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Students Access to e-Resources in Terms of Space and Time: A Ghanaian Tertiary Institution Perspective

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Abstract

Introduction: Though e-resources come with a plethora of advantages, there are some hindrances regarding their management, usage, maintenance, and access in terms of space and time. Upon the lockdown of all institutions per restrictions and response to the COVID-19 pandemic, students were all ordered to move to their various homes. Some students are located in remote areas where there is lack of internet connectivity, others from poor financial backgrounds are not using android phones, others never offered or know much about information literacy. However, all these students are expected to participate in online learning using virtual platforms, online library services, and access to e-resources. The study investigated the challenges and obstacles confronting students' access to e-resources in terms of space and time in a resource-limited environment like Ghana.

Methodology: The study employed open-data-collection-kits (ODK) and google forms, coupled with statistical tools (Excel 2013 and GraphPad Prism 8) in analysing a purposively y selected 174 students' responses to a survey-based questionnaire. The study used level 400 students from Departments of Social Science Education and Business Studies Education of the Simon Diedong Dombo University of Business and Integrated Development Studies. This is because they offer an information literacy course and will have had the opportunity to use the library resources and are conversant with the techniques of searching library collection.

Results: Findings from the study indicated that students need e-resources and virtual libraries to gain access to quality and briskly available information for their academic work. The results also showed that most students do not have the time to search for quality information online. They resort to places like google.com, ask.com, seek.com, and other non-academic sites for quick information. It was also realized that students do not know how to gain free access to internationally free e-resources and are not conversant with virtual libraries and most rely on social media platforms for assistance from non-staff and inexperienced people for support. It also emerged that quite a significant number of students indicated they are not aware of the availability of e-resource or the digital library. Major challenges identified were the following: lack of suitable devices for access, poor internet connectivity for downloading, lack of access to professional support, and poverty as major which lead to their poor usage of e-resources and virtual libraries.

Conclusion: Students had no experience in accessing e-resources, techniques involved in accessing them, and their usage. They did not also know the difference between academic and non-academic sources of information. Information literacy should therefore be introduced as a required course for levels 100 and 300.

Keywords: COVID-19, e-Learning, e-Resources, Academic libraries, Internet connectivity.

Introduction

E-resources comprise of e-books, e-journals, databases, CDs/DVDs', e-conference proceedings and reports and many others (Kavithanjali, 2019). These e-resources are subscribed and paid for by the university library and are renewed annually for use by students and faculty (Roman et al., 2020). E-resource have been used by academics for a long time, but became remarkable in the world during the COVID-19 pandemic (Mohammad Mahyoob, 2020). COVID-19 resulted in a lockdown of all schools in Ghana and the only solution left to continue educational proceedings was through online (Panganayi, 2020). The most ever free e-resources available online were during this pandemic and even most libraries switched to virtual sessions to permeate the way for online access to library services and resources at this precarious moment (Jandrić et al., 2021). Though e-resources come with a plethora of advantages, there are some hindrances regarding their management, usage, maintenance, and access in terms of space and time.

The study aimed at investigating issues faced by students in accessing and utilizing e-resources at the time expected of them. The COVID-19 pandemic forced the closure of all schools in Ghana and the alternative was to move to online studies at all costs. Though students and institutions were not 100% ready, they had no choice but to expedite the processes for online studies. Expected challenges are that, some students do not have smartphones, are financially incapacitated, lack technical skills, and are inexperienced with access to online information. These obstacles are likely to exacerbate the challenges of institutions and library staff in various tertiary intuitions in developing countries such as Ghana. The fastest and best methods and possible ways that could save the situation are the virtual library services, online library, and the provision of e-resources. Meanwhile, most students who were even offering courses related

to this have not been able to master what it takes to conveniently get access to these resources and hence it became a detrimental issue in these times of COVID-19 pandemic. Concerning access to e-resources, e-resources usage, and movability in terms of space and time, this study is looking at the students' ability to get e-resources, and what it takes to get the e-resources. Are all these available? Are there any possibilities that students living in a remote community with no internet services gain access to e-resources? Yet all students are expected to participate in all academic activities during the COVID-19 pandemic.

It is against this backdrop that the current study seeks to investigate the challenges and obstacles confronting students' access to e-resources in terms of space and time in a resource-limited environment like Ghana.

