1.4 Information Literacy Education

Information Literacy Education (ILE) is a way to facilitate or provide instruction, education, training etc. for the IL learners. It is very important that, information literacy education should be comparable to contextual stand. The knowledge or the experience that gathered by the people of any region is relevant to him, to their community,

and ILE is always affected by the context. It is mainly cultural context. Haviland (2001) observed culture as an integrated pattern of abstract values, belief, perceptions that depends upon the people's manners, social learning, thoughts and which is reflected in their behaviour. As people share a common culture so they can predict others attitude, behaviour or how other can respond in a given circumstance.

Information literacy education is a cooperative process. In this process the teacher facilitates information related learning experiences. The learners critically and reflectively engage with information as a resource for self-actualisation in their unique local contexts. ILE differences on local, social, cultural and political context were studied by Dorner and Gorman (2006). They observed that people may culturally and socially different which reflect their thinking, feelings and communication and should not be ignored. ILE programme model should reflect the local context and facilitate by ILE educators in a cooperative process which should also reveal the factors of the general cultural circumstances also. So, there is an association with the ILE programme and local context.

2. INFORMATION LITERACY IN BANGLADESH: THE PRESENT STATUS

Though in Bangladesh, there is no such formal programme on Information literacy where people can encompasses knowledge of one's information concerns and needs, and to address issues or problems at hand; though it is a prerequisite for participating effectively in the Information Society, and is part of the basic human right of life-long learning. The term Information Literacy is rarely known to the people of any sector here. They are unaware and confused about the term, definition, activities and the scope. This is mainly for the lack of co-operation among the LIS professionals, lack of aspiration to know something new, underdeveloped libraries, inconsistent information systems, lack of motivation, lack of awareness of the administrators of the professional and academic bodies, expensive information technology and communication structures, shortage of skilled and experienced ILE educators, the pattern of flow of information production and dissemination etc. So, it is very common phenomena for any developing country like Bangladesh for not engaging themselves in this programme.

IUB is the pioneer of IL as an academic organization in Bangladesh in sense of creating and promoting this theme. Earlier, IUB library organized an International Workshop on Information Literacy, during 22-26 June 2009. Renowned information Literacy Educator Professor Gary Gorman and Dr. Dan Dorner from Victoria University of Wellington, New Zealand instructed thirty (30) international and national library and information science professionals on ILE. This workshop was funded

by IFLA-ALP, which was first time in the Bangladesh to organize such an international workshop (IWIL, 2009). IUB always feels the necessity of information literacy education in Bangladesh and also cordial with the awareness of ILE programme in this organization as well in Bangladesh. As part of library education programme on discovering library resources, IUB Library regularly arranges workshop for their faculty of different schools (IUB, 2012b). Previously, East-West University (EWU) organized a number of workshops to increase the awareness of information literacy among the faculties and students and even in health sector (IWHIL, 2011). Like IUB and EWU, the LIS department of University of Dhaka (DU), University of Rajshahi (RU) and BRAC University Ayesha Abed Library (BU) have a better understanding with IL programme and practice. There are other few universities and organizations which took part in the IWIL-2009 at IUB are also in the process of IL in small scale. So, it is the beginning of realization of the necessity of ILE in higher education by the library and information science professionals in Bangladesh. Recently, few studies have been carried out by several researchers in Bangladesh. The mentionable studies are: integration of IL into university curriculum and IL competency assessment (Shuva, 2008; Islam and Tsuji, 2010). The Centre for Information Studies Bangladesh (CIS,B) has different activity and outcome based training programme for selected secondary level school. In a different study Islam and Ahmed (2011) highlighted the necessity of IL training for the students of this level. The responsiveness also observed in the activities of Bangladesh Association of Librarians, Information Scientists, and Documentalists (BALID) a national professional organization here. United Nations Information Centre (UNIC), Dhaka also related with UN literacy related activities. It is worth to mention that partial or non-standard community information literacy program has been appeared in Bangladesh for different target group as Community Information Services (CIS) through The Dhaka Ahsania Mission (DAM), Development Research Network (D.Net), Community Development Library (CDL), Grameen Phone Community Information Center and other different organization (Islam and Islam, 2010). Anyway, these CIS activities are limited to providing services in sequence with their business purpose as well identification of specialized information needs respective to the organization's audience. Though globally IL has been recognized with different sub-components like tool literacy, resource literacy, research literacy etc. and/or other conception i.e. independent learning, critical thinking, social responsibilities those are also absent with standards here.

