March 2015

Awareness And Usage Of Electronic Databases By Geography And Resource Development Information Studies Graduate Students In The University Of Ghana

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Abstract

The purpose of this study was to examine the awareness level and usage of electronic databases by graduate students in the University of Ghana. The focus was on graduate students of Departments of Geography and Development Resource, and Information Studies. Questionnaire was used to collect the data. The findings were that students were very much aware of the databases available to them as indicated by 96.9%and 93.8% indicated to use them. The studies has also established that majority of students knew about the databases from their lecturers and most of them accessed from the central library. Despite the claimed usage level, databases they focused on were few and many of them were not familiar with those in their discipline of study. Further, the limited number of the databases they knew about, they were satisfied with them and claimed the databases have impacted on their learning and research activities. In light of these findings it is recommended that librarians especially subject librarians should heighten the publicity of the databases and the research guides to both students and faculty so that they would become familiar with the databases and use them more and effectively.

Keywords: Electronic Databases, Postgraduate students, academic libraries, awareness, University of Ghana.

Introduction

Electronic-Databases (e-databases) have become an established component of many academic libraries' collection. These databases often contain journal articles, or references to such articles, e-books, reference sources, conference papers and reports among others. There are various types of these databases such as bibliographic, full-text, directory, numeric and multimedia.

E-databases are widely available and can be accessed from anywhere and by many users at the same time. It is therefore convenient to use. University libraries, therefore, spend large amounts of money on these resources to satisfy the teaching, learning and research needs of its faculty and students. As universities spend substantial amount of money on subscription of these databases, it is only appropriate and economical that these databases are optimally utilized to contribute to the academic achievement of students and faculty and also to get value for money.

In spite of the value of e-databases and ensuring that it is available for use by library clients, studies have shown that usage is not up to level expected or is simply underutilized. Reasons most often advanced for not using the databases include lack of awareness, preference for other sources like general search engines such as Google, lack of search skill, lack of adequate ICT infrastructure, bad downloading time, and at times sheer attitude of users. The manifestation of these reasons may differ from place to place or from situation to situation. Dukic (2013) and Ahmed, 2013b), for example, indicated that usage of e-databases in developed countries is more than in developing countries basically because of poor ICT infrastructure and huge cost of such resources Anaraki and Babalhavaeji (2013) also pointed out that where students are not aware

of existence of e-databases they tend to use general search engines to meet their information needs.

Researchers and scholars in the academic sector in Ghana had had their turn of difficult times in accessing published research information in the form of journals, mainly because of budgetary constraints. But through the benevolent initiatives from institutions such as International Network for the Availability of Scientific Publications (INASP) and Programme for the Enhancement of Research Information (PERI) in the 1990s and early 2000s, Ghanaian researchers and scholars in academia have had access to or benefited from CD-ROM facilities and e-databases. In addition to the INASP and PERI initiatives, Ghanaian universities, both public and private, and research institutions have implemented a consortia purchasing of electronic databases in order to reduce the unit cost for these resources. This has offered access to a wide range of resources for a number of university libraries in Ghana. Users need not visit the library to benefit from the usage of these resources since they can access the resources from anywhere – home, office etc. This situation is also very beneficial to the large number of Distance Learners and Sandwich Students in Ghanaian universities.

The e-databases available in the University Ghana Library System (UGLS), consist of INASP initiative ones, consortia subscribed ones, University of Ghana's own subscribed ones, and open access ones. The number of subscribed databases at the moment amounts to about 54. They cover most subject areas in the humanities, social sciences, applied sciences, physical sciences, and engineering. These contain full text electronic journal articles, bibliographic information, abstracts, e-books, among others. The databases are renewed annually by subscription.

Infrastructure wise, the university has provided modest ICT facilities for its constituents to enable them access e-resources for teaching, learning and research. The University has established ICT Directorate to harness and manage ICT facilities on the campus. The Directorate has computer centres where students are given time slots in the semester to access information and also to have training. Wireless hot spots are available at selected points on the university campus. The Central library, (Balme Library) has Graduate and Faculty Research Commons, Knowledge Commons and Information Access Centre which are all equipped to cater for the teaching, learning and research needs of students and faculty. There is a 24-hour, seven days reading room with sitting capacity of about 200 with wireless facility. The bandwidth for the university is 310Mb. All these are to contribute to easy access to the e-resources provided.