Materials and Methods

 Study area

This study investigated the challenges and obstacles confronting students' access to e-resources in terms of space and time in a resource-limited environment like the University of Development Students Wa Campus (UDS) and currently the Simon Diedong Dombo University of Business and Integrated Development Studies (SDD-UBIDS), Wa, Ghana. This was carried out at the time when there was a massive transition to online learning during the second semester of the 2020/2021 academic year because of the COVID-19 pandemic.

Study participants

The study was carried out at the UDS/SDD-UBIDS and used level 400 undergraduate students of Departments of Social Science Education and Business Studies Education of the School of Education and Lifelong Learning (SoELLL) who offered Information Literacy at Level 200. This was done after successful completion of online teaching and learning during t the second semester of 2019/2020 academic year. The sample comprised of 174 students with-(54%)

males and (46%) females offering bachelor's degrees in both the Departments of Social Science Education and Business Studies Education. Most of the students did not have any previous knowledge of online learning and virtual library. Results on demographic information of students are shown in Table 1 in the results section.

The SDD-UBIDS was established by the Government of Ghana in 2019 and given a mandate by Act, 2019 (Act 1001) It used to be a campus of University for Development Studies (UDS). It has four schools and three faculties, making a total of seven schools and faculties. There are only two departments that offer information literacy course.

The group of students chosen for the study were those in level 400 who are assumed to have sufficient knowledge in the information literacy course. With a total number of 200, only 174 responded to the questionnaire. In brief detail, the total number of level 400 students who offered information literacy course during the 2018/2019 academic year was 200. Out of the 200 students, 189 agreed to participate in the study and were all sent the link to the questionnaires. Out of the 189, 15 had problems with their phones or had problems with their emails and WhatsApp platforms and hence could not fill the questionnaire. However, 174 students were able to complete and submit the questionnaire successfully.

Research instruments

The study used a descriptive design employing a survey research method. The research instruments used for the study included a well-structured closed-ended questionnaire with 26 question items linked to OKD and google forms. The questionnaire was designed to measure the challenges and obstacles confronting students' access to e-resources in terms of space and time in a resource-limited environment like Ghana. Specifically, the questionnaire was structured to find out students' access to e-resources, knowledge on the availability of e-

resources, devices needed to access e-resources, medium of communication, the usability of e-resources and finally obstacles faced during the time and periodical usage of e-resources.

Data collection

Data was gathered using a questionnaire linked to ODK and google forms and links created and sent to students via emails and WhatsApp. A total of 174 students responded and successfully submitted their responses. The data collected in a pool was exported to Microsoft office excel and processed for analysis with GraphPad Prism 8.

Statistical analysis

The study recorded responses from respondents using ODK and google forms and was imported into Microsoft Office Excel 2013 version. Data was cleaned and prepared for analysis. Descriptive statistics and analysis of P- values were done using GraphPad Prism 8. The final results were then organized into tables and figures in the results section.

Results

The results obtained from the 174 respondents from the survey have been analysed using GraphPad Prism 8 and put into tables and graphs as in the case of Table 1 to 4, and Figures 1 to 3.

Table 1: Gender, Library usage, information assess, E-resources, and mailing list

Research question/item	Frequency	Percentage (%)
Gender		
Male	94	54
Female	80	46
Are you are a user of the University Library?		
Yes	83	48
No	91	52
How often do you use the Library within the week?		
Once	31	17.86
Twice	29	16.67
Thrice	11	6.32
4 times and above	10	5.75
None	93	53.45

What kind of information do you assess from the Library?		
Primary research information	63	36.21
Secondary (Books)	89	51.15
Tertiary (Dictionaries)	22	12.64
Do you often get the required information?		
Yes	89	51.15
No	85	48.85
Are you aware of the electronic resources in the library?		
Yes	11	6.32
No	163	93.68
In this COVID-19 era, with limited access to the library, how do you assess library materials?		
Online library	52	29.89
Online database	51	29.31
Virtual Library	43	24.71
University campus library (face to face)	28	16.09
Are you on the university mailing list?		
Yes	21	12.07
No	87	50.00
Don't know	66	37.93
Do you call for resources and databases for use?		
Yes	81	46.55
No	93	53.45

Results from Table 1 indicate that most of the respondents in the study were males and do not use the library frequently, neither do they visit the Library frequently within the week. Also, most of them visit the Library in search of books and negligibly get the information they required. Additionally, it was found out that only a few (6.32%) of them knew of an electronic resource and hence not a significant majority (93.68%) visit the online library. Notwithstanding, most (50.00%) of these students stated that they are not on the University mailing list and hence messages sent to them through such medium do not usually get to them. With this, some (46.55%) of them usually call for resources and databases for usage while majority (53.45%) do not.

