

The Effect of E-resource Use by Staff and Students for Teaching and Learning in Kampala International University, Western Campus.

Gerthrude Vershiy Banyuy, Alone kimwise and Generous Tugume Begumisa

Information Systems of Kampala International University, Uganda.

ABSTRACT

The study was to identify the effects of e-resource use by staff and students for teaching and learning. A descriptive survey research design was adopted. The target population included Academic Staff and Students from three selected faculties, Faculty of Education, Faculty of Business and Management and Faculty of Biomedical sciences, and library administrators of KIU western campus, totaling 5223. The data obtained from the field were analyzed using descriptive statistics (mean) and presented in frequency tables and inferential statistics. It was found out that e-resources were not being used for teaching and learning. To this effect, teaching and learning will be carried on effectively and efficiently. All teaching rooms should have functioning internet access to enable demonstration of e-resources for teaching and learning.

Keywords: e-resource, staff, students, teaching and learning.

INTRODUCTION

The advent of information and communication technology (ICT) and electronic information resources has brought about the shift of information from print to electronic format, information that can be accessed with the use of a computer is referred to as an electronic resource [1,2,3,4]. Advancement in technology has led to the development of computer networks that allow access to numerous amounts of e-resources such as e-books, e-journals, online databases, multimedia, OPAC (online public access catalogue), which effectively and efficiently support teaching and learning in universities [5,6,7,8,9,10]. The emergence of e-resources has in so many ways transform information handling and management in universities [9,10,11]. This dramatic change includes the way

information is being provided to students through teaching and learning. Computers and related e-resources have come to play a vital role in teaching and learning. Dadzie [2] writes that electronic resources are resources of great value and are replacing the print resources in a traditional library setting. These e-resources have complemented the traditional means of teaching and learning. Stone and Emery [3] defines e-resource as being resources in electronic form and library's electronic resource. This study is to assess the level of e-resource utilization in supporting and learning in Kampala international university western campus. The study was done to examine the effect of e-resource use by staff and students in teaching and learning in Kampala international university western campus.

METHODOLOGY

Study Design

A descriptive research design was used because it required gathering, analyzing and presenting collected data from a large number of respondents.

Study Area

This study was carried out in Kampala International University Western Campus Ishaka, where developments in the use of

e-resource and ICTs has been a major concerned.

Target Population

The population consisted of all academic staff and all students of three faculties' that is Faculty of Education, Faculty of Business and Management and Faculty of Biomedical Sciences and library administrators (library admins) of KIU western campus. A total number of 5223

academic staff, students and library admins was the population for the study. The number of Academic staff in the faculty of education is 66, total number of academic staff in the faculty of business and management is 47 and total number of academic staff in faculty of biomedical is 93 and total number of library admins is 5, making a total of 211 academic staff from the three faculties and library administrators. Total number of students in the faculty of education is 2260, total number of students in the faculty of business and management is 689 and total number of students in faculty of biomedical is 2063, making a total of 5012 students from the three faculties. See table 3.1 below for distribution of Population for the study as at May 2018). KIU western campus had close to 8 faculties but due to limited resources, the researcher could not cover all the faculties and thus selected only three faculties for the study.

Sampling Method

Sample size was arrived at using a multi-stage sampling technique. Multi stage sampling technique entails the process of applying two or more sampling technique for the purpose of selecting an adequate representative sample size. The researcher for the purpose of this study applied the purposive, and probability sampling technique in selecting the sample for the study. Purposive sampling allows for a selection of sample from an entire population using pre-determined criteria relevant or of interest to the study. Purposive sampling was used to select library administrators because they are directly involved with e-resource utilization. Faculty of biomedical sciences was purposely selected because they are to some extent science oriented and most of their course units are taught using e-resources. Again, faculties of business and management and education were purposely selected because they may to some extent have little knowledge about e-resource utilization and so the researcher was interested in finding out why. Probability sampling was also used and was based on the fact that every member of the population (staff and students) had a known and equal chance of being selected. This method of sampling gave

the probability that our sample was representative of the population.

Sample Size and Sampling Technique

The total number of academic staff from the three faculties was 206 and that gave us a sample size of 136 for the study. The number of library administrators purposely selected was 5 and thus no sample size. The total number of students from the three faculties was 5012 and that gave sample size of 361 students from the faculties of Education, Business and management and Biomedical in KIU western campus making the total sample size of 502 respondent for the study. This was determined using the [4] sample size determination table that is attached as appendix C.

