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Evaluation of Use of E-Resources by Academic Staff of Navrongo Campus of University for Development Studies through Workplace Information Literacy Programmes

Joana Pwadura Ms
University for Development Studies, Tamale, Ghana, jopwadura@yahoo.co.uk

Alfred Asapeo Mr.
University for Development Studies, Tamale, Ghana, asaps123@gmail.com

Florence Dedzoe-Dzokotoe Plockey
University for Development Studies, Tamale, Ghana), fplockey@yahoo.com

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by

Joana Pwadura, Alfred Asapeo and Florence Dedzoe-Dzokotoe Plockey
(University Library, University for Development Studies, Tamale, Ghana)
jopwadura@yahoo.co.uk asaps123@gmail.com fplockey@yahoo.com

Abstract

The study was carried out to determine how beneficial the Information Literacy Workshops have been to the staff of University for Development Studies (UDS). The study was conducted at the Navrongo Campus of UDS which houses two faculties: Applied and Mathematical Sciences. The study used the survey research method and a purposive sampling procedure to sample the lecturers for a period of two weeks in May 2014. The main instrument for data collection was a questionnaire. The study found out that generally there is a high level of ICT skills among the lecturers in computer usage. The study further established that for the past decade, lecturers have been using e-resources but less frequently. The study also revealed that majority 88.9% of lecturers make significant use of the databases especially Science Direct mostly for educational /teaching purposes while 73.3% of them do so by accessing and using full text journal articles. It also came out clearly that lecturers found the e-resources training very beneficial with a majority 75.6% asking for more training two or three times in a year. It then identified challenges lectures face in using e-resources include: download delays, failure to find the information, frequent power outages and inadequate search skills.

Key words: Information Literacy. University Libraries, Library Survey, Electronic Resources.

1. Introduction

People may be well read in their relevant literature but they still need to keep up-to-date with latest development in their specific field. Workplace Information Literacy (IL) provides the skills and training for staff to enhance their work performance for organizational growth and individual development. According to the *Online Dictionary of Library and Information Science*, information literacy is the ….

> "skill in finding the information one needs, including an understanding of how libraries are organized, familiarity with the resources they provide including information formats. The concept also includes the skills required to critically evaluate information content and employ it effectively, as well as an understanding of the technological infrastructure on which information transmission is based, including its social, political, and cultural context and impact" and automated search tools, and knowledge of commonly used research techniques (Reitz , 2010).

According to ACRL (2000), information literacy is essential due to the amount of information that is available in this 21st Century. Simply being exposed to a great deal of information will not make people informed citizens; they need to learn how to use this information effectively. IL skills allow us to filter out the information we do not need. However, familiarity and use of electronic information resources (EIR) is often a challenge. That is why at the University for Development Studies (UDS) use workshops and seminars programmes to sharpen or enhance the skills of staff.

In Ghana, even though there is no direct policy on IL, strong efforts are being made by some universities to incorporate IL in their curricula by Faculty. For example, UDS started incorporating IL in their curricular in the 2016/2017 academic year. The Ghana Library Association (GLA), the professionally- recognized body of librarians has also for the past years

providing training for its members to upgrade and enhance their skills as information providers at their work places. Thus, "becoming information literate is part of lifelong learning and being a lifelong learner is part of being information literate" (Botha et al, 2006).

1.1 Brief Profile of University for Development Studies, Navrongo Campus and Library

The University for Development Studies (UDS) is the fourth public university established in 1992 to serve the needs of Northern Ghana in particular and the country in general. It operates a multi-campus system across the Northern (Tamale, Nyankpala), Upper East (Navrongo) and the Upper West (Wa) Regions. All four campuses have libraries manned by professional librarians with the Central Library at Nyankpala, Campus.

The Navrongo Campus (NC) which is the focus of this study is located in the Kasena-Nankana Municipality about thirty kilometers away from the Upper East regional capital, Bolgatnaga and situated along the Kolgo-Naga road between the St John Bosco's University College of Education, and the Navrongo Senior High School (Navasco). It has two Faculties, namely; Faculty of Applied Sciences (FAS) and Faculty of Mathematical Sciences (FMS). Courses such as Chemistry, Physics, Biochemistry and Biology are run by FAS whiles Statistics, Computer Science, Actuarial Science, Mathematics and others are also run by FMS.

High quality research work is paramount for running undergraduate and postgraduate programmes that effectively combine academic work with community participation and extension in order to grapple with environmental problems and the socio-economic deprivations of rural Ghana. It therefore requires that staff will need information to compile their lesson notes as well as for research purposes while students will also need information to do assignments and

projects. The University therefore provides the necessary facilities and resources such as the Library to make these possible.