3. MOTIVATION BEHIND THE PROGRAMME

IUB graduates are always in secured position in the job market and making significant contribution (IUB,

2012a) with the comparison of other universities in Bangladesh. But, for current requirement, local and social demand, and for the lifelong learning ability, IUB students should acquire more knowledge on information problem solving independently. Following are two observations identified recently by the authors which forced to carry out this study:

Observation 1: E-resource usage

It has been observed from recent usage of e-resources by IUB students and faculties that e-resources usage has been to some extent fallen down from the last few years where subscription rate is going up higher year by year. It may be assumed that as the main user of e-resources are students so there may different factors which may have affected the usage; these may be difficulties of locating sources, searching inefficiencies, problem with information retrieval method, irrelevant resource subscription, resources not suggested by the faculties to explore etc.

Observation 2: Citation analysis

In an earlier survey in the library on the topic "Citation Analysis of Senior Project by IUB Business Students. it has been explored that few students followed the prescribed style manual for citation, and they were very good with the list of references. On the other hand few reports were found not up to the mark where no proper citation style followed. It may be assumed that those students did not know what the citation style is, how to present a report, how to write the list of references etc. Though the business students are taught "Business Research Method" course but that may not articulate and identify their problem in connection with seeking information sources and presenting there research output.

Though above two cases were discrete and not related to each other, but there is a common similarity behind the picture, that is, they were not familiar to use information properly of their need. So, to take the fullest advantage of problem-based learning, students must use thinking skills requiring them to become skilled users of information sources in many locations and formats, thereby increasing their responsibility for their own learning. To obtain the information they seek, they have to utilize an information retrieval system, such as may be found in a library or in databases accessible by computer from any location. In the report of Information Literacy Competency Standards for Higher Education by ACRL (2009) mentioned:

As students progress through their undergraduate years and graduate programs, they need to have repeated opportunities for seeking, evaluating, and managing information gathered from multiple sources and discipline-specific research methods.... Gaining skills in information literacy multiplies the opportunities for students' self-directed learning, as they become engaged in using a wide variety of information sources to expand their knowledge, ask informed questions, and sharpen their critical thinking for still further self-directed learning...

IUB undergraduate students may be smart and intelligent, but most of them are still finding the process

of research trouble. These students have the scarcity of learning the basic information skills; they only end up using trial and error methods of research, this limits their capabilities to satisfy their needs. Students think they know more about accessing information and conducting research than they are able to demonstrate when put to the test, and that students continue to be confused by the elementary conventions for organizing and accessing information. So, in this context Information Literacy Education is required for IUB Freshman business students which may be extended further for the other students later.

4. METHODOLOGY

As it has been mentioned earlier that for the convenient of this write-up, the target group has been mentioned as Freshman Business Students so, initially a survey was conducted among the IUB Freshmen business students to explore their information seeking competency and perception of information literacy behaviour. The freshman students were first asked about the status of their semester and credits enrolled for or about the total credit earned. After verifying their students ID card, only the probable freshman students who determined to study in Business discipline were distributed questionnaire. They were asked to fill a set of structured questions which included different statements regarding their previous experience of information use and access to information sources as well as resources; the questions were also about awareness, competency and requirement related to information literacy. There were few questions to assess their level of knowledge regarding information literacy skills. The questions were very basic related to finding information source, search technique, citation, information resource etc. Demographic questions mainly "Age group. "Gender" and "Medium of Education" were also added in the questionnaire. Few questions were arranged on five point rating scale (from low to high) to mark as "No. "To some extent. "On average. "To a great extent. and "Completely". Basic information literacy competency questions had multiple answers where respondents were requested to mark the correct one. The percentage of different statements related to information access, information literacy familiarity and information literacy competencies were revealed. Based on the this expectation, assessment and knowledge IUB Freshman business students information literacy is explored first time which will help in future to design a information literacy curriculum for them in more elaborately.