Data Collection Methods

For the purpose of this study, the researcher contacted sampled respondents for reliable information using observation/resource inspection checklist for academic staff, and a structured questionnaire for the student respondents.

Instruments

Observation/Resource Inspection Checklist

The researcher used the observation/resource inspection checklist for academic staff and library admins in order to have a near one on one interaction with them, to record observations as in Yes/No options in order to establish observable items such as e-books, e-journals, online data bases, multimedia resources, online public access catalogues (OPACS) and emails, if and when available.

Questionnaire

Questionnaires were administered on the student respondents. The questions were made up of close ended, which required respondents to give a yes or no answer, open ended which were questions that had unlimited responses. Respondents were to provide a free-form answer which were not restricted to a word or two, and multiple choice questions, which respondents had several option from which to choose. These questionnaires were administered to the respondents in their various study rooms by the researcher. Similarly, the questionnaire allowed for independence in responses from respondents even with the researcher's presence.

Data Processing

Data collected from observation/resource inspection checklist were edited, categorized according to themes and then summarized into percentages in a computer spreadsheet. Data collected from the SAQS were also edited, categorized, coded and entered into the computer using the Statistical Package for Social Sciences (SPSS) to generate summary frequency tables, charts and graphics.

Data Analysis

Data were analyze according to each objective. Objective one and two were analyzed using the descriptive statistics, where the mean and standard deviations were obtained. The researcher used descriptive statistics to generate data and find out the prevalence rate at which these e-resources were available for teaching and learning and whether or not staff and students are aware of them and possess the necessary skills to be able to access them. Objective three was also analyzed using descriptive statistics using a four

linkart scale. Lastly, inferential statistics was done in order to correlate the DV (teaching and learning), and IV (e-resources) and find out their significance.

Ethical Considerations

This research study was carried out subject to approval by the Research Ethics Committee of Kampala International University Western Campus, Uganda.

Informed consent: The principle of informed consent involved the researcher providing sufficient information and assuring the participant about taking part in the research to allow participants to understand the implications of participating in the research and to reach a fully informed, considered and freely given decision about whether or not to do so, without the exercise of any pressure. Voluntary participation of respondents in the research is important. Moreover, participants had the right to withdraw from the study at any stage if they wish to do so.

RESULTS

Table 1: Effects of E-Resource Use on Learning Activities

Effects	disagree	Stly disagree	Agree	Stly agree	Mean	Std. Dev
	N=361					
Increase use of information	59 (16.3)	73(20.2)	46 (12.7)	183 (50.7)	2.44	0.953
Access to a variety of information	44 (12.6)	35 (9.7)	78 (21.6)	204(56.5)	2.10	0.847
Access to quality and current information	17 (4.7)	68 (18.8)	97 (26.9)	179 (49.6)	2.16	1.024
Ease in the completion of class work and assignments	42(11.6)	39(10.8)	131(36.3)	149(41.3)	1.97	0.955
Fast retrieval of information for use	28 (7.8)	12 (3.8)	207 (57.3)	144 (31.6)	1.87	0.803
Unrestricted access to information resources	22 (6.1)	47 (13.0)	199 (55.1)	93 (25.8)	2.58	0.939
Effective seminar presentation	69 (19.1)	122 (33.8)	79 (21.9)	91 (25.2)	2.53	1.067

Source: Field data, February, 2019

SA=disagree codes as 1, A=strongly disagree coded as 2, SD=agree coded as 3, and D=strongly agree coded as 4.

A four linkart scale was used and the results showed that, 46 (12.7%) respondents from the three faculties agreed that e-resources increase use of information, 183 (50.6%) strongly agreed, 59 (16.4%) disagreed, and 73 (20.2%) disagreed with a mean of 2.44 and std of 0.953. Also, 78 (21.6) respondents agreed that with e-resources, you have access to a variety of information, 204(56.5%) strongly agreed, 44(12.2%) disagreed, and 35 (9.7%) stly disagreed. Again, 97 (26.9%) respondents agreed that with e-resources, you can access to quality and current information, 179 (49.6%) strongly agreed, 17 (4.7%) disagreed and 68 (18.8%) strongly disagreed. More so, 131 (36.3%)