Since 2004 the UDS Library is a member of the Consortium of Academic Libraries in Ghana (CALIGH). The UDS, through the Library, subscribes to a collection of academic databases and e-resources which are used to facilitate and support scholarly work, research teaching and learning. Some of these database are: AGORA, HINARI, OARE, and EMERALD & Science Direct. The provision of relevant information sources is not only expensive for individuals but also cumbersome to use without some level of skills. Therefore, besides acquiring these resources, the Library takes measures to ensure that they are used through its information literacy (IL) activities in collaboration with Faculty and other units/departments of the University.

Literature Review

1.1. The Concept of Information Literacy

The term Information Literacy (IL) is the application of skills/competencies and technology to gain knowledge that is used to achieve expected results thereby creating more knowledge. According to Bannerman (2012), information literacy is the skill for the knowledge age. Saunders (2013) explains that "the American Library Association (ALA) developed one of the fully realized definitions of the concept and the Association of College and Research Libraries (ACRL) provides one of the most widely accepted sets of standards." The ALA in (1989) defined Information literacy Competency (ILC) 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". ALA (2003) latter goes further to describe an information literate individual as one able to determine the extent of needed information, access the needed

information effectively and efficiently, evaluate information and its sources critically, and incorporate selected information into one's knowledge base, use information effectively to accomplish a specific purpose and to understand the economic, legal, and social issues surrounding the literacy competency.

As observed by SCECSAL (2010), Information Literacy (IL) is a complicated concept charged with values, judgments and power dynamics, and thus subject to considerable controversy and debate. Anecdotal evidence also suggests that happenings in the information landscape in the past two decades have caused researchers to begin to think outside the box. While several attempts are being made to give it some perspective, what is clear is that Information literacy is no longer the preserve of higher education learning as it was generally linked with bibliographic and library instruction (SCECSAL, 2010). Thus, Information literacy is common to all disciplines, all learning environments, and all levels of education. It forms the basis for lifelong learning by enabling learners to master content, extend their investigations, become more self-directed, and assume greater control over their own learning (ACRL, 2000). In simple terms, Information literacy can be said to be about people everywhere using information to take control of their lives.

However, Bannerman (2012) laments: that:

> the ability of users to search effectively is underdeveloped and that explains the tendency of using basic search technique of Google to access specific information needed. High quality research material are not found as they reside in the hidden web, where all library materials and paid for resources can be found.

Botha et al (2006) have warned that becoming an information literate person is not a quick- and - easy process neither is it a once-off occurrence.

Information Literacy is increasingly important in this 21st Century due to the abundance of information resources, methods required for accessing them, unfiltered information content as well as ethical and legal challenges. It is now recognized as not simply as a discrete skills set, but as a culture (SCECSAL, 2010). Bundy (2004) explains that, exhaustive information and technology cannot itself make people more informed without a required skill and capacity to use it progressively. In the view of Radar (2002), information literacy has become a global issue in the last decade where many information literacy initiatives have been documented throughout the world with particularly strong efforts and examples in North America, Australia, South Africa and Northern Europe. In recent years, the continuous growth of high-quality research materials available online has seen information literacy gaining in interest in certain circles in African countries as well, particularly in higher education institutions. These, according to SCECSAL, (2010) include; embedding IL programmes into institutions because it is key to raising institutional standards overall by improving the quality of research, teaching and learning; pedagogical innovation and assessment of IL training; use of new technologies in IL and other initiatives such as distance education, research and publication activities related to information literacy.

Therefore, the familiarity and use of electronic information resources (EIR) are necessary and important. That is why in the University for Development Studies, workshops and seminal platforms are used to sharpen or enhance the skills of lecturers at using e-resources for accessing relevant information.

1.2.   Workplace Information Literacy (WIL) in Perspective

Information literate people in the work environment have the necessary skills to make choices and decisions that will impact on their lives and job performance. In effect, Information Literacy is not simply having a computer and Internet connection but getting the right information at the right time. According to Bannerman (2007), "*making information available used to mean retrieval upon request but today it means much more.*" It is providing the skills and training for staff to enhance their work performance for organizational growth and individual development.

Information Literacy also involves creating knowledge through the full utilization of information (Bannerman, 2012). It sharpens skills, expands one's knowledge base and gives confidence, thereby boosting output. Lloyd (2014) states that awareness of information needs in the community of work has been around for over a hundred years. Crawford and Irving (2009) attribute the term "Information literacy" to Zurkowski (1974) who was concerned about the private service sector and its ability to cope with the emerging complexity of the information age. According to Crawford and Irving (2009), Zurkowski in 1974 linked IL in the private sector with attainment of economic and workplace goals and the ability to solve problems around workplace tasks. There is also the recognition that a skilled and educated workforce is essential to an advanced economy.

