Assessing the Usage of Library Electronic Resources by Postgraduate Students at the University of Ghana Balme Library Research Common

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Abstract

This study aims to examine the extent of use of library electronic resources by postgraduate students at the University of Ghana Balme Library Research Commons to determine their level of awareness, the purpose of use, the training received, and the challenges of using the electronic resources. The target population was the postgraduate students who were using the Research Commons of the Balme Library during the study. A mixed-method was adopted for the study, questionnaires and interviews were the main instruments used for data collection. The findings of the study revealed that the respondents mostly use electronic resources, especially the institutional repository (UGspace) as their first point of search for online journals. There was a high level of awareness of the electronic resources through library training programs and fresher's orientations. The electronic resources were purposely used by the postgraduate students for their research, dissertation, assignment, and literature that support their studies. The major source of electronic resources training was the library. Some challenges such as many irrelevant search results, inability to identify the best resources, and too much time to identify resources were identified. It is recommended that information literacy skills training needs to be intensified to improve the usage of electronic resources.

Subject Areas

Library, Intelligence and Philology, Public Policy

Keywords

Electronic Resources Use, Academic Libraries, University of Ghana, Research

Commons, Postgraduate students

1. Introduction

Libraries are relevant in every human society due to their important role in searching, storing, retrieving, and disseminating relevant and timely information. Before the advent of Information and Communication Technology (ICT), libraries were storing and preserving only physical collections and one cannot access information without going to the physical library. In recent times, libraries no longer depend on physical resources alone but on electronic resources as well, and also users of libraries do not compulsory have to go to the physical library before they could access the resources. This change was a result of using Information and Communication Technologies (ICT) in libraries since the mid-1960s and 80s [1]. The advancement in computer technologies has necessitated the use of electronic resources in 21st-century libraries and it has become the preferred collection for many libraries and users [2]. Many information users prefer electronic resources because of their advantages of being convenient to use, easy to download, and accessible on computers, iPods, and mobile devices [3]. Other advantages include being current because it provides up-to-date information and can be accessed anywhere without geographical bounds [4]. These advantages have necessitated the need for many academic libraries across the world to make electronic resources such as online repositories, e-books, e-journals, e-theses and dissertations, electronic images, full-text databases, e-audios, available to meet and satisfy the demanding information needs of their patrons to access [5].

The adoption of Web 2.0 technology in libraries is also changing the traditional services of academic libraries. Academic libraries are increasingly using social media platforms such as WhatsApp, Facebook, Twitter, Instagram, etc to engage with their users to share resources. Other electronic devices like automatic book sorting machines are being used by many academic libraries to segregate books in a short time for proper shelving. These suggest that ICT has become an indispensable part of modern library practices and academic libraries cannot attain their purpose of enhancing teaching, learning, and research if electronic resources are neglected.

Due to the high cost of electronic information resource subscriptions, academic libraries in many countries are joining consortia to share resources. In Africa for example, some academic and research libraries have formed consortia such as the Consortium of Tanzania Universities and Research Libraries (COTUL), South African Bibliographic and Information Network (SABINET), Nigerian Virtual Library Consortium (VLC) to share library electronic resources. The Consortium of Research Libraries in Ghana (CARLIGH) was established for research and academic libraries to come together to share electronic

information resources among registered members to reduce subscription costs. The University of Ghana Balme Library is a member of this consortium and is benefiting from CARLIGH resources. Since library electronic resources are expensive and academic libraries are striving hard to make them available for their patrons, it is important to examine the usage of these electronic resources to ascertain value for money and identify measures for improvement.

2. Background

2.1. The Balme Library and Research Commons

The Balme Library is the central library of the University of Ghana which was named after the first Principal of the University called David Mowbray Balme. The library foresees the importance of electronic resources to information accessibility. For this reason, the Research Commons was established in 2012 by Andrew Carnegie Corporation of New York for postgraduate students and researchers to have access to electronic resources to enhance the research, teaching, and learning of the University of Ghana. The Research Commons accommodates 170 postgraduate students and 6 staff. The Research Commons provides access to software, online databases, skills training, desktop and laptop computers, printers, photocopying machines, scanners, internet, and study rooms for postgraduate students and researchers.

