

The influence of Covid-19 pandemic on academic performance of University students in Zimbabwe

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Abstract

The immediate response to preventing the spread of Covid-19 by many countries was to go into lockdown which led to the closure of many tertiary institutions and transformation to online teaching and learning. The purpose of this study was to assess challenges affecting the performance of students at tertiary institutions in Masvingo and their social wellbeing due to Covid-19 induced lockdowns. The research was carried out in one school at a local university using a semi-structured questionnaire for students and interviews for lecturers. Only 6.25% of all respondents indicated that the pandemic did not impact on how lectures were conducted. The most used and preferred online learning/study material dissemination platforms were ranked as follows Whatsapp > Google classroom > email. Chi square test showed a significant ($p < 0.05$) association between gender and the most preferred learning platform. Main challenges presented by the lockdowns for both male and female students were high data costs and poor internet connectivity. The lecturers observed that online teaching was being affected by high data costs, failure by universities to supply data and the unavailability of electronic gadgets. There was a significant association (Chi square test, $p < 0.05$) between gender and social effects of Covid-19 pandemic with struggle to paying university fees being the common problem among both male and female students. According to this study, Online learning and Teaching using Whatsapp was the most effective way to go under Covid-19 induced lockdown. Research needs to be done in different schools that is including arts and commerce.

Keywords: Covid-19; online teaching; lockdown; learning platform; poor internet connectivity

Introduction

The number of students enrolling at tertiary institutions in Africa and Zimbabwe in particular has been on an increase since the late 1990s into the new millennium with approximately 170 percent increase (The Herald 2015). As a result, the tertiary education system is now under severe strain to cater for this growth and cater for future demands. Some of the problems faced by tertiary students include lack of financial resources to pay for university fees and research, poor access to conducive and good accommodation, poor access to study material including poor to no internet connectivity as well as poor commitment by the governments to provide resources for tertiary institutions. The Covid-19 pandemic which started in Wuhan, China in 2019 Shahzad et al. (2020) has only worsened these problems as families struggle financially to make ends meet and provide for their family members at tertiary institutions. Many countries' economies have been severely affected by Covid-19. This has only worsened the problem of poor funding of tertiary education by many governments as they try to balance spending.

The immediate response to trying to contain covid-19 by many countries was going into lockdown leading to closure of many tertiary institutions. Due to the Covid-19 pandemic, universities were forced stop face to face teaching sending students home (Shahzad et al. 2020). Since the outbreak and spread of Covid-19 across Africa, several governments have responded by closing tertiary institutions as they try to contain the spread of the virus since social distancing is one way of trying to contain the spread of the virus (Mahaye 2020). In Zimbabwe, the government of ordered full lockdown on the 24th of March 2020. According to a report by Mawazo Insitute (2020), up to 83 % of tertiary students interviewed reported disruptions in their studies due to covid-19 pandemic in southern Africa.

In most African countries face to face teaching is the common mode of teaching. Therefore, physical closure of tertiary institutions meant disruption of the curriculum which might last for long period to get back to normal and in some cases might result in students permanently dropping out of tertiary institutions. As institutions try to adjust and continue teaching and learning, there was a shift to online operations. Closure of face to face teaching has led to universities moving to online portals (Shahzad et al. 2020). Some of the online learning platforms which have been and are being used include Google classroom, Noodle, Big Blue Button, E-kampus among others. However, not all students have access to this online

teaching due to various reasons with poor access to reliable internet and data costs being major issues. In order to write assignments, students require relevant source materials to read and research on.

With poor access to internet, students end up producing substandard assignments which compromise on their coursework assessment marks and the subsequent final course mark and eventually lower their final degree class. For those students doing their final year, they are expected to carry out research as part of the requirements. Poor access to fast and reliable internet means they can struggle to access research material in the form of relevant papers and other sources of information. This is likely to result in production of poor quality dissertations which compromise on the integrity of university research. According to a report by Mawazo Institute (2020), the Covid-19 pandemic has damaged the research morale significantly. Many students lack ideal electronic gadgets for online learning. Without such technology students will not be able to access online teaching material which negatively impact on their studies.