In addition to the general infrastructure, at the beginning of every academic year, newly admitted students, both undergraduate and postgraduate undergo library orientation and library tour programme. The students are introduced to the resources that are available in the library system so that they would become aware and use them. The University of Ghana Library System (UGLS) operates subject librarianship programme where librarians are assigned to the various academic units to facilitate library-client relationship. Lecturers also benefit from the introduction of resources particularly the e-databases. The expectation is that when students and faculty are aware of these e-databases and facilities available they will be motivated to use them.

The level of usage of e-databases by students and the usefulness of such facilities are not known because there has not been any major study to that effect. As subject librarian assigned to the Department of Geography and Resource Development, and the Department of Information

Studies, it is important to know how students are making use of the e-databases provided by the library system and to make suggestions for their effective and efficient use. Specifically, the study was undertaken to know the awareness and usage levels of databases in the UGLS by students and the result to guide how to improve the usage of these databases. The study was restricted to students who are pursuing master's degrees in these selected departments.

Literature Review

Many studies have been undertaken on electronic databases in the areas of awareness, usage, relevance, access, preference, orientations and training, and evaluation among others. It is found in the literature that there are sometimes a gap between awareness and usage of digital resources. Either users are aware of the resources and use them, users are aware and do not use them, or usersthey are unaware of them and therefore do not use them. Studies by Nisha and Ali, (2013), Chirra and Madhusudhan, (2009), and Atakan *et al*, (2008) all found that clients were aware of and used the e-databases available to them. For example, Chirra and Madhusudhan (2009) in a survey on use electronic journals by doctoral research scholars of Goa University, India, revealed that all (100%) the respondents were aware of the e-journals of the Consortium and accessed them. Studies by Okello-Obura (2010), Ercegovac (2009), Manda (2005), and Dadzie (2005) on the other hand found that respondents were not aware of most of the e-resources provided for them in their respective institutions and therefore affected their usage. Manda (2005) for example reported that PERI resources provided in academic and research institutions in Tanzania were underutilized because potential users were not aware of the resources due to lack of publicity.

A deduction from Anaraki and Babalhavaeji's (2013) study was that when students are not aware of the existence of e-resources in their library system they tend to use general search engines to meet their information needs. They found that only 16% of the medical students in Iran were well acquainted with the e-resources of the integrated digital library (IDL) portal provided for them. Ahmed (2013b) also found that postgraduate students from Bangabandhu Sheikh Mujib Medical University (BSMMU) and undergraduate students from Bangladesh University of Engineering and Technology used free electronic resources more than university subscribed resources because of lack of awareness of subscribed ones.

Other studies by Asemi and Riyahiniya (2007), and Baro *et al (*2011) argued that though awareness may lead to usage of a database, this is not always the case. It could happen that users' awareness level may be higher than usage. They reported that awareness level of their respondents about online resources was more than usage. For example, Baro *et al* found that whilst 23.2% were aware of Medline database only 17% used it. Also whilst 60.8% were aware of HINARI, only 38.8% used it. Swain (2010) pointed out that awareness could be influenced by the interest and exposure that a user or a student has in the database. In his study of students' keenness on the use of e-resources in the Business School of Orissa, India, he found that 62.5% of students were aware of EBSCO, 52.6% aware of Emerald and below 40% were aware of other databases.

Libraries can have the greatest number of resources but if patrons are not using them they are worth nothing and a waste of resources. It is for this reason that usage of e-databases is critical in relation to its provision. Various studies have been conducted on the usage of e-databases

concerning whether they are being optimally utilised or not. Factors such as convenience, familiarity, exposure, infrastructure, search skills, relevance, and training, have been cited as factors influencing usage of e-databases.

Wu and Chen (2012) studying how graduate students perceive, use, and manage electronic resources in the National University of Taiwan found that usage varied according to the subject background of the student. He, for example found that humanities students perceived the e-resources less important compared to students of other disciplines. Similar assertions – that disciplinary differences can influence the use databases - were made by Atakan *et al* (2008), and Talja and Maula (2003).

Sinh and Nhung (2012) argued that users' behaviour will influence the usage of e-databases, and that factors that influence usage of databases are the purpose of usage, preferred types of materials, ways to learn the search, search techniques, and difficulties and expectations in using the databases. Thus, in their survey on searching behaviour of users of six online databases subscribed to by the Central Vietnam National University in 2011 reported that 87.5% requested for full-text articles as compared with 12.5% who requested for abstracts. Similar finding was reported by Coombs (2005) that full-text databases were preferred to other databases. Even among the full-text databases some are preferred to others because of the information architecture of the sites. Okello-Obura (2010) in assessing the problems of LIS postgraduate students in Makerere University found that students used some of the databases more than others. For example 92% used Emerald followed by Blackwell synergy 76%. Nobody used the following databases, AGORA, Royal Society of London, and Palgrave Macmillan Journals.

