Harnessing Online Resources for Distance Learning at the University of Zambia
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ABSTRACT

Purpose: *The purpose of this study was to investigate how the integration of institutional electronic resources into distance learning can improve usage of e-resources at the University of Zambia. The study also ascertained the value and ease of use of remote access towards aiding distance students access institutional e-resources as well as the user-friendliness of the databases to enable users retrieve relevant information within reasonable time.*

Methods: *The study adopted a case survey design and used both quantitative and qualitative methods of research. Structured questionnaires were used to collect responses from a purposively selected sample of 60, drawn from a total population of 12,500 distance learning students registered under the Institute of Distance Education. The statistical package for the social sciences (SPSS) software was used to analyse quantitative data into frequencies and percentages and content analysis was used to analyse qualitative data sets.*

Findings: *The study established that the majority of the respondents were aware of and used e-resources for academic purposes, hence rated the electronic databases highly. It was further established that they encountered a number of technologically related barriers. E.g. Insufficient computers, slow Internet connectivity, lack of ICT skills, etc. The results also indicated that remote access was a useful information retrieval tool. Most students were in support of integrating online resources into distance learning programs because of the potential benefits that comes with it.*

Research value*: It is hoped that the findings of this study will help UNZA capture the challenges distance learning students face as they interact with the remote access tool, hence help the institution to appropriately respond to these challenges.*

Conclusion: Librarians have a much more critical role to play in supporting distance education in new learning environment by ensuring that the remote access and online databases are user friendly. This would enhance accessibility and usage of e-resources.

Keywords: Electronic information resources, E-resources, Usage, Distance learning, Distance students, Remote access, University of Zambia

1.0   INTRODUCTION

Not too long ago, attaining a degree through distance learning was not as much highly rated as was classroom learning. Over time, distance learning has gained momentum and recognition resulting from the application of modern technologies that have promoted communication, interaction, student engagement, and active learning outside classroom. Distance learning allows students to fit their learning activities around their work and family life. The Merriam-Webster dictionary (2017) defines distance learning *as* a method of study where teachers and students do not meet in a classroom but use the Internet, e-mail, mail, etc., to have classes. Distance learning allows students to fit their learning activities around their work and family life.

The importance and significance of e-resources and databases to distance learning cannot be over emphasised. With the advent of information and communication technologies (ICTs), e-resources have become a widely accepted scholarly resource. They have also been shown to be more helpful especially to distance learners who may have limited access to library resources in traditional formats. E-resources are a collection of information in electronic or digital format. Dadzie (2005) opines that e-resources are invaluable resources that complement print based resources. Consequently, a number of libraries in Africa are harnessing resources to accommodate the application of ICT in their day to day library activities

UNZA Library provides students with access to e-resources, which includes full-text journals and e-books. Access is 24/7 on campus or remotely via proxy server. From a definition perspective, this document defines remote access as the ability for library users to access its resources from external locations. This study sets out to examine ways through which institutional e-resources can be effectively integrated into distance learning.

2.0   DISTANCE-LEARNING LIBRARY SERVICES

Distance learning is providing opportunities for many who are not privileged to go to conventional universities. This growth of distance learning programmes has tremendous implications on library services. The Library is a dynamic partner in campus and distance learning communities, dedicated to providing full and equal access to information. The Library continues to expand its e-resources in consonance with the growing needs of the University's academic programs. The institution provides information services appropriate to support its learning, teaching and research activities.

3.0   STATEMENT OF THE PROBLEM

With the availability of institutional online resources provided by the University Library that are accessible online from the library or remotely 24/7, it is expected that the access problem is alleviated through the use of remote access facility. Despite this innovation, students have continued to experience the challenge of accessing the much-needed resources from their respective places. Provision and   access to library services by the distance education students at UNZA is therefore central to ensuring quality education. Distance education therefore needs a well organized and enhanced library service. This study sought to investigate how existing online resources at UNZA can be successfully integrated into distance education to improve e-resources use. These findings add to the limited body of knowledge on how libraries can integrate online resources into distance learning practices to augment learner experience.