The change to online teaching mean tertiary students are spending more time doing nothing at home and this comes with its own challenges such as anxiety and uncertainty among other things. Idleness and lack of access to financial needs creates stressful situations which may lead to one resorting to abusing drugs as a way of forgetting their problems. Other challenges of working from home include disturbance by family members.

Lack of participation in online teaching means some tertiary students might not have access to enough and relevant study material and this may result in such students either failing their exams or attaining poor pass mark which might not be the case if they attended normal face to face teaching. Unfortunately, the Covid-19 pandemic effects and impact on student academic performance and social well-being is not exactly known in Zimbabwe. (UNESCO International Institute for Higher Education 2020), highlighted that, currently there is no data on what students think are the major problems brought by the pandemic. Therefore, this study seeks to check on the challenges students face and the effects of Covid-19 pandemic induced lockdown on students' academic performance and social well-being.

Research questions

This study was guided by the following research questions.

1. To what extent does the Covid-19 pandemic have an effect on how lectures are conducted?
2. What are the challenges students face in accessing learning material under covid-19 induced lockdowns?
3. What can be done to minimize the impact of Covid-19 induced lockdown on the academic performance of learners?
4. How does Covid-19 induced lockdown impact on tertiary students' social wellbeing?

Methodology

A semi-structured questionnaire was administered for the purpose of assessing the effects of covid-19 on the performance of students and conduction of lectures in one school of a certain state university. One school was used because the researcher had easy access to contact details of students in the school. Getting contacts of students in other schools was difficult since the study was carried out during lockdown. The questionnaire was then, pilot tested with 10 University students to check on easy of administering and verify its content and then distributed electronically via email and Whatsapp to target population. The questionnaire sought to gather information on the effects of the Covid-19 pandemic on students' academic performance. Interviews were also carried out with lecturers following the interview guide developed. The interviews where to check if on the effects of the pandemic to students from lecturers' perspective since they are the once who were in touch with students directly. Data was analyzed using SPSS statistical package (IBM Corp 2011).

Participants

The questionnaire was sent out electronically to 104 students and 32 of them responded representing more than 30.8 % of the target sample. A purposive sampling approach was used to select questionnaire respondents. The sampled students had at least one semester results before Covid-19 disrupted learning. Hence students who had completed a minimum of 3 semesters were sampled. For the interviews, 7 lecturers (more than 30% academic staff members) who taught the targeted students were interviewed. Interviews were done to follow and investigate certain responses from questionnaires.

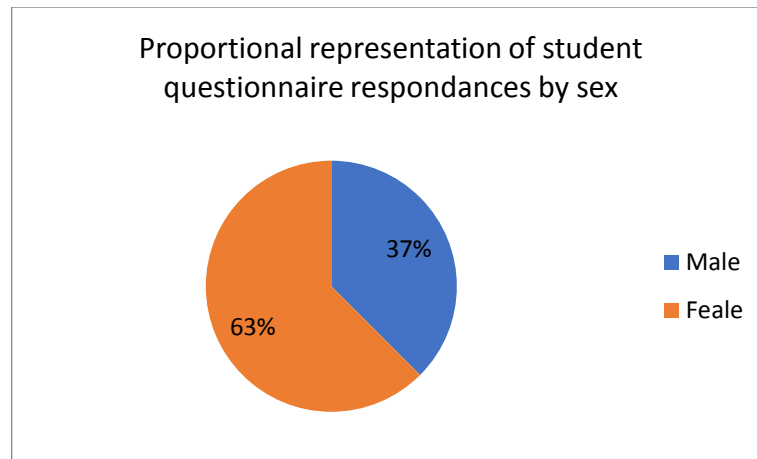


Figure1. Student sample structure distribution by gender

Ethical approval and considerations

Ethics is a system of principles which can significantly change previous considerations about choices and actions (Johnstone, 2009). Ethical approval was sought from the University before commencement of the study. For ethical reasons, the identity of institution where the research was conducted is not identified. The identity of all respondents was kept in confidentiality. Everything presented in this document are the ideas of the author and appropriate referencing was done where necessary. Data from research findings was presented the way it was collected and no data manipulation was done. The purpose of truthful reporting includes counteraction of errors.