2.2. Electronic Resources at Balme Library

The Balme library subscribes to 63 online journal databases in addition to e-books which cover all the programs or disciplines the university offers. The library benefitsfrom 11 journal databases from the Consortium of Research Libraries in Ghana (CARLIGH) as a registered member. Some of the subscribed databases among others include Francis and Tailor, Emerald, EBSCOhost, ScienceDirect, JSTOR, HINARY, Medline, Scopus, etc. The Balme Library has an Online Public Access Catalogue (OPAC) and Institutional Repository (IR) named UGspace which houses e-theses, faculty publications, research works, and heritage materials of the university for accessibility.

3. Statement of the Problem

Library electronic resources are expensive and academic libraries of today use a lot of money to subscribe and make them available to their users. In the University of Montana Mansfield Library, for example, it was reported that 69.1% of their collection development budget was covered by electronic resources [6]. The Balme Library also recognizes the importance of electronic resources for its community and a lot of money is spent from its limited budget to acquire and maintain them. It is not known if the Balme Library's electronic resources are being used by students to the expectation of management. The researcher was a staff at the Research Commons and a preliminary investigation revealed that some of the postgraduate students do not use the electronic resources because

they did not know how to use them and others claimed not to be aware. It is, therefore, important to assess the usage of the library's electronic resources by the postgraduate students to determine their level of awareness, the purpose of use, the training they receive, and the challenges likely to hinder their effective usage of the electronic resources and make recommendations to improve the usage.

4. Research Objectives

1) To determine the postgraduate students' awareness of the library's electronic resources.

2) To identify the purpose of using the electronic resources by the postgraduate students.

3) To determine the extent of training received by the postgraduate students to effectively use the electronic resources.

4) To identify the challenges the postgraduate students encounter in using the electronic resources.

5. Literature Review

5.1. Use of Electronic Resources

Electronic resources were embraced in libraries in the mid-1960s through the advent of machine-readable catalogue (MARC) and as technology advanced, the Online Public Access Catalogues (OPAC) and the World Wide Web (WWW) took over in the latter part of the 1980s [1]. Some of the commonly used library electronic resources in the 21st Century include e-journals, e-books, full-text online databases, indexing, and abstracting databases, reference databases, e-images, and e-audio [5]. There are numerous users of electronic resources. Among the users in higher learning institutions include students, professors, and researchers. At the University of Montana USA, a study on the usage of electronic resources: virtual value of demographics revealed that among the respondents of faculty members, it was said that professors were the most users of the library's electronic resources and among the respondents of students, postgraduate students were the highest users [6]. Electronic resources are in types and users have preferences to choose from based on their information needs. A study at Lagos University, Nigeria on the use and impact of electronic resources revealed that lecturers prefer to use e-journals and e-mail while researchers prefer e-journals and e-reports [7].

5.2. Awareness of Electronic Resources

Lack of awareness is one of the factors contributing to the low use of library electronic resources. Research at the University Library of the Philippines on users' assessment of electronic resources showed that students were not using the library resources due to a lack of awareness [8]. A similar finding was reported in a study at Sri Guru Granth Sahib World University Fatehgarh Sahib on awareness and use of library resources and the finding indicated that only 16.7%

of the total respondents were aware of the library resources [9].

Studies also showed that there have been instances where respondents were aware of electronic resources. According to [10] their studies on internet use by faculty and postgraduate students at the University of Ghana revealed that faculty members and postgraduate students of the University of Ghana were aware (99.2%) of internet use on campus. Another study on electronic resources in South Nigeria and Saudi Arabia also recorded a high level of awareness (90.9%) of the electronic information resources [11] [12]. High awareness of electronic resources does not guarantee their usage. Studies at the University of Iioria, Nigeria on the effects of information literacy skills showed that the students were aware of the e-library resources but they were not using them [13].

