

The Impact Of COVID-19 On Academic Library Service Delivery In Zimbabwe

Josiline Chigwada

Abstract:

The higher and tertiary education system was greatly affected by the COVID-19 pandemic leading to tremendous changes in service delivery in academic libraries. All the higher education stakeholders were affected including lecturers, students, researchers, and librarians, and they were forced to adjust accordingly in order to remain relevant. A survey was done using a multiple case study design where online questionnaires were distributed and participant observation were used to collect data from three academic libraries in Zimbabwe. It was discovered that academic libraries changed the way they deliver their services to meet the new demands when teaching and learning was shifted to online as a way of curbing the spreading of the virus. The author recommends that academic librarians should be continuously trained to deal with the skills gap created by the COVID-19 pandemic. There is need to provide appropriate information and communication technology infrastructure and the supporting policies and guidelines for academic libraries to continue supporting the research, teaching and learning activities in the COVID-19 environment.

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The Impact of COVID-19 on Academic Library Service Delivery in Zimbabwe

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ABSTRACT

The higher and tertiary education system was greatly affected by the COVID-19 pandemic leading to tremendous changes in service delivery in academic libraries. All the higher education stakeholders were affected including lecturers, students, researchers, and librarians, and they were forced to adjust accordingly in order to remain relevant. A survey was done using a multiple case study design where online questionnaires were distributed and participant observation were used to collect data from three academic libraries in Zimbabwe. It was discovered that academic libraries changed the way they deliver their services to meet the new demands when teaching and learning was shifted to online as a way of curbing the spreading of the virus. The author recommends that academic librarians should be continuously trained to deal with the skills gap created by the COVID-19 pandemic. There is need to provide appropriate information and communication technology infrastructure and the supporting policies and guidelines for academic libraries to continue supporting the research, teaching and learning activities in the COVID-19 environment.

Keywords: COVID-19 pandemic, Academic libraries, Library services, Lockdown, Zimbabwean libraries

INTRODUCTION

The COVID-19 pandemic brought some challenges leading to the pronouncement of lockdown in Zimbabwe as a way of protecting people from the virus by minimizing physical interaction. In December 2019, the COVID-19 virus was discovered in Wuhan, China and it spread to all the other countries worldwide killing a lot of people. The disease was then declared as a Public Health Emergency of International concern on 30 January 2020 and a global pandemic on 11 March 2020 by the World Health Organisation and finally a national disaster in Zimbabwe on 17 March 2020 (Mutambisi, Murasi & Mazodze 2021). The education sector was forced to close the physical facilities including libraries although teaching and learning was supposed to continue (Itachomphoo & Bown, 2021; Dobрева, 2020). This study was done to assess the academic library landscape in the COVID-19 pandemic era by addressing the following objectives:

1. Assess the ways of library service delivery in academic libraries in Zimbabwe in the COVID-19 pandemic era.

2. Define what caused the changes in academic library service delivery in the COVID-19 pandemic era.
3. Discuss the lessons learnt by academic libraries in responding to the outbreak of the COVID-19 pandemic.

LITERATURE REVIEW

Library service delivery during the COVID-19 pandemic

A report by Pokhrel and Chhetri (2021) showed that close to 1.6 billion learners were affected in more than 200 countries in the teaching and learning sector when the traditional face to face learning was abolished due to the spread of the COVID-19 pandemic. Although there was an option of continuing teaching and learning online, there were challenges that were faced in terms of affordability, flexibility, accessibility, learning pedagogy, lifelong learning and educational policies which were not experienced before (Murgatroid, 2020). However, there were also opportunities that were brought about by the COVID-19 pandemic which include the increased use of web conferencing tools such as Zoom, Google meet, Google Classroom, and the BigBlueButton among others in delivering lectures, and the use of social media platforms and group chat facilities such as Telegram, WhatsApp, and WeChat in delivering online lectures. This shows that there was increased exploitation of e-learning systems according to Pokhrel and Chhetri (2021). Medawar and Tabet (2021) added that educational institutions adopted survival strategies to avoid loss of business and possible closure. They added that when physical libraries were closed, library services became virtual so as to cater for the patrons who greatly needed the services. Guidelines were developed by governing institutions such as the International Federation of Library Associations and Institutions (IFLA) and the American Library Association (ALA) to assist libraries in providing services in the new normal. Toolkits were also developed by publishers in partnership with libraries so that patrons would be able to refer to them to access services as a way of dealing with the COVID-19 pandemic challenges (Medawar and Tabet, 2021).