Reliability and validity issues

According to Altheide and Johnson (1994), reliability and validity refers to stability and truthfulness of findings respectively. Both Validity and reliability increase transparency, and decrease opportunities for researcher bias (Singh, 2014). To ensure reliability and validity, this study used two data collection methods. Haradhan (2017), noted that a researcher can improve the validity and reliability of the collected data by using various data collection methods. A semi-structured questionnaire which was pilot tested before administering was used for data collection from students as well as interviews for lecturers. The targeted respondents that is university students and their lectures where asked a set of similar questions to check if there was deviation of information gathered.

Reliability and validity tests

Ten students participated in the reliability and validity check of the questionnaire. For reliability test, they were sent the questionnaire twice at two different times with the second time the questionnaire having negatively paraphrased questions. The questions were answered correctly since mostly similar responses were given for positively and negatively phrased questions. Whereas for validity check two lecturers in the social sciences checked the content of the questionnaire and made corrections were necessary.

Results

Effects of Covid-19 pandemic on conduct of lectures at a selected state university

Only 2 (6.25%) of all the respondents indicated that the pandemic did not have an impact on how lectures were conducted with the 30 saying the pandemic had an effect on lectures (Figure 2). The major impact was a shift from face to face learning to online learning and various online learning platforms such as Google Classroom and E kampus being used. However, the social media platform Whatsapp, was the most preferred learning platform by students (Table 1). Students indicated that they prefer it because it is easy to use for discussions, is cheaper given that it is also a social media app and they are always online. Other effects of failure to attend face to face lectures were failure to participate in laboratory experiments, failure to go on educational tours, not being able to do certain things such as problems involving calculations which are better done doing face to face learning. Also online learning made it difficult to ask questions unlike during face to face when students can get immediate responses. Some lecturers were said to have given notes and assignments and never communicated again with students.

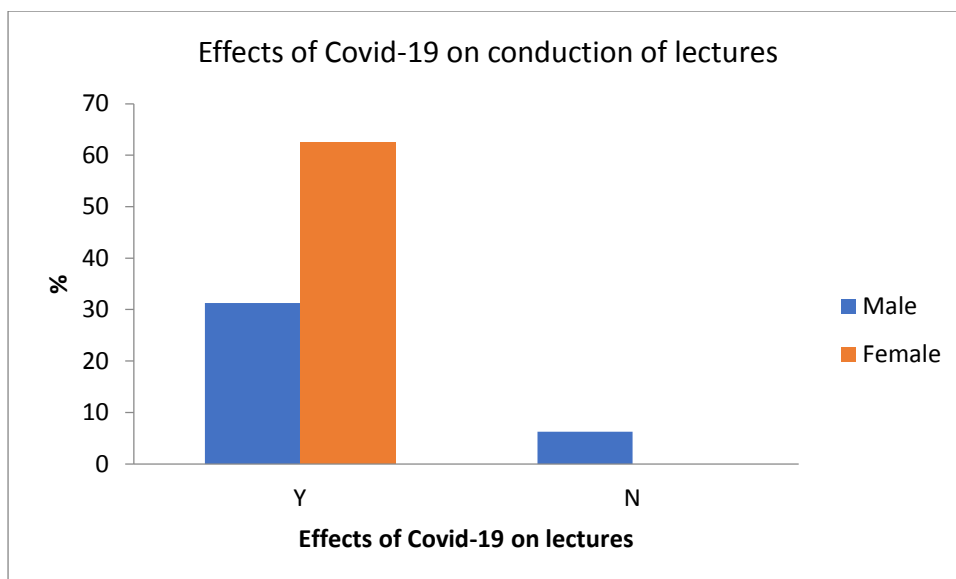


Figure 2. Effects of Covid-19 pandemic on conduct of lectures.

Frequency analysis showed that Whatsapp and Google classroom where the most used online teaching platforms with 31.25% and 62.5 % of male and female students indicating that they used it for learning (Table 1).

Table 1: Learning platforms students experienced under Covid-19 induced lockdown by gender.

