

Information Literacy in Higher Education: Overview of Initiatives at Two Ghanaian Universities

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Abstract

The paper examines information literacy (IL) initiatives in two universities in Ghana, namely: the University of Ghana and the University of Cape Coast. IL initiatives such as library literacy, computer and media literacy and communication skills literacy carried out at the two universities for their students are described. Information on the IL activities was obtained from various interviews held with directors, heads of departments or officers in charge of the different programmes. Some challenges in the programmes include the lack of collaboration between departments running IL programmes, the large number of students undertaking the courses, inadequate staff and the cumbersome mode of access to and delivery of the IL programmes. Among the recommendations for improved information literacy programmes include commitment by the university management, improvements in information technology infrastructure, fostering of effective partnerships between the library and the teaching faculty, as well as a review of the curriculum of the library schools to include a new core course in information literacy.

Keywords

Information literacy, life-long learning, higher education, University of Ghana, University of Cape Coast

Introduction

The explosion of information and information sources has informed modern societies of the growing importance of special skills in accessing and using information from different sources and media efficiently and effectively. Such skills are known as information literacy (IL) skills. End-users of information are increasingly becoming overwhelmed by and frustrated with the sheer quantities of information available, especially with the advances in information technology (IT). Information literacy (IL) has thus become one of the most vital sets of skills for the twenty-first century. Everyone needs IL skills to enable him/her to function adequately as a citizen in the community. Specifically, IL skills also enable students succeed academically and help them to secure future job opportunities.

Over the last few years, the increased attention to IL has been underscored by some important actions such as the Prague Declaration (2003) and the Alexandria Proclamation (2005). These statements envisage a society that possesses effective control and mastery of information, and have urged governments and international organisations to develop policies and programmes to promote IL and life-long learning respectively. The reason is that both IL and life-long learning are deemed essential for social inclusion, economic

development and quality of life in the information society.

This paper presents an overview of information literacy initiatives in two universities in Ghana, namely: the University of Ghana, Legon and the University of Cape Coast. It highlights the prospects of the IL programmes and the challenges faced in the implementation of these programmes for their students. Recommendations are also made for a smooth implementation of a campus-wide information literacy programme.

Nature and Context of Information Literacy

Information literacy has been defined as a set of abilities requiring individuals to “recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information” (ACRL 2000). It has also been defined as a self empowering attitude and commitment by individuals and people, at all levels of society, to seek, access, analyse, translate, transform information and create knowledge to solve problems to achieve personal, social, occupational and learning goals for the improvement of their quality of life (IFLA/ALP 2007).

Information literacy skills are a fusion of library literacy, computer literacy, media literacy, technological literacy, critical thinking, ethics and communication which when acquired would empower individuals to become independent life-long learners. (Parang, Raine and Stevenson, 2000). It would help individuals to apply knowledge from the familiar environment to the unfamiliar.

Figures 1 through 4 are some diagrams that various IL researchers have used to characterise the nature and constituents of IL. Figures 1 and 2 identify the different concepts influencing and coexisting with IL. Information literacy is seen as an umbrella term comprising:

- Media literacy – the set of skills, attitudes and knowledge necessary to understand and utilise various kinds of mediums and formats in which information is communicated such as images, sound, and video... knowing when and how to use print newspapers and journals, magazines, radio, broadcast television, cable television, CD-ROM, DVD, mobile telephones, PDF or HTML

text formats, JPEG or JIF formats for photos and graphics, and so forth (Horton, 2008).

- Numerical literacy – the ability to use and interpret numbers.
- Computer literacy – the set of skills, attitudes and knowledge necessary to understand and operate the basic functions of information and communications technologies (ICT), including devices and tools such as personal computers (PCs), laptops, cell phones, iPods, Blackberrys, and so forth (Horton, 2008).
- Alphabetic literacy – ability to read and write.
- Library instruction – includes instruction on both how to evaluate information resources and how to use library resources such as the library catalogue or other bibliographic databases.
- Cultural literacy – comprising knowledge and understanding of how a country’s, a religion’s, or an ethnic group’s traditions, beliefs, symbols and icons, celebrations, and traditional means of communication impact the creation, storage, handling, communication, preservation and archiving of data, information and knowledge, as well as in using technologies (Horton, 2008).
- Visual literacy - the ability to understand graphs and charts (Rockman, 2004).
- Network literacy - the ability to identify, access, and use electronic information from the information network (McClure, 1994).