4.0   OBJECTIVES OF THE STUDY

The purpose of this study was to investigate how the integration of institutional e-resources into distance learning can improve access to and use of the e-resources. The study also evaluated the remote access service in aiding distance students access institutional e-resources. The study further assessed the user-friendliness of the databases in helping distance learning students retrieve relevant information within reasonable time. Specific objectives were as follows:

1. To investigate best ways through which e-resources can be integrated into distance learning
2. To identify the challenges faced by distance learning students in accessing e-resources.
3. To evaluate the user-friendliness of the e-resource databases
4. To examine how far remote access goes in aiding distance learning students in accessing e-resources outside the university network.

5.0 REVIEW OF RELATED LITERATURE

5.1 Distance Learning

With the tremendous growth of distance learning programs, it is easily forgotten that the concept of learning "anytime anywhere" is not a new one. Distance learning is a mode of delivering education and instruction, often on an individual basis, to students who are not physically present in a traditional setting such as a classroom (Sekyi, 2013).

5.2 Accessing e-resources by distance learning students

A study by Owusu-Ansah and Bubuama (2015) investigated the accessibility of academic library services to distance learning students with specific reference to University of Ghana Library System. The results revealed that a greater proportion of the respondents were not aware of the library services because they were not available on the University of Ghana Library System. Distance learning students had no remote access to library e-resources and other databases and therefore did not agree to the provision of information through social media.

Lawrence (2009) argues that libraries have a responsibility to provide distance learning students with easy access to e-resources. Leong (2007) advocates using multiple approaches for alerting students to e-resources and advocating their use. He highlights the importance of librarians collaborating with faculty in incorporating e-resources into information literacy instruction and help guides.

However, the availability of e-resources does not necessarily illicit utilization. A study by Dadzie (2005) examined access and usage of e-resources at Ashesi University College. The study

indicated that even though general computer usage for information access was high because of the University's state of the art IT infrastructure, the usage of scholarly databases was quite low. This was attributed to the lack of awareness about the existence of these resources. Ojo and Akande (2005) in a survey of 350 respondents examined student's access, usage and awareness of electronic resources at the University College Hospital Ibadan, Nigeria. The study revealed that the level of usage of the electronic resources was not high. A major problem identified was lack of information retrieval skills for exploiting electronic resources, thus making the level of usage of resources by medical students very low.

5.3   Challenges in accessing online resources

The availability of distance-education programs and course offerings have increased significantly in recent years, and librarians are facing the challenges of providing resources and services to the growing numbers of students and instructors involved in these programs. A study by Carroll-Barefield (2006) at Nova Southeastern University College of Allied Health and Nursing, *Orlando, Florida* found that students would prefer a more detailed technology orientation, seek greater access to e-journals, and were unaware of some library resources.

Mirza & Mahmood (2012) identified technological barriers, budgetary and staffing restraints, lack of awareness for library resources and services, lack of information literacy, to name but a few as hindrances to the effective utilisation of library resources. Lack of awareness for library resources and services appears to be a barrier to accessing e-resources.

6.0   RESEARCH METHODOLOGY

The survey research method was adopted for this study because of its flexibility which permits the use of a variety of data collecting techniques such as questionnaires.

6.1   Population of the Study

The population for this study consisted of all the 12,500 distance learning students registered under the Institute of Distance Education (IDE) of the University of Zambia.

6.2   Sample size and sampling technique

A sample size of sixty (60) respondents was purposively drawn from a population of 12,500 students. This target population was drawn from distance education students, who had come for their residential school between March and April, 2017.

6.3   Instruments for data collection

A structured questionnaire was used for collecting primary data from the respondents. This is because questionnaires are an inexpensive way to gather data from a potentially large number of respondents. Data collected was analyzed using the Statistical package for Social Sciences (SPSS) and content analysis.