Measure	Sex	Whatsapp (%)	G. Classroom (%)	Email (%)
Online learning platform used	Male	31.25	31.25	6.25
	Female	62.5	62.5	18.75

Chi square test done to determine the association between gender and preferred online learning platform showed that gender has a significant effect ($p < 0.05$) on preference of learning platform. Overall, Whatsapp is the most preferred online learning platform with frequency (f) showing that 6 and 20 male and female respondents respectively prefer it (Figure 3).

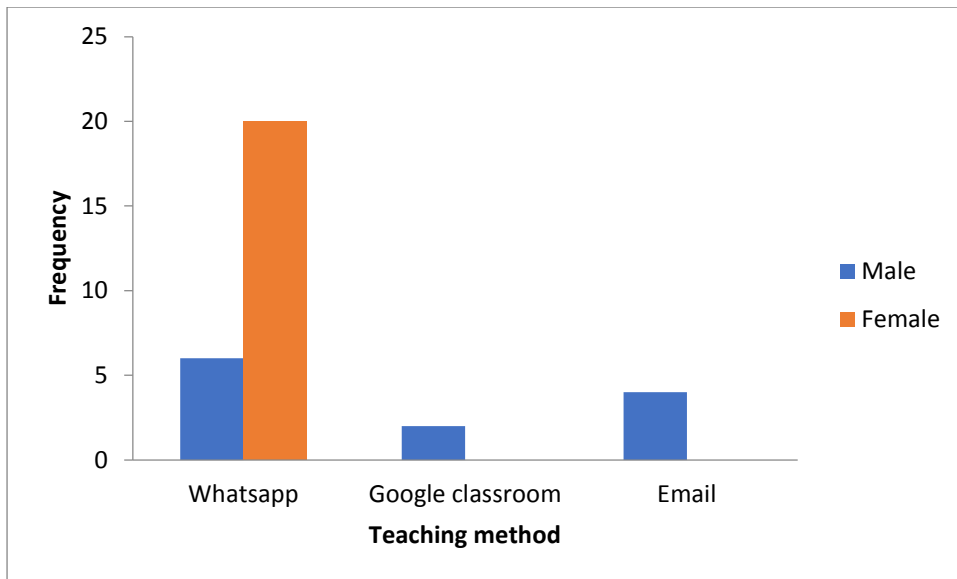


Figure 3. Students' most preferred online learning platforms

Learning challenges students are facing under covid-19 induced lockdown.

The main challenges which both male and female students face during learning under Covid-19 induced lockdown are high data costs and poor internet connectivity. Also, inability to do face to face discussions with fellow students. Chi square test showed that gender significantly ($p < 0.05$) impacted on the challenges students faced showing an association between gender and challenge with mainly female students highlighting challenges of limited access to internet enabled electronic gadgets and conduction of lecturers during odd hours being some of the challenges they faced (Figure 4).

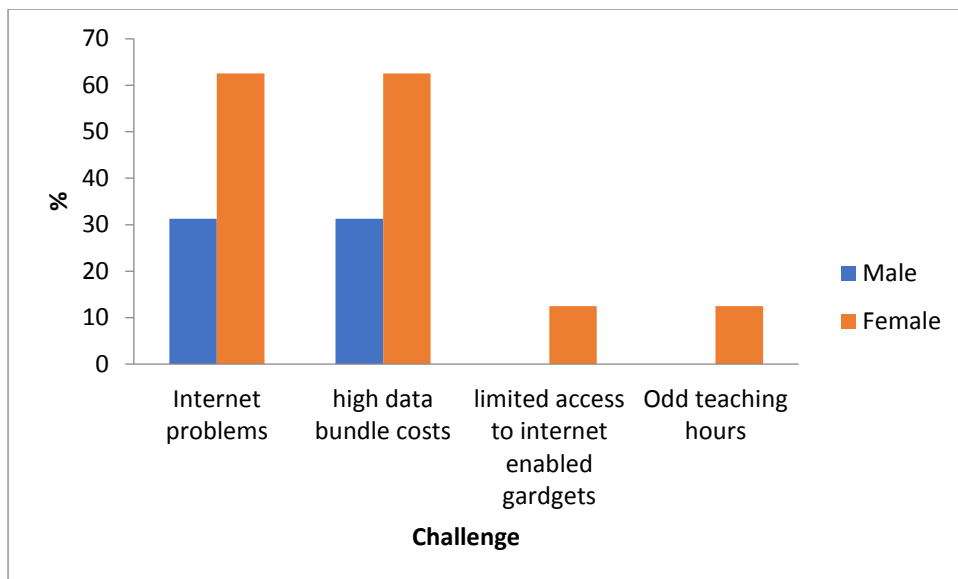


Figure 4. Challenges students are facing during learning under covid-19 induced lockdown by gender.