Some studies showed that the use of websites for some libraries in the United States of America went down after the COVID-19 pandemic (Connell, Wallis & Comeaux, 2021). However, this was not in sync with what transpired in some three institutions which are Louisiana State University, Northeastern Illinois University and Valparaiso University libraries where there was an increase in virtual communication during the same period. Rafiq, Batool, Ali and Ullah (2021) established that librarians were supposed to work from home and this increased their work load although there was no guiding policy to deal with the changes in the new normal. As a result, librarians noted the issue of the digital divide, lack of information and digital literacy skills, and connectivity challenges as the deterring factors in fully implementing online services in academic libraries during the COVID-19 pandemic era (Rafiq, Batool, Ali & Ullah, 2021).

What caused changes in service delivery

Ncube and Nyabadza (2020) in the report by the Zimbabwe Library Association pointed out that academic libraries in Zimbabwe were forced to extend their loan periods to avoid the levying of fines amongst the library patrons since there was restricted movements during the lockdown period. There was also a need to subscribe to electronic resources to increase the access base of the information resources that were provided by academic libraries to ensure that patrons were able to access the materials from wherever they are as long as they were connected to the internet.

There was also an increase in the utilization of social media platforms in delivering various services although there was an issue of data charges which were exorbitant and out of reach for many academic librarians and patrons (Ncube & Nyabadza, 2020).

Academic libraries were greatly affected in terms of collection development and management (Medawar & Tabet, 2021) since patrons could not access the library services and products as they used to do before the pandemic. This called for a paradigm shift among publishers and other providers of e-resources in terms of service provision as a way of responding to the challenges presented by the COVID-19 pandemic. Publishers provided support to librarians in delivering uninterrupted access to e-resources and those who were subscription based also ended up providing open and free access to their e-resources to enable the smooth continuation of the teaching and learning process (Medawar & Tabet, 2021). Library leaders were faced with difficult situations due to financial constraints and budgetary cuts in the wake of the COVID-19 pandemic as they were forced to increase their investments in digital services and products (Frederick & Wolff-Eisenberg, 2020). However, there were challenges faced in transitioning to online service provision leading to the less usage of web pages and online resources in some academic libraries (Muhamad et al., 2020). These included but were not limited to slow internet connectivity, expensive data charges, poor digital literacy skills to navigate the digital environment, and the digital divide. In view of the above, librarians were supposed to promote the virtual services (Itachomphoo & Bown, 2021; Frederick & Wolff-Eisenberg, 2020) and this was done through the online public access catalogue (OPAC) which were embedded on the library webpages.

New services due to the COVID-19 pandemic

Although there were changes in collection development and maintenance, low internet penetration and poor mobile broadband access in some areas greatly affected the access and usage on these online information resources (Baloch & Musyani, 2020). As a result, Cox (2020) summarized that new services, space redesign and new collection strategies should be developed in order to be successful in the COVID-19 pandemic era. Tsekea and Chigwada (2021) added that normal operating procedures were disrupted by the COVID-19 pandemic and academic librarians were supposed to introduce innovative strategies to meet the changing needs of the patrons. However, in Zimbabwe, most academic librarians were not prepared for physical closure of the library buildings (Chigwada, 2021) due to the challenges pointed out although some saw this as an opportunity to enhance the library services during that period (Chigwada, 2021a). Librarians had to assist the patrons to get full text articles through various training workshops and seminars as well as to develop how to guides to be utilised by patrons while they were away from the physical libraries (Koos, Schenfeld, & Larson, 2021). Video tutorials were very handy during the pandemic times and the use of social media platforms such as Facebook, Twitter, Instagram, WhatsApp, YouTube, LinkedIn and Telegram (Lobo & Dhuri, 2021) were taken advantage of to provide virtual services and assistance to patrons. Librarians have been utilising web conferencing tools such as Zoom, WebEx, BigBlueButton, Google Meet, Microsoft Teams among others to offer webinars, one on one consultation, and instructional workshops. The use of open educational resources in academic libraries in developing countries increased since most of them were not able to subscribe to electronic information services (Dadhe & Dubey, 2020). As a way of decongesting library physical spaces, librarians were supposed to work from home using emails and social media platforms to communicate with patrons. Libraries that did not close during the lockdown period

were forced to implement social distancing measures and the removal of reading desks and chairs so that patrons do not sit in the libraries (Dadhe & Dubey, 2020).