Bruce (1999) stated that the three groups of people likely to be interested in workplace experiences of IL are: managers, information managers, trainers and educators. More recently, employers and policy makers have addressed the need for workforce development to ensure that workers develop appropriate technology and information skills to handle their job responsibilities effectively (Radar, 2002). Bundy (2004) indicated in his study that information

literacy inculcates competencies of individuals working in any discipline, learning environment and any level of education to think critically with content and extend their self-directed investigations and prepared for organized learning. Librarians have also been interested in knowing perception of Faculty regarding information literacy and their level of participation in teaching.

According to DaCosta (2010), faculty generally agrees on the importance of information literacy but need more of a push to truly embrace it. In this 21st Century, Workplace Information Literacy (IL) is essential for improving the organization's performance and also enhance workers personal as well as professional development. It is more important now because "the world has changed from a society with an economy based on labour and capital to an economy based on information and knowledge" (Botha et al, 2006).

In order for lecturers to survive in this knowledge and information age therefore they need the skills to make sense of information and to use IT effectively and efficiently to teach their students and improve their teaching skills as well as becoming lifelong learners.

1.3. E-resources/Databases

Information Communication Technology commonly referred to as ICT, according to Corletey (2011) is using technology to communicate from the point of creation to consumption. He also observed that ICT, as a process, involves acquiring, processing, storage and retrieval has made great impact in dissemination of information and knowledge. The 21st Century is witnessing major progress in ICT such that library patrons living in an Internet-propelled global village will be demanding more and more ICT-based library services and resources.

The term e-resource is commonly used to denote information that is retrieved electronically and which may or may not have a print copy. The International Federation of Library Associations and Institutions (IFLA, ,2012) enumerates types of ERs as: e-books, e-journals, full text (aggregated) databases, indexing and abstracting databases, reference databases (biographies, dictionaries, directories, encyclopedias, etc), numeric and statistical databases, e-images, e-audio/visual resources. The use of computer technology to organize and retrieve information started in the mid-twentieth century. The journals, books, databases and abstracting tools provided on the Internet are branded as Web Resources or e-resources (electronic resources). Just a handful of these resources continue to be published on CD-ROMs. Also, a few resources are free; most scholarly resources are very expensive. Despite the cost, e-resources are preferred because current editions get to users the very day they are posted on the website. To this end, electronic resources represent an increasingly important component of the collection-building activities of libraries (IFLA, 2012).

In the view of Dhanavandan, Esmail & Nagarajan (2012) the general shift to electronic resources is rapidly changing library operational and organizational structure. Indeed, research has revealed that universities worldwide make substantial investments in digital/electronic resources to provide scholars the needed information for their work with the idea that improved access to electronic resources will lead to increased scholarly productivity (Bhukuvhani, Chipaurasha and Zuvalinyenga, 2012).

In his study, Govindaraju (2010) found out that the use of electronic resources is significant among the users of Andra University. According to Tsoenyo and Wole (2012), the successful integration of ICT into the university system depends not only on access and availability but also the extent to which staff and students embrace these technologies. Tsoenyo and Wole (2012),

added that "rather than relying on print textbooks which sometimes are not immediately available, lecturers can find the latest information on a specific topic through a variety of e-resources which are increasingly accessible from their desktops". Vakkari (2008) has noted that the easier and better access to the literature, it facilitates scholars' work in many ways such as; time saving to research, ability to keep abreast in their fields, access to a wide range of publications, inspired by new ideas and eventually enhance the quality of their output.

Some empirical studies have also shown that accessing published research information in the form of journals has been hampered by many challenges that include budgetary constraints, limited access, lack of knowledge/awareness of right sources and lagging behind technological advancements (Ugah, 2007; Osunade, Philips and Ojo 2007).

).. This notwithstanding, Manda (2005) proffered that Information Communication Technological (ICT) advancements and the use of e-resources, especially the Internet promises to improve the flow of information to research and academic communication. Corletey, (2011) has also observed that:

> libraries in academic and research institutions have incorporated ICT in their operations and have thus improved efficiency in providing information for researchers and scientists the world over.

2. Objectives

This paper sought to determine how beneficial the Information Literacy Workshops have been to the Academic staff of the Faculty of Applied Sciences from the Navrongo Campus of the UDS. Specifically, the study was conducted to:

i. Determine the extent to which Information Literacy workshops have benefited academic staff of Navrongo Campus of UDS in accessing e-resources.

ii.   Assess IT skills' levels of academic staff of Navrongo Campus of UDS

iii.   Evaluate any difficulties encountered by academic staff of Navrongo Campus of UDS in using the e-resources.