Table 2: Students' Databases familiarity with databases

Databases	Frequency	Percentage (%)
EBSCO host	0	0
Sage Journals (Premier)	0	0
Wiley	3	1.72

Taylor and Francis	2	1.15
Sage Research Methods Cases	0	0
Credo Reference	0	0
Institute of Physics	0	0
Emerald	4	2.30
World bank E-Library	0	0
Project Muse	0	0
Cambridge University Journals	0	0
Annual Review	0	0
ACM	0	0
ECONLIT	0	0
SABICAT	0	0
EZ proxy	0	0
Hein Online	0	0
IEEE	1	0.57
None of the above	164	94.25
Which once do you use often		
None	170	97.70
Few	4	2.30
Most of them	0	0.00

Table 2 shows that, with all numerous databases available online, students (5.75%) are only aware of Wiley, Taylor and Francis, Emerald, IEEE, while 94.25% of them do not even know about online databases. This translated into the usage of the various databases. Most of the students indicated that they do not use any of the available databases.

Table 3: Resources medium, databases access and time, and search engines

Research question/item	Frequency	Percentage (%)
Through which medium are these resources sent to you?		
Email	15	8.62
WhatsApp	151	86.78
Zoom platform	8	4.60
Microsoft & google platforms	0	0.00
What do we need to gain access to these databases?		
Mobile phones, internet service and data	44	25.29
Access codes (passwords), pc, mobile phone	42	24.14
Data, access codes, devices, data and connectivity	47	27.01
Internet service, data, access codes	41	23.56
What time do you usually need e-resources or databases for your work?		
When given an assignment	78	43.58
When given a mini project	19	10.61
Always as a student	82	45.81

Apart from the e-resources and databases, Which of the following search engine or sites do you often use to search for information?		
Ask.com	89	51.15
Seek.com	43	24.71
Scholar.google.com	42	24.14
SCOPUS	0	0.00
EBASE	0	0.00
BASE	0	0.00