Lessons learnt from the COVID-19 pandemic

The lessons learnt from COVID-19 pandemic showed that it is crucial to have disaster management plans and it is key to prepare for reopening in times of disasters. Harris (2021) emphasized the importance of pandemic and business continuity plans to avoid service disruptions in times of disaster. Institutions of higher learning should invest in technologies that enhance access to electronic information resources and offering virtual reference services when patrons are learning from home. Virtual library tours and orientation would assist in educating patrons on how to navigate the electronic library and the video tutorials would be guiding the patrons as they access the library services and products from home (Rafiq, Batool, Ali, & Ullah, 2021). In such cases, institutions should assist librarians by providing resources and infrastructure needed to offer the virtual services such as laptops, internet connectivity and data charges among other things (Tseke & Chigwada, 2021). Academic librarians should also continuously develop themselves to stay in the game and remain relevant in the online teaching and learning era, i.e. they should upskill and reskill themselves to possess the requisite skills to be able to deliver the virtual services (Lobo & Dhuri, 2021). Remote access to library resources is now essential so that all the patrons are able to access the resources wherever they are as long as they are connected to the internet (Howes, Ferrell, Pettys & Roloff, 2021), calling for a hybrid model which is more inclined to the provision of online information resources.

METHODOLOGY

A qualitative research approach using the interpretivist paradigm was adopted whereby a multi-case study design was used to collect data from three academic libraries in Zimbabwe using online questionnaires and participant observation using an observation check list. The two data collection methods were used to complement each other and the researchers were able to get firsthand information at the same time getting the views of those who were part of the team that provided the services during the lockdown period. Five librarians from the senior management levels from each academic library were purposively selected using stratified random sampling to take part in the study, i.e. 15 academic librarians were part of the study. They were drawn from the library management, technical services, reader services, circulation, and information technology sections of the participating libraries. There was a 100% response rate from the participants. The data were analyzed using content analysis and were presented thematically using the objectives of the study. Same questions from the questionnaire and the observation checklist were grouped together to develop theme nodes to make the analysis more systematic and rigorous using a deductive coding approach. The participants and institutions of higher learning were anonymized for confidentiality purposes. They were given the names library A, B and C.

FINDINGS AND DISCUSSION

Changes brought about by the COVID-19 pandemic

It was noted that a number of changes were brought about by the COVID-19 pandemic in academic libraries and all the library staff and patrons observed the guidelines provided by the World Health Organisation (WHO) as well as the various ministries of health to deal with the spreading of the

virus. Seven participants pointed out that they were using sanitizers upon entering the library and the returned books were put in book drops, then discharged after 48 hours to avoid direct contact with library staff in the event that they were contaminated. All the library staff and patrons were mandated to wear their face masks properly, use foot baths on library entrances, working from home to decongest the library, observing social distancing by putting marks on the floor and allowing limited numbers of students to enter the library building, and the use of virtual services in accessing library resources. Library staff were assisting patrons online using various platforms such as WhatsApp, Live Chat, Zoom, Microsoft Teams, BigBlueButton, and Google Meet among others. This concurs with what was stated by Medawar and Tabet (2021) who concluded that the use of online services was necessitated mainly by the closure of physical library spaces as a way of providing access to library resources and services. Four participants added that WhatsApp groups were created by subject librarians to assist patrons as stated by Lobo and Dhuri (2021) who talked about the use of social networking sites to reach out to patrons who would be learning and teaching from home. Two participants also added that the returned books were not immediately discharged but they were quarantined and their academic libraries were encouraging the use of off campus access to e-resources using platforms such as RemoteXs and Ezproxy. One participant stated that the loan period was extended to limit frequent visits of patrons to the library as was pointed out by Ncube and Nyabadza (2020). One participant stated that there was need to create small instructional videos to guide the patrons when they access the library resources from home. He added that more open access resources should be availed through the library web pages as stated by Dadhe and Dubey (2020) who emphasized the increase in the use of open educational resources in the teaching and learning process due to the COVID-19 pandemic. One participant indicated that their library reduced the seating capacity to meet the social distance rule by rearranging the chairs and tables. Another participant added that the subject librarians worked with the faculty to identify core electronic textbooks for each course and used a patron driven acquisition model to buy the books. This is in line with what was stated by Koos, Schenfeld, and Larson, (2021) and Rafiq, Batool, Ali and Ullah (2021) who said that there is need to reinforce virtual and online services and ensure that library staff are working from home to avoid disadvantaging patrons who would be in dire need of library services and resources.