5.3. Purpose of Use of Electronic Resources

The purpose of using electronic resources differs from user to user. Lecturers normally use electronic resources for teaching and learning, research, curriculum development, and self-educational development [14]. Postgraduate students use electronic resources for their assignments, research, project works, further reading, and self-development [15]. Undergraduate students also use electronic resources mainly for information acquisition, current awareness, assignments, paper presentations, and research purposes [16].

5.4. Training for Using the Electronic Resources

Information literacy skills are important in searching, organizing, and evaluating information. Searching skills can be gained through adequate training on information literacy skills. A study at the University of Iioria, Nigeria on the effects of information literacy skills asserted that respondents were not using the e-library resources although they were aware due to lack of training [13]. In another study on the use of electronic information resources by undergraduate students of Africa University, Zimbabwe, the students suggested that they do not need theory but practical and interactive lessons to gain skills to use the electronic resources [17]. According to [18], all the undergraduate students that participated in their studies at the University of Venda, South Africa were dissatisfied with the level of training they received on electronic resources which was a challenge to their usage.

5.5. Challenges of Electronic Resources

Users of electronic resources have been confronted by numerous challenges in different colleges and universities according to studies. The commonest challenges to electronic resources found in African colleges and universities according to literature were low internet connectivity and frequent power outage [16]. Other challenges were lack of awareness and lack of training on searching skills, information overload, and high cost of access were mentioned [12] [19] [20]. According to [15], inadequate bandwidth and slow download speed were the

challenges reported by the postgraduate students of Library and Information Science in Southern Nigeria during his research.

Several pieces of research have been done on electronic resource usage in many different universities and colleges according to the literature reviewed, but most of the researchers focused only on online journal databases, their usefulness, and the factors that are influencing their usage. Other researchers were also interested in how electronic services are changing library use. However, in the case of the University of Ghana, little study has been conducted to examine the extent of usage of the various electronic resources of the Balme Library by the various postgraduate students that use the Research Commons. This gap is the reason for this study. The findings of the study will inform library managers about the challenges users encounter in order to formulate and implement effective policies to improve the usage of electronic resources in the library. The study will also add to the existing body of knowledge on library electronic resources which will serve as a reference work for further studies.

6. Methodology

A mixed method was used for the study. The research setting for the study was the Research Commons section of the Balme Library University of Ghana. The Research Commons was chosen because the facility is being used by only postgraduate students from all the various colleges of the university to access electronic resources and services.

The target population for this study consists of the regular postgraduate students who use the Research Commons of the Balme Library and the Electronic Resource Librarian. The Research Commons accommodates a total of 200 students which was initially selected as the population for this study but during the period of data collection, 120 postgraduate students were available in the Research Commons to participate in the study. The 120 students were the sample size for the study. Sampling enables researchers to use a segment or fraction of the population to represent the whole population. Choosing sample sizes for survey research is commonly based on selecting a fraction of 10% to 20% of the population [21] [22]. A sample size of 120 representing 60% was more than 50% of the entire population of 200 postgraduate students in the Research Commons.

The data collection instrument for the study was a questionnaire and interview. A questionnaire is an instrument consisting of survey questions printed or typed in a definite order on a form or set of forms to be answered by a selected group of research participants [21] [23]. A questionnaire has the advantages of being accurate and consistent and is well known to be valid and reliable [24]. The researcher employed a convenience sampling technique in administering 120 copies of questionnaires to collect data from the postgraduate students in the Research Commons. Out of 120 questionnaires distributed, 114 questionnaires representing 95% were completed and returned. The questionnaire for this study was in five sections containing closed and open-ended questions and

was self-administered to the respondents. Section "A" was about the demographic information on gender, college, and degree of study of the respondents. Section "B" contained information on respondents' awareness of electronic resources. Section "C" of the questionnaire was information on respondents' purpose for using electronic resources. Section "D" part addressed respondents training on electronic resources and Section E elicited information on challenges respondents encounter in using electronic resources. A semi-structured interview was also conducted to collect data from the Electronic Resource Librarian.

All the participants consented voluntarily to answer the questions. IBM Statistical Package for Social Sciences (SPSS) 25 software was used to code the data and percentages, frequency counts, and bar charts were used for analysis.