7.0   RESEARCH FINDINGS

7.1   Respondents Profile

For the purposes of collecting information from distance students, 70 questionnaires were sent out to students that had come for residential schools during that period. Forty-two questionnaires were returned and used for data analysis. Out of the 42 respondents that answered and returned the questionnaires, 20 (48%) were females and 22 (52%) were males; 13 (31%) were 20 years and below, 7 (17%) were aged between 21 and 30 years, 14 (33%) were between 31 and 40, 6 (15%) were between 41and 50 years and 1 (2%) was above 50 years. One (1) did not respond. Further analysis showed that 13 (31%) were in their first degree, 7 (17%) were in second year, 9 (21%) were in third year, 10 (24%) were in forth year while 3 (7%) did not indicated their age. The following were their programs of study: Bachelor of Arts with Library and Information Science (16), Bachelor of TED (6), Bachelor of Arts (3), Bachelor of Arts with Education (2), Bachelor of Adult Education (2), Bachelor of Arts with Development Studies (2) and 6 from Master of Library Information Science, Master of History, Bachelor of Law, Bachelor of Arts with Literature & languages, Bachelor of Economics and Bachelor of Public Administration. The majority of the respondents were below the age of 40.

7.2   Awareness and use of e-resources by distance learning students

When asked if students were aware of and use e-resources made available by the University Library, 34 (81%) said that they were aware, 8 (19%) said they were not aware of the resources, Further the study revealed that 29 (69%) used E-resources while 13 (31%) did not use them.

Another test was sought to ascertain the likelihood of e-resources usage based on age. The two variables (age and use were cross-tabulated and the results are shown in table 1.

This was followed by a statistical analysis using chi-square test, with two hypotheses formulated as: H_0 = There is no relationship between age and use of e-resources. H_2 = There is a relationship between age and the use of e-resources. Further in the plan of analysis, the significance level was 0.05. This means that if the test statistic probability (P-value) is less than the significance level, the null hypothesis will be rejected, while if the P-value is greater than 0.05, the null hypothesis will be accepted. Table 2 shows the chi-square test results.

7.3   Challenges distance students encounter when accessing e-resources

The research identified the following factors as challenges for students when accessing e-resources as depicted in Table 4:-

These included poor Internet connectivity, Insufficient ICT equipment and Internet facilities, insufficient information coverage in some subject areas, lack of information search skills among students, lack of time for accessing e-resources, preference for print resources and complicated database layout. Others were slow Internet connectivity in their localities.

7.4   Remote Access to Electronic Library Resources

Respondents were asked whether they had used the remote access outside the University network, 20 (48%) said that they had used it while 19 (45%) indicated that they had not used the service.

When the 19 respondents who had not used the remote access outside UNZA were prodded to explain why they had not used it. The majority explained that they did not use remote access

because they were not aware of its existence, had poor information search skills, poor Internet connectivity in area of location which affected the downloading of pages. The study endeavored to find out whether students found value in the facility of not. Figure 1 shows their responses.

With regard to the usefulness of the remote access service, results in figure1 indicate that out of those that used the facility, slightly over half found the service to be useful.

Regarding ease of use of the remote access tool, the study found that 3 (7%) of the respondents indicated that it was very easy to use, 19 (45 %) found it easy to use, 10 (24 %) found it difficulty, 6 (14 %) said that it was very difficult to use.

When prodded to indicate the challenges that distance learning students faced when using the remote access, 21 (35.6%) respondents indicated lack of Internet connectivity in student's area of residence, 14 (24 %) said that login in onto remote access was cumbersome, 12 (20 %) complained of restrictions on some databases while the other 12 (20 %) brought out the problem of configuring remote access on computers.

7.5   User friendliness of online databases

The result in Table 5 showed that majority of respondents highly rated the databases as compared to a minority who rated the databases lowly.

7.6   Integration of institutional e-resources into distance learning programs

When asked to indicate their support for or against integration of e-resources into distance learning, 34 (81%) were in support while 5 (11 %) were against. The respondents however agreed that there are potential benefits of integrating e-resources into distant learning. These included online discussions1, enhanced learning processes, simplified access to e-resources and access to resources 24/7.