3. Methodology

A Questionnaire was used to collect data from the respondents. A purposive sampling technique was used. The questions were designed to solicit the following information: ICT skills levels, use of e-resources, availability of online databases, access to e-resources, purpose of use, training on use of e-resources and problems with the use of online databases.

The study was restricted to only academic teaching staff of the Faculty of Applied Sciences (FAS) in the Navrongo Campus of the University for Development Studies in May, 2014.   The Faculty had a total of 64 lecturers. Ten (10) were on study leave at the time of the study. In all fifty-four (54) copies of the questionnaires were administered and forty-five (45) representing 83.3% were retrieved. The questions were mostly closed ended with multiple choice answers and a few open-ended ones to allow respondents express their opinions where needed.

 The data collected from respondents were analysed using the Statistical Package for Social Science (SPSS v.20). Results of the research were presented in form of simple tables.

4. Data Analysis and Discussion

4.1 Background Information

Table 1: Qualification of Respondents

Target population	Distribution	Percentage (%)
MA,MSc/MPhil	39	86.7
Doctorate & PhD	6	13.3

Total	**45**	**100**

Table 1 shows the distribution of respondents by qualification. Out of the 54 copies questionnaire distributed, 83.3% were returned while 16.7 % were not returned. All educational levels representing the academic teaching staff were represented. Majority of the respondents – 86.7% were MA, MSc or MPhil degree holders while 13.3% are those with Doctorate or PhD. It can be concluded that most of the lecturers are in their early stages of the academic ladder, as they need to do a lot of research to climb the academic ladder as such they need information literacy skills. Information literacy is common to all disciplines, all learning environments, and all levels of education. It forms the basis for lifelong learning by enabling learners to master content, extend their investigations, become more self-directed, and assume greater control over their own learning (ACRL, 2000).

According to ALA (2003), an information literate individual is one able to determine the extent of needed information, access the needed information effectively and efficiently, evaluate information and its sources critically, and incorporate selected information into one's knowledge base, use information effectively to accomplish a specific purpose and to understand the economic, legal, and social issues surrounding the literacy competency.

4.1. Age and Gender Distribution

Table 2: Gender distribution by age

Age	Male	%	Female	%	Total	%
21-30	6	13.3	1	2.3	7	15.6
31-40	14	31.1	3	6.6	17	37.7

41-50	18	40.0	-	-	18	40.0
51-60	3	6.7	-	-	3	6.7
TOTAL	**41**	**91.1**	**4**	**8.9%**	**45**	**100%**

Source: Field work, 2014

In Table 2 male respondents were 91.1%, while their female counterparts were 8.9% indicating a higher gender disparity in the Faculty in favor of the former. The table further shows that majority of respondents, 40.0% fell within the age range of 41-50 years, followed by 37.8% of those within the 31-40 year group. Only 15.6% were between 21 -30years, whiles 6.7% were between 50 -60 years. The results reveal that generally all respondents were within the working age limit of 21-60 years but 40.0% of them were in their middle ages. The age distribution shows a developing faculty full of potential for information literacy skills training and re-training. A young Faculty is expected to be more involved in research activities for their own personal development as well as for teaching purposes. Therefore this group should be more interested in the IL programmes facilitated by the Campus Library.

4.2. Length of Teaching Experience

Table 3 Length of Teaching Experience

Teaching Experience	Frequency (F)	%
1 – 5 years	32	71.1
6 – 10 years	10	22.2
11 – 15 years	1	2.2
16 – 20 years	2	4.5
TOTAL	**45**	**100**

Source: Field Work: 2014

Respondents were asked to indicate the number of years they had been teaching in the Faculty. This was to determine which year group is more likely to be influenced by the training on the use

of e-resources. Table 3 shows that 71.1% representing a majority, followed by 22.2% who had taught for a period between 6-10 years, while 4.4% have also taught between 16-20 years. Only 2.2% had been teaching for between 11-15 years. From the results it is deduced that the cumulative teaching experiences from 1-10 years representing 93.3% is consistent with the young age distribution in Table 2. This means that IL programmes for capacity building will continue to be relevant to this group since new technologies and e-resources are always emerging with overwhelming consequences.

4.3.   Levels of ICT skills

An important aspect of the study was to find out the ICT skills' levels of academic teaching staff of FAS as represented in the various categories in Table 4.

