1-7-2014

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Peter Anafo
peter.anafo@yahoo.com

Christopher Filson
kwafils@gmail.com

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(2014). *Library Philosophy and Practice (e-journal)*. Paper 1032.
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PROMOTING INFORMATION LITERACY AMONG UNDREGRADUATE STUDENTS OF ASHESI UNIVERSITY COLLEGE, GHANA

by

*Peter Anafo and **Christopher Kwame Filson
***The library, University of Mines and Technology, Ghana, ** The University Library,
University of Cape Coast, Ghana.**

Introduction

The delivery of information literacy instruction to students is becoming progressively more important due to the proliferation of electronic resources and the increased use of the internet as an information source. Information literacy is 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" (Ashoor, 2005). Information literacy has also become increasingly important in the contemporary environment of rapid technological change and proliferating information resources. Because of the escalating complexity of this environment, individuals are faced with diverse abundant information choices: in their academic studies: in the workplace, and in their personal lives. Information is available throughout libraries, community resources, special interest organizations, media, and the internet. Increasingly, information comes to individuals in unfiltered formats, raising questions about its authenticity, validity, and reliability. **In** addition, information is available through multiple media, including graphical, aural, and textual, and these pose new challenges for individuals in evaluating and understanding it. The uncertain quality and expanding quantity of information pose large challenges for society.

An information literate individual is able to:

- Determine the extent of information needed;

- Access the needed information effectively and efficiently;

- Evaluate information and its sources critically;

- Incorporate selected information into one's knowledge base;

- Use information effectively to accomplish a specific purpose;

- Understand the economic, legal, and social issues surrounding the use of information; and

- Access and use information ethically and legally (ALA 2006).

Two public universities in Ghana namely, the University of Cape Coast and the University for Development Studies, Tamale decided to run one semester course in information literacy. These

universities recognize that proficiency in the appropriate use of information and information technologies is essential to the success of university students learning information literacy skills. These skills constitute a lifelong learning objective, and as such the universities therefore decided that this course should be made one of the requirements of all students at the undergraduate level. The course contents for information literacy in these two universities include:

• Libraries, information and the society

• Types of libraries

• Methods of acquiring library materials

• Information organization, cataloguing and classification

• Information retrieval, importance of catalogues, indexes and abstracts

• Types and uses of reference materials (All library resources)

• Copyright, photocopying. (Dadzie 2008)

Traditionally, Ashesi University College, Accra, Ghana, like many institutions, provides library orientations and guided tours of the library and also brief new students on the services rendered to library clients. These are generally offered outside the context of students' courses or assignments. The library therefore expanded its instructional role to include more specialized training in information literacy skills in 2005. However, the programme was discontinued due to inadequate staff.

Statement of the Problem

Instruction and research in the twenty-first century rely on individual skills and on the best information accessible to students and researchers. Information literacy encompasses more than good information-seeking behavior. It involves abilities to recognize when information is needed and then to phrase questions designed to gather the needed information. It includes evaluating and using information appropriately and ethically once it is retrieved from any media, be it electronic, human or print. (Kinengyere, 2006).

Many students today are over-reliant on search engines such as Google to find information when researching topics. They often overlook quality academic resources available from libraries. This situation creates a new challenge for reference librarians, who must now play a more important teaching role: directing students to high-quality print and electronic sources and educating them on the need to evaluate web resources. Reference librarians need to shift their focus from providing

technical assistance on using library resources to user education, thus assisting students in developing information literacy skills to identify when information is needed, and to locate, evaluate and use the needed information effectively. Essentially, we must prepare students to become information literate in the twenty-first century. Observations over a period of time show that students' use of the library and its resources have gone down. This may be due to difficulties they face in accessing the library's resources especially the electronic databases.

Objectives of the Study

The objective was to determine how to promote information literacy among students of Ashesi University College:

- to identify difficulties students have in accessing the library and its resources and advise on how to

    overcome these difficulties;

- to find out whether undergraduate students access and use information ethically and legally;

- to establish a baseline of student skills around which an information literacy programme might be

    built; and;

- to make recommendations as to how information literacy programme could be integrated into the

    teaching and learning process of the University

Literature Review

Information Literacy in Higher Education

According to the Association of College and Research Libraries' (ACRL, 2000), "Information literacy is 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". The same document points out those information literacy skills are created to reinforce the above abilities. The skills of recognizing, locating, identifying, retrieving and evaluating information can be included as part of the teaching of an existing course or constitute an independent course in the curriculum.