New services offered during the COVID-19 pandemic period

Findings from participant observation showed that the delivery of services changed during the COVID-19 pandemic times whereby new services were introduced and some services were suspended as stated by Chigwada (2021a). All the three institutions were forced to offer virtual reference services in order to answer various reference queries that were posed by patrons. Institution A and C were not utilising the live chat facility because of issues from the information technology department who were managing the IT section of the library and were not willing to introduce that facility. Institution B was using live chat during the working hours only. After hours, the library staff were not able to get the data and the gadgets to use to offer the live chat service. All libraries were using e-mail, social media platforms such as WhatsApp and Facebook while one library had an active twitter handle. Two libraries closed their physical reference desks and queries were strictly answered online while one library opened its desk while strictly observing social distance measures. The circulation services were suspended and the desks were only open for returns since there were no self-service points in all the three libraries. The returned books in all the libraries were quarantined though for different times, that is, 6 days for library A, 3 days for library B and one week for Library C. Sanitizing of hands and surfaces were done in all the libraries

and there was a pedal sanitizer at the entrance in library A, an automated sanitizer dispensing machine in library B which was also used for temperature checks, and in library C a security guard was sanitizing patrons and library staff upon entering the library. All the libraries were fumigated though at different intervals, i.e. library A and B it was not scheduled but for library C, it was done every week. Library staff members in all the libraries were encouraged to self-isolate after getting into contact with an infected person or when they develop COVID-19 symptoms. Notices for observing the WHO guidelines and COVID-19 protocols were posted in all the libraries.

In terms of research support services, the findings showed that library A offered information literacy sessions and other trainings online using web conferencing tools. Library A was also in the process of developing how to guide and video tutorials, library B had how to guides on the library webpages and on social media platforms, while library C was also developing how to guides for all the libraries services. The libraries were offering research support services using various platforms such as email, Zoom, Google meet, BigBlueButton and social media platforms. Meetings with patrons were also done online using these different platforms. The rationale for implementing these changes was the importance of safeguarding the staff and patrons from the deadly disease, to reach out to more patrons as well as to meet the requirements and guidelines of WHO and the Government of Zimbabwe during the lockdown period. This was supported by Itachomphoo and Bown (2021) who indicated that in person classes were suspended and teaching and learning was entirely online and the library was supposed to remain relevant in such cases. Five participants indicated that the changes were done to increase the accessibility and usage of information resources while combating the spread of the deadly disease. These were from the reader services section who are responsible for coordinating research support services in their libraries.

Challenges faced during the COVID-19 pandemic period

The challenges that were faced by these three libraries were similar as indicated by the findings where the librarians were lamenting over the absence of support from university management in providing data and laptops for use for trainings, meetings and webinars when working from home. This supported what was stipulated by Muhamad et al., (2020) who found out that university librarians were at different levels in terms of possessing the necessary skills and infrastructure needed to benefit fully from virtual services. The major barriers that were experienced include the lack of digital literacy skills, and the digital divide which caused poor internet connectivity in some areas. This greatly affected the movement from the physical to the online mode of learning leading to poor usage of some electronic information services. The issue of accessing electronic information resources was affected by power outages and poor network connection due to the locality of patrons especially those who were in rural areas. This was worsened by poor information and digital literacy skills among some library staff and patrons making the online communication process difficult. The other challenge was late renewals of electronic resources subscription due to budgetary constraints complicating the accessibility of the library resources.

All the participants indicated that the physical closure of libraries due to the lockdown measures was another drawback since patrons were not able to access the print resources, physical reference services, library computers, reading area, photocopying and printing services. Murgatroid (2020) pointed out that there were some challenges that were presented by online learning such as educational policy changes, affordability, need for information and digital literacy

skills, new pedagogy, poor internet connection among others. The participants proposed a number of solutions which included the provision of gadgets and data bundles to library staff members who provided trainings so that they are able to assist patrons after working hours as well as those who would be working from home. A study by Rafiq, Batool, Ali and Ullah (2021) supported this but also added that it increased the workload of library staff and there was no policy for these emerging issues. As innovative measures, three participants indicated that, librarians used cheaper facilities like WhatsApp and email to communicate with patrons. Ncube and Nyabadza (2020) highlighted the use of WhatsApp in delivering research support and reference services since even the librarians endured the high data costs. This was caused by the closure of library buildings as indicated by Medawar and Tabet (2021). The use of open access resources was also encouraged especially for those libraries facing challenges in subscribing to good databases. However, one participant stated that nothing was done at their library as they just waited for the lockdown to end in order to resume services.