Measures which can help reduce the impact of Covid-19 pandemic on students' performance.

All the 32 respondents indicated that use of online learning and teaching is the way to go under lockdown. However, Chi square test showed that gender has a significant effect ($p < 0.05$) on preference of online learning platform to use with some males suggesting use of audios while some females called for face to face teaching following World Health Organization guidelines on Covid-19. Frequency analysis showed both genders prefer using Whatsapp as the main platform to help reduce the impact Covid-19 induced lockdown since it was used to conduct lectures. Other measures suggested include, the university supplying students with data for e-learning (Figure 5). To a lesser extend improvement in network coverage in areas with poor network, supply of data bundles and internet enabled gadgets by the government where cited as possible measures.

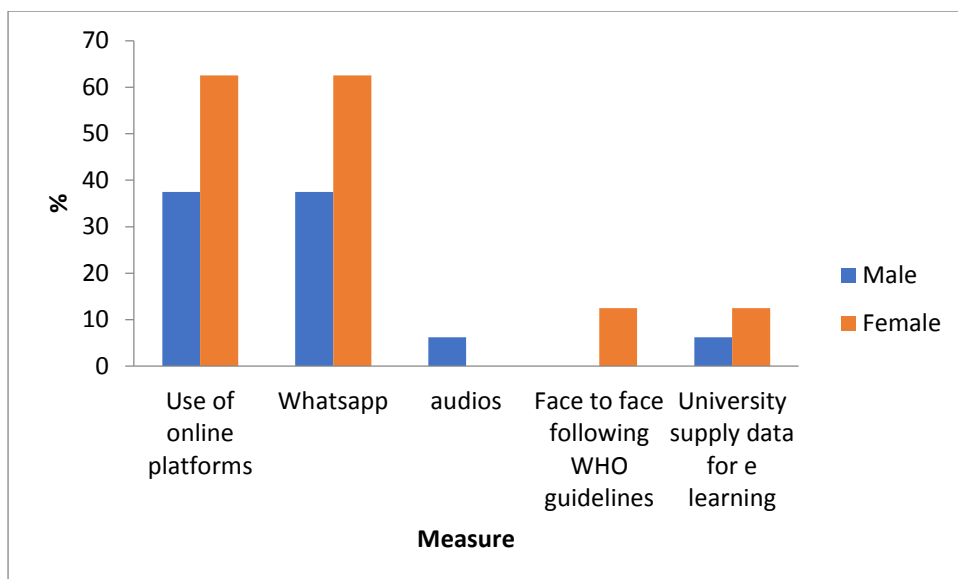


Figure 5. Measures to counter the effects of Covid-19 induced lockdown on students' performance.

Effects of Covid-19 on students social wellbeing

Both male and female students reported having been negatively impacted by the Covid-19 pandemic with 18.75% (males) and 37.5 % (females) indicating that they now struggle to pay their fees. Chi square test showed there is a significant association between gender and effects of the pandemic on social wellbeing. Female students (6 %) indicated that spending too much with their husbands resulted in some emotional abuse. To a lesser extend depression and fear of failing exams and fear of contracting the disease were also cited.

Lecturer responses

“We are now being asked to conduct lecturers using Google Classroom”. However, the most preferred mode of learning by students is through using Whatsapp social media platform. “I deliver my lecturers via Whatsapp because it is cheaper for me since the university hardly supplies me with data and also most students prefer using it”. Lecturer 1. This is likely to have an effect on student performance since the lecturer may not be able to timeously give responses to students when they need them if he runs out of data.