5. RESULT OF THE ASSESSMENT

Only IUB Freshman business students have been selected for this study. A total number of 198 questionnaires were collected, among them most of the respondents were Male

(57.6%) and rest of them were Female (42.4%). Among the respondents, age range of the largest student group was 19-21 (71.2%); where the age ranges 16-18 and 22-24 represented 18.2% and 10.6% respectively. Bangla is the main medium of education in Bangladesh specially at primary, secondary and higher secondary level; a few number of students also studied in English medium both National Curriculum and O/A level. Though the medium of education at IUB is only English but it is quite natural that most of the students come from the largest Bangla medium (84.8%) and rest of the respondents come from English medium or curriculum (15.2%).

For the item “Finding and using information at school/college. about half of the students (51.5%) had classes on finding and using information though it was beyond this questionnaire to know what they use to find in their classes regarding using information. 39.4% respondents did not have classes on finding and using information where 9.1% students mentioned about the statement “Do not know” about this matter.

As a developing country there is always a digital divide as a constraint for the development of a nation in every sector along-with education. So the students use to come from village or less developed areas which have less facilities of using technology, i.e. computer facilities. So, for the item “Access to the good computer facilities at school/college” about 53% students have good computer facilities to access, besides 40.9% students do not have access to good computer facilities, and 6.1% do not know

about the meaning of statement or service. It has been revealed for the item “Online computer access at home/hostel” that 51.5% students have online computer access and it may be assumed that, they also representing the 53% students who have access to good computer facilities. The other students have partial or no online facilities at all. So, before admitting at IUB, more than 50% of the students have familiarity with computer and internet technology as well online facilities.

From the study it has been observed that (Table I) students more or less have used information for their purposes. Students detail behavior regarding different information literacy statements of awareness, defining information needs and finding as per their needs, evaluating and organizing information as per requirement, presenting in correct form and using it fairly also observed. This portion was filled up by the respondents before taking IL competency test. Regarding the statements, the average result shows 16.9%, 28.56%, 33.10%, 16.01%, and 5.43% for the scale “No. “To some extent. “On average. “To a great extent. and “Completely” respectively from low to high rank of number. It has been observed that the respondents mean value for most response to the scale “On average” rank. It may be assumed that, the respondents have no idea about information literacy, either they have not planned before formally to use information systemically, or students approaches to answering the questionnaires were not enough serious also or even they did not find IL necessary or important to solve their problem earlier.

Table 1
Perception of Information Literacy Behavior before Taking Competency Test

Code	Statements regarding...	No (%)	To some extent (%)	On average (%)	To a great extent (%)	Completely (%)
S1	ILE awareness	22.7	31.8	36.4	3.0	6.1
S2	Defining information need	19.7	28.8	31.8	13.6	6.1
S3	Finding relevant information	9.1	31.8	33.3	18.2	7.6
S4	Assessment of retrieved information	16.7	22.7	43.9	15.2	1.5
S5	Managing and organizing specific problem related information	15.2	19.7	28.8	33.3	3.0
S6	Information presentation	15.2	30.3	34.8	12.1	7.6
S7	Fair and ethical use of information	19.7	34.8	22.7	16.7	6.1
M1	Mean Value	16.9	28.56	33.10	16.01	5.43

In the IL competency test result, 28% respondents have given correct answers for a set of sample IL questions which were relevant to their study. This questionnaire contained MCQ on selecting research topic, search logic, search keywords, concepts and synonyms, pearl growing, Boolean-search, precision-recall, search engines,

proximity search, database search, internet search, search strategy, information source evaluation, information content evaluation, citation, plagiarism etc. which has been developed by adopting IL assessment questions of different university and considering local context.