Participants gave six recommendations in dealing with the challenges of COVID-19 to offer efficient library services. The recommendations were subsidizing internet and electronic resources subscriptions, equipping staff and patrons to work from home by providing the necessary infrastructure and skills for teleworking, upgrading the ICT infrastructure and ensuring that the servers are always up and running, enhancing library services to meet the changing needs of patrons in the digital environment, development of software that offer remote access to information resources and services, and educating librarians about the online teaching and learning process. This would enhance the usage of various online platforms since the data charges in Zimbabwe are very high. One of the participant indicated that universities should provide laptops and data to students so that they are able to fully utilise the electronic information resources from home. Another one added that libraries should introduce interactive platforms so that they are able to assist patrons with reference and research support queries timeously. This would help in addressing inequality issues that were noted by Altback and de Witt (2020) who talked about the digital divide where some students are able to get the necessary resources for online learning while others do not have access to them. It was noted from the results that there is need to deal with the negative perceptions of operating in the new normal. One of the participants stated that librarians should embrace the changes brought about by COVID-19 which are different from the old traditional ways of offering library services. In the new normal there is need for innovative ideas and the provision of data and laptops or smartphones to successfully assist patrons. Four participants indicated the need to redesign library spaces and re-strategise on service provision since physical spaces were affected as confirmed by Pokhrel and Chhetri (2021).

Lessons learnt from the COVID-19 pandemic

The findings showed that there were some lessons learnt from the COVID-19 pandemic since there was need to provide personal protective clothing (PPE) and to support the online teaching and learning process. The WHO and ministry protocols and guidelines were adhered to in all the libraries and to ensure that social distancing measures were followed, librarians formed WhatsApp groups with students to decongest the physical spaces. This is similar to what was found out by Murgatroid (2020) who stated that the COVID-19 pandemic brought about some changes on how things are done in the new normal including the teaching and learning process. The same findings reaffirm the findings of Tsekea and Chigwada (2021) who indicated that librarians should be innovative when dealing with the issues brought about by the new normal. The results showed an

increase in the use of WhatsApp in providing virtual services to the patrons as stated by Pokhrel and Chhetri (2021) and Ncube and Nyabadza (2020). Libraries enhanced their webpages so that they became the central portal for accessing all library services. However, this is against what was said by Connell, Wallis and Comeaux (2021) who noted that the use of web pages went down in some of the libraries in the United States of America during the lockdown period. The three libraries upgraded their Wi-Fi facilities and librarians were trained to offer the virtual services in the new normal. All the three libraries were carrying out monitoring and evaluation exercises to assess how patrons were utilising the library resources and services to improve the efficiency and effectiveness of the online platforms that were used by the libraries as stressed by Itachomphoo and Bown (2021).

CONCLUSIONS AND RECOMMENDATIONS

It can be concluded that academic libraries were greatly affected by the COVID-19 pandemic leading to a number of changes which affected service delivery. Some librarians saw this as an opportunity to introduce new changes while others were negatively affected by the new normal. Remote access to electronic information resources was key to enhance the teaching and learning process which was entirely online. The major challenges that were faced by librarians were high data costs, lack of gadgets to use at home, lack of skills to use online platforms, and lack of support by management to provide the necessary training and resources during the pandemic period. Academic librarians in Zimbabwe embraced the safety measures recommended by WHO and the ministry to curb the spread of the virus. Efforts were made to ensure that service provision was not disrupted during the closure of physical buildings although one library suffered from lack of support from university management in providing the needed resources to operate in a virtual environment.

The author recommends the need to invest in infrastructure that enable access to electronic information resources both on and off campus, and the patrons should be trained on how to access and use these services. There is need to encourage lecturers to utilize open educational resources if there are financial challenges in subscribing to e-resources. The development and dissemination of subject guides and how to guides in the form of short video tutorials would assist patrons as they access information resources from home. These guides can be uploaded on the library webpages and disseminated via various official social media platforms in an easy to access format. In order for patrons to utilise the new services and products, training should be done and the librarians should possess the skills of offering online training sessions using various video conferencing tools. University management should be intentional in providing the needed support to librarians especially the provision of data bundles and gadgets needed to efficiently work from home. Librarians should also continuously upgrade themselves through webinars, workshops, conferences, online courses to grasp and deal with the demands of the new normal as a continuous professional development measure.