“Students hardly use Google Classroom, they always complain of high data costs. “I normally share the learning material via Google Classroom and Whatsapp social media platform at the beginning of the semester”. Lecturer 2

“I use Whatsapp and email to share learning material. “With the inconsistent data supply by the university, Whatsapp should be the way to go because it is cheaper to use”. Lecturer 3

“Laptops and tablets need to be given to us because we are being asked to use online teaching platforms without necessary requirements”. Lecturer 4

“The university must give us and the students data since they will have paid their fees”. Lecturer 5. Increased access to online learning platforms can positively influence student performance

All the lecturers (100%) interviewed concurred with students that the Covid-19 pandemic impacted on how lectures are conducted at the university where the study was done. All the lecturers indicated that it is not good to force them to use Google Classroom as the only online teaching platform. All the lecturers interviewed indicated that “it is better to teach online via Whatsapp if data is not provided consistently by the university.

Discussion

Effects of Covid-19 pandemic on conduction of lectures at a selected state university.

All the students who participated in the study indicated that the pandemic affected the conduct of lectures. This is mostly because most of the tertiary education system in Zimbabwe was mainly based on face to face teaching and learning before the pandemic. As such, many tertiary institutions including where the study was done were caught off guard with the sudden changes caused by the pandemic. According to a report by Mawazo Insitute (2020), up to 83 % of tertiary students' interview reported disruptions in their studies due to covid-19 pandemic in southern Africa. The major effect was the stopping of face to face teaching and learning to online learning. This is in accordance to a report by UNESCO (2020) which indicated that following the Covid-19 pandemic, in order to continue their academic programmes higher and tertiary institutions, adjusted to e-learning and remote teaching. According to Azzi-Huck and Shmis (2020) a significant number of tertiary institutions are operating through the E-learning. A study by Özüdoğru (2021) showed that since the advent of the Covid-19 pandemic, there is no time for live courses. Major issues raised by students include limited time with lecturers, some lectures are conducted at night making it difficult to concentrate and network challenges while doing online lectures. Also

due to stoppage of face to face teaching, some lecturers just gave students notes and ended there without any further follow up due to data costs and network challenges.

Challenges students are facing during learning under covid-19 induced lockdown.

The major challenge all the respondents highlighted is accessing learning material. Students highlighted internet connectivity problems in some areas, Google Classroom challenges, high costs of data bundles and limited access to internet enabled gadgets as reasons negatively impacting on them accessing learning material. Students from the most tertiary institutions come from diverse backgrounds whereby they have varying levels of economic wellbeing. Some students within the University where the study was done come from poor backgrounds hence access to internet enabled gadgets becomes a problem. Others are from rural remote areas with poor to no internet connectivity. All these presents challenges to students learning under lockdown. Ilonga, Ashipala & Tomas, (2020), reported that poor internet connectivity continues to negatively impacting e-learning efforts in Namibia. While a study by Kaisira and Bwalya (2021) found challenges students face during e-learning include poor network connectivity and insufficient resources especially high data costs to access internet among other reasons. Similarly, a study by UNESCO (2020), found that due to economic and technological backwardness of many African countries, lack of technology such as unavailability of laptops and other internet enabled gadgets further worsens the challenges faced by students. Also, a survey by E-learning Africa (2020) sited lack of access to technology as one of the factors affecting students.

Students also highlighted that some concepts and topics especially those with calculations and laboratory work were difficult to learn online. This is similar to findings by Mupa (2020) who highlighted that lecturers in the natural sciences indicated that it was difficult to conduct experiments online. Inability to participate in group discussions was another major problem which was also highlighted in a study by Mupa (2020). Other respondents indicated that learning at home reduced time for school work as they had other things to do while other highlighted loss of interest in school work. Also, a study by E-learning Africa (2020) found that home environment is unsuitable for learning. All these challenges have an impact on the student learning and processing the acquired knowledge which may have an effect on retaining the information during exams.

Measures which can help reduce the impact of covid-19 pandemic on students' performance.