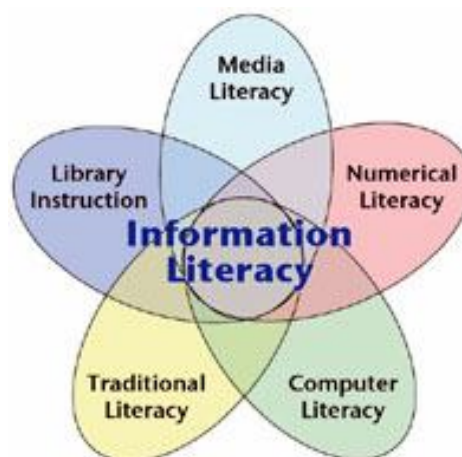


Figure 1: Aspects of Information Literacy

http://programs.durham.edu.on.ca/ddsbinfoli/Information_Literacy.jpg

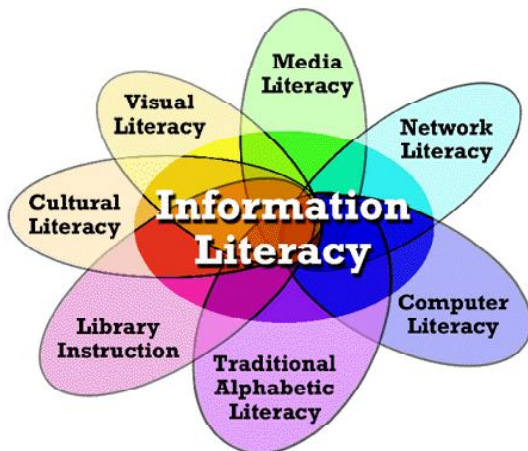


Figure 2: Dimensions of Information Literacy
<http://weblogs.elearning.ubc.ca/googlescholar/bloom.gif>

In Figure 3, IL is depicted as a way of learning through engaging with information. It involves:

- seeking information by locating, evaluating, selecting and organising the information (Processes and Skills).
- using information for decision making, creating new knowledge, problem solving, independent

learning, lifelong learning and understanding (Personal Impact).

- using information for participative citizenship and social responsibility- wisdom, lifelong learning ethics, decision making problem solving (Social Impact).

Finally, Figure 4 identifies several terms that are part of or contribute to the IL concept. These terms include:

- Information fluency: capability or mastering of information competencies.
- User education: teach information access to users.
- Library instruction: focuses on library skills.
- Bibliographic instruction: train users on information search and retrieval.
- Information competencies: compound skills for achieving the IL goals.
- Information skills: focuses on information abilities.
- Development of information skills – process of facilitating information skills.

