

Effects of Corona Virus Pandemic on University Students in Uasin-Gishu County, Kenya

Karanja Joseph Ndung'u, Dr. Reuben Mutegi

Abstract— Covid-19 pandemic poses serious concerns to University education in the World. Efforts to contain the spread of Corona virus prompted unscheduled closure of Universities Worldwide. In deed the unplanned Universities closures in Kenya has caused severe problems to students, lecturers, parents and society at large. The study investigated the effects of Corona Virus pandemic on University students. Data was collected through structured questionnaires administered to 200 respondents, where all were university students from Uasin-Gishu County. Findings showed that 57.0% of the students had already paid all the fees and 50.0% suggested that half of their tuition fees should be refunded. 70.0% proposed that Universities should refund half of the accommodation fee, since the semester was half-way spent, so that this amount can cater for needs during the difficult time of COVID-19 pandemic. 33.0% stated that they are using video conferencing platform in learning, 22.0% using zoom, 10.0% using Google mails, and 15.0% using WhatssApp. The least used was Telegram and Twitter, where those who never used any digital tools were 10.5% due to internet challenges. 82.0% said that both lecturers and students should wear masks when Universities reopens for face to face learning. 51.5% confirmed that their exams were postponed, 11.0% cancelled, 5.0% replaced by continuous assessment and only 32.5% did their exams online and on average 85.7% had no enough infrastructures. Therefore, a lot of infrastructure development are needed in various universities in Kenya.

Index Terms— Digital tools, e-learning, Drop-out, Corona Virus Disease (COVID-19), Virtual learning, integrated digital learning.

I. INTRODUCTION

Corona Virus Pandemic {COVID-19} outbreak has posed serious concerns on global education system from kindergarten to higher education. The pandemic has created education disruptions and health concerns of citizens that proved very difficult to manage by global health systems. The outbreak of Corona Virus disease prompted closure of learning institutions in more than 100 countries worldwide, which left over one billion learners out of school and forced to stay at home (UNESCO, 2020). Most Governments around the world have temporarily closed educational institutions in an attempt to control the spread of the COVID-19. This worldwide closure has impacted drastically the world's student population. In deed the unplanned school closures has caused severe problems for students, educators, parents and society at large. If the students are not engaged productively,

it could lead to idleness, which might results in youth involvement in crimes, poor academic performances and even loss of interest in learning institutions. University closures for COVID-19 tend to increase pressure on students and lecturers especially those with limited digital skills and resources for continued education.

Universities provide essential learning and when Universities close, students are deprived opportunities for growth and development. The disadvantages are disproportionate for under-privileged learners who tend to have fewer educational opportunities beyond school. In Kenya when colleges were closed, parents and Guardians were asked to facilitate learning of their students at home and they have been struggling to perform this task, especially with parents with limited resources (MOE, 2020). There is growing concern that if these students are not properly supported, they may never return to Universities. Universities are hubs of social activities and human interaction. When universities in Kenya were closed, many students missed out social contact that is essential to learning and development. In the most fragile education systems, this interruption of the school year will have a disproportionately negative impact on the most vulnerable students, those for whom the conditions for ensuring continuity of learning at home are limited. Their presence at home can also complicate the economic situation of parents and guardians, who must find solutions to provide care and compensate for the loss of cheap meals offered in campuses.

Some Universities in Kenya have adapted online learning through recorded lectures and online platforms such as; video conferencing, webinars, virtual meetings, zoom, WhatsApps, Google drive, Telegram and Twitter. Other universities have postponed learning and teaching due to lack of ICT tools and infrastructure for both lecturers and students. Questions also remain about how to harmonize semesters and academic calendars, as some programmes have been successful implemented online, while others are not yet there. Many students in Kenya, especially those in Universities, when they access online content they understand but due to poor living conditions, social and economic stress, they cannot benefit and learn the way they are expected, which later affect their research and examination performance at the end of the semester. Also this shortfall can largely be attributed to the digital divide, with the disadvantages having limited access to basic household services such as electricity, lack of technological infrastructure and low level of digital literacy among students and lecturers.