Ndinoshiho's (2010) study of nursing students in the University of Namibia revealed that 86.4% of the students did not use the databases available to them because they were not familiar with the databases. Out of the 13.6% who used them, only 1.5% used them daily, 3.8% monthly and 3% rarely. Few who used them never used Medline database - one of the most prestigious medical database – because they were not familiar with it.

He *et al.* (2012) argued that students thought of online academic search engines such as Google and CiteSeers as more important resources than university subscribed databases such as EBSCO, Emerald, Pubmed and JSTOR. And that depending on their tasks, they would prefer a particular resource to another. Similarly, Cothran (2011) found that graduate students used Google Scholar a lot because they found it easy to learn; easy to use; and easy to navigate. In addition, the design and interface were user-friendly and it was a useful resource for their research. Nisha and Ali's (2013) found that users of the library used the databases because of the currency of e-journals' articles and rich content.

Various factors influence satisfaction derived from the usage of these resources. Ahmed (2013a) in studying use of electronic resources by students and faculty in universities in Bangladesh found that respondents were not satisfied with the subscribed resources because of limited access to back issues; poor IT infrastructure; difficulty in finding required information; inability to access from home, slow download speed and online access problems. Mbabu, Bertram and Varnum (2013) in their study arrived at similar findings including limited number of titles available to the users.

Chu and Law (2005) postulated that knowledge, search expertise and usage of databases by students grow as they progress in their studies. Thus, familiarity with and usage of different databases developed as students progress in their studies and this familiarity is gained through instruction and promotion of the databases to them.

To facilitate the use of e-databases Dudley (2011) recommended the following: The Dean of Students should request that faculty include at least one relevant research database on course syllabi as part of a bibliography of suggested resources for out-of-class research; handouts for each database should be developed with non-jargon, and with specific instructions for accessing the database and screen shots of what users should expect to see as they move through the instructions; faculty should invite librarians to conduct a library instruction session in their classrooms just prior to beginning the major course research project where students should be taught how to select and navigate research databases relevant to the course subject matter, and a paper copy of the database handout be distributed; library staff members should be trained in specific research database access so that they can also teach the students; individual library consultation sessions should be considered, in which students meet one-on-one with the librarian, and individualized training on how to choose and access databases and how to examine article be imparted.

Anarki and Babalhavaeji (2013) also added their view that the library should organise orientation classes and training programs in accessing, searching and downloading of e-resources effectively; adequate awareness among students should be created to use e-resources to obtain current information; more high-speed computer terminals should be installed in the various

departments, departmental libraries, computer laboratories, etc.; the libraries' web pages should provide an online guide to e-resources and various search-options to e-resources; they should also introduce feedback systems (both online and offline) for observing the proper use of e-resources; authorities should devise strategies to notify and motivate students and the implications and functions of each database should be explained for the students so that an appropriate output is obtained; and faculty and librarians should collaborate to organise regular workshops to enhance the usage of e-journals and electronic databases.

In Ghana, studies by Sulemani and Katsekpor, (2007), and Dadzie, (2005) were among the few that touched on usage of databases. A most recent study was by Kwafoa *et al*. (2014) on database usage in the University of Cape Coast but this was on faculty and administrators. They reported that even though (92%) of the faculty members was aware of the existence of online academic databases they did not know that these data bases were being subscribed to by the university library on behalf of the university. In addition, 83 out of 217 respondents, even though were aware of the existence of these databases did not use them. This study is to throw more light on the current situation of access and usage of databases, particularly by students and also contribute to the available literature.

Objectives of the Study

Given the importance of e-databases as a valuable source of information to teaching, learning and research, the main purpose of this study was to explore the awareness level of postgraduate students of the departments of Library and Information Studies, and Geography and Resource Development about the e-databases the university library subscribes to; and also to find out the

suitability and acceptance of the databases by the students. The paper attempted to answer the following research questions:

- What is the awareness level of students on the available e-databases in the library system;
- Which databases do they know about and which specific ones are used; and
- What is the acceptance and satisfaction level of the e-databases by the students.