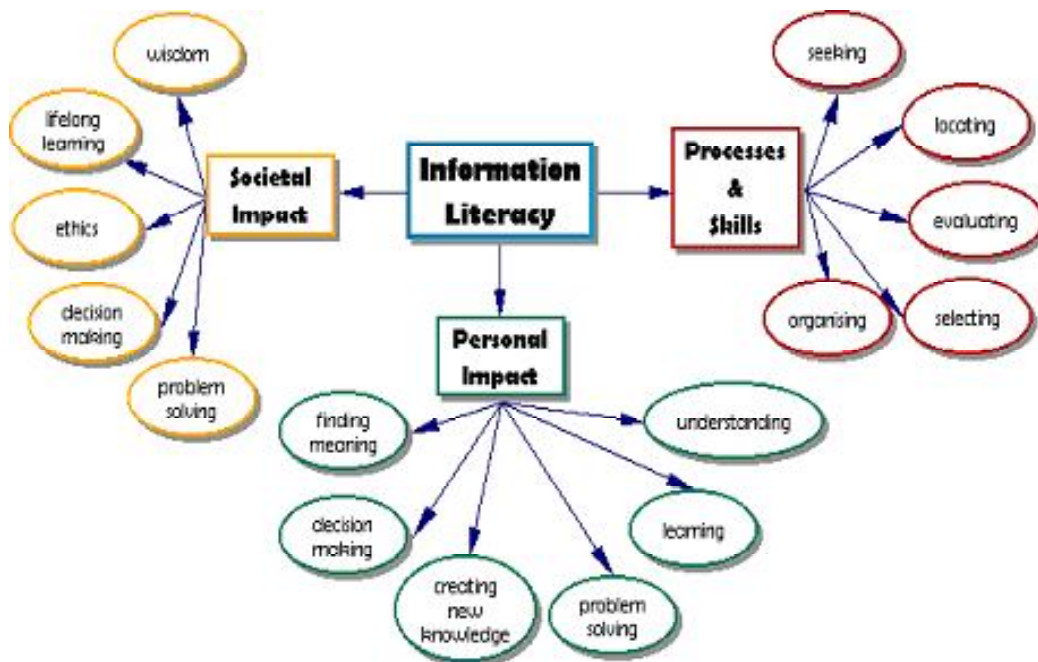


Figure 3: Processes, Skills and Impact of Information Literacy

http://www.griffith.edu.au/centre/gihe/griffith_graduate/toolkit/images/infoLit/informationLiteracy.gif

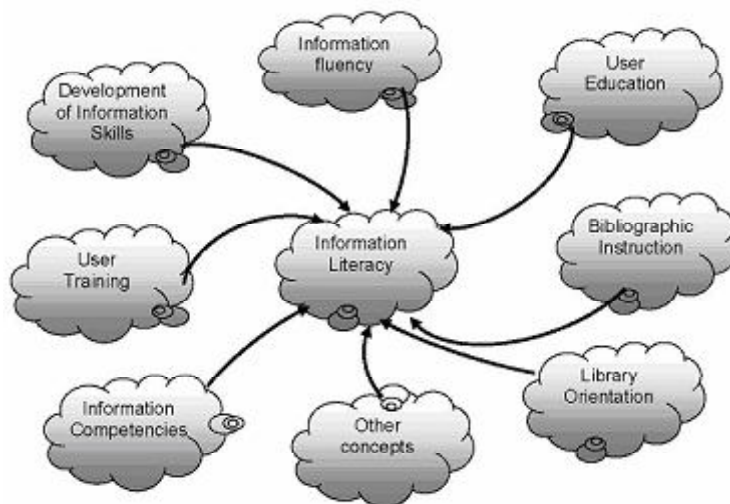


Figure 4: The Concept of Information Literacy

Lau, Jasus (2006) www.ifla.org/VII/s42/pub/IL-Guidelines2006.pdf

Importance of IL in Higher Education

IL is of crucial importance to institutions of higher learning. One reason is that some students entering college and university have limited knowledge of fundamental research and information competency skills. They may not have learned how to effectively locate information, or evaluate, synthesise and integrate ideas; or may not have learned how to use information in original work or give proper credit for information used. Although some students may have picked basic computer skills to send electronic mail, chat, and download music, they may not have learned how to effectively search the Internet or use databases effectively for academic work (Kavulya 2003; Rockman, 2004). Thus, IL programmes reinforce the educational process. Students who follow such programmes have fewer difficulties in writing papers; are better able to identify reliable sources of information and assess available resources and services provided by the library; and learn how to understand and draft bibliographical references and avoid plagiarism (Malliari and Nitsos, 2008).

Another reason why IL is important in higher education is that today's young generation is growing up in a digital world where so much information is produced by the minute. Students are continually being inundated with a great deal of information or "data smog". Simply being exposed to so much information does not necessarily make one informed. One needs to learn how to use the information

effectively, efficiently and ethically. Wilson (2004) describes this young generation of people as "digital natives" who are accustomed to being completely connected to each other via cell phones and the Internet all the time. They have a strong preference for online sources, but may not be aware of the types of information available from the library's electronic resources, how they are organised, how they can be retrieved or how the quality of the information can contribute to their information needs. This situation affirms the need for IL skills in higher education.