During the COVID-19 period, respondents indicated based on Table 3 that, most of their official information was sent to them via social media platforms, especially WhatsApp. For access to databases, the required materials needed as indicated by the respondents are mobile phones, internet service and data. Meanwhile, quite a good number of them (24.14%) also indicated that access codes such as user names and passwords are required to access some databases. Access of databases and e-resources in terms of time, most (45.81%) respondents indicated that, once you are a student, your entire life as a student requires you to visit the various databases occasionally. Additionally, the majority (100%) of respondents indicated that they usually search for information on sites such as Ask.com (51.15%), Seek.com (24.71%), and schoolar.google.com (24.14) in decreasing order of interest respectively.
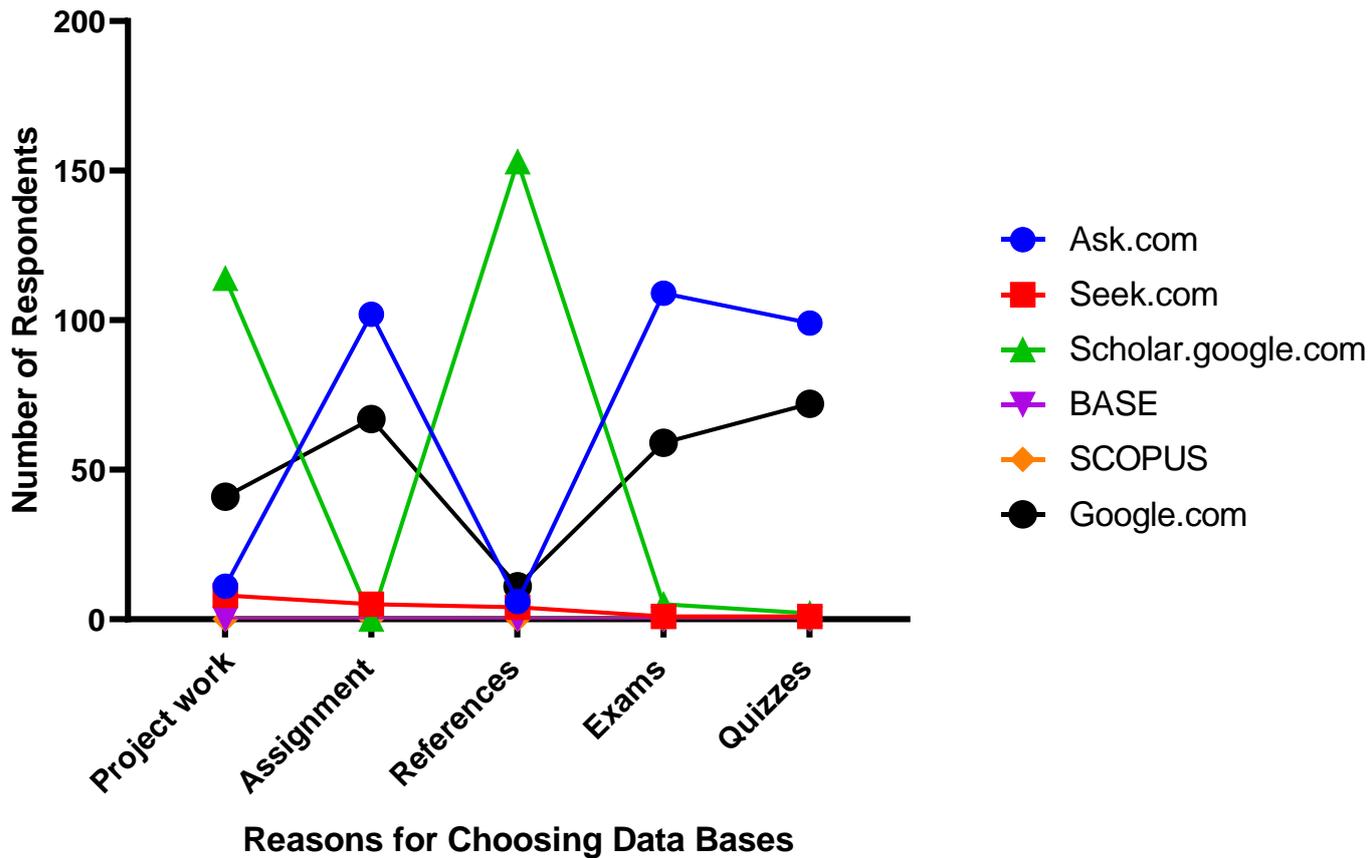
Figure 1: Reasons for choosing to use these debases/databases and search engines

The study also inquired about respondents' reasons for choosing various sites for information access at an alpha level of 0.05.and found that respondents visit **scholar.google.com** for references much more than any other site (P<0.0487). Results from **figure 1** indicated that most students visit **scholar.google.com** for the reason of seeking references for their work and also during the time of project work. Most of them also visit **ask.com** during the examination period to look for answers to their questions, either past questions or expected questions in their minds. They also visit **ask.com** during quizzes periods and also to get answers to their assignments. For **google.com**, most students visit this database/site during quizzes, assignments, examinations and project work periods in the order of decreasing priority. For BASE and SCOPUS, most students do not visit them at all, while only few of them visit **seek.com** for project work, assignments, references, exams and quizzes in order of decreasing priorities.
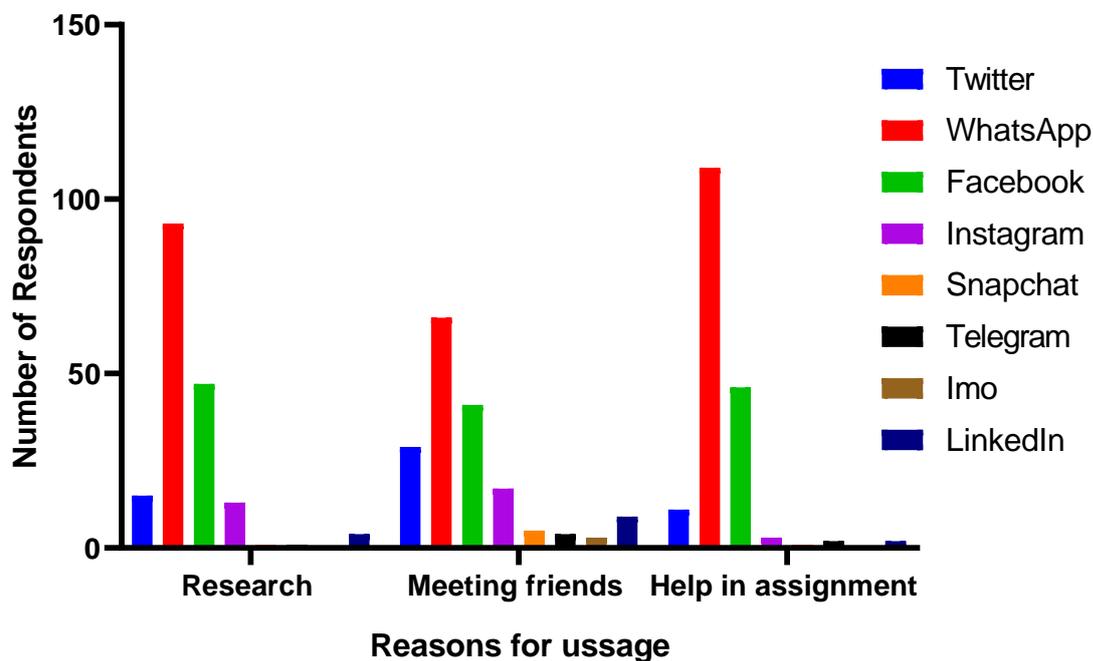
Figure 2: Sites visit, time, and reasons for visit