Methodology

The study used the survey method and used questionnaires to collect data. Figures on the population of students for 2013/2014 academic year in these departments were collected from the departments from which the students are studying. All postgraduate students (MPhil) of Geography and Resource Development in their second year; and Information Studies students (MA) (shown in Table 1) were involved in the survey. All the students had gone through user education on the databases. Administrative Assistants in these departments were engaged in the distribution and collection of the questionnaire between September and December 2013.

Results and Discussions

Demographics

A total of 67 students from the two departments took part in the survey. Twenty one were from Geography and Resource Development and 46 from Information Studies. Unfortunately, only 32 respondents returned the questionnaires giving 47.8% response rate. This result is shown in Table 1. Out of the 32 respondents about 65.6% were between 21-30 years of age and 34.4% were above 30 years all of which were information studies students. This meant information studies students were more older than the Geography students. It is important to note that though

the number of students studying Information Studies was larger, very few of these students returned their completed quetionnaires as shown in Table 1.

Table 1: *Population Distribution of the Students Studied*

Department	Total Population	Response	Percent
Geo & Resource Devt.	21	19	90.5
Information Studies	46	13	28.3
Total	67	32	47.8

Source: Field Data, 2013

Awareness level of respondents of the databases

To assess knowledge of respondents about the databases, they were asked whether they have ever heard of e-databases. The results revealed that majority has heard about the databases. As shown in Table 2, 31 (96.9%) responded in the affirmative, whilst one responded in the negative. A further probe to know whether they knew what e-databases are revealed 30 (93.8%) knew. However, in their definitions of the term only (17) 53.1% got it right, 9.4% did not answer and the rest got it wrong.

Table 2: *Knowledge of respondents about the databases*

Knowledge	Departments				Total	
	Geo & Res. Devt.		Information Studies			
	Freq	Percent	Freq	Percent	Freq	Percent
Yes	18	94.7	13	100.0	31	96.9
No	1	5.3	0	0.0	1	3.1
Total	19	100.0	13	100.0	32	100.0

Source: Field Data, 2013

From the number who had the definition right, 61.5% of them were Information studies students whilst 47.4% were Geography and Resource Development students. This finding was not

surprising since Information studies students by virtue of their courses might have had more knowledge of databases than the Geography and Resource Development students. Knowing what databases are is very important but not sufficient because the respondents could be using something else and claiming it is a database. It is important therefore that librarians explain to the students what the databases are so that they would know what exactly they are using and also promote effective use. The finding that 96.9 % of respondents had heard of the databases before, concurred with findings by Chirra and Madhusudhan (2009), Nisha and Ali (2013), and Kwafoa *et al.* (2014) that recorded over 90% awareness of the databases in their institutions.

When the respondents were asked to mention the databases they were aware of, only few were mentioned. Out of about 83 databases available in the UGLS only 23 were mentioned. As shown in Table 3, on the average, majority (50%) of the respondents mentioned Jstor. The most mentioned databases by above 10% (on average) of respondents were JSTOR (50%), Ebscohost (34.4%), Emerald (34.4%), Science Direct (25%), and AGORA (18.8%).

Table 3: *Distribution of Databases respondents know about.*

Databases	Department				Total	
	Geo & Res. Devt.		Information Studies			
	Freq	Percent	Freq	Percent	Freq	Percent
AGORA	3	15.8	3	23.1	6	18.8
Aluka	0	0.0	1	7.7	1	3.1
AJOL	0	0.0	1	7.7	1	3.1
Biomed Central	0	0.0	1	7.7	1	3.1
Cambridge Journals	0	0.0	1	7.7	1	3.1
Chicago Journals	1	5.3	2	15.4	3	9.4
Cochrane Library	0	0.0	1	7.7	1	3.1
Ebscohost	4	21.1	7	53.8	11	34.4
Emerald	6	31.6	5	38.5	11	34.4
Encyclopedia Britannica	0	0.0	1	7.7	1	3.1

Google Scholar	0	0.0	2	15.4	2	6.3
HINARI	0	0.0	1	7.7	1	3.1
JSTOR	12	63.2	4	30.8	16	50.0
OARE	1	5.3	0	0.0	1	3.1
Lexis Nexis	0	0.0	1	7.7	1	3.1
OPAC	0	0.0	1	7.7	1	3.1
Oxford Dictionary	0	0.0	1	7.7	1	3.1
Oxford Reference	0	0.0	1	7.7	1	3.1
Sage Online Journals	2	10.5	1	7.7	3	9.4
Science Direct	7	36.8	1	7.7	8	25.0
Sciverse Scopus	0	0.0	2	15.4	2	6.3
Taylor & Francis Online	1	5.3	0	0.0	1	3.1
Wiley	1	5.3	0	0.0	1	3.1