Table 4: Levels of ICT skills

Options	Skills in computer use Frequency (F) & %	Skilled in use of e-library tools; CD Rom, OPAC F & %	Knowledge of database structures F & %	Conversant with electronic formats; PDF, DPEG, MPEG F & %	Skilled in formulating research queries F & %
Agree	43 (95.6)	33 (73.3)	37 (82.2)	38 (84.4)	38 (84.4)
Disagree	2 (4.4)	12 (26.7)	7 (15.6)	7 (15.6	7 (15.6)
No Response	-	-	1 (2.2)	-	-
TOTAL	**45 (100 %)**	**45 (100 %)**	**45 (100 %)**	**45 (100 %)**	**45 (100 %)**

Source: Field work, 2014

The results show that a majority of respondents representing 95.6% have skills in computer usage while 4.4% do not. Whereas 82.2% have some knowledge of databases, 15.6% do not have while 2.2% did not indicate any response. Also, 73.3% are skilled in the use of library tools such as CD ROMs and OPAC while 26.7% are not. Respondents who are conversant with electronic formats represent 84.4% while those not conversant with electronic formats are 15.6%.

The results further reveal that knowledge in computer usage constituted 95.6% which is not the same as knowledge in accessing databases even though generally there is a high level of ICT skills as against those who do not have ICT skills. However, computer skills alone do not make one an information literate. Drucker, a known management guru states that "executives have become computer-literate ... but not many executives are information literate". Drucker is of the view that being able to use computers is not enough. As according to Dadzie (2013) the President of Ghana Library Association in her inaugural lecture posited that:

> today's world requires individuals to be information literate, possessing the skills and abilities to locate, evaluate, use and communicate information in an ethical manner in order to participate in societal affairs and to have an informed opinion about problems occurring locally, nationally or internationally.

According to SCECSAL (2010), Information Literacy is increasingly important in this 21st Century due to the abundance of information resources, methods required for accessing them, unfiltered information content as well as ethical and legal challenges. IL is therefore not a discrete skills set, but as a culture. Bundy (2004) explains that exhaustive information and technology cannot itself make people more informed without a required skill and capacity to use it progressively.

4.4.   Level of E-Resources Usage

Electronic resources play a vital role in teaching, learning and research activities in UDS. It is therefore important for this study to understand the level of usage of electronic resources. Table 5 below show the responses as given by lecturers who provided data for this study.

Table 5: Level of E-Resources usage

S/N	Items	Options	Frequency	Percentage
1.	Do you use electronic resources	Yes	34	75.6%
		No	9	20.0%
		No response	2	4.4%
		Total	**45**	**100%**
2.	How often do you use electronic resources	Very often	20	44.4%
		Often	12	26.7%
		Rarely	10	22.2%
		Never	2	4.4%
		Total	**45**	**100%**
3.	For how long have you been using electronic resources	1 year	2	4.4%
		1 – 5 years	14	31.1%
		6-10 years	26	57.8%
		No response	3	6.7%
		Total	**45**	**100%**

Source: Field Work, 2014

From Table 5, answering the question, 'Do you use electronic resources?' 75.6% said 'Yes', 20.0% said 'No' while 4.4% did not provide any response. As to how often respondents make use of e-resources, Table 5 shows that 44.4% use them very often, 26.7% use them often, 22.2% rarely use them while those who did not use them represent 4.4%. The responses indicate that most of the respondents (55.6%) did not frequently use electronic resources and this is worrying considering the heavy investment in acquiring the e-resources and the need to access them to enrich teaching, learning and research.

Table 5 also reveals that majority of respondents representing 57.8% have been using e-resources for at least six years, and 31.1% are within the range 1-5 years. Those who have used the e-resources for one year constitute 4.4% whiles 6.7% did not respond. The table further reveals that within the cumulative period 1- 10 years, 88.9% lecturers have been using e-resources but frequency of usage generally is low. Probably because they are not conversant with the use of e-resources. This is a cause for investigation.

4.5. Level of Experience with the Internet and Online Databases

Table 6: Level of experience with the Internet and online databases in NC of UDS

Options	Experience with Internet	%	Experience with online databases	%
Very high	17	37.8%	11	22.4%
High	25	55.6%	19	42.2%
Low	3	6.7%	11	22.4%
None at all	-	-	2	4.4%
No response	-	-	2	4.4%
Total	**45**	**100.0%**	45	**100%**

Source: Field Work, 2014

Table 6 indicates that majority of respondents – 55.5% and 42.2% - have a high level of experience with the Internet and online databases respectively, while 37.8% and 22.4% represent those with very high experiences respectively. The table also reveals that whereas 6.7% indicates a low level of experience with use of the Internet, the corresponding 22.4% shows a low level of experience with use of online databases by respondents. Cumulatively, 93.4% represent t a very high level of Internet experience by respondents as against 64.6% online databases experience. This means that merely knowing how to surf the Internet does not necessarily lead to a high level of experience with online databases. There is therefore the need to fill this gab with periodic training programmes. Bruce (1997) posits that research on university students concluded that the students were too inefficient at handling information at their disposal. Thus, she recommended

that libraries should launch and design teaching and guidance programs for students in order to increase their information literacy skills.