The response of the higher education sector to the need for development of information literacy skills in students is perhaps best reflected in the view of Johnston and Webber (2003), they pointed out that information literacy is a social response to the need for effective use of the huge amount of information accessible in today's information society. As interest in information literacy continues to build, the scholarly discussion has begun to consider how information literacy can be

developed using the latest technology to adapt to the diverse student learning styles.

Academic libraries have played an important role in information literacy development, especially in Europe. Information literacy initiatives in higher education have taken a variety of forms: These include stand-alone courses or classes, web-based tutorials, course related instruction, or course integrated instruction. Most authors have the opinion that information literacy programmes be integrated into subject areas. (Joint 1999; and Kemp, 2000).

As student support services, faculty as well as librarians are increasingly engaged in teaching the various aspects of information literacy and student work encompasses multi- media-formats and cross-disciplinary research, collaboration between libraries and other groups in the institutions becomes paramount. Integration of information-literacy components into existing courses is a fairly common method of implementation. Earlham College has a well-known integrated program in existence for a number of years in which librarians and faculty members working together in curriculum development. Though it has encountered some implementation setbacks due to budget constraints, Cleveland State University requires each faculty member who proposes a course for areas within the basic curriculum to answer questions on how that course will address issues of information literacy within the field (Rader 1995).

Hosein (2006) discussed the current library instruction at the University of West Indies in Trinada. According to her, University of West Indies recognizing the importance of information literacy decided to develop a comprehensive information literacy programme for the university. She stated in her article that" a central mission of the University of the West Indies St Augustine Campus is to develop lifelong learners by ensuring that individuals have the intellectual abilities of reasoning and critical thinking as well as being able to construct a framework for learning how to learn".

Dadzie (2008) points out that, "librarians have the responsibility to lead the information literacy drive since they have custodial duties of collecting, organizing and providing access to the multiple forms and sources of information in a timely manner so that information is used appropriately". She also stated that "information literacy, though an issue for librarians, is not a library affair and requires partnership with faculty and senior university managers to integrate information literacy into the curriculum". There is also the sense that a higher education institution should have as part of its mission the teaching of lifelong learning skills, particularly in the context of an information society, and that one place that those skills may be taught is through the library. (Marchionini 1999).

It can also be argued that libraries have a responsibility to teach students how to effectively use

available information technologies, and that information literacy programs that incorporate hardware and software components go far in supporting an educational mission of computer literacy like Ashesi University College which is one of the private institutions which is technologically advanced. The skills that librarians bring to this kind of instruction argue for their inclusion in instructional-technology support programmes. The information management skills, incorporated with technology-use skills, go far in supporting information literacy goals. (Koltay 1996).

Methodology

The population of this study was students of the Ashesi University College library. The number of students at Ashesi University College as at the time of the research was five hundred and fifty (550). A sample of two hundred students 200 (36.4%) was considered adequate to provide satisfactory results. This is more than the 10% required to represent the total population in a survey, in order to obtain adequate confidence in one's generalization (Alreck & Settle, 1985) The questionnaire was made up of closed ended questions. The questions were developed based on the performance indicators and outcome statements of the Information Literacy Competency Standards for Higher Education.

The researchers spent seven weeks collecting the data used in the research. Initially, the researchers wanted to collect the secondary data first before distributing the questionnaires. That would have informed the kind of questions to put in the questionnaires. However, because of the difficulties encountered in that effort, both data sets (primary and secondary) were collected simultaneously.

The data were collected by means of a questionnaire containing closed-type questions, which was distributed by the researchers to students. The questionnaire included a brief description of the study and statement of anonymity for the respondents. The questionnaire was divided into three (3) sections. Section A, required the respondents' background and concepts identification. Section B, was on search strategy, Section C was on students' ability to define characteristics of scholarly journals as well as legal and ethical use of information. Data collected was analyzed using the Statistical Package for Social Science (SPSS). The data was first coded, captured and analyzed and some of the results were presented showing the frequencies and percentages of responses given by the respondent in the form of tables.

Presentation and analysis of Data

The researchers administered copies of the questionnaire to 200 students representing 36.4 % of students' population of five hundred and fifty (550). It took the researchers more than a month in

getting back the completed questionnaire from respondents. After several follow-ups, a total of one hundred and twenty (120) copies of the questionnaires were returned by students yielding a response rate of 66%. The data gathered was analyzed using the Statistical Package for Social Sciences (SPSS). Simple frequency was used to show the relationships between the variables in the population.

The table dealt with the ages of the respondents

Table1: Age Distribution of the Respondents.