Source: Field Data 2013

In the case of individual disciplines, however, the popularity of the databases differ. For example, 63.2% of Geography and Resource Development students mentioned JSTOR as against 30.8% of Information Studies students. Whilst 53.8% of Information Studies students mentioned Ebscohost only 21.1% of Geography and Resource Development students mentioned it. It was observed that the students did not mention many relevant databases in their subject areas. JSTOR is an aggregator and multidisciplinary database dealing mostly in back issues of journals. Ebscohost consists of many other databases and students should be able to mention specific relevant ones to their disciplines. For example Okello-Obura (2010) found that 92% of Library and Information Studies (LIS) students in his study mentioned Emerald database as known to them. Emerald database is one of the databases having most prominent e-journals in information studies and it should not be a database ignored by information studies students. In the same vein, only one Geography and Resource Development student mentioned Taylor and Francis database. It appears that most of these students have not been exposed to the vast array of their subject databases and are thus limited to only a few. Librarians, particularly the subject librarians have a task in making these databases known to students. Promoting the subject or discipline databases

to the students will enable them find more relevant set of search results than they would otherwise receive if they searched across all databases. It will also help searches to be focused, time saving and cost effective.

Source of information about the databases

According to Mbabu *et al.* (2013) students learn about library online resources through a variety of sources, for example, through professors and teaching assistants, library-user classes, librarians, friends and even looking it up by themselves. Based on this, respondents were asked to mention their sources of knowledge about the e-databases and also the source of information about which database to use. As shown in Table 4, on average, majority (68.8%) indicated their lecturers. This was followed by Library website indicated by 62.5% and university website by 50%. Library staff was mentioned by 34.4% and OPAC by 15.7%. This finding is similar to that of Chirra and Madhusudhan (2009) where majority of 60% and 56% of students mentioned Library website and Lecturers respectively as sources of information about the consortium resources they knew about.

Table 4: *Source of information on databases*

Source of information	Department				Total	
	Geo & Res. Devt.		Information Studies			
	Freq	Percent	Freq	Percent	Freq	Percent
Colleague student	10	52.6	3	23.1	13	40.6
Lecturer	15	78.9	7	53.9	22	68.8
Library staff	9	47.4	2	15.4	11	34.4
University website	11	57.9	5	38.5	16	50.0
Library website	14	73.7	6	46.2	20	62.5
OPAC	3	15.8	2	15.4	5	15.7

Source: Field Data 2013

In the case of individual disciplines, the number of respondents varied even though in both cases majority mentioned lecturers. This finding is significant because it is in order that those (lecturers) who have greater influence over the students should spearhead the awareness creation and recommendation of use of the databases and of course with greater librarian collaboration.

Smaller percentages of 34% for library staff and 15.4% for OPAC, however, should be of concern. This could be an indication that librarians are not doing enough to promote the databases to the students and this must change. The promotion should go beyond orientation period and other means to be deployed to make known databases to the students. In addition, since students use the OPAC to search for books, they should be able to search the library's databases directly from the OPAC. What pertains now is that computers meant for searching the OPAC are not set up to search databases directly because of emphasis on searching books to avoid excessive time spent on the computers as others wait for their turn. More computers should be made available in many more areas of the library so that students can search for all other information as they search for books. With this they will associate the OPAC to the databases hence increase usage. Further, lecturers should include relevant databases in the reading lists they provide the students in addition to just informing them by word of mouth.

Students' usage of the databases

For the usage of the databases, 93.8% reported having used some of the databases before. This percentage is encouraging because in Kwafoa *et al.* (2014) and other studies reported lower percentage usage than awareness. But more effort should be made to get all students to use these important resources.

In spite of the generally high response of usage, accessing individual databases did not correspond to the overall usage. The result in Table 5 indicated that, the most used database on the average was JSTOR (46.9%), followed by Ebscohost and Emerald with 28.1% each and Science Direct with 25%. The most used databases were as the same as the ones they mentioned having known of. For individual disciplines, 63.2% of Geography and Resource Development students JSTOR as compared with 23.1% of Information Studies students. In like manner more (53.8%) Information Studies students used Emerald than Geography and Resource Development students (10.5%).