Table 2
Information Literacy Behavior after Taking Competency Test

Code	Statement	No (%)	To some extent (%)	On average (%)	To a great extent (%)	Completely (%)
S8	Necessity of ILE to solve problem when needed	9.1	22.7	25.8	30.3	12.1

In Table II the result was 9.1%, 22.7%, 25.8%, 30.3%, and 12.1% for the scale “No. “To some extent. “On average. “To a great extent. and “Completely” respectively on a single statement from low to high rank. A change has been observed to the response of the scales of the statement on “Necessity of ILE to solve problem when needed” by the respondents. It has been revealed the students have been positive enough with the statement

as well the necessity of IL for solving problems. Figure I shows a comparison of the opinion of the students perception regarding basic IL behaviour. It has been earlier observed that the mean values (M1) of ID S1 to S7 regarding statements were calculated for getting an idea about the behaviour before students competency test (Table I). Students made their opinion for ID S8 after completing the questionnaire for their competency test (Table II).

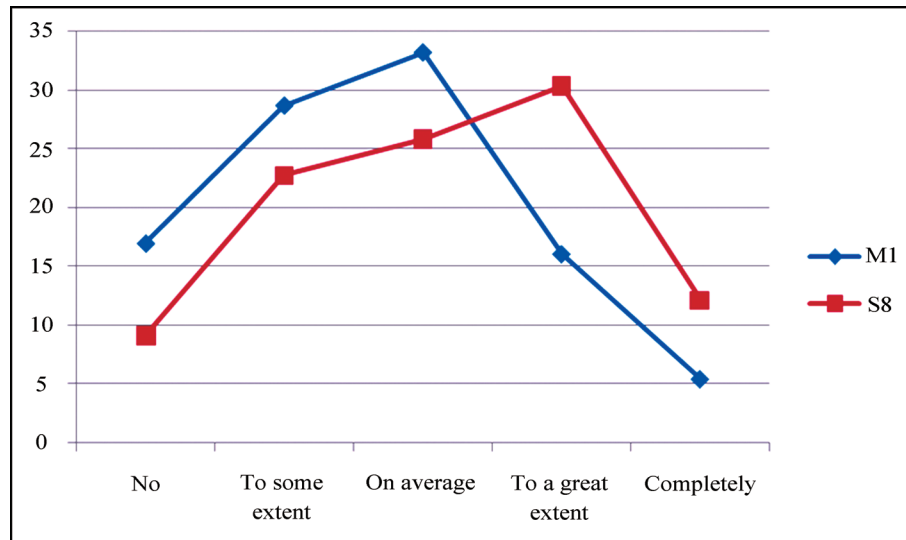


Figure 2
Changed Attitude - Comparison of Students' Perception Of Il Behavior

The Figure shows the change, the changed attitude of the respondents though not extraordinary but a little bit remarkable and quite visible in general. The students recognized that they had not been competent enough with the IL problem solving tasks as their test was not as good as they were expected, and they have also realized the necessity of ILE. ; their positive response has been observed after the assessment which is seen in the figure.. This type of outcome is quite natural for the students of a developing country like Bangladesh where IL is not in practice at any level.

6. OUTLINE OF ILE PROGRAMME FOR THE FRESHMAN BUSINESS

It has been mentioned earlier that many educational organizations have taken ILE as institutional strategy to equip users with information skill. Information literacy is not information technology literacy/computer literacy or library education, but IL goes beyond those. Information technology literacy or computer skills literate a user to use computer, software, technologies and library literacy skill is related to retrieve, evaluate and use of information resource in the library. Whereas IL skills are concerned with information source, content, need, relevancy, communication, analysis, searching, evaluation, organizing independent of particular format

and technologies. Information literacy education needed the person or student to let him know the area of the subject clearly, concept of the subject terminology, search strategy formulation, data analysis, relevancy, quality of information, transforming information into knowledge.

6.1 IUB ILE Goals and Objectives

After reviewing different literature, IUB organizational mission, and contextual perspective ILE programme can be roughly illustrated to provide an information literacy program that fosters the development of lifelong learning skills. IUB business students require analysis of their information need before making curriculum, i.e. what is the needs, why need, what are the resources, how to locate the resources, what is the expectation, what is the learning method, etc. The curriculum must be relevant to the learning needs and too much content may make them far from learning. It should be considered the variety of students as some of them may not have the prior expected knowledge; some students have achieved some of the learning outcomes but may not achieve others and some learners believe they already have the knowledge which put them off from learning.