Age	Frequency	Percentage (%)
18-21	60	50.00
22-25	50	41.67
26-30	30	18.33
	120	100

Source: Field Study, 2012

From the above table it can be deduced that the majority of the students between the ages of 18-25, and   since habits are developed during this age range, it would be prudent for the planners of the curriculum to include the teaching of information literacy skills in the university to ensure lifelong learning.

Choosing relevant terms in a search statements

To ascertain how students can identify concepts in questions and statements. The study revealed that only 11 or 9.2% of them selected the correct concept, while the remaining 90.8% selected the wrong answer. This is a problem because the inclusion of irrelevant words reduces the search results. The omission of significant words also renders the query too broad and would retrieve irrelevant results. The correct option includes the three concepts in the original question which is "the effect of family relations in the academic result of primary school student"

Searching for information in the library

In a follow up question, the researchers used performance indicators for the standards of the Information Literacy Competency Standards for Higher Education to determine how equipped the students are. The purpose of this was to determine if students were able to identify a common problem researcher's face, namely, the identification of synonyms or related terms or descriptors used to represent a subject is an important component of the search strategy. About 47 or 39.2% e) of them choose the right answer, (b). This shows staff impression about students' inability to do proper search.

The researchers wanted to find out the type of information sources often used by students. Information sources are documents one can trace information from, in other words, they are documents which are consulted for information. Encyclopedia is an information source. (The study indicated that small number of the students seem to recognize the usefulness of encyclopedias. There is therefore the need for the library staff to be given ample time to orientate the students on the usefulness of information sources. On the part of periodicals as one of the document types, majority of respondents (54.1 %) representing 65 respondents choose the right answer which indicates that, they know that periodicals contain more recent information than other document types. The second case answer (Question 15), the answer (e), "other", was the second most popular answer: respondents (27.5%) representing 33 respondents specified "Internet".

Table 2: Usage of encyclopedia

Importance of Encyclopedi	Frequency	Percentage (%)
a) A journal	7	5.8
b) An encyclopedia	33	27.6
c) A database	40	33.3
d) A book	15	12.5
e) Other (please specify)	18	15.0
f) Don't know	7	5.8
Total	120	100.0

Source: Field Study, 2012

The percentage of respondents who chose option (b), 33 or 27.6%, indicates that small number of students seem to recognize the usefulness of encyclopedias. This means that the majority of students are unaware of their value? Options (a) and (c), chosen by 39.1% of the students were not correct, do not represent the "best" answer: a journal article, (a), generally deals with a specific aspect of a topic and does not provide an overview; a database. (c), is used to retrieve references to various types of documents, but does not include summaries. A book, (d), selected by 12.5% of the respondents, may provide an introduction to a subject, but often contains much more detailed information than encyclopedia.

One way to test the information literacy levels of respondents is to find out tools that they use in searching for information generally. Knowledge of the right search tools will demonstrate the respondents' knowledge in the access and use of information.

Usage of journal articles and ethical, legal Use of information

Table 3 Usage of Journal Articles

Finding journal articles	Frequency	Percentage (%)
a) The Library catalodue	4	3.3
b) A database	7	5.9
c) Google	105	87.5
d) Don't know	4	3.3
Total	120	100.0

Source: Field Study, 2012

To discover what strategy students adopt when they have to find journal articles. The choice of a search strategy is related to knowledge of the search tools at one's disposal for finding various types of documents. The best answer is (b) because the search tool that enables one to search for journal articles is the database. Only 5.9% of the respondents chose this option.

Ethical and legal use of information

Table 4: Type of Citations

Citing other people's work	Frequency	Percentage (%
A, Miller A. W. 1997	14	11.7
B, Anderson K. (2000) "Ethical dilemmas and radioactive waste: A Survey of the issue." Environment Ethics , 2(3): 37-42	30	25.0
C, Hartley J.T & D.A. Walsh 2000	22	18.3
D, Maccoby E.E. & J. Martin	14	11.7
E, Don't know	40	33.3
Total	120	100.0

Source: Field Study, 2012

From the above table (4) it can be seen that While 30 or 25.0% of the respondents selected the correct answer, (b), large percentage (75.0%) were unable to identify the citation associated with a journal article. The results show that it would be very difficult if students are asked to locate documents using a bibliography

Ashesi University College students relied heavily on the internet for obtaining information as compared to other sources. The researcher wanted to find out if students can be able to evaluate the quality of an internet site. It was therefore realized from the findings that students just use internet without evaluating the authenticity of the websites they use. Majority of respondents could not give the right answer; only 6.1 % had the best answer