The Government of Zimbabwe should also support higher education institutions by providing data subsidies so that data is affordable for patrons to connect to the internet from home. POTRAZ should assist in the review of internet access tariffs for educational purposes working with the Zimbabwe Academic and Research Network (ZARNET) as well as other stakeholders. For example, some higher education institutions can engage the internet service providers such as econet, netone, africom, telone and negotiate for better rates for students, or the accessing of

academic websites without charging internet access. As at 26 May 2022, accessing an 8GD data bundle for a month on private Wi-Fi ranges from \$4320 to \$6500 depending with the service provider. This is beyond the reach of many not mentioning the students who mainly depend on assistance from their parents and guardians.

The promotion of online teaching and learning should be done so that students won't be affected in prolonging the time they should finish their studies when there are lockdowns. Some students and lecturers had been shunning online teaching and learning due to the data challenges that had been explained above. There is need to develop policies, guidelines, and standard operating procedures to be followed in offering and accessing library services during the pandemic era to reduce the spreading of the disease. However, librarians cannot do this alone but there is need for a stakeholder approach whereby all those involved in higher education come together for the good of academic libraries. These include but are not limited to the university management, library schools, library consortia, ministry of higher and tertiary education, library associations, librarians and patrons. This stakeholder approach would ensure that no one is left behind in dealing with the challenges that affect academic libraries as well as teaching and learning in higher education institutions in times of pandemics.

References

- Altbach, P.G. & de Wit, H. (2020). Post pandemic outlook for HE is bleakest for the poorest. *University World News*, April 4.
- Baloch, S. M. & Musyani, Z. (2020, July 8). Pakistan's great digital divide. Retrieved from. *The Diplomat*. Accessed from: <https://thediplomat.com/2020/07/pakistans-great-digital-divide/>. Accessed on 4 June 2021.
- Chigwada, J.P. (2021). Preparedness of librarians in Zimbabwe in dealing with COVID 19 library closure. *Qualitative and Quantitative Methods in Libraries*, pp.107-116.
- Chigwada, J.P. (2021a). Opportunities and Challenges Offered by the Effects of the COVID-19 Pandemic on Academic Libraries. In *Handbook of Research on Library Response to the COVID-19 Pandemic* (pp. 342-357). IGI Global.
- Connell, R. S., Wallis, L., & Comeaux, D. (2021). The Impact of COVID-19 on the Use of Academic Library Resources. *Information Technology and Libraries*, 40(2). <https://doi.org/10.6017/ital.v40i2.12629>.
- Cox, C. (2020). Changed, changed utterly. *Inside Higher Ed*. Accessed from: <https://www.insidehighered.com/views/2020/06/05/>. Accessed on 4 June 2021.
- Dadhe, P.P. & Dubey, M.N. (2020). Library services provided during Covid-19 Pandemic: content analysis of websites of premier technological institutions of India. *Library Philosophy and Practice (e-journal)*. 4445. Accessed from: <https://digitalcommons.unl.edu/libphilprac/4445>. Accessed on 4 June 2021.