Validity and Reliability of the Instrument

Content validity was used to test the validity of the instrument. According to [24] content validity involves the evaluation of a new survey instrument by expert judges or panels in order to ensure the inclusion of all items that are important and eliminate unwanted items to a particular construct domain. The questionnaire contained four scales or constructs and a total of 16 constructs items all measured with five Likert scales. Each construct item in the questionnaire was evaluated for its relevance by 7 expert panels and corrections were made based on the panels' opinions and suggestions. The content validity ratio (CVR) formula was used to calculate the content validity and the value obtained was 0.99. In testing the reliability of the instrument using Cronbach's alpha, a pilot study was conducted using 40 questionnaires. The questionnaires were distributed to postgraduate students in order to measure their level of awareness, the purpose of use, training received, and challenges of electronic resources. The results in Table 1 indicated that there was a high internal consistency between constructs and Cronbach's alpha values were greater than the acceptable value of 0.7α. This means that the instrument had acceptable reliability of Cronbach's alpha values.

7. Results and Findings

7.1. Demographic Information

7.1.1. Gender of Respondents

The total number of respondents was 114 out of which 52 (45.6%) were male and 51 (44.7%) were female, but 11 (9.6%) respondents did not indicate their gender as shown in Table 2 below. This implies that male respondents were in majority for using the electronic resources in the Research Commons but the gender distribution within the university is almost equal, the male to female ratio was 1:1.

7.1.2. Colleges of Respondents

The University of Ghana practices the collegiate system and there are four (4) Colleges namely: College of Basic and Applied Science, College of Education,

College of Health Science, and College of Humanities. The results in Table 3 indicated that 16 (14.0%) respondents were from the College of Basic and Applied Science, 12 (10.5%) from the College of Education, 62 (54.4%) respondents were from the College of Humanities, 15 (13.2%) were from the College of Health Science, and 8 (7.0%) did not indicate their Colleges. This reveals that postgraduate students from the College of Humanities are in majority of using the electronic resources in the Research Commons.

Table 1. Cronbach's alpha values of reliability for the constructs.

Constructs	Items	Cronbach's alpha
Awareness	4	0.817
Purpose of use	4	0.948
Training	4	0.834
Challenges	4	0.928

Source: Field data (2019).

Table 2. Gender distribution of respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Male	52	45.6	45.6	45.6
	Female	51	44.7	44.7	90.4
Valid	Non-selected	11	9.6	9.6	100.0
	Total	114	100.0	100.0	

Source: Field data, 2019.

Table 3. Collages of respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
	Basic and Applied Science	16	14.0	14.0	14.0
	Education	12	10.5	10.5	24.6
	Humanities	62	54.4	54.4	78.9
Valid	Health Science	15	13.2	13.2	92.1
	Non-selected	9	7.9	7.9	100.0
	Total	114	100.0	100.0	

Source: Field data (2019).

7.1.3. Respondents' Degrees of Study

The respondents were asked to indicate their degrees of study, Table 4 shows that respondents pursuing MPhil were 53 (46.5%) followed by MA students 22 (19.3) then MBA students 10 (8.8%), MSc students of 9 (7.9%) and Ph.D. students of 7 (6.1%). 11 respondents did not indicate their degrees of study. The results implied that respondents pursuing MPhil were in majority using the electronic resources in the Research Commons.