A. Statement of the problem

Most of the Universities in Kenya after the COVID-19

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pandemic outbreak experienced education disruptions and health concerns of students that proved very difficult to manage and continue with face to face teaching and learning. Most Universities were closed in an attempt to control the spread of the pandemic, which has impacted drastically University students population with unplanned Universities closure has caused severe problems students. There is growing concern that if those students are not properly supported, they may never return to Universities. If the students are not engaged productively, it would lead to idleness, which might results in youth involvement in crimes poor academic performance and even loss of interest in learning. In Kenya many Universities has postponed teaching and learning, due to lack of information Communication Technology (ICT) infrastructure for both students and lectures. Therefore, the research paper is set to identify the gaps created by the pandemic on University students learning process in Uasin-Gishu County.

B. Purpose of the study

The purpose of the study was to investigate effects of Corona Virus Pandemic on University students in Uasin-Gishu County, Kenya.

C. Objective of the study

- a) To investigate the effects of COVID-19 on teaching and learning process for University students.
- b) To find out the effects of COVID-19 on students finances and social affairs for the University students.

D. Research Questions

The objectives were guided by the following research questions;

- a) What are the effects of COVID-19 on teaching and learning process for University students?
- b) What are the effects of COVID-19 on students' finances and social affairs for the University students?

II. LITERATURE REVIEW

A. Introduction

In Kenya, all schools and educational institutions were shut down indefinitely and the police forces were deployed to help enforce restrictions in and out of Nairobi Metropolitan where the first case of Corona Virus had been reported in mid-march this year 2020. However, despite the measures put in place by the government towards curbing the spread of Corona virus, the country continued to record some Covid-19 cases in many countries and also Corona Virus deaths. The Government imposed curfew, while restricted all citizens to stay at home to contain the spread of corona virus. The outbreak of Covid-19 negatively affected educational systems worldwide, leading to the widespread closure of schools (Wikipedia, 2020b). It created series disruptions in academic activities, as well as in career plans. As part of the global efforts to combat Covid-19 pandemic, many countries across the world closed down education institutions in an attempt to contain the corona virus

disease.

According to the United Nation Educational Scientific and cultural organization(UNESCO) monitoring over 100 countries implemented nationwide closures, impacting over half of the world's student population(UNESCO, 2020a). Education institutions closures such as Universities carry high social, educational and economic costs and the disruptions they cause touch people across communities, but their impact is particularly severe for disadvantaged persons and their families (UNESCO, 2020b).

In an attempt to contain the spread of COVID-19, in many countries of the world education institutions have been temporarily suspended in-person instruction and move to remote learning model of delivery. According to UNESCO at the eve of April, education institutions shut down in 186 countries, affecting approximately 74 percent of total learner enrolment in the world. In Kenya Universities have been closed since the mid march 2020, while in other countries like China and South Korea in-person classes had been already cancelled since January 2020. Universities closures in Kenya in response to COVID-19 have shed light on various social and economic issues, including student dept, digital learning, food insecurity and homelessness as well to access to childcare, health care, housing, internet and disability services.

B. Effects of Corona Virus in Universities

University closure means closing down of universities as a result of the pandemic, emergencies, labour strikes, disaster or deliberate efforts to reposition a school or curb crimes in a given university or environment. This means that University closures are not only for emergencies or pandemics, but also a deliberate way of addressing some identified gaps in a given University. In Kenya, University closure due to corona virus, has increased students debt, extend graduation time of students, and shatter the academic dreams of students, as well as programme schedules of educational institutions. Extended

University closures may result to increase rate of drop outs due to loss of interest and lack of resources to continue. If not well managed, University closures can also increase the rate of crimes and idleness which contributes to negative peer influences that can shake the foundation of the youth in their future. Education jobs in the university were also affected and many workers their contract were terminated, others retrenched and even others experienced pay cuts. If the University closure continue not only students will suffer from academic loss but even their lecturers and University workers will be affected.

C. Social Isolation

Considering the fact that educational institutions are hubs for social activities and human interactions, University closures can deprive youth of same social communications and socializations that are essential to learning, development and creativity. In Kenya research activities were negatively affected because universities closures and lockdowns limit researchers' ability to conduct researches particularly in situations whereby face-to-face interactions with students and lecturers are required or access

to University facilities or research laboratories which were denied. University driven innovations and research have been affected during University closure.