Discussions of Findings

Ability to identify concepts

From the findings, on concept identification, the researchers can deduce that an average of 60% of the student respondents had difficulty identifying significant words, even when their task was facilitated by being present with a choke of possible answers. The above situation at Ashesi University College can be likened to that of Kwame Nkrumah

University of Science and Technology (both in Ghana) as noted by Boakye (\998). According to him, the students lack basic skills in the search for information. Identifying significant words corresponds in a research process to formulating the research topic and identify concept is so relevant to information seeking skills, that is why O' Conner, Radcliff and Gideon (2001) mentioned eight studies involving tests that assess student's knowledge and skills. These tests according to them, covers the following elements: library of congress subject headings, understanding classification systems, locating information sources, using catalogue, Boolean operators, developing research strategies and interpreting bibliographic references.

Search strategies adopted by Respondents

The researchers have observed that students have difficulty identifying the cause of the problem when they obtain few or no results, and they are unable to identify preferred search terms in a particular context. Systematic approach for constructing searches, narrowing or broadening searches were not evident. On searching for documents using search indexes within the catalogue, only 12.1 % chose the best answer. It is obvious that respondents lacked the skills needed for searching documents. Periodical article was also formulated to verify students' ability to understand and interpret bibliographic references. Failure to understand this variable may result in the inability to retrieve relevant information. A student who is unable to interpret bibliographic references may have difficulties retrieving documents. For example, if one searches the catalogue using the title of a book chapter instead of the title of the book itself, the lack of results may lead one to think that the library does not have the item in question.

Inefficient search strategy

Students' often abandon their search when they do not find any relevant information, or they waste time by consulting the wrong type of document or by using search tools ineffectively; this leaves less time for reading books and articles and for writing papers. For example, the student who does not understand the utility of the various types of documents and different search tools will spend a significant amount of time searching by trial and error. A basic understanding of the research process would enable them to use a more direct, efficient approach. Searches in different tools (catalogues, databases and the Internet) are not conducted in the same way. These tools do not provide access to the same types of documents, just as different types of documents do not provide access to the same type of information. The information contained in a scientific or scholarly journal article is not the same as the information presented in a popular magazine article. A bibliographic database can be used to identify articles in a periodicals but a catalogue cannot. Failure to understand the characteristics of search tools and the different types of documents wastes time and produces disappointing results.

The first consequences of poor information research skills-few or no relevant documents being found and time wasted due to inefficient search tools and document types, and the inability to read a citation. The latter consequences is that-too many or few documents being found, result from difficulties in identifying appropriate concepts and in developing a search strategy. Students may be frustrated if few or no documents are found or feel overwhelmed if they find too many documents, some of which are irrelevant.

Usage of search tools

According to Doyle (1992), an information literate person is one who recognizes that accurate and complete information is the basis for intelligent decision making; identifies potential source of information; develop successful search strategies; access sources of information, including computer-based and other technologies; evaluate information for practical application, integrate new information into existing body of knowledge and uses information in critical thinking and problem solving.

The above definition means that an information literate person should be equipped with the requisite skills that will enable him or her to access the needed information, but the study revealed that most students are not conversant with the search tools. From the findings, a large majority of respondents did not know how to search for information from the library catalogue. Students failed to distinguish between library catalogue and bibliographic database. Information gathered from the findings reinforces the idea that, some students lack information literacy.

Ethical and legal use of information

There was also the need to assess students' knowledge on how to acknowledge the information they use. The purpose of the question on acknowledgement of a reference source was to see if students know when to include reference to the source of the information used. When repeating someone's words or opinions it is important to mention the author of the original text so the reader may refer. Writing in 1985, Breivik (1991) talked about legal and ethical issues relating to information use only in the context of citizenship. Doyle (1997) reinforced the notion of information literacy supporting good citizenship that information literacy skills would serve to support student's developing role as a good citizen

Usage of information sources

Information sources are documents one can trace information from, in other words, they are documents which are consulted for information. Encyclopedia is an information source. (The study indicated that small number of the students seem to recognize the usefulness of encyclopedias. There is therefore the need for the library staff to be given ample time to orientate the students on the usefulness of information source because according to Dadzie (2008), librarians have the responsibility to lead the information literacy drive since they have custodial duties of collecting, organizing and providing access to the multiple forms and sources of information in a timely manner so that information is used appropriately.

The results of the findings showed that students had difficulty identifying the citation to a journal article, recognizing when to cite a source and evaluating information found on the internet. The majority of students choose the right answer which stands as (42.4%), though student participants in the study appear to have a fundamental understanding of legal and ethical behavior as it relates to information use. This is due partly to Ashesi's policy of ensuring students take ethical use of information seriously which is embodied in the Students Handbook. It would be beneficial for the university library to reinforce that behavior.