7.2. Awareness of Electronic Resources

One of the objectives of the study was to determine the level of awareness of electronic resources by postgraduate students. The respondents were asked to answer "Yes" or "No" and "Not sure" questions as to whether they were aware of the available electronic resources in the library. As presented in Figure 1, 100 (87.7%) respondents responded "Yes", 5 (4.4%) responded "No", 8 (7.0%) indicated "Not sure" and 1 (0.9) did not respond. The results revealed that the postgraduate students were very much aware of the electronic resources in the library. This result of awareness support [25] and [11] findings of high awareness with percentages of 93.78% and 90.9% respectively in their studies.
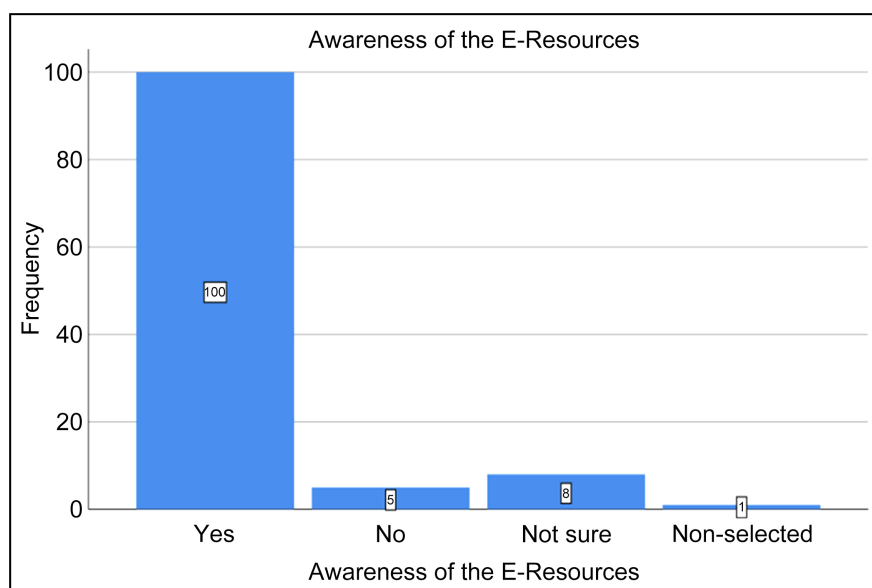
7.2.1. Awareness of Types of Electronic Resources

A question was asked for the respondents to indicate the types of electronic resources they were aware of. The responses showed that 15 (13.2%) respondents were aware of OPAC, 47 (41.2%) indicated Institutional Repository, 43 (37.7%) responded to online databases, 7 (6.1%) were not aware of the types of electronic resources, and 2 (1.8) did not answer the question. The results indicated that the respondents were aware of the types of electronic resources the library provides most especially institutional repository.

Table 4. Respondents' degrees of study.

		Frequency	Percent	Valid Percent	Cumulative Percent
	PhD	7	6.1	6.1	6.1
	M.Phil	53	46.5	46.5	52.6
	M.Sc	9	7.9	7.9	60.5
	MA	22	19.3	19.3	79.8
Valid	M.LL	1	0.9	0.9	80.7
	MBA	10	8.8	8.8	89.5
	MPH	1	0.9	0.9	90.4
	Non-selected	11	9.6	9.6	100.0
	Total	114	100.0	100.0	

Source: Field data (2019).
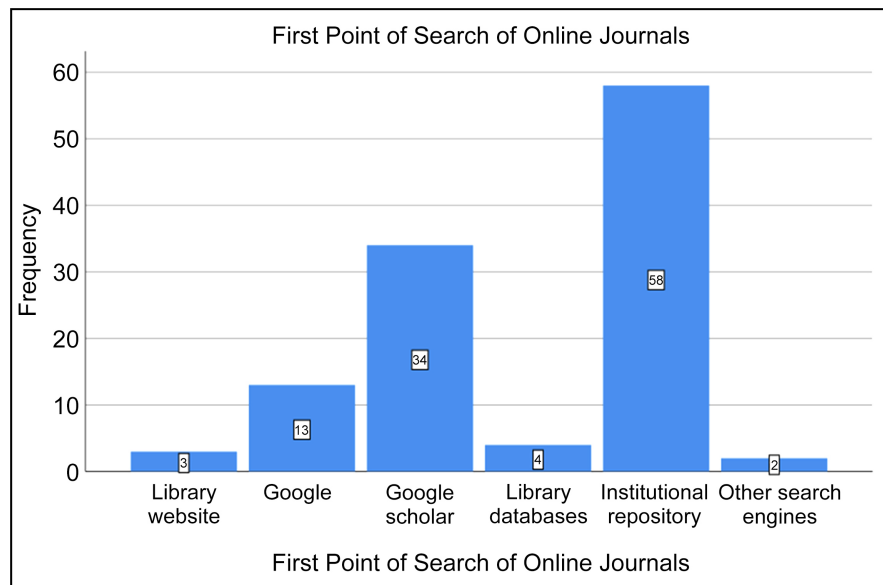
Source: Field data (2019).