4.6. Availability of Online Databases

The study wanted to find out if respondents were availed of the e-journal databases that the library subscribes to and how they were being used.

Table 7: Online databases that meet particular needs of respondents

S/N	Items	Frequency	Percentage
1.	Agora	1	2.2%
2.	Emerald	1	2.2%
3.	Science Direct	15	33.3%
4.	Emerald & Science Direct	2	4.4%
5.	Agora, Hinari, Oare, Emerald, Sc. Dir.	7	15.5%
6.	Ebsco, Emerald & Science Direct	4	8.9%
7.	Ebsco & Science Direct	2	4.4%
8.	Oare & Science Direct	1	2.2%
9.	No Response	12	26.7%
10	**Total**	**45**	**100%**

Source: Fieldwork, 2014

While 51.1% representing the majority agreed that the databases were available, 40.0% disagreed and 8.9% did not respond. Table 7 shows an array of databases that meet particular needs of respondents. It reveals that Science Direct is the database that most meets the particular need of respondents with a score of 33.3% followed by Agora, 15.5%, Hinari, Oare, Emerald and Science Direct. However, as many as 26.7% of the respondents did not respond to databases of their preference.

Responding to the adequacy of the databases, 28.9% said Yes, 48.9% said No, while 22.2% were undecided. This is not surprising since most of these databases could not easily be accessed by the staff without help from the library's professionals.

We live in a complex and repeatedly a vast information world. Information, library, and education organizations have a responsibility to do their best to help people succeed. The profession is to meet societies' information needs. Providing services, resources, and facilities is one way that libraries, schools, and other organizations seek to meet needs. The other way we do so is to teach and to provide opportunities to learn. Some empirical studies have also shown that accessing published research information in the form of journals has been hampered by many challenges that include budgetary constraints, limited access, lack of knowledge/awareness of right sources and lagging behind technological advancements(Ugah, 2007;. Osunade, Philips and Ojo 2007)

The study also revealed that the use of some of the databases available to respondents especially Science Direct is significant. This is in consonance with Govindaraju's (2010) findings that the use of electronic resources is significant among the users of Andra University.

According to ACRL (2000), information literacy is essential due to the amount of information that is available in this 21st Century. Simply being exposed to a great deal of information will not make people informed citizens; they need to learn how to use this information effectively.

4.7. Access to Electronic Resources

The study revealed in a follow up question, 'where do you access electronic resources', that 51.1% lecturers prefer accessing e-resources in the comfort of their homes, 15.6% do so both at home and the Cyber café, 8.9% use departmental ICT laboratory and Cyber café while 4.4% use the University Library. This further buttresses the point made earlier that most teaching staff do not make use of staff of the Library to help them access the databases. It is in light of this that IL

training programmes are important for academic staff so they can use library resources especially the Internet and electronic resources effectively to enhance teaching, research and knowledge dissemination.

Libraries play the most important role worldwide in helping to bridge the information gap by providing free access to information and communication technologies, particularly the Internet. They are inclusive in that they build bridges between individuals at the local level and the global level of knowledge. In industrialized countries, access to modern information technology is currently one of the most attractive library services.

4.8. **Purpose of Use of E-Resources**

Table 8: Purpose of Use of E-Resources

Options	Educational/teaching purposes	%	**Research**	%
Often	40	88.9	33	73.3
Rarely use	5	11.1	10	22.2
Never use	-	**-**	2	4.5
Total	**45**	**100.0%**	**45**	**100**

Source: Fieldwork Work, 2014

Table 8 shows the purpose for the use of e-resources. It revealed that 88.9% use it often for educational/teaching purposes while 11.1% rarely use it for that purpose. Also, 73.3% use it for research, 22.2% rarely used it for research while 4.5% did not respond. The study provides an important component of the research which is in line with the University's mission of providing e-resources 'for teaching, learning and research'. Significantly, 11.1% and 22.2% rarely use the

e-resources for either education/teaching or research respectively. Those group of lecturers need assistance especially IL training to empower them to use e-resources more effectively.