Furthermore, students at college or university level cannot learn everything they need to know in their field of study within a few years in college or university. Hence, they need to acquire critical IL skills in order to become independent lifelong learners. Indeed, Bundy (2003) stresses that the need for IL in higher education is due to the 'use by' date of 10 years of many degree programmes. He intimates that the rapid obsolescence of much of the content in professional first degree programmes makes knowledge of how to learn and how to find, evaluate and apply new information that much important. Students need to be able to build upon the foundation of information literacy knowledge by successfully transferring this learning from course to course, and from college life to later life.

IL also helps to ensure graduates being employed are productive. For instance, some employers in Ghana have been known to have complained that

graduates lacked the essential transferable skills that they needed to make them productive at work.

IL Curriculum

Universities have recognised that one way of empowering students is to develop a curriculum framework that would support student-centred learning. Rockman (2004) presents a clear view of what an IL curriculum should entail. It should be campus-wide, problem-based, inquiry-based, and resource-based (that is, it uses a variety of information resources); makes effective use of instructional pedagogies and technologies; and is integrated and articulated with a discipline's learning outcomes. This view is shared by Hepworth (2000), Grafstein (2002) and Lupton (2004) who posit that information literacy is best enhanced when it is integrated into the curriculum of another discipline.

The Boyer Commission on Educating Undergraduates in the Research University (2001) called for a first-year experience to provide stimulation for "intellectual growth and a firm grounding in inquiry-based learning". The Commission holds the view that a student should ideally be introduced to information literacy at the beginning of his or her freshman year in a required course such as "Introduction to University Life," "Expository Writing and Research," or "Technology and Information." They add that it is even better if the student learns about information literacy principles in a course, such as "Fundamentals of Information Literacy," that is linked to a freshman learning community, with library assignments aligned with assignments in other courses. They believe that general education courses help students to make intellectual connections between disciplines, solve problems, and think deeply, independently, and critically outside of their major areas of study. This view is supported by Johnston and Webber (2003) and Parker (2005).

Arguments may be made for IL courses that are either stand-alone or integrated with other courses. Stand-alone courses can meet the needs of the student who recognises the importance of being information-literate. It is also practical-oriented and less costly (Parker 2005). But stand-alone courses may not motivate students as they have no relevance to their assignments or research skills. On the other

hand, a number of authors share in the opinion that the ideal method for enabling students to develop their information literacy skills is by embedding the information literacy activity into the student's course materials. This method allows information literacy to be delivered in the context of the subject students are studying, as well as consolidating the partnership between librarians and teaching faculty in providing IL training.

Course-related IL programmes require the active participation of the faculty librarian. This means that where there is no effective partnership between the faculty and the librarian, the integration of IL into the curriculum may not be feasible. This partnership is necessary to consolidate the contents of IL programmes offered to students. In this connection, there has been much debate about the competence of the librarian as a teacher, developer of the curriculum and assessor of students. Webber (2006) is of the view that the relationship between librarians and faculty may depend on the nature of the university or college, the general status of librarians, and the willingness of librarians to be proactive and to gain teaching qualifications. Ideally, librarians teaching the IL courses should have academic status and credentials in order to be recognised as peers by faculty.

Another important issue is the nature of assessment of student learning in IL courses. Some students would not take the courses seriously enough if they are not examined, or if the assessment forms only a small part of the overall grades. Mittermeyer and Quirion (2003) and Mulherrin et al. (2004) have described specific types of test and assessments for IL courses. It is preferable that the courses should be credit-bearing and a requirement for graduation.

Role of Libraries in IL

Some authors have stated that IL is not a new concept. Indeed, they have traced its origins to the early library instruction and bibliographic courses held in libraries (Grassian and Kaplowitz, 2001, Rockman 2004). Information literacy has since evolved and is no longer just a library issue. It is the critical issue for the twenty-first century and it is of great importance to institutions of higher learning. All stakeholders in quality education, including faculty, librarians and administrators, should work together

to facilitate the empowering role of information which is an important goal of education. It is however important for librarians to spearhead the IL process in order to convert users to lifelong learners and critical thinkers. Doskatsch (2003) posits that given the pace at which electronic media and resources are proliferating, faculty may not always be familiar with the latest developments in information technology and access. It is the librarian's role to inform faculty and others about new developments and provide a variety of opportunities for them to learn about electronic information resources.