Figure 1. Respondents' awareness of electronic resources.

7.2.2. Sources of Awareness of Electronic Resources

The researcher sought to identify how the respondents became aware of the electronic resources. Respondents of 60 (52.6%) responded that it was through library orientation for freshly admitted students, 20 (17.5%) indicated it was through pieces of training the library offers, 6 (5.3%) responded it was from friends/colleagues, 20 (17.5%) indicated that they were not aware, 7 (6.1) said by their lecturers and online and 1 (0.9%) respondent did not respond. These results showed that the majority of the postgraduate students were aware of the electronic resources through orientation the library offers to newly admitted students. This confirmed the statement made by the Head of Electronic Resources during face to face interview. She stated that the library organizes training, library tour, and orientations for newly admitted students in order to expose them to the resources and services the library offer. This finding is not in support of [25] who reported that lectures (68.8%) were the source of information about electronic databases for postgraduate students.

7.3. First Point of Search of Online Journals

The researcher was interested to find out the respondents' first point of search for an online journal. This was to identify the most used electronic resources by the respondents. The results revealed that 3 (2.6%) respondents searched the library website, 13 (11.4%) searched through Google, 34 (29.8%) used Google Scholar, 4 (3.5%) searched the library's databases, 58 (50.9%) searched from the Institutional Repository (IR) and 2 (1.8%) used other searched engines. The graph in Figure 2 showed that the majority of the respondents used the Institutional Repository (IR) more than the other electronic resources for online journals. These findings disagree with the findings of [25] who recorded a high level

First Point of Search of Online Journals

Source: Field data (2019).

Figure 2. Respondents' first point of search for online journals.

of usage (93.8%) of online databases by postgraduate students of Geography and Resources Development and Information Studies at the University of Ghana [20].

7.4. Purpose of Using Electronic Resources

Electronic resources are used for many reasons and this study sought to determine the purpose of using electronic resources by the respondents. A question was asked for the respondents to give their reasons for using the electronic resources. From the findings, respondents of 35 (30.7%) indicated they used them for research for their dissertations, 18 (15.8%) indicated for further reading, 24 (21.1%) reported for their assignments, and 9 (7.9%) said they used them for literature that supports their teaching, 22 (19.3%) used them for literature that supports their studies, and 6 (5.3%) did not provide an answer. The results from the findings showed that the postgraduate students used the electronic resources mostly for research for their dissertations, and assignments, and for literature that supports their studies. The findings of this study confirm that of [26] and [15] who reported that postgraduate students used electronic resources purposely for dissertations, research, assignments, and additional literature for their studies.

Frequency of Using Electronic Resources

The frequency of using electronic resources can also determine their usefulness or not so the respondents were asked to indicate how often they use the electronic resources. Figure 3 revealed that 20 (17.5%) respondents used the electronic resources daily, 27 (23.7%) used them weekly, 7 (6.1%) used them monthly, 41 (36.0) used the electronic resources occasionally, 14 (12.3%) did not
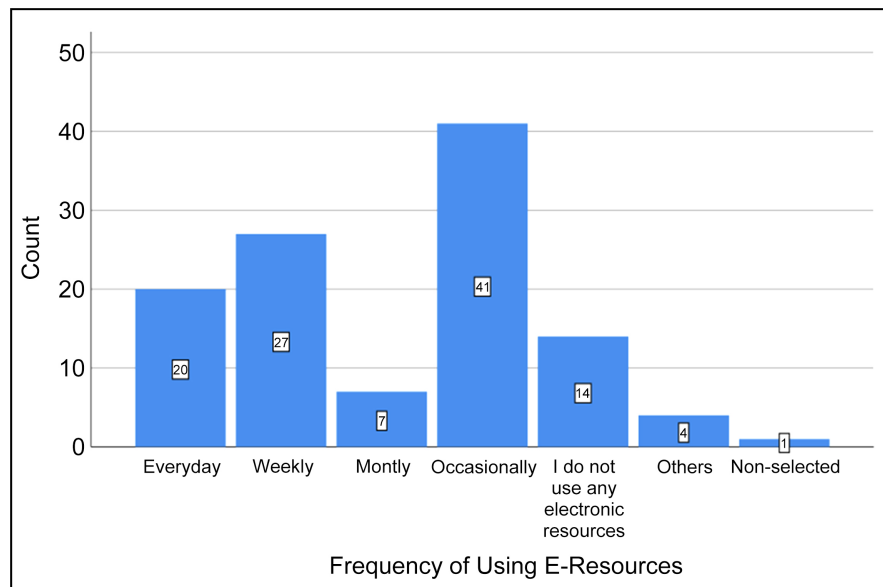
Source: Field data (2019).