In figure 2, the study found that most students visit WhatsApp for assisting one another during assignments, research and ordinary meetings of friends in a decreasing order respectively. At an alpha level of 0.05, most respondents significantly ($P<0.0001$) seek help from authorities and peers via WhatsApp. Meanwhile, most of them also visit Facebook, Twitter, and Instagram during times of research, helping friends in doing their assignments and meeting friends in a decreasing other of usage for Facebook and meeting friends, research and helping friends in doing the assignment in decreasing order of usage for Twitter.
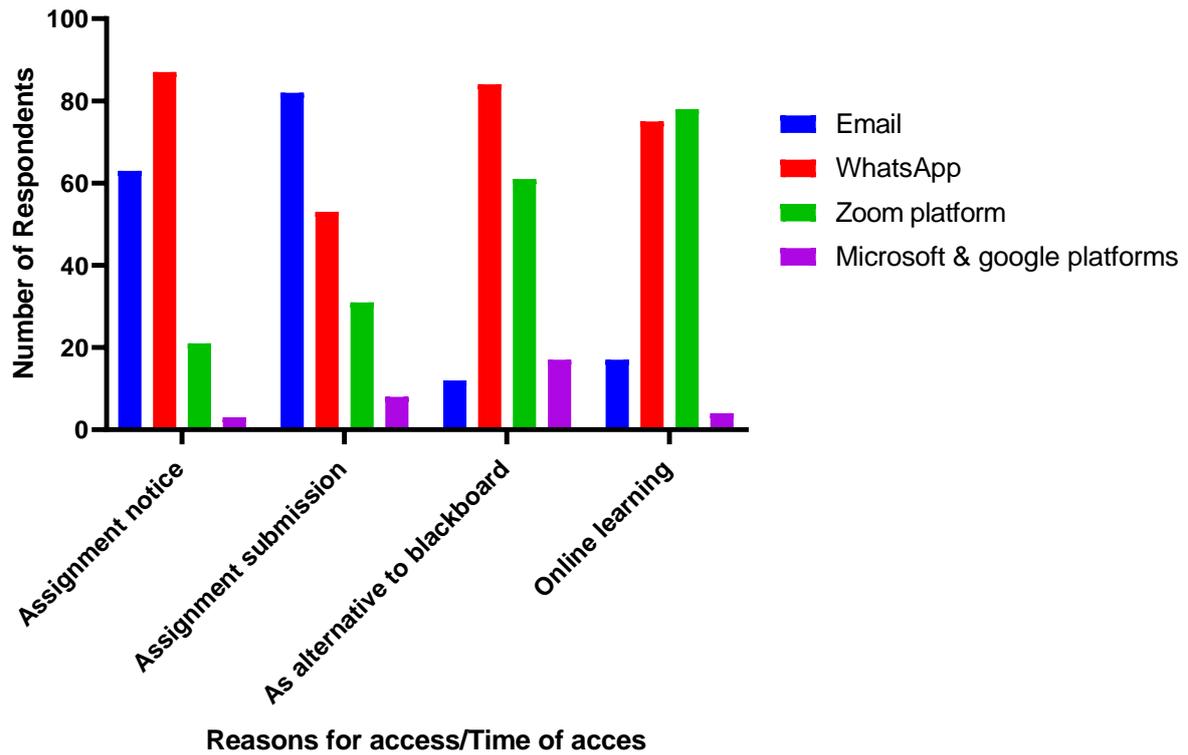
Figure 3: Medium of disseminating and receiving information