Information Literacy Initiatives in Universities in Ghana

A number of IL initiatives are ongoing in universities in Ghana. These IL initiatives may be grouped into three main categories: library literacy, computer and media literacy and communication skills literacy.

Library Literacy

Library literacy involves teaching users to find information from the library's print resources and other electronic resources, evaluating and using the information appropriately. Traditionally, academic libraries in Ghana have attempted to provide library literacy through library orientations and tours of their services to new students.

Since 2003, the University of Cape Coast Library has, in addition to its traditional function, introduced a mandatory Information Retrieval (IR) course in which all first year students are given the skills in accessing and using information. Approximately four thousand freshmen who enrol each year at the university benefit from this course. The specific objectives of the IR course are as follows:

- To get students to appreciate the role of the library in the academic community – how the library supports teaching, learning, research and extension activities in the university.
- To teach students the essential components and uses of the computer.
- To make students aware of the resources and search tools of the library (the traditional and the digital) and teach them how to use the tools.
- To teach students how to access, retrieve and

evaluate information from the Internet for their academic work, later working life and personal development.

- To equip students with skills that will enable them manage and use online journals and other electronic resources.

The IR course, which is a one-credit course, starts during the first week of lectures. It is a requirement for graduation. At the end of the thirteen weeks of lectures, students have to write a final hour and a half examination consisting of multiple choice and essay questions. The course content includes a study of the types of libraries, library resources and their uses, the library's role in the academic community, an introduction to computers, the Internet, Internet search tools, web search strategies, bibliographic and full-text databases.

There are twelve groups of students with each group having about five hundred students. Students attend an hour long PowerPoint presentation or lecture each week. They are subsequently placed into groups of 100 where they have instructor-led practical sessions for another hour. A large computer laboratory with approximately 100 computers is made available for it. Students also receive handouts and have scheduled tutorials. Students also have the opportunity to practise on their own and do their assignments whenever the laboratory is free. They also have the opportunity of using the computers in the main library for their assignments.

Six professional librarians, all of whom have master's degrees in Library Studies, are involved with the teaching of this course. Having such calibre of staff teaching the IR course gives credibility and also enhances the image of the library.

The IR course is more of a stand-alone IL module and, as has been expressed earlier, it is not the most effective method of enabling students to develop their information literacy skills. It is however, a good start and the UCC library should look forward to integrating the skills in a few disciplines. The above information was obtained through interviews with the Acting University Librarian and the Coordinator of the Information Retrieval Course.

Library literacy at the University of Ghana's Balme Library takes the form of user education. The aim is to familiarise new students with library facilities and services. Library orientation involves the basic

introduction to the library's services given to about five thousand new students during the first two weeks of the new academic year. It includes library registration, a video presentation and a guided tour of the various departments in the library. Each student is given a handout entitled 'An Introduction for Readers' to enable him or her to use the library. Bibliographic instruction and information skills training are only available to graduate students. Bibliographic instruction comprises instruction in the use of the OPAC, bibliographies (indexes and abstracts) and reference books (encyclopaedia, almanacs).

Information skills training includes the use of the Internet, an introduction to Electronic resources (the library subscribes to about 23 databases), how to effectively search the databases and how to cite references. This information was obtained from an interview with the librarian in charge of the computer laboratory, as well as from the handouts given to students.

The Department of Information Studies, the only institution in Ghana which trains information professionals/librarians and archivists, introduces students to user education and information literacy during the second and third year of studies (Level 200 and 300). These are offered as part of the Information Management and Information Services and User Studies courses respectively. These courses are however inadequate to prepare students to embark on any information literacy programme when they complete their studies.

Computer and Media Literacy

Computer and media literacy feature prominently in undergraduate training at the University of Ghana. An ICT Directorate has been established to provide leadership in the development, management and use of ICT in the University.