**Figure 3.** Respondents' frequency of using electronic resources.

use them, 4 (3.5%) selected others and 1 (0.9%) did not answer the question. The results indicated that the majority of the respondents use the electronic resources occasionally.

7.5. Sources of Electronic Resources Training

The researcher wanted to find out if the respondents receive electronic resources training so the respondents were asked to indicate how they received electronic resources training. The answers to the question in **Figure 4** revealed that 54 (47.4%) respondents received their training from the library, 26 (22.8%) indicated from the internet, 4 (3.5%) from selected YouTube videos, 26 (22.8%) received training from other channels like seminars, self-tutorials, and 4 (3.5%) did not answer the question. The results revealed that the majority of the respondents received their training from the library. The Electronic Resources Librarian during the interview affirmed that the library provides electronic resources training for the students.

Frequency of Electronic Resources Training

The study wanted to find out how often the respondents received training and for this reason, the respondents were asked to indicate how frequently they receive training to use the electronic resources. The answers from the respondents indicate that 10 (8.8%) had their training weekly, 3 (2.6%) responded monthly, 6 (5.3%) said yearly, 39 (34.2%) indicated occasionally, 36 (31.6%) said they have not received training, 14 (12.6) indicated other and 6 (5.3%) did not respond. The results indicated that many of the postgraduate students received training occasionally from the library. The respondents reported that the frequency of training from the library is not adequate so they recommended frequent training.
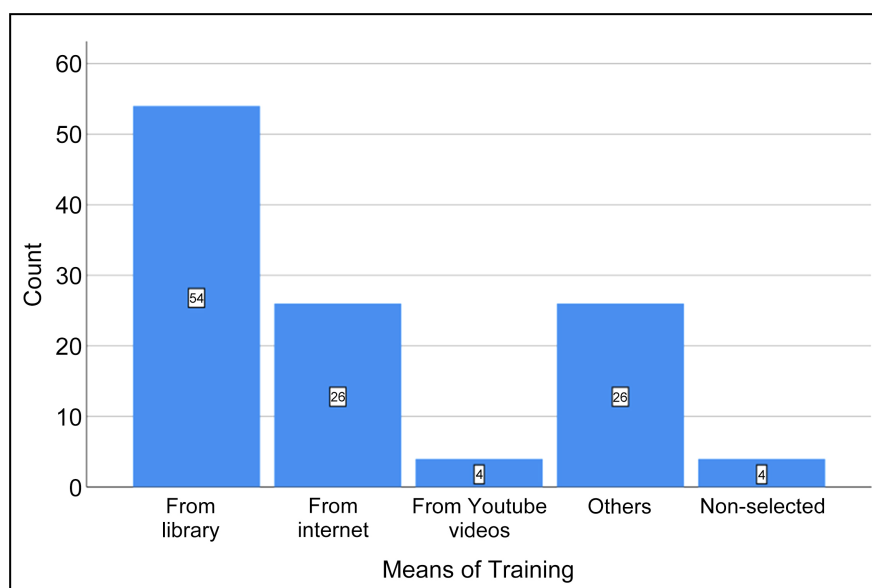
Source: Field data (2019).

Figure 4. Respondents' sources of electronic resources training.

The same question on frequency of training was directed to the Electronic Resource. According to her, the library prepares a timetable for training to cover the semester which the students access on the library's webpage.