In figure 3, it can be deduced that, concerning time and space, various media of communication including social media platforms were investigated. At an alpha level of 0.05, WhatsApp was significantly ($P<0.0413$) used by authorities to send assignment notices to students. Microsoft and Google platforms recorded the lowest of usage concerning space and time with no significant ($P=0.9999$) difference at an alpha level of 0.05. An email was the second frequently used medium of communication for assignment submission and assignment notice in decreasing order of significance respectively ($P=0.0413$).

Table 4: Reasons for the need for information, knowledge, source of information, attendance of online classes, reasons, and internet connectivity

Research question/item	Frequency	Percentage (%)
When do you usually need information online?		
During online studies	41	23.56
During self-study time	19	10.92
During assignment time	81	46.55
All the time, once I am to do an academic work	33	18.97
Indicate your knowledge on the existence of the following		

Online library	54	30.86
Virtual library	39	22.29
Institutional repositories	0	0.00
E-resources	37	21.14
Databases	45	25.71
During COVID-19 and lockdown periods, where do you access information?		
Face to face library	0	0.00
Ask.com	55	31.61
Seek.com	34	19.54
Google.com	29	16.67
Facebook	16	9.20
Instagram	3	1.72
WhatsApp	30	17.24
Google Scholar	7	4.02
Have you been able to attend all your online classes during COVID-19?		
Yes	67	38.51
No	107	61.49
Chose the possible reason among those listed below		
No data	87	50.00
Laziness	14	8.05
Too busy	17	9.77
Afraid	4	2.30
Do not like the online studies	27	15.52
Lack of understanding	25	14.37
Have been visiting e-resources sites for quality information from (google scholar, SCOPUS, digital library)		
Yes	90	51.72
No	84	48.28
Chose the possible reason among the listed below		
Lack of suitable device for access	19	10.92
Poor internet connectivity for downloading	79	45.40
Lack of access to professional support	21	12.07
Poverty	55	31.61
Internet connectivity		
Poor	35	1.11
Very poor	31	17.82
Extremely poor	80	45.98
Good	16	9.20
Very good	7	4.02
Extremely good	5	2.87

From Table 4, respondents usually need information mostly during assignment time and most

(46.55) of them knew about the existence of online library while a few (30.86%) said they did

not know the existence of databases. Meanwhile, all participants did not know the existence of

institutional repositories. Also, during the COVID-19 lockdown period, most (31.61%) of the respondents indicated they get access to information from **ask.com.** They also visit **ask.com** frequently for their information needs whilst none went to the Simon Diedong Dombo University of Business and Integrated Development Studies, WA, Ghana Library during this period. Astonishingly, most (61.49%) respondents indicated they could not attend online or virtual classes organized by the Simon Diedong Dombo University of Business and Integrated Development Studies, WA, Ghana and for the reason being that, they do not have enough data and few (2.30%) said they were even afraid of having contact with the internet. About 48% indicated they do not access e-resources and reasons being poor internet connectivity for downloading. It is therefore not surprising that most (45.40%) of the respondents indicated that based on their locations, they could not get access to the internet. They indicated that internet connectivity was extremely poor.

In all, the results indicated that students lack digital literacy skills, have no devices, lack knowledge on the availability of e-resources, and their usage. Also, the various places that students usually seek for information are mostly not reliable and might translate into their academic performance.

Discussion

Demographically, the student participants were female-dominated and found not to be library friendly. The study indicated that most of these students do not usually visit the library and the few that visit the library do not also get the information they are searching for. Also, the majority are interested in books but not journal articles. Additionally, it was found out that only a few of them knew of an electronic resource and hence not a significant majority visit the online library. Nevertheless, most of these students stated that they are not on the University mailing list and hence messages sent to them through such medium do not usually get to them. With this, some of them usually call for resources and databases for usage. This means that

concerning that expected of these students, they are likely not to be able to meet them on time since they have little knowledge on the existence of e-resources, online libraries thus missing important communications from teachers and other facilities that could facilitate their online studies during the COVID-19 pandemic. Similarly, English students in a tertiary institution in Saudi Arabia were found to be missing communications with instructors, daily tasks, and duties during their online studies under COVID-19 pandemic schools' lockdowns (Mohammad Mahyoob, 2020). However, as this current paper sees problems with access to e-resources by students and its hindrances to e-learning during the COVID-19 pandemic in developing countries other papers such as one in India indicated otherwise (Dhuri & Lobo, 2021). The differences in findings from these various studies might be due to geographical location, the culture of study participants, institutional resource differences and the strength of academic and library staff.