6.2 ILE Goals in IUB Context

For ILE programme at IUB, based on probable need and considering local, cultural and social context, initial goals and objectives should be developed. The following main

six goals are considered as basic; these are–

Goal 1: Defining and specifying the need for information

Goal 2: Finding needed information effectively and locating the sources

Goal 3: Critically assessing the information

Goal 4: Managing and interpreting the information

Goal 5: Communication and presentation of information

Goal 6: Economic, legal and social issues for the use of information

The above mentioned goals have the similarity with the goals of other institutions as with the local requirement, global requirements are also needed for the students.

ILE Primary Objectives in IUB Context

The possible objectives of the ILE for Freshman business students of IUB are defined as per their probable need and requirement. The objectives are defined and classified under each goal.

Table 3
ILE Objectives under Respective Goals

Goals	Objectives
1: Defining and specifying the need for information	1: Information-need based question formulation 2: Definition or modification of information need to achieve business focus 3: In creative and analytical thinking recognizing the need for information
2: Finding needed information effectively and locating the sources	1: Information need determination 2: Sources of information for business related disciplines 3: Effective search strategy formulation and using appropriate tools for conducting search 4: As necessary, evaluation of search results, and revision of search strategy
3: Critically assessing the information	1: Examination or assessing the content and the structure of the information 2: Applying criteria for evaluating both the information and its sources
4: Managing and interpreting the information	1: Learning various way of extracting data 2: Organizing gathered information 3: Synthesizing and integrate new data to construct new concepts
5: Communication and presentation of information	1: Integrating new and prior information in the creation of a product 2: Presenting data as product to audience 3: Communication of the product effectively to others
6: Economic, legal and social issues for the use of information	1: Knowing the legal and fair use of information 2: Knowing the Impact of information for the local context

The primary objectives under each goal are probable competencies which are expected to learn and to be taught by the students. The detailed programme or curriculum should be based on these goals and objectives of outcome.

7. HOW THE PROGRAMME / CURRICULUM WILL BE ADOPTED

At undergraduate level, IUB offers a 4-year Bachelor's degree with honours in interdisciplinary areas of Business. During the first few semesters, students take course on learning skills along with other selected subjects. As students use to study a number of prescribed foundation courses during few early semesters or as freshman, so, at present it is not possible to add i.e. Information Literacy as a new course. In this initial phase, it is proposed to teach the curriculum as Information Literacy workshop or training programme for the freshman business students. For this, coordination among the business school and library is required where business school will provide the students and library will provide the space, time, resources etc. initially. Library will make a schedule for organizing workshop or training programme for the students in different time frame. The participants should not more than twenty for each workshop or training as it needs a lot of hands-on activities regarding Information Literacy

skills to be taught by the students. This workshop will be a continuous process.

7.1 ILE Activities

Information Literacy is pedagogy in higher education. So, learning activities, knowledge, instruction, experiences are the part of the ILE programme. IUB freshman business students need to acquire the ability to identify, find, evaluate, synthesize and use information carefully. But the skills or competency required to find the most useful and relevant information, and in the most efficient manner. The skill must be taught and practised for better understanding and apply. To make the IUB students ILE competent, they must be taught and engaged in different types of learning activities.

7.2 Activities: Few Examples

A number of sample activities which are the part of the different institution's ILE programme curriculum are observed and reviewed. The following are some activities which may be initially suitable for IUB business students may be followed and practiced as ILE activities:

Identifying IUB Subscribed Business Journals: Define different types of journals, i.e. popular, core, peer-reviewed, scholarly, open-accessed etc. How many business-related scholarly journals are in the IUB subscribed online Databases or publishers, i.e. ProQuest,

Emerald, Jstor, EBSCOhost etc. Analyze their content, audience and impact.