Table 5: *Distribution of Databases Used by Respondents*

Databases	Department				Total	
	Geo & Res. Devt.		Information Studies			
	Freq	Percent	Freq	Percent	Freq	Percent
AGORA	0	0.0	2	15.4	2	6.3
Chicago Journals	0	0.0	1	7.7	1	3.1
Cochrane Library	0	0.0	1	7.7	1	3.1
Ebscohost	4	21.1	5	38.5	9	28.1
Emerald	2	10.5	7	53.8	9	28.1
Encyclopedia Britannica	0	0.0	1	7.7	1	3.1
JSTOR	12	63.2	3	23.1	15	46.9
OARE	1	5.3	0	0.0	1	3.1
Oxford Dictionary	0	0.0	1	7.7	1	3.1
Oxford Journal	1	5.3	0	0.0	1	3.1
Oxford Reference	0	0.0	1	7.7	1	3.1
Sage Online Journals	2	10.5	1	7.7	3	9.4
Science Direct	7	36.9	1	7.7	8	25.0
Sciverse Scopus	0	0.0	1	7.7	1	3.1

Source: Field Data 2013

Comparing the percentages of awareness and usage of the databases, there were some differences between them. For example, 50% indicated they were aware of JSTOR but only 46.9% indicated

using it. The trend was the same for AGORA, Ebscohost, Emerald, and Science Direct. In the individual disciplines the trend was the same in some cases but different in others. For example, 63.2% of Geography and Resource Development students mentioned JSTOR as known to them and the same percentage indicated using it. But in the case of Information Studies the percentages indicating having known about the databases (Ebschost and Emerald) differ from the percentages having used them. This goes to buttress the point that it is not always the number of clients who knows about a database who use it and vice versa. This finding to some extent corresponds with the findings of Asemi & Riyahiniya (2007), Baro *et al* (2011), Ndinoshiho, (2010), and Kwafoa *et al.* (2014). Baro *et al.,* for example, found that 60.3% indicated being aware of HINARI but only 38.8% used it, and for Medline 23.2% was aware of it but only 17.0% used it.

Place of access

The results of multiple response showed that about 50% accessed the databases from the Balme Library (the central library). This was followed by those who used wifi hot spots (46.9%), 28.1% accessed from departmental libraries and 18.8% accessed them from halls of residence. Accessing from the Balme Library was not surprising since the Research Commons (RC) which was purposely established for graduate students in this Library is relatively well equipped to cater for the needs of students. In like manner, other facilities like the Ghana-Korea Information Access Centre and wifi hotspot at selected places on campus for internet access where students can use their laptops, and mobile phones to access these databases. This finding, however, did not support that of Chirra and Madhusudhan (2009) where 86% of their respondents accessed from Departmental Computer Laboratories and only 36% accessed from university libraries.

Source of knowledge about usage

The sources of information that encouraged or informed students to use any of the databases are shown in Table 6. Lecturer and colleague student were the main sources of information on these databases. On the average 46.9% mentioned lecturer as a source whilst 40.6% mentioned colleague students. These were followed by 9.4% who mentioned reading list and 6.3% mentioned online catalogue (OPAC). In the individual disciplines, 52.6% of Geography and Resource Development students mentioned colleague students as compared to 23.1% of Information Studies students. On the other hand, whilst 53.9% of Information Studies students mentioned lecturers as source of information on databases, 42.1% Geography and Resource Development students mentioned lecturers.

Table 6: *Source of Information about usage*

Source of information	Department				Total	
	Geo & Res. Devt.		Information Studies			
	Freq	Percent	Freq	Percent	Freq	Percent
Colleague student	10	52.6	3	23.1	13	40.6
Lecturer	8	42.1	7	53.9	15	46.9
Reading list	3	15.8	0	0.0	3	9.4
Reading material	1	5.3	0	0.0	1	3.1
Training session	0	0.0	1	7.7	1	3.1
OPAC	0	0.0	2	15.4	2	6.3

Source: Field Data 2013

As indicated earlier, lecturers were the main source of creating awareness and source of information for usage. This finding was similar to the finding of Chirra, and Madhusudhan,(2009) that reported that 56% of students had information of databases from their professors. Wu and Chen (2012) also reported that students used e-resources because their

professors recommended them. It is, thus, important that lecturers vigorously and persistently refer students to these databases so that they become well acquainted and then use them. One can only re-echo Dudley's (2011) recommendations here for lecturers to emulate to add to the efforts of librarians.