Students' awareness of the availability of databases online is a paramount requirement for their ability to access e-resources. Findings from this study suggest that respondents who were expected to enrol and participate in online studies do know of only a handful of databases out of the plethora available. This might be a result of their inability to explore the internet using digital literacy skills. It is not surprising other findings from Pakistan (Rafiq et al., 2021) regarding the transition of libraries to online found a lack of digital literacy skills as a hindering factor to the digital migration of traditional libraries. A contrasting study in Nigeria indicated that students knew about the availability of e-resources and are using them conveniently (Bakare et al., 2015). Additionally, while the current study indicated less usage of e-resources among undergraduate students, a Tanzanian study reported the opposite (Ruzegea & Msonde, 2021). In Saudi Arabia, medical students were found to be quite knowledgeable on the availability of e-resources (AlRiyaee & Ahmed, 2017) and a Ghanaian study at the University of Cape Coast also revealed that postgraduate students know much about e-resources and prefer

to use google scholar (Ankrah & Atuase, 2018). The divergence in the various studies might be as a result of the differences in targeted student populations. While the current study investigated level 400 undergraduate students, others investigated different levels beyond level 400 and even others were postgraduate students.

The medium of communication among students and between students and instructors/library staff was found to be mostly via social media platforms such as WhatsApp. They indicated that access to e-resources/databases required some skills and devices, coupled with conditions such as good internet service and availability of internet connectivity data "bundle". These findings suit well with other findings from previous studies in Pakistan (Rafiq et al., 2021), Ghana (Akuffo & Budu, 2019; Ankrah & Atuase, 2018), Serbia (Sonawane, 2020) and India (Ansari & Tripathi, 2017). Notwithstanding, other findings indicated different mediums of communication such as one from the United States of America (Mehta & Wang, 2020). Differences in the findings of this current study and the other from the USA might be due to the level of advancement in technology. While the USA is highly developed in terms of technology and digital literacy, Ghana and the other countries are nowhere near this level of advancement.

Students in the current study were found to search for information for referencing purposes via **google scholar**, visit **ask.com** for information regarding solutions to their examinations related problems, and also visit **google.com** for information for their quizzes, assignments, exams and projects work. Additionally, students were found to know about the existence of online libraries but not databases and institutional repositories. Also, most students indicated that they were not consistent in their attendance to virtual classes for a plethora of reasons including poor internet access, lack of internet data ("internet bundle"), poor downloading activity and finally extremely poor internet connectivity. The findings from this study match with other studies in Saudi Arabia indicating low internet connectivity, downloading and lack of digital literacy as

hindering factors to students' access to online databases, virtual classes and libraries (AlRiyaee & Ahmed, 2017).

Technology is far advanced in recent times yet, countries like Ghana are lacking regarding services to tertiary students in times of difficulties like the COVID-19 pandemic. Information literacy is a course at the Simon Diedong Dombo University of Business and Integrated Development Studies, WA, Ghana but not all students offer this course and hence do not know this area. Those even offering the course are not finding things easy due to geographical disadvantages, poverty, and inadequate digital literacy. Digital literacy would have provided these students with the skills they needed, technical knowledge on sources of quality and reliable information, knowledge on digital libraries, databases and e-resources, thereby increasing access to e-resources.

While students from other universities are conveniently making good use of and benefiting from e-resources, Simon Diedong Dombo University of Business and Integrated Development Studies, WA, Ghana students are not even having sufficient knowledge on their existence, neither do they know where, when and how to access them. There is therefore an urgent need for the introduction of the information literacy course throughout all programs and levels of the University. As indicated in the results of this study, no student does not need e-resources in their lives as students.

Evidence is clear from this study that, gaining access to e-resources by students could not face the test of time and spaces as their technical expectation, resources and time do not allow them to enjoy this academic right.