4.9. Training on Use of E-Resources

The aim of this study was to highlight the Information Literacy activities of the UDS Library which include training of lecturers to do scholarly research with the main focus on training on use of e-resource. The responses are shown in Table 9.

Table 9: Training on Use of E-Resources

S/N	ITEMS	OPTIONS (per year)	FREQUENCY	%
1	Have you received instruction in using the Library for teaching and research.	once	24	53.3
		twice	6	13.3
		More than twice	9	20.0
		No response	6	**13.3**
		Total	**45**	**100**
2	How often should this be done	once	6	13.3
		twice	17	37.8
		Three times	17	37.8
		No response	5	11.1
		Total	**45**	**100**

Source: Fieldwork, 2014

Table 9 shows that a 53.3% majority have received training in using the Library for research, teaching and at least once a while 13.3% and 20.0% have done so twice or more respectively. Also, a 75.6% majority want the training twice or three times a year. This is an indication that respondents find the training beneficial hence a positive impact on the IL activities of the Library. Campbell (2004) in Catts and Lau (2008:13), posits that, one of the elements that is relevant in IL is the ability to recognize information needs.

4.10.   **Problems with the Use of Online Databases**

Table 10: Problems with the use of online databases

S/N	ITEMS	OPTIONS	FREQUENCY	PERCENTAGE
1.	Information overload	Agree	14	31.1
		Disagree	22	48.9
		No response	9	20.0
		Total	**45**	**100**
2.	Need to filter results from search	Agree	29	64.4
		Disagree	8	17.8
		No response	8	17.8
		Total	**45**	**100**
3.	Download delays	Agree	29	64.4
		Disagree	8	17.8
		No response	8	17.8
		Total	**45**	**100**
4.	Lack of search skills	Agree	16	35.6
		Disagree	21	46.7
		No response	8	17.8
		Total	**45**	**100**
5.	Failure to find the information	Agree	22	48.9
		Disagree	15	33.3
		No response	8	17.8
		Total	**45**	**100**
6.	Power outages	Agree	21	46.7
		Disagree	17	37.8
		No response	7	15.5
		Total	**45**	**100**

Source: Fieldwork, 2014

It can be observed from Table 10 that, generally majority of respondents (64.4%) need research

results to be filtered. This collaborates with Ozoemelem (2009) that issues like large mass of

irrelevant information resulting from search are some of the basic problems encountered by researchers. IL skills allow us to filter out the information we do not need.

It is also clear that 48.9% respondents had no problems with information overload and did not also lack search skills. Other problems are download delays, failure to find the information and power outages.

5. Conclusion

The study has looked at the use of e-resources by academic teaching staff of the Faculty of Applied Sciences from the Navrongo Campus of the UDS. Specifically, how beneficial the Information Literacy workshops have been to the staff. The study found out that generally there is a high level of ICT skills among the lecturers in computer usage. The study further established that for the past decade, lecturers have been using e-resources but not too frequently. The study also revealed that lecturers make significant use of the databases especially Science Direct mostly for educational /teaching purposes and for research using full text journal articles. It also came out clearly that lecturers found the e-resources training very beneficial with a majority asking for more training at least two times in a year. Challenges that the study found include: download delays, failure to find the information needed, frequent power outages and inadequate search skills of lectures.

6. Recommendation

The study came out with some recommendations to improve the Information Literacy Activities of the UDS Library.

1. The Library should periodically organize information literacy workshops/seminar for staff. This can be done two or three times in a year.

2. There is the need for reliable Internet connectivity and service so that users can exploit the e-resources effective.

3. Embed IL in the curriculum of the University.

4. There should be a collaboration between faculty and librarians.

REFERENCES

ACRL. 2000. Information Literacy Competency Standards for Higher Education

ALA (1989). American library association presidential committee on information literacy. Final report. Retrieved from: http://www.ala.org/acrl/publications/)whitepapers/presidential

ALA (2003). Information Literacy Competency Standards for Higher Education. Chicago, Illinois.

Bannerman, Valentina J . A. (2007). The critical role of libraries in the information society. *Ghana Library Journal* Vol. 19, No.2. p14

Bannerman, Valentina J. A. (2012). Knowing is not enough: Engaging in the knowledge economy. *Ghana Library Journal* Vol. 24, No.1, pp12, 25, 11.

Bhukuvhani, C., Chiparausha, B., and Zuvalinyanga, D. (2012). Effects of electronic information resources skills training for lecturers on pedagogical practices and research productivity: *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, Vol 8 No. 1, pp16-28.