respondents agreed that e-resources ease the completion of class works and assignments, 149 (41.3%) strongly agreed, 42 (11.6%) disagreed, and 39 (10.8%) strongly disagreed. In addition, 144 (31.6%) strongly agreed that with e-resources, you fast retrieval of information for use, 207 (57.3%) agreed, 12 (3.3%) strongly disagreed and 28 (7.8%) disagreed. Again, 22 (6.1%) disagreed that with e-resources, you get unrestricted access to information, 199 (55.1%) agreed, 47 (13.0%) strongly disagreed and 93 (25.8%) strongly agreed. And lastly, 69 (19.1%) disagreed that e-resources helps in effective seminar presentations, 122 (33.8%) strongly disagreed, 79 (21.9%)

agreed and 91 (25.2%) strongly agreed. From the above results, we can say that highest response came from the fact

respondents agreed that e-resources helps in fast retrieval of information for use.

Table 2: Effects of E-resources on Teaching Activities

Effects	disagree	Strongly disagree	agree	Strongly agree	Mean	Std. Dev
	N=141					
Increase use of information	31(22.0)	82 (58.2)	16 (11.3)	12 (8.5)	1.70	0.976
Access to a variety of information	73(52.1)	37 (26.4)	6 (4.3)	25 (17.1)	2.13	1.002
Access to quality and current information	63(45.0)	47 (33.6)	17 (12.1)	14 (9.3)	1.99	0.926
Ease in the formulation of assignments /exam questions	83(58.1)	33 (24.3)	9 (6.6)	16 (11.0)	2.06	0.868
Fast retrieval of information for use	97(69.3)	21 (15.0)	3 (2.1)	20 (13.6)	2.16	0.838
Unrestricted access to information resources	81(57.9)	34 (24.3)	4 (2.9)	22 (15.0)	2.10	0.943
Effective seminars presentations	53(39.9)	77 (55.0)	08 (5.7)	03 (1.4)	1.55	0.701

Source: Field data, February, 2019

SA=disagree coded as 1, A=strongly disagree coded as 2, SD=agree coded as 3, and D=strongly agree coded as 4.

A four linkart scale was also used in table twenty-one above to discuss the effects of e-resource use on the teaching activities. Respondents from the three faculties with a response rate of 31 (22.0%) disagreed that e-resources increase their use of information, 82 (58.2%) strongly disagreed, 16 (11.3%) agreed and 12 (8.5) strongly agreed with mean of 1.70 and std of 0.976. Also 73 (26.452.1%) of the respondents disagreed that e-resources help them to have access to a variety of information, 37 (26.4%) strongly disagreed, 6 (4.3%) agreed and 25 (17.1) strongly agreed with a mean of 2.13 and std of 0.1002. Again, 63(45.0) respondents disagreed that e-resources helps them to have access to quality and current information, 47 (33.6%) strongly disagreed, 17 (12.6%) agreed, and 14 (9.3%) strongly agreed with a mean of 1.99 and

std of 0.926. In addition, 33 (24.3%) of the respondents strongly disagreed that e-resources help in the formulation of examinations/test questions, 83 (58.1%) disagreed, 9 (6.6%) agreed, and 16 (11.0) strongly agreed with a mean of 2.06 and std of 0.868. More so, 21 (15.0%) respondents disagreed that e-resources helps in fast retrieval of information for use, 97 (69.3) strongly disagreed, 3 (2.1%) agreed and 20 (13.6%) agreed with a mean of 2.16 and std of 0.838. Again 34 (24.3%) respondents disagreed that e-resources provide unrestricted access to information resources, 81 (57.9%) strongly disagreed, 4 (2.9%) agreed, and 22 (15.0) agreed with a mean of 2.10 and std of 0.943. Lastly, 77 (55.0%) respondents disagreed that e-resources help in effective seminar presentations, 53 (37.9%) disagreed, 08 (5.7%) agreed, and 3 (1.4%) strongly agreed

with mean of 1.55 and std of 0.701. From the above discussion, we can see that the means are all negative, indicating a

disagreement with availability of e-resources by staff.

Table 3: Pearson Correlations between the DV (Teaching and Learning) and IV (e-resource awareness, availability, ICT skills and use)

Teaching and learning (DV)	
E-resource (IV)	
Awareness of resources	.871** , .000
E-resource availability	.878** , .000
ICT skills for utilization of e-resources	.793** , .000
Use of e-resources	.281** , .000

Sig. ≥ 0.01

From the above table, all the aspects of e-resource utilization that is, awareness of e-resources (0.871), e-resource availability (0.878), use of e-resources (0.793), and required skills to access e-resources (0.281) had a positive significant relationship although use of e-resource had a weak correlations with teaching and

learning. Availability of e-resources was more significant, followed by awareness, use and lastly by required skills.