Conclusion

The university library plays a central role in the academics of students in the university. The library is the source of academic information and also a major source for inquiry into university

administrative based information. During the lockdown, libraries had to migrate to an online system to allow students to gain access to information. The COVID-19 pandemic forced/challenged both students and staff in Ghana to adapt to using i online activities regarding academics. With all efforts in place, most staff and especially students of various institutions could not meet access concerning space and time for this activity due to their lack of digital literacy skills, poverty, internet connectivity, and inefficient communication systems. The following recommendations are being made to enhance ICT resources in educational institutions.

- There is currently an urgent need for the inclusion of information literacy in the courses offered in the university from level 100 to 300.

- The government of Ghana, NGOs, the university community and policymakers need to wake up and develop a rapid solution to the challenges facing student's access to e-resources exacerbating and deteriorating academic activities and looping in Ghana.

- The study also recommends that there should be periodic in service training for all students and staff regarding the updates, upgrades, and usage of electronic resources online.

- Also, all students should be effectively communicated with using their institutional emails and all problems relating to the loss of passwords should be resolved among all students.

- All databases and sources of e-resources should be made available to all students at all times.

REFERENCES

Akuffo, M. N., & Budu, S. (2019). Use of electronic resources by students in a premier postgraduate theological university in Ghana. *South African journal of information management*, *21*(1), 1-9.

AlRiyaee, S., & Ahmed, A. (2017). Knowledge and use of electronic information resources by medical students at Al-Jouf University in Saudi Arabia. *Jordan Journal of Libraries & Information*, *52*(1), 83-115.

Ankrah, E., & Atuase, D. (2018). The use of electronic resources by postgraduate students of the University of Cape Coast.

Ansari, M. S., & Tripathi, A. (2017). Use of WhatsApp for effective delivery of library and information services. *DESIDOC Journal of Library & Information Technology*, *37*(5), 360.

Bakare, D. O., Bamigboye, B. O., & Chiemenem, M. C. (2015). Students' Perception of E-Resources in an Academic Library: The Federal University of Agriculture, Abeokuta Experience. *Information Impact: Journal of Information and Knowledge Management*, *6*(1), 105-116.

Dhuri, K. R., & Lobo, J. (2021). N-LIST E-Resources: A Major Boon To The User Community During Covid-19 Pandemic Era: A Study. *Library Philosophy and Practice*, 1-16.

Jandrić, P., Hayes, D., Levinson, P., Christensen, L. L., Lukoko, H. O., Kihwele, J. E., Brown, J. B., Reitz, C., Mozelius, P., & Nejad, H. G. (2021). Teaching in the Age of Covid-19—1 Year Later. *Postdigital Science and Education*, *3*(3), 1073-1223.

Kavithanjali, J. (2019). E-Resources: Their Importance, Types, Issues and Challenges: An Analysis. *IJRAR-International Journal of Research and Analytical Reviews*, *6*(1), 775-778.

Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal (AWEJ)*, *11*(4).

Mahyoob, M. (2020). Challenges of e-Learning during the COVID-19 Pandemic Experienced by EFL Learners. *Arab World English Journal*, *11*(4).

Mehta, D., & Wang, X. (2020). COVID-19 and digital library services–a case study of a university library. *Digital library perspectives*.

Panganayi, M. (2020). COVID-19 Lockdown and higher education. Time to look at disaster preparedness as a governance issue? *Inkanyiso*, *12*(1), 24-35.

Rafiq, M., Batool, S. H., Ali, A. F., & Ullah, M. (2021). University libraries response to COVID-19 pandemic: A developing country perspective. *The Journal of Academic Librarianship*, *47*(1), 102280.

Roman, R. G., Spencer, C. P., Trobada, F. P., Gaton, C. K. G., Solomon, A. O., Cuenco, H. O., & Daenos, R. C. (2020). A study on the utilization of e-resources among college students. *International Journal of Knowledge Engineering*, *6*(1), 24-29.

Ruzegea, M., & Msonde, S. (2021). University Students' E-Resource Usage: Predictors, Problems and Practical Implications. *International Journal of Education & Development using Information & Communication Technology*, *17*(2).

Sonawane, C. S. (2020). The Use of Internet Tools by Indian LIS Professionals for Providing Support Services During the COVID-19 Pandemic. *Librarian-Journal of Librarianship Theory and Practice*, *62*(2), 9-20.