Acceptance and satisfaction level of these e-databases by students

To access the acceptance and satisfaction level of these e-databases by students they were asked to indicate how suitable the databases were to them, how satisfied they were with the databases and the level of impact of the databases on their studies. These were based on the perception of the respondents.

On suitability, 53.1% indicated the databases were suitable, 43.8% stated they were not suitable and 3.1% was indifferent. On satisfaction 87.5 % was satisfied 3.1% was indifferent and 9.3% was not satisfied. To know how suitable the databases have been to the respondents' needs and how satisfied they have been with these databases, respondents were ratings to select from.

On usefulness of these databases, majority (71.9%) found them useful because they could search all databases simultaneously. This was followed by 65.6% who stated because the databases are available all the time (24/7). On problems encountered when accessing the databases, 75.0% mentioned online access problems, 56.3% stated slow downloading process, 53.1% lamented about cost of printing and 40.6% mentioned difficulty in searching.

Impact

The impact of usage on respondents varied. As shown in Table 7, 53.1% indicated great impact, 18.8% indicated little impact whilst 28.1% did not answer. The reasons for the impact could not be ascertained and therefore can be pursued in future investigations.

Table 7: *Distribution of Impact of usage*

Impact	**Department**				**Total**	
	Geo & Res. Devt.		Information Studies			
	Freq	Percent	Freq	Percent	Freq	Percent
No impact	0	0.0	0	0.0	0	0.0
Great impact	11	57.9	6	46.2	17	53.1
Little impact	3	15.8	3	23.1	6	18.8
No answer	5	26.3	4	30.8	9	28.1
Total	19	100.0	13	100.1	32	100.0

Source: Field Data 2013

Favourite Databases

Having indicated their satisfaction with the databases, respondents were asked if they had any favourites and why? The result is presented in is illustrated in Table 8. On the average, the following were the most mentioned; JSTOR, (50%), Emerald (37.5%), Ebscohost (34.4%), Science Direct (28.1%), Taylor & Francis (15.7%) and Sage Online (12.5%). The rest were below 10% of respondents. For Geography and Resource Development students, 68.4% mentioned JSTOR, 42.1% mentioned Science Direct, 31.6% mentioned Emerald, and 26.3% each mentioned Taylor & Francis, and Ebscohost. For Information Studies students, 46.2% each mentioned Emerald and Ebscohost, 23.1% mentioned JSTOR and 15.5% mentioned Sage online. This finding is consistent with the databases they knew about and used especially for the first four in ranking.