Botha, M., Nieman, G., & van Vuuren, J. (2006). Enhancing female entrepreneurship by enabling access to skills. *The International Entrepreneurship and Management Journal, 2(4), 479-493*.

Bruce, C. S. (1999). Workplace experiences of information literacy. *International Journal of Information Management*, Vol. 19. No. 1. pp 33-47

Bundy, A. (1998). Information literacy: the key competency for the 21st century. In "*Proceedings of the IATUL Conference*". Paper5. Retrieve from: http://docs.lib.purdue.edu/iatul/1998/papers/5.

Campbell, S (2004) Defining Information Literacy in the 21st Century. *World Library and Information Congress:* 70th IFLA General Conference and Council, 22-27 August

Catts, R., & Lau, J. (2012). Towards information literacy indicators; conceptual framework paper... with a list of potential international indicators for information supply, access and supporting skills by UNESCO Institute for Statistics.

Corletey, A. (2010). The role of ICT applications in Open Access. Retrieve from: http://ir.knust.edu.gh/bitstream/123456789/1440/1/Open%20Access%20and%20ICT%20applications%20new.pdf

Crawford, J. and Irving, C. (2009). Information Literacy in the Workplace: a qualitative explorative study. *Journal of librarianship and information science*. Vol 41, pp. 29-38.

DaCosta, J. W. (2010). Is there an information literacy skills gap to be bridged? An examination of faculty perceptions and activities relating to information literacy in the United States and England. *College and Research libraries*, 71 (3), pp203-222.

Dadzie, P. S. (2013). Information literacy for public libraries. *Ghana Library Journal*

Dhanavandan, S., Mohammed Esmail, S., & Nagarajan, M. (2012). Use of electronic resources at Krishnasamy College of Engineering & Technology Library, Cuddalore. *Library Philosophy and Practice.*

Govindaraju, N. (2010). Use and user awareness of E-resources in Andhra University library: A study. PEARL: *A journal of Library and Information Science*, 4(3), pp183-188.

IFLA. (2012). Key issues for e-resources collection development: a guide for libraries. Retrieved from: www.ifla.org/files/assets/acquisition-collection-development/publications/electronic-resource-guide.

Lloyd, A. (2014). Lessons from the workplace: Understanding information literacy as practice. Doctoral dissertation P39.

Manda, P. A. (2005). Electronic resource usage in academic and research institutions in Tanzania D*: Information Development*, Vol .21. No. 4

Osunade, O., P, and Ojo, O. (2007) "Limitation of Knowledge Sharing in Academia: A Case from Nigeria, *Knowledge Management for Development Journal*, pp.28, 30-31. Available at [http/2p/mydocuments/knowledge sharing/14limitations of knowledge sharing in academia_ a case from Nigeria. mht]

Ozoemelem, Obuh Alex, "Use of Electronic Resources by Postgraduate Students of the Department of Library and Information Science of Delta State University, Abraka, Nigeria" (2009). *Library Philosophy and Practice* (e-journal). Paper 301. Retrieved From: http://digitalcommons.unl.edu/libphilprac/301

Rader, H. B. (2002). Information literacy-an emerging global priority. *White paper prepared for UNESCO, the US National Commission on Libraries and Information Science*, *12*, 02-15.Retrieved from:http://www.ala.org/acrl/standards/informationliteracycompetency.

Reitz, J.M. (2010), ODLIS: Online Dictionary of Library and Information Science, Libraries Unlimited, Englewood, CO,: Retrieved from: http://lu.com/odlis/odlis_b.cfm

Saunders, L. (2012). Faculty perspectives on information literacy as a student learning outcome. *The Journal of Academic Librarianship*, *38*(4), 226-236.

SCECSAL, (2010). Strengthening Information Literacy interventions: Using creative approaches to teaching and learning. *Gaborone, Botswana: Pre-Conference Seminar Report*. Institute of Development Studies and Information Training &Outreach Centre for Africa, pp1-41.

Tšoenyo, J., & Wole, O. (2012). Analyzing the influence of Diffusion of Innovation attributes on lecturers' attitudes toward information and communication technologies. Human Technology, 8 (2), 179- 197

Ugah, A.D. (2007). Obstacles to information access and use in developing countries. *Library Philosophy and Practice*. Available: http://unllib.unl.edu/LPP/ugah3.htm

Vakkari, P. (2008). Perceived influence of the use of electronic information resources on scholarly work and publication productivity: *Journal of the American Society for Information Science and Technology,* Vol. 59 Issue No. 4 pp602-612.

Zurkowski, P (1974). The Information Service Environment: Relationship and priorities. U.S. National commission on libraries and Information Science. Washington D. C. Government printing office. 1973. ANZIL