7.7 Strategies through which e-resources can be integrated into distance learning to enhance learning experience at UNZA

An open ended question was asked to illicit information from respondents on how they felt e-resources can best be integrated into distance learning. The following were some of the most important findings of this study which were obtained as the users' comments:

- ✓ Provision of more computers (access points) in the university library
- ✓ Improve Internet connectivity/bandwidth.
- ✓ Off-campus searching is often very time consuming and frustrating, because due to the low bandwidth connection from the home computer, a search and download may take a long time, and in the meantime the connection may be broken. On many occasions, the user is prompted to enter the password to re-establish the connection. All these add to the frustration of the user.
- ✓ Posting of resources to students
- ✓ Integrate e-resources into the distance e-learning platforms
- ✓ Information literacy training programme be adopted for users in order to enhance their searching skills and general e-resources use.

8.0 DISCUSSION OF RESEARCH FINDINGS

8.1 Awareness and use of e-resources by distance learning students

The findings revealed that majority of the distance learning students were aware of and used e-resources for academic purposes. This finding agrees with Ojo and Akande (2005) who concluded in their study that the level of usage of the electronic information resources among students is very low. Further results from cross tabulation of the age of respondents and use of online resources and a Chi-square showed that there was no relationship between the age of respondents and use of the available e-resources. This means that age of students did not have any bearing on e-resources usage. It is therefore expected that both young and old should use e-resources in order to appreciate them.

9

On whether the students that used e-resource found them to be useful more than 50% found them useful. This is evidence enough that once students begin to e-resources, they will find them useful for their academic work.

8.2   Challenges distance students encounter when accessing e-resources

The study revealed that distance learning students faced challenges in accessing and using e-resources such as poor Internet connectivity, Insufficient ICT equipment and Internet facilities, insufficient information coverage in some subject areas, lack of information search skills among students, lack of time for accessing e-resources, preference for print resources and complicated database layout.

Other challenges were slow Internet connectivity in their localities. This finding   agrees   with Ojo   and   Akande (2005) who concluded in their study that the level of usage of the e- resources among students was very low.

8.3   Remote Access to Electronic Library Resources

Remote access provides end users with the ability to access resources on UNZA network from a distant location or a remote location. Because the University of Zambia serves a big population of distance students, the remote access comes in handy in helping these students access all available electronic resources materials from wherever they are. Distance students can access licensed e-resources remotely from their homes or offices. E-resources are available 24/7 except during occasional outages for network maintenance.

Majority students explained that they did not use remote access because they were not aware of its existence, had poor information search skills, poor Internet connectivity in area of location which affected the downloading of pages. They however indicated that they found the service to be useful. It is therefore clear from the above results that students that had used the remote access service found it to be a useful information retrieval tool. From these results it can be deduced that the remote access is a useful information tool that needs to be proactively promoted to distance

learning students if it is to be fully appreciated. The results further showed that the students that used the remote access tool found it easy to use. This can be attributed to library orientation that was accorded to these students during their residential schools.

The following challenges were cited: Lack of Internet connectivity in student's area of residence, cumbersome logging onto remote access, restrictions on some databases, and configuring remote access on computers. These are real challenges that require both Librarians and IT personnel to resolve in order to help distance learning students reap the benefits of this library service.

8.4 User friendliness of online databases

The result in Table 6 showed that majority of respondents highly rated the databases as compared to a minority who rated the databases lowly. It should be therefore noted that an online database that is difficult to figure out, inefficient to use, or poorly supported is not going to win much of a user base. While user-friendly is a subjective term, the following are several common attributes found in user-friendly interfaces: simple, clean, intuitive and reliable. The goal of a user-friendly product is to provide a good user experience. This finding is collaborated by the results of a survey by Bryne & Bates (2009) who stated that technological innovations would enable librarians to provide distance education students with the same level of access to resources and services as on-campus students, as well as the knowledge necessary to find the information they need and Mirza & Mahmood (2012) who identified technological barriers as hindrances to the effective utilisation of library resources.