D. Online teaching and learning

In response to school closures, Universities in Kenya recommended the use of distance learning programs and open educational applications and platforms that Universities and lecturers can use to reach students remotely and limit the disruption of education. Kenyan Universities have made several arrangements by launching of many virtual platforms with online depository's e-books and other online teaching and learning materials, educational channels and popular social media tools like Telegram, YouTube live, Facebook live, Zoom, WhatsApps and Google meet for online teaching and learning system. The COVID-19 pandemic taught the entire society on how necessity is the mother of invention by allowing educational institutions to adopt online learning and introduce a virtual learning culture. The pandemic has been steering the education sector forward with technological innovation and advancements. The pandemic has significantly disrupted the higher education sector and if the situation persists, in the long run, there will be a significant decline in the demand for University education. According to a survey report of the Ministry of Education (2020), Government of Kenya conducted on higher education, it was observed that, even though Kenya has been adopting to the new-age learning, there still lies an obstacle in achieving entire success as only 1/3 of the total students population in the country have access to the internet/e-learning. The students residing in rural areas are still very much deprived of the technologies and therefore hampered the cause of online learning.

E. Financial costs and burdens

Financial challenge was already existing before COVID-19 outbreak. The early estimate of the financing gap to reach Sustainable Development Goal no 4 on quality education. In low and lower-middle-income countries like Kenya was staggering at \$148 billion annually (World Bank, 2020). It is estimated that the COVID-19 crisis will increase this financing gap by up to one-third. University students have continued to bear the costs associated with their university education. Some universities have introduced online-classes, where the students have to bear the cost of internet, and because of internet challenges in their home areas, they have opted to rent houses in urban setting, where there is strong internet connectivity at their own costs. For the students who rent hostels around the Universities, their parents have continued incurring the cost of maintaining those hostels, even if their children are at home, since they have the fear of losing them after University resumes face-to-face teaching.

The closure of colleges and Universities has widespread implications for students, faculty, administrators and the institutions themselves. Universities across Kenya have been called upon by parents/Guardians to issue partial refunds to students for the cost of tuition and room they had paid before the outbreak of COVID-19 pandemic, since tuition and accommodation money was not completely utilized and the

semester was half-way spent. The reason for the request is the fact that many students in Universities have loans that they have to continue to pay and in many cases the rented room at the campus residence, which they must continue to pay, regardless of whether they continue to live there or not. There are some Universities like University of Nairobi and Moi University, which have already announced that they will not charge those students who have returned their keys, beyond the first month, other universities have proposed that rather than return the fees already paid, they will credit it to the next semester or academic year. In Kenya, lots of students or their parents take education loans for higher education. If the employment market does not pick up, students' debt crisis may rise and create serious issues. Students may face increased depression, stress and anxiety due to their student loans. For vulnerable groups, the sacrifices and compensations needed to achieve enrolment in Universities may not be sustainable in the wake of the personal and financial shocks that the pandemic is causing. It is imperative that Universities and Government leaders commit to supporting these at-risk students and finding ways for them to continue their studies. Otherwise, the risk is becoming secondary victims of the pandemic and its consequences.

III. RESEARCH DESIGN AND METHODOLOGY

A. Research design

The study used descriptive survey design. The researcher applied the design to investigate the effects of Corona Virus pandemic on University students. According to Orotto (2005) is a method of collecting information by interviewing or administering questionnaires to a sample of respondents.

B. Target Population and Sample Size

In this study, the target population comprised of 600 students. According to Mugenda and Mugenda (2013) denoted that a sample is a subset of a particular population and with 30% of the total population is accepted, where the total sample size was 200 respondents.

C. Research Instruments

The data collection instruments were questionnaires, where interview with students was not possible due to COVID-19 outbreak, where people were not allowed to interact. The questionnaires items consisted of both close and open ended questions as well as matrix items that allowed the collection of both qualitative and quantitative data.

D. Validity of the Instruments

In this study, pilot was used to validate research instruments to determine accuracy, clarity and sustainability of the instruments. According to Mugenda & Mugenda (1999) validity answers whether the data collected are accurate enough to reflect the true happenings in a study. The questionnaires were pretested using a sample of 10 students, since two or three cases are sufficient for some pilot studies (Borg & Gall, 1989).