All the student respondents agreed that a shift to online learning is the way to go under Covid-19 pandemic. According to Mahyoob (2020) online learning is the best solution for continuing education during the pandemic, especially in tertiary education. Students can be taught online to ensure that they review, revise, and revisit the lectures and weekly study resources at any time (Dujaili 2020). Similarly, a webinar hosted by UNESCO on May 14 2020 on Covid-19 identified the solutions to impacts of Covid-19 in higher and tertiary education being through Information Communication Technology, online training, distance education and digital inclusion (Thata 2020). Some of the measures and platforms students suggested as measures to counter the impact of Covid-19 includes: use of Whatsapp, use of audios, face to face learning after vaccination with strict adherence to World Health Organization guidelines, universities to supply data bundles to learners and lectures. Similarly, Makaye Gonye (2020); Gonye and Makaye (2021) indicated that if appropriately used WhatsApp platform could be a competitive platform for teaching and learning even in higher education.

All these suggested preferences are cheaper ways of trying to have access to learning and study material given the fact that students within the University come from diverse backgrounds with varying levels of access to resources. Some of these measures were also highlighted by Shahzad et al. (2020) who indicated that e-learning can be anchored on technology by way of using mobile apps, emails Youtube videos, websites, video conferencing among other methods. Whatsapp is more preferred by students since it is cheaper, easy to use being accessed on a simple mobile device and requires less data. Similarly, Ahmed (2020) and Mpungose (2020) proposed the use of social media platforms like WhatsApp for academic purposes, as students could discuss both academic and non-academic activities without being constrained by space and time. Respondents also highlighted the need to improve network coverage especially in rural areas.

Effects of Covid-19 on students social wellbeing

The Covid-19 pandemic had an impact on the economic status of mostly female students directly since they were unable to hustle to supplement their incomes. Some of the students within the University are employed and pay school fees for themselves with some having side

hustles to supplement their incomes. The advent of the pandemic resulted in closure of borders of which cross border trading mostly by women is one major source of income generation. Similarly, Orser et al (2012) found that undergraduate women who exhibit family responsibilities may be particularly vulnerable to challenges more than their men counterparts. Other students were affected indirectly as their bread winners either lost their jobs or had their salaries cut. All this resulted in some students indicating that they are failing or struggling to pay their universities fees. Failure to pay fees may have psychological effect on students which may impact negatively on their performance. The problems of fear of depression, fear of failing exams and fear of contracting the disease were cited by Dennon (2021), whose studies found that many college students suffered from depression and anxiety in the USA with the major concern being more on fear of losing grade points and college credits and less on getting sick. Lack of social events could also have contributed to some of these social problems since students were more confined indoors for longer periods of time yet they were used to socializing on campus. Studies by Murwendo et al (2021) also found that the pandemic had an effect on social events, disrupted work and food consumption behaviour.

Some students also indicated that home environment is not conducive for learning. This is because some students come from family setup whereby they live with parents and siblings and they will also have to perform different chores which could possibly disturb their study and potentially negatively impact on their academic performance. Similar findings were also made by Kaisira and Bwalya (2021) whose study found that home environments were not conducive for learning in an African country. Issues to do with depression and anxiety are more of mental problems and once a student has something affecting them, chances of studying are limited and this can negatively impact on their studying.

Conclusion

Online learning and teaching are the only way to go under Covid-19 induced lockdown for student performance not to be negatively impacted. The issue of high data costs as a challenge to online learning and teaching affects both students and lecturers respectively. Due to low data costs, network challenges and ease of use, Whatsapp is the most preferred learning platform.

Recommendations

There is need to make all the necessary resources available for both students and lectures for e-learning to be effective thereby maintaining high teaching and learning standards. Lecturers need to be provided with electronic gadgets (laptops and or tablet) and data for teaching. Where possible, university should provide the students with learning data. Universities can approach mobile network providers for discounted student data packages. Some of the fees students pay should be used to provide them with data for learning in case of lockdowns such as the Covid-19 induced lockdown. A diverse teaching approach need to be adopted under covid -19 induced lockdown whereby different online teaching methods need to be embraced. Research need to be done on the social backgrounds of the students for example where they stay during lockdowns whether in towns or rural areas since this may impact of network coverage and strength thereby compromising on access to learning material under lockdown. More research should be broadened to include students from different schools or faculties that are commercials and arts.

Conflict of interest

The author has no conflict of interest declared.

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