The Directorate has 500 computers spread over the three floors of the building and runs computer courses for interested students. Eight different sessions are held during the day and each session takes 100 students. The preliminary instructor-led course is the Computer Driving License Programme (CDLP), an internationally recognised qualification that enables people to certify their competence in essential computer skills. It aims to raise the level

of knowledge about information technology and increase the level of competence in using personal computers and common computer applications. A follow-up course is the Electronic Computer Driving License Programme (eCDLP) which is online and offers intermediate Microsoft programmes. Three thousand students are trained every semester and students are given 30 hours free access to the Internet. The Directorate limits Internet access to 2 hours per day per student. However, students with laptops can access the Internet for as long as they wish from the Wireless Hot Spots around the ICT Directorate (Dadzie, 2007).

Additional computer literacy is offered by the Balme Library at the request of faculty. The librarian in charge of the computer laboratory mentioned that training sessions are given to the second and fourth year students of the Department of Information Studies as part of the practical sessions in the elective Information Retrieval course. Students are introduced to the Internet and its resources and also taught how to effectively search the Internet for needed information.

Computer literacy training is also offered to all interested parties during the long vacation. It includes an introduction to computers and Windows, Microsoft Word, Excel, PowerPoint, Publisher, Access and Internet use. Two sessions a day are held for 5 weeks in the laboratory, which can accommodate 30 people. Postgraduate students are also given training in the use of available electronic resources in the library.

The Department of Information Studies offers courses at various levels in computer and media literacy. Some of the courses include Introduction to Information Technology, Introduction to Computing, Database Management, Telecommunications and Information Networks and so on. Computer practical sessions are also given to all students in the department. They are introduced to software packages such as Word, Excel, Access and Visual Basic. It is significant to note that before the establishment of the ICT Directorate, the Information Studies Department was the only department offering basic training to students in computer literacy. This could probably be the reason why the Department recorded large enrolment levels.

There does not seem to be much collaboration in the delivery of these programmes between the Department of Information Studies and the ICT Directorate nor between the ICT Directorate and the Balme Library. For IL to be successful, it is important that partnerships be formed in the university community. For example, as the ICT Directorate is better endowed in offering computer literacy, the library should forge closer links with the former to introduce an important aspect of computer literacy which involves the searching and effective use of online databases that the library subscribes to.

Communication Skills Literacy

Communication skills are the set of skills that enable a person to convey information so that it is received and understood. It is also the ability to use language and express information clearly. A Communication-skills course is offered at both universities to all freshmen. At the University of Ghana, the Language Centre undertakes research and teaching related to the improvement of performance in both Ghanaian languages and the official language, English. The Centre runs three major programmes: Certificate of English Proficiency for Learners of English as a Foreign Language; Academic Writing (LANG 100/LANG 200) for entering students to the University; and a basic course in Ghanaian Languages for second year students on behalf of the Institute of African Studies.

An interview with the Director of the Language Centre revealed that the Academic Writing course is compulsory for all freshmen and all students entering the University in the second year. The main objective of the course is to equip students with the communication skills that would enable them to succeed in the academic discourse community. Students are taken through strategies for paragraph development, reading strategies, gathering and using information from the library and other sources, integrating information into essays (summarising as part of exposition and writing citations) all within the larger context of enhancing the quality of language of students.

The Academic Writing course is run in two semesters. There are 35 groups for each semester with 70 students in each group. Ten lecturers are

involved in the Academic Writing course and each lecturer has three groups to handle. It is a three-credit course where students take a minimum of two and a half hour examination paper at the end of each semester. It is also interesting to note that even though the Language Centre has a component in this course which is about using libraries, no one from the Balme Library is involved.

At the University of Cape Coast, the Communicative Skills course which is under the Faculty of Arts is offered to all first year and post diploma students of the University. An interview with the co-ordinator of the course revealed that the Communicative Skills programme, which is run in two semesters, provides six credits and entails developing reading and writing skills, note making/taking and conventions of usage and referencing. It also includes organisation of ideas, development of paragraph and usage in essays. About 4,000 students are involved in this programme and are placed in 34 groups comprising 60 students in each group. Forty faculty members co-opted from the Arts and Education faculties are involved in the instruction.

Programme Implementation Challenges

The implementation of IL initiatives at the two universities in Ghana is not without challenges. The challenges identified include:

Lack of Collaboration

Each of the stakeholders in the University of Ghana is doing their bit to ensure information literacy goes on. Unfortunately, the stakeholders are not talking to each other so there is some duplication. A comprehensive IL programme could be developed if there were collaboration between the ICT Directorate and the Balme Library, and/or between the Language Centre and the Balme Library.