Internet Search: Define and demonstrate effective search technique. Give a precise statement of the search topic and outline of the search logic. Search the topic on two different search engines, i.e. Google and Yahoo; compare the search results from two searches. Identify the similarities and dissimilarities, which one is better, why and how.

Searching Database: Provide a defined statement of the search topic, a list of keywords terms and search logic outline for online database search. Give suitable reasons for the choice of databases and carry out the search.

Internet and Database Search Comparison: Provide a particular statement of the search topic. Run the search on the Internet and also on an online business database. Demonstrate the search results and compare the findings.

Major Business Journals: Identify as much as possible, how many journals are published in a given field, i.e. Marketing, Accounting etc. Identify basic materials of the journals of any discipline and compare them. Explore their content, audience and impact.

Understanding Primary Sources: Illustrate different types of information sources, like primary, secondary, tertiary, formal, informal etc. Make a comparison of primary and secondary sources on the same topic.

Read the References: Explain references and citation. Discuss different styles of citation. Examine the articles cited in a research paper. Discuss how the articles are related to the paper. How the article are appropriate or have their any other purposes to cite?

Finding Suitable Information: Provide the students few Web pages to see. Let them analyze why and what are those pages, are those pages appropriate for university level research, are those writings scholarly, and authenticated etc.

Business Articles Comparison: First find a popular magazine article, and next locate a scholarly article on the same subject. Compare the two articles for content, context, approach, partiality, impact, etc

Topic Sources: Select a topic of interest, locate the topic in different sources then evaluate it in different sources.

Tasks and presentation: In the class, each student may be given task for dealing with a part of the subject of their course. They are then asked to locate the major reference sources on the subject area, current research on this subject area and to prepare a short presentation about the subject and related research.

8. RESOURCES

Information Literacy Education across the goals, objectives and activities needed staff resources as well as equipment and space. IUB library is the pioneer in using Information Technology in Bangladesh which has the facilities of State-of-the-Art Information Technology

with huge number of Workstations with latest version of Software, high speed broadband Internet and Wi-Fi connection, subscription of more than 40 thousand e-journal, own In-house Database and OPAC (Online Public Access Catalogue). IUB Library will provide staffs for ILE to continue the initial classes. But gradually more flexible technologies and teaching aids should be allocated for running this programme. Librarians and information professionals know better how to organize and use information sources and they have capacities to train as well to help the students for ILE. IUB Library have staffs with ILE training and experiences, initially they may be able to conduct the programme. Gradually they will provide training to the faculty and other librarians so that they also can train the students for the same. So, IUB librarian will provide initially all types of supports, help, and advice for pursuing the research actively, problem solving guide, and instruction with necessary information.

8.1 Teaching Aid

The possible teaching aids for ILE programme may be Brochures, Handouts, Class Exercise, Audio-Visual materials, Websites, Storyboard, Multimedia, presentation etc. In IUB context all above mentioned aids can be adopted.

8.2 Technology for Flexible Learning

Besides the usual learning, the possible technologies for flexible learning of ILE programme deals with Asynchronous and Synchronous. The Asynchronous technology refers to Post, Mail, Discussion Board, Wiki, Blog, SMS text etc. On the other hand, Synchronous technology is, Phone, Online Chat, Internet Conferencing etc. In IUB context all above mentioned aids can be incorporated whenever required.

9. ASSESSMENT AND EVALUATION

Assessment, evaluation and feedback are the part of continuing programme of any active learning. Hence, the IUB freshman business students' outcome assessment should be conducted based on the learners' performance, activities and the way of learning. Students must be assessed about their quantitative and qualitative measurement of learning by the ILE instructors. Beside the performance or activity based evaluation, students may be assessed through some tools of measurement which should be developed. There are different learning styles by using a variety of outcome measures, i.e. quizzes, essays, discussion, oral defense, direct observation, peer and self review, tests, hands-on experience etc. It should be considered that both the process and product of ILE programme should be evaluated carefully for further planning and improvement of the curriculum. It is needed to establish the process of ongoing planning/improvement of the ILE program. For this reason the programme outcome should also be evaluated with a suitable method.