Correlation Value Interpretation

The correlation values in this study were interpreted following the table of correlation value interpretation developed by [5] as shown in Table 4.

Table 4: Correlation Value Interpretation

Correlation Value (r)	Relationship Strength
.871** , .000	Very Strong
.878** , .000	Very Strong
.793** , .000	Strong
.281** , .000	Weak but significant

Table show that awareness and availability of e-resources had a very strong correlation with teaching /learning and was significant, ICT skills had a strong

correlation and significant and use of e-resources had a weak correlation but was significant.

Table 5: Model Summary

Teaching and Learning	Standardized Coefficients	Significance ≥ 0.05
E-resources	Beta (β)	(p)
Awareness of e-resources	.443	.000
e-resource availability	.693	.000
Use of e-resources	-.196	.002
Required skills to access e-resources	-.010	.678

Adjusted R square=.835

The results in the table above shows that e-resource awareness, e-resource availability, skills required e-resources and use of e-resources explained 83.5% of variation in teaching and learning (adjusted R = 0.835). This means that 16.5% of the variation was accounted by other factors not considered under this

model. All aspects of e-resource that is awareness ($\beta = 0.443$, $p = 0.000$), availability ($\beta = 0.693$, $p = 0.000$), ICT skills to access e-resources ($\beta = -0.196$, $p = 0.002$), and use ($\beta = -0.010$, $p = 0.678$) had a positive significance on teaching and learning.

DISCUSSION

Lastly, this study was also to identify the effect of e-resource use by staff and students for teaching and learning in Kampala international university western campus and a four linkart scale was used to generate data. A percentage of the students who had the required skills to be

able to access e-resources said e-resources has helped them positively in the following ways: has increase their use of information, they can have access to a variety of current/up to date information, and it has help them in the completion of their course work/assignments.

CONCLUSION

They were aware of these e-resources, had the necessary skills required to access them. From the above findings, we can conclude that students therefore need to be given special training on the skills

needed to access e-resources to be used for their learning activities and these e-resources needs to be available in their large numbers and in all disciplines.

REFERENCES

- Ani, O. E., Ngulube, P. and Onyancha, B. (2015a). Perceived effect of accessibility and utilization of electronic resources on productivity of academic staff in selected Nigerian universities. *SAGE Open*, 5(4).
- Dadzie, P. S. (2005). Electronic resources: access and usage at Ashesi University College. *Campus-Wide Information Systems*, 22(5), 290-297. <https://doi.org/10.1108/10650740510632208>
- Stone, G. and Emery, J. (2011). Can we agree TERMS? Shaping Techniques for Electronic Resource Management as a model of best practice. *D-Lib Magazine*. Retrieved from <http://eprints.hud.ac.uk/11823/>
- Krejcie, R. V. and Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30(3), 607-610.
- Bartlett, J. E., Kotrlik, J. W. and Higgins, C. C. (2001). Organizational Research: Determining Appropriate Sample Size in Survey Research. *Information Technology, Learning, and Performance Journal*, 19, 43-50.
- William Mufana Masisani, Ibrahim Adabara (2022). Monitoring with Communication Technologies of the Smart Grid. *IDOSR Journal of Applied Sciences*, 7(1): 102-112.

7. Rebecca Kisakye (2022). Simulation and Analysis of Dipole Transmitter Antenna (KIU Laboratory). *IDOSR Journal of Computer and Applied Sciences* 7(1): 119-135.
8. Mukisa Sarah Namugenyi, Feiswal Abdalla (2022). An Automated Student Registration System: A Case Study of Lugazi Primary School. *INOSR Experimental Sciences*, 10(1):25-41.
9. Anthony Nambale, Zainab Kalyankolo, Umar Kalyankolo (2022). Design and Implementation of an Intelligent Voice Controlled Wheel Chair. *IDOSR Journal of Science and Technology*,7(1); 67-76.
10. Elisado Mwesigye (2022). Management styles used in the selected secondary schools in Uganda. *IAA Journal of Education*, 8(1): 90-96.
11. Sekiti Hamisi, Ibrahim Adabara (2022). Security Analysis for Virtual Private Network Based on Site to Site Circuit Switching (Vpns2scs) Case Study: Liquid Telecommunication Ggaba. *IDOSR Journal of Computer and Applied Sciences*,7(1): 95-108.