While the questionnaire dealt with a limited number of bibliographic research skills, it is clear that information literacy competencies go beyond this. It may be necessary to follow Poirers (2000) and not limit instruction to computer skills and library research methods. Also, as discussed in the literature review, the researchers support the approach of Caron (2000) who points out that the survival of individuals and organizations now depends on their ability to use information effectively.

From the findings, it can be seen that the majority of respondents did not know how to search for information from the library catalogue. Students failed to distinguish between library catalogue and bibliographic database. Information gathered from the findings reinforces the idea that, some students lack information literacy skills.

Conclusion

Information literacy is an important component of any university library system because of its role in academic achievement and lifelong learning. Consequently, it is argued that a deficiency in information literacy skills has a negative impact on academic achievement, as well as personal and professional development. It can also be concluded that the majority of the students are not able to access relevant information because of lack of skills in terms of concept identification, search strategies, information sources, proper use of library catalogue and ethical and legal use of information It is a fact that these deficiencies on the part of the majority of the students of Ashesi

University College could negatively affect the teaching and learning process.

Recommendations

According to UNESCO (2008), information literacy empowers people in all works of life to seek, evaluate, use and create information effectively to achieve their personal, social, occupational and educational goals. In view of the above assertion, it is recommended that:

I. Information literacy should be incorporated in the university curricular in such a way that every student of the college would undergo such a program.

2. It is also recommended that management of Ashesi University should influence attitudes, policies and methods which foster information literacy education. In other words, management should commit itself to providing the infrastructure necessary for the implementation of information literacy program on campus.

3. Another recommendation is that student's learning advisors and subject advisors should encourage students under them to cultivate and sustain the interest in undertaking information literacy programmes.

4. The next recommendation is that the university library should be adequately staffed and funded so that librarians would assist students to search for information electronically.

5. Lecturers should integrate information literacy assignments into the teaching and learning process.

6. The nature and range of resources and media which need to be available and accessible should match with the number of students in the university.

References

Alreck, P. L. and Settle, R. B. (1985) *The Survey Research Handbook*. Chicago: Irwin, p 81

American Library Association (2006) Information Literacy Competency Standards for Higher Education. Available at: www.ala.org/acrl/ilstandardlo.html (Accessed 12th August, 2012)

Boakye, J. (1998) Awareness and Use of Library Collections in Ghana: A case study of science and technology collections in the Kwame Nkrumah University of Science and Technology (unpublished) pp.20 – 22

Breivik, P. S. (1991) Information literacy in an information society Information. *Reports and Bibliographies,* 20 (3), pp.150.

Caron, G. (2000) Training information literacy and the need to review the concept of library institution. *Literacy and libraries*, pp. 78 – 82

Dadzie, S. P. (2008) Promoting Information Literacy: The role of the librarian. INASP

NEWSLETTER, pp.2 – 3

Doyle, C. (1992) Outcome measures for information literacy within the National Education Goals of 1990: *Final Report to the National Forum on Information Literacy.*

Joint, N. and Kemp, B. (2000) Information skills training in support of a joint academic library in Glasgow: *the GAEIS Project approach to library courseware development.* ASLIB Proceedings, 52 (8), p. 301

Hosein, S. (2006) Teaching Information Literacy at the University of the West Indies. *Information Development,* 22 (2), pp. 110 – 115

Johnston. B. and Webber, S. (2003) Information Literacy in higher education: a review and case study. *Studies in Higher Education*, 28 (3), p. 335

Kotter, W. R. (1999) Bridging the great divide: improving relations between librarians and classroom faculty. *Journal of Academic Librarianship*, 25 (4), pp.294 – 303.

Marchionini, G. (1992) Educating Responsible citizens in the information society. *Educational Technology,* 39 (2), pp. 17 – 26.

O'Connor, L.G. et al., (2001) Assessing information literacy skills: Developing a standardized instrument and longitudinal measurement. Available at http://www.ala.org.acrl/paper01 (Accessed 19th September 2011)

Palmer, S. and Tucker, B. (2004) Planning, delivery and evaluation of information literacy training for engineering and technology students. *Australian Academic and Research Libraries*, 35 (1), p.16

Rader, H. B. (1995) Reference and Information literacy and the undergraduate curriculum. *Library Trends*, 44(fall'95) pp. 270 – 278

UNESCO (2008)) Beacons of the Information Society. Information for all Programme (IFAP) Information Society Division, Communication and Information Sector, Paris UNESCO. p.4

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