8. Challenges of Using Electronic Resources

There are many challenges users of electronic resources encounter according to literature. In order to find out the challenges the respondents encounter when using the electronic resources, the researcher asked the respondents to identify the various challenges they face. The respondents were to choose from many options. Table 5 indicated that respondents of 19 (16.7%) were not sure which are the best resources for them, 18 (15.8%) indicated that they received too many irrelevant search results, 18 (15.8%) respondents said they cannot access off-campus. 15 (13.2%) indicated that identifying resources requires too much time, 12 (10.5%) responded that identifying resources requires too much effort, 8 (7.0%) do not know how to start searching, 7 (6.1%) mentioned that they were not sure how to organize everything they download, 7 (6.1%) indicated that the computers in the library were not enough, 5 (4.4%) did not know where to start searching, and 5 (4.4%) responded that it takes too much time to download what they need. The major challenges found in this study were the respondents' inability to determine which resources are best for them, many irrelevant search results and inability to access off-campus. The findings of this study on the challenges of electronic resources corroborate with the study by [20] and [27] who reported similar results in their studies. Other challenges mentioned by the Electronic Resources Librarian included inadequate training space, late payment of subscriptions to vendors, and inadequate budgetary allocation for electronic resources.

Table 5. Respondents' challenges to electronic resources.

		Frequency	Percent	Valid Percent	Cumulative Percent
	I am not sure which are the best resources for me.	19	7.9	16.7	16.7
	I receive too many irrelevant search results.	18	7.4	15.8	32.5
	I cannot access resources off-campus.	18	7.4	15.8	48.2
	Identifying resources requires too much time.	15	6.2	13.2	61.4
	Identifying resources requires too much effort.	12	5.0	10.5	71.9
Valid	I am not sure how to organize everything I download.	8	3.3	7.0	78.9
	I am not sure how to organize everything I download.	7	2.9	6.1	85.1
	The computers in the library are not enough.	7	2.9	6.1	91.2
	I do not know where to start searching.	5	2.1	4.4	95.6
	It takes too much time to download what I need.	5	2.1	4.4	100.0
	Total.	114	47.1	100.0	

Source: Field data (2019).

9. Discussion and Conclusion

This study aimed to examine library electronic resources usage among the postgraduate students at the University of Ghana Balme Library's Research Commons in order to find out their level of awareness, the purpose of use, training, and challenges in using the electronic resources. The findings from the study revealed that library electronic resources were essential for the postgraduate students in their academic commitment, especially for their dissertations, research, assignments, and further readings. There was a high level of awareness of the electronic resources but it was revealed that the online databases that the library subscribes to were underutilized compared to the institutional repository. The major source of training was from the library but training received on electronic resources from the library was not adequate for the students and they recommended frequent training must be organized. There were some challenges that undermind the use of the library electronic resources by the postgraduate

students which include irrelevant search results, inability to access resources off-campus, too much effort and time to identify resources, inability to organize downloads, and lack of searching.

In conclusion, library electronic resources were useful in the academic works of the postgraduate students but the inability of the library to provide adequate training on how to use the library's electronic resources is hindering its effective usage. Therefore, there is a need for the library to intensify its training sessions on information literacy skills. Information literacy lessons are needed to enable the students to acquire the requisite skills and knowledge to effectively use the electronic resources, especially the library's subscribed online databases.

The findings of this study will enable librarians and library managers to effectively manage their electronic resources and ensure effective use by providing adequate information literacy skills and periodic user surveys.

10. Recommendations

The recommendations below were made out on the findings of the study.

- The library should organize frequent information literacy skills training for the students. Video tutorials on search strategies and techniques can be posted on the library's website for the students to watch. The university should adopt information literacy instruction as a graded core subject for all students.
- The library should improve its ICT infrastructure to enable the students to access the electronic resources off-campus.
- Periodic user surveys and reviews on awareness should be conducted to identify the students that need training.
- Lectures and librarians should work together to create awareness and encourage students to use the library's online resources for their academic works.

Conflicts of Interest

The authors declare no conflicts of interest.

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