- Dobрева, M. (2020). *The impact of COVID-19 pandemic on digital transformation in libraries*. Accessed from: <https://milendobрева.net/2020/05/31/the-impact-of-covid-19-pandemic-on-digital-transformation-in-libraries/>. Accessed on 4 June 2021.
- Frederick, J.K. and Wolff-Eisenberg, C., 2020. *The Impact of COVID-19 on Academic Libraries*. Accessed from: <https://sr.ithaka.org/blog/the-impact-of-covid-19-on-academic-libraries/>. Accessed on 4 June 2021.
- Harris, S.Y. (2021). The coronavirus pandemic in the Caribbean academic library: Jamaica's initial interpretation of strengths, biggest impact, lessons and plans. *Library Management*, 42 (6/7), pp. 362-375. <https://doi.org/10.1108/LM-10-2020-0149>
- Howes, L., Ferrell, L., Pettys, G. & Roloff, A. (2021). Adapting to remote library services during COVID-19. *Medical Reference Services Quarterly*, 40(1), pp.35-47.
- Itahchomphoo, C. & Brown, M. (2021). Canadian university research libraries during the early days of the COVID-19 pandemic. *The Canadian Journal of Information and Library Science/La Revue canadienne des sciences de l'information et de bibliothéconomie*, 44(1), pp.70-81.
- Koos, J.A., Scheinfeld, L. & Larson, C. (2021). Pandemic-Proofing Your Library: Disaster Response and Lessons Learned from COVID-19. *Medical Reference Services Quarterly*, 40(1), pp.67-78.
- Lobo, J. & Dhuri, K.R. (2021). Positive Impact of Covid-19 Pandemic in Enhancing Digital Literacy Skills Among Library Professionals: A Study. *Library Philosophy and Practice (e-journal)*, 5243. Accessed from: <https://digitalcommons.unl.edu/libphilprac/5243>. Accessed on 4 June 2021.
- Medawar, K. & Tabet, M. (2020). Library collections and services during Covid-19: Qatar National Library experience. *Alexandria*, 30(2-3), pp.178-190.
- Muhammad, R., Hina, B.S., Farzand, A.A. & Ullah, M. (2021). University libraries response to COVID-19 pandemic: A developing country perspective [J]. *The Journal of Academic Librarianship*, 47(1). <https://doi.org/10.1016/j.acalib.2020.102280> .
- Murgatrottd, S. (2020). COVID-19 and online learning. *Alberta, Canada*. doi:10.13140/RG.2.2.31132.8512.
- Mutambisi, S., Murasi, D.D. & Mazodze, C. (2021). The Impact of the Covid-19 Pandemic on Student Affairs Practitioners: A Reflective Case Study from Bindura University of Science Education in Zimbabwe. *Journal of Student Affairs in Africa*, 9(1), pp.183-196.
- Ncube, H. & Nyabadza, B. (2020). *Zimbabwean libraries in the COVID 19 era: Libraries adapting to global change and supporting livelihoods during an epidemic*. Accessed from : https://www.ifla.org/files/assets/hq/topics/libraries-development/documents/zimla_report.pdf. Accessed on 4 June 2021.

- Pokhrel, S. & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. *Higher Education for the Future*, 8(1), pp.133-141.
- 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), pp. 1-10. <https://doi.org/10.1016/j.acalib.2020.102280>.
- Tsekea, S. & Chigwada, J.P. (2021). COVID-19: strategies for positioning the university library in support of e-learning. *Digital Library Perspectives*, 37 (1), pp. 54-64. <https://doi.org/10.1108/DLP-06-2020-0058>

APPENDIX 1: QUESTIONNAIRE

This is a short survey to document your experience on the changes that were caused by the COVID-19 pandemic in your library. The questionnaire will take 10-15 minutes of your time and all the responses are anonymous. They will be used for academic purposes only and will be treated with confidentiality. You are free to withdraw from the study any time.

For questions concerning the questionnaire and the study, please feel free to contact me at jchigwada@cut.ac.zw or 0733782906.

1. What new services were introduced at your library during the COVID-19 pandemic period?
2. What caused these changes?
3. What challenges did you face in serving your patrons as a result of the COVID-19 pandemic?
4. How did you solved those challenges?
5. What lessons did you learn during the COVID-19 pandemic era?

APPENDIX 2: OBSERVATION CHECKLIST

	LIBRARY A	LIBRARY B	LIBRARY C
REFERENCE SERVICES			
Live chat			
WhatsApp			
E-mail			

Facebook			
Twitter			
Reference Desk			
Orientation programs			
CIRCULATION SERVICES			
Self-check in and out			
Quarantining books			
Suspension of borrowing			
Sanitizing hands and surfaces			
Social distance measures			
Fumigation of libraries			
Notices about COVID-19			
RESEARCH SUPORT SERVICES			
How to guides			
Video tutorials			
Use of social media			

Use of web conferencing tools			
Information literacy training			

About the author

Josiline Chigwada is the Deputy Librarian at Chinhoyi University of Technology where she teaches information and digital literacy skills. She holds a doctorate in Information Science, Master of Science Degree and Bachelor of Science Honours Degree in Library and Information Science, and a Postgraduate Diploma in Tertiary education. She has published books, book chapters, journal articles, and conference proceedings. She is a member of the Zimbabwe Library Association (ZimLA), Association for Information Science and Technology (ASIS&T), Institute of Directors in Zimbabwe (IODZ), and Zimbabwe Academic and Non-fiction Authors Association (ZANA) and a Rotarian of the Rotary Club of Msasa.