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8.6   Strategies through which e-resources can be integrated into distance learning to enhance learning experience at UNZA

An open ended question was asked to illicit information from respondents on how they felt e-resources can best be integrated into distance learning. The findings in 7,7 above are confirmed by the results of a study by Leong (2007) who advocated using multiple approaches for alerting students to the library's electronic resources and advocating their use. The author highlights the benefits of a well-designed website and collaborating with lecturers by activities such as incorporating electronic resources into information literacy instruction and help guides. This is further supported by Carroll-Barefield (2006) who found that students would prefer a more detailed technology orientation and seek greater access to e-journals.

9.0   CONCLUSION AND IMPLICATION FOR LIBRARIANS

The real purpose of any academic library is to provide its users with relevant and up to date information in order to fulfill its core function of facilitating teaching, learning and research. In today's contemporary world where the Internet has become crucial to the survival of any establishment, it is incumbent on academic libraries like UNZA Library to provide distance learning students with 24/7 access to online academic databases through the remote access facility.

Indeed the present situation poses an implication for libraries, librarians and the university management as a whole. For instance, library services must be accessible to distance learning students, since this helps in bringing out quality students. Since distance learning students are remotely located and geographically dispersed with uneven technology penetration; the challenge lies in UNZA Library and distance learning students using appropriate information technology tools which appears uncommonly available. Therefore, librarians must embed and adopt the use of Online Learning platforms, such as MOODLE and other innovative technologies. UNZA Library must endeavor to implement comprehensive information literacy programmes to overcome the challenge of awareness and utilisation of library services.

10.0   RECOMMENDATIONS

Based on the findings and conclusions of the study and in order to successfully integrate e-resources into distance learning, the researchers recommend the following:

- ✓ UNZA Library should partner with the Computer Centre in ensuring that the right library software and hardware are procured to enhance remote access to e-resources.
- ✓ High speed Internet connectivity should be made available to distance learning students
- ✓ UNZA should establish computer laboratories in conveniently located remote areas of the country to help distance learning students access e-resources
- ✓ UNZA should incorporate information literacy programmes into distance learning students' curriculum.

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Tables & Figures

Table 1
Age of respondents and whether one uses online resources Cross tabulation

| | | Whether one uses online resources | | Total |
		Yes	No	
Age of respondents	20 and below	9	4	13
	21-30 years	6	1	7
	31 - 40 years	9	5	14
	41 - 50 years	3	3	6
	50 and above	1	0	1
Total		28	13	41

Table 2
Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.482[a]	4	.648
Likelihood Ratio	2.864	4	.581
Linear-by-Linear Association	.311	1	.577
N of Valid Cases	41		
a. 8 cells (80.0%) have expected count less than 5. The minimum expected count is .32.			

Table 3
Usefulness of e-resources for academic work

		Frequency	Percent
Valid	Very useful	5	11.9
	Useful	10	23.8
	Average	9	21.4
	Not useful	1	2.4
	No response	3	7.1
	Total	28	66.7
Missing	System	14	33.3
Total		42	100.0

Table 4
Challenges faced by distance students in accessing e-resources

		Responses		Percent of Cases
		N	Percent	
Challenges	Poor Internet connectivity	28	22.0%	68.3%
	Poor info search skills	16	12.6%	39.0%
	Insufficient ICT equip & facilities	26	20.5%	63.4%
	Lack of enough time	15	11.8%	36.6%
	Preference for print	12	9.4%	29.3%
	Dbase lay out & search options not ease to follow	9	7.1%	22.0%
	Insufficient info coverage in my subject area	21	16.5%	51.2%
Total		127	100.0%	309.8%

Table 5
Electronic databases rated in terms of information retrieval

		Frequency	Percent
Valid	Excellent	4	9.5
	Good	18	42.9
	Fair	11	26.2
	Poor	3	7.1
	Total	36	85.7
Missing	System	6	14.3
Total		42	100.0

Figure 1
Usefulness of the Remote Access Service