Table 8: *Distribution of Favourite Databases by Respondents*

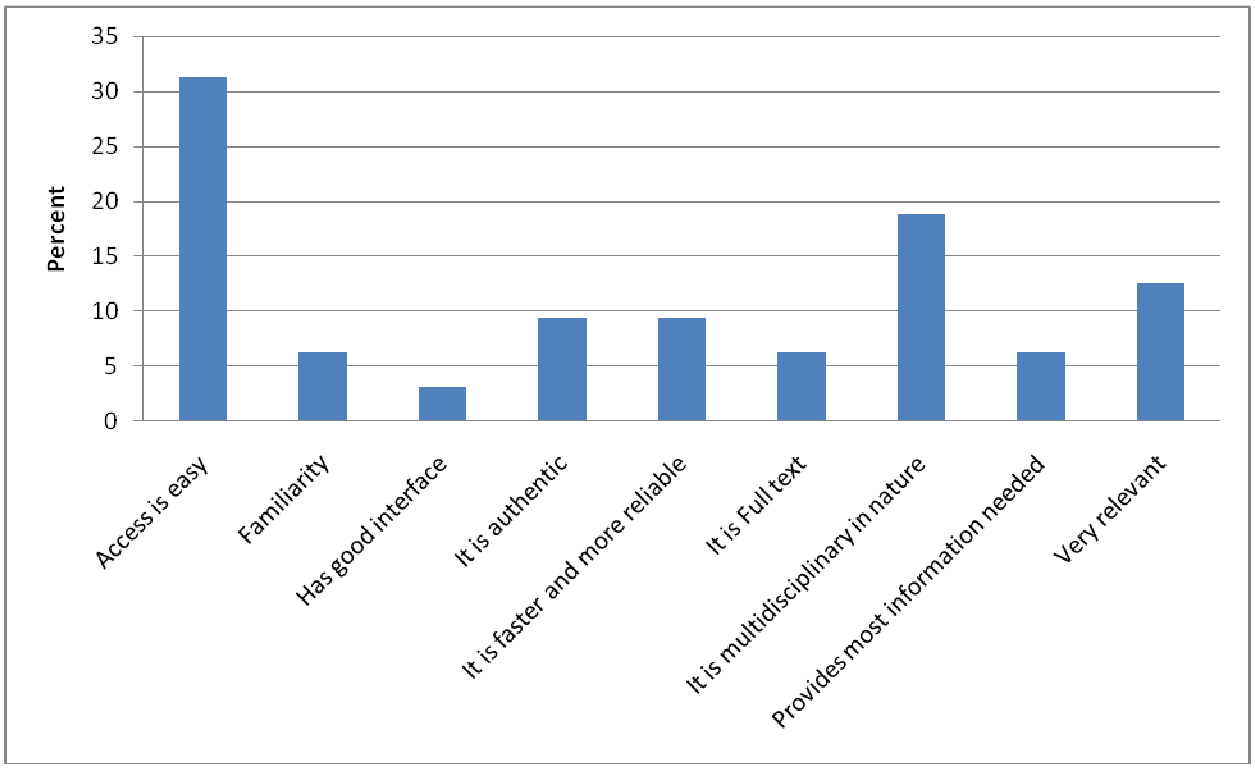
Favourite Databases	Department				Total	
	Geo & Res. Devt.		Information Studies			
	Freq	Percent	Freq	Percent	Freq	Percent
AGORA	0	0.0	1	7.7	1	3.1
Biomed	0	0.0	1	7.7	1	3.1
Chicago	1	5.3	0	0.0	1	3.1
Ebsco	5	26.3	6	46.2	11	34.4
Emerald	6	31.6	6	46.2	12	37.5
Encyclopedia Britannica	0	0.0	1	7.7	1	3.1
Google Scholar	0	0.0	1	7.7	1	3.1
JSTOR	13	68.4	3	23.1	16	50.0
Lexis Nexis	0	0.0	1	7.7	1	3.1
OARE	2	10.5	0	0.0	2	6.3
Oxford Reference	0	0.0	1	7.7	1	3.1
Sage Online	2	10.5	2	15.4	4	12.5
Science Direct	8	42.1	1	7.7	9	28.1
Taylor & Francis	5	26.3	0	0.0	5	15.7

Source: Field Data 2013

The findings have emphasized the most popular databases as JSTOR, Emerald, Ebschost and Science Direct. Taylor and Francis, OARE, featured among the Geography and Resource Development students. These are databases with relevant sources on Geography and Resource Development. This means some students were aware of these but all of them must also know about these. However, other databases rich in Geography and Resource Development, such as Wiley, must be promoted. For Information Studies students Sage Online was the only additional databases mentioned together with the popular ones. In fact, all students must be introduced to databases that are relevant to their disciplines. As such, the research guides to these subject areas must be vigorously promoted among the students

Of the 32 respondents 21 responded to this question on why specific databases were favourites. In all, nine reasons were given for choosing databases as favorites and this is presented in Figure 1. Easy access was the most (31.3%) cited reason, followed by multidisciplinary nature of the databases cited by 18.8% and 12.5% cited relevance of the databases to their subject areas. The rest of the reasons were cited by less than 10% of the respondents. This finding indicates that students value easy access above other reasons.

Figure 1: Reasons for choice of database



This finding concurred with Sihn and Nhung's (2012) assertion that students liked easy to use things and quick to get results. Cothran (2011) in the same vein found that 3.86 mean on 1-5 scale for Google Scholar because it makes information easy to access.

Conclusion

The paper looked at the awareness level of selected graduate students at the University of Ghana of the databases available to them in the UGLS. It was found that students have heard about the databases, they knew the university provides access to these and in general, they use them. Awareness level was generally greater than usage but in individual disciplines they used the ones they were aware of. Students need to know more of the databases especially those that are very relevant to their subject areas. Librarians and faculty should collaborate in promoting these databases to the students. Further, faculty should recommend these databases to students by listing them in reading lists. When students become very conversant with their discipline databases, they will be encouraged to use them. In addition, the subject librarian should make every effort to promote and ensure that students and faculty become aware and use the databases.

It is anticipated that the results outlined in this paper, together with the recommendations, will be useful for those in decision-making roles and provide some insight for librarians who manage these resources. It is further expected that this paper will assist administrators of university libraries in developing a more complete understanding of the electronic information needs of students and intensify their efforts to create awareness on the databases towards their effective usage.

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