10. RESPONSIBILITY

Information Literacy Education programme will depend on the major responsibilities of IUB librarians and concerned IUB business faculty members. Here major responsibilities have been identified for two groups, though students have also responsibilities as learner.

10.1 Responsibilities of library

IUB library will expand the library instruction, orientation or education program further into the ILE curriculum. Library staff will:

- Develop and update curriculum and activities as per requirement by providing ILE personnel from library.
- Work together with faculty to develop a sequence of classes appropriate for the students.
- Provide facilities, schedule and teach the students, incorporating active learning techniques and hands-on activities.
- Continue and expand training, seminar, workshop in order to provide developmental support, especially to students.
- Continue to provide faculty workshop, seminar and training on research skills and resources to help faculty keep their skills current and to alert them to the complexities of the global information environment and the need for information literacy for students.

10.2 Responsibilities of Business School/ Department

Business School or Department may play a crucial role in the success of this initiative. IUB Business Faculty members will be more likely to engage the strategies of information literacy if the curriculum of their department takes information literacy principles into account. Specifically then, department head and school director/ Dean can move the initiative forward by:

- Organizing discussions among library ILE staffs, faculty, graduate students and undergraduates on the principles of information literacy.
- Including an information literacy focus in departmental requirements and in requirements for individual courses.
- Organizing opportunities for faculty members to develop guidelines for information literacy based assignments or information literacy competencies.
- Organizing opportunities for faculty members to develop guidelines for information literacy based assignments or information literacy competencies.
- Identifying successful integration of information literacy principles in the classroom as part of what counts as evidence of quality teaching

CONCLUSION

In this article, the IL competency levels and attitude of IUB freshman business students have been assessed to see the skill as well requirement, further an outline of ILE programme is discussed for them. To do so, the necessity of ILE is mentioned and finding is observed as per assessment and the programme suggested. Due to the diversified facet as well complex variety of information and social transformation, information literacy has become an important skill for undergraduate student which is a foundation or basic proficiency for effective learning in higher education. Undoubtedly the competencies achieved by the students through IL programme are immense. Globally, most of the academic institutes i.e. from elementary to universities have been developed small group oriented ILE programme to course based curriculum. So, it is not Utopian for IUB business students to adopt such programme. The lack of knowledge in information problem-solving skills limit overall learning and success for any students, IUB students is not apart from this process. Bangladesh is facing harrowing financial crisis accompanying pangs of economic growth; unemployment figure is still high and Bangladesh is experiencing tougher local and global competition. In the new economic and electronic age, only better academic grades or results are not enough to remain competitive in the job market. Students need to acquire more knowledge and to enhance abilities in critical thinking, problem solving and creativity. The belief and idea is that an "Information Literacy" programme would prepare IUB freshman business students for this transition. For the betterment of their skills even beyond their classroom, IUB students must be able to successfully access information from a variety of sources, analyse and evaluate the information, and then integrate it to construct a personal knowledge base from which to make intelligent decisions. To foster these competencies it is needed to carefully design their teaching strategy, and must accept the fact that knowledge is changing so fast that no traditional curriculum can sufficiently supply students with fact-based learning needed for the challenges they will face. Learners must go through a suitable programme to learn the skills so that they can continue learning independently long after they are out of university campus. Government policy, requirement of society, requirement of department or school, student's profile and the mission of university will lead to analyze and develop the Information Literacy Program more effective. The condition of IL in Bangladesh is discussed earlier explored particularly a positive notion of IL is by the library professionals of very few organizations. As, at national level there is no initiative for formulating

any policy concerning ILE, so the institution like IUB may play a vital role by creating awareness among the academic community of higher education along-with adopting few policies and proposals. It will not be enough to adopt policies only, with skilled and experienced ILE educator with the collaboration of relevant department and schools, i.e. Business School, the curriculum should be reviewed, evaluated and revised along-with suitable ILE model and framework. There is no alternative beside practice, so activities must be taught and practiced by the students to achieve the competencies and skills. It may be assumed that this type of study will foster more research to prepare relevant and valid curriculum for the students to make them information literate more.

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