Inadequate Number of Staff

At the University of Cape Coast, all the professional staff (six) have to be engaged in IL instruction as a result of the large student numbers. In order not to let the core activities of the library run to a halt, two hours a week have been set aside for this instruction. If there had been more professional staff, the instruction could have been spread through out the

week. Some concerns have been expressed over the limitation of IL training only to the first year of university education. Indeed, The Boyer Commission (2001) recommends that training should be throughout a student's life on campus. This limitation at the University of Cape Coast could be linked to the shortage of staff implementing the IL programme.

Large Numbers of Students

The large number of students involved in the programme makes it overwhelming for staff. At both universities, all freshmen including those entering at Level 200 have to go through the course. The University of Ghana has about 5,000 fresh students annually, while the University of Cape Coast has about 4,000 students enrolling each year. As a result of the numbers, delays in grading examination scripts of students from the University of Cape Coast have been reported.

Mode of Access and Delivery

The delivery mode of these courses also leaves much to be desired. Most of them are instructor-led. In this era of online/web-based learning and instruction, efforts should be made to convert the IL module into an interactive online/web-based learning. IL in e-learning or web-based mode would not only enable students to learn at their own pace but also give them the opportunity to revise or review portions of modules that they did not understand.

Recommendations

The following recommendations are provided to enable the implementation of a university-led information literacy drive.

University Commitment

For IL to be successfully implemented in the University, there is the need for a policy which acknowledges information literacy as an attribute of graduating students. The top hierarchy of the university should know and understand the importance of IL for the graduates they are training. This would mean workshops/seminars/conferences organised for the hierarchy to buy into this idea. For the University of Ghana for instance, this would

involve changing the students' overloaded curriculum to include information literacy. The library staff would have to write a proposal to the Faculty of Social Studies and defend the introduction of this programme also at the Academic Board. The programme would also have to be accepted by the Academic Planning Committee before it can be implemented. This process can take between two to five years depending on how well the information is packaged. The University of Cape Coast is at least a step ahead, but also needs to fine-tune their mode of access and delivery of the course.

Mode of Access and Delivery

The problem of large student numbers accessing the course and the inadequate number of teachers can be solved if the IL courses are web-based. The University of Ghana has an E-Learning platform where students access a variety of course notes, syllabi, and interact with faculty. It would be advisable for the University of Ghana to introduce the IL course in the web mode so that many of the challenges being experienced by the UCC staff would be avoided. Assessment of students' performance can also be done electronically as and when the students take various tests at the end of different modules in the IL programme.

Improved IT Infrastructure

An e-learning mode can only be possible if the right infrastructure is made possible. It is important for the university hierarchy to ensure that computers and reliable Internet connectivity are in place, as well as adequate bandwidth for university access.

Role of Libraries

IL is transforming the role of librarians and information professionals and aligning it with the core business of the university, which is teaching, learning and research. Librarians must undergo training in IL through workshops/ seminars to enhance their competencies beyond that of basic user education. They also need to build solid partnerships with faculty to be able to integrate IL into course disciplines. Collaboration with IT administrators would be needed to introduce IL as a web-based course.

Role of the Library School

The Department of Information Studies at the University of Ghana should review its curriculum to include a new core course in information literacy. This would enable the graduates to have a good grasp of IL issues and assist with IL programmes introduced at the workplaces in the future. It would also help them to access, evaluate and use information ethically and legally.

Conclusion

Though a few initiatives in IL are being implemented in universities in Ghana, there needs to be a more concerted effort to have IL firmly institutionalised. Commitment from the top hierarchy is essential for the success of the information literacy programme. In addition, partnerships should be formed between librarians, faculty and IT staff to address curriculum development issues, access and delivery of the course, as well as assessment of the course. When these challenges are confronted, efforts to make students information literate and by extension lifelong learners would then be successfully achieved. This would not only have the immediate benefit of empowering students through better access to and use of information in their studies at the university, but also make them resourceful workers and members of their society.

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