E. Reliability of the Instruments

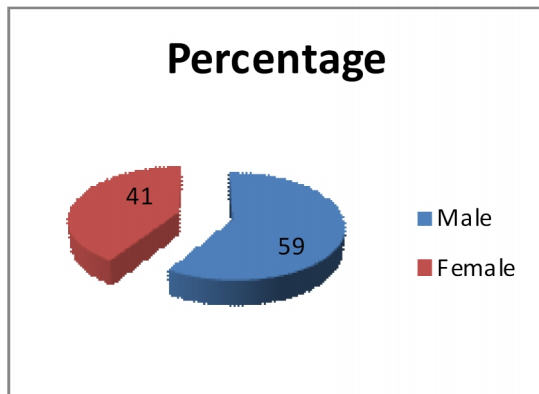
A correlation coefficient was adapted, where the scores were correlated using Pearson's Product Moment Coefficient,

where the coefficient of 0.75 was attained and the instruments was adopted for use in the study, otherwise necessary adjustments would have been made to the research instruments.

IV. RESULTS AND DISCUSSION

A. Gender of Students

Students were asked to indicate their gender and the response was as in Figure 1



From Figure 1 majority of students (59.0%) were male, who were respondents and (41.0%) were female. Each gender was more than one third of the total respondents of the study.

B. Students Response on Fees Payments

Students from different Universities in Uasin-Gishu County were asked if they had paid for tuition and accommodation money, before the outbreak of COVID-19 and the findings is in the Table 1.

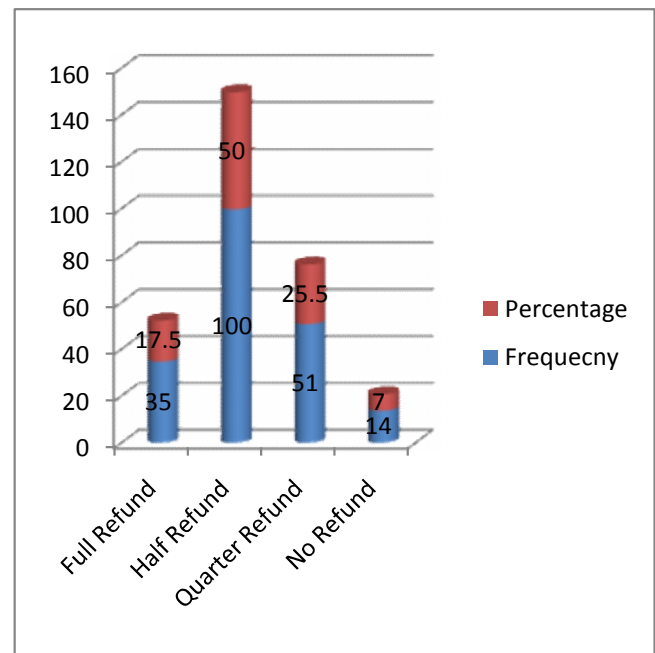
Table 1: Students response on fees payment

Response	Frequency	Percentage
Full Refund	14	7
Half Refund	140	70
Quarterly Refund	36	18
No Refund	10	5
Total	200	100

The findings in Table 1, indicate that majority (57.0 %) of the students had paid fees in full, (31.0%) had paid fees partially and only (12.0%) of the students had not paid fees by the time Covid-19 pandemic first case was recorded in Kenya. In many public Universities in Kenya, majority of students pay fees at the beginning of academic year, but in the case of private Universities, particularly those with high fees and module II program where students sponsor themselves without government assistance, where fees payments is distributed throughout the academic year.

C. Students respond on Tuition Fee Refund.

Students suggested that since tuition money was not completely utilized, they needed partial refund, since the semester was half-way spent, when COVID-19 first case was reported in Kenya. The response was as in figure 2



From Figure 2 majority (50.0%) of the students suggested that half of their tuition fee should be refunded, Also (25.5%) of the students stated that quarter of their tuition fee should be refunded, (17.5%) asked for full refund and (7.0%) for no refund. This shows that many students were for half refund, since the semester was half-way spent and they could have used the amount to sustain themselves during the difficult time of COVID-19 pandemic.

D. Students Respond on Accommodation Money Refund

Students suggested refund on accommodation money paid, the results were as shown in Table 2

Response	Frequency	Percentage
Full Refund	14	7
Half Refund	140	70
Quarterly Refund	36	18
No Refund	10	5
Total	200	100

From Table 2 Majority (70.0%) of the students proposed that Universities should refund half of the accommodation money, (10.0%) proposed that quarterly should be refunded, (7.0%) for full refund and only (5.0%) were for no refund. It was a clear indicator that most of the students were for half-refund, since when the COVID-19 pandemic first case was registered, the academic semester was half-way spent and therefore the Universities should refund them half of the amount so that this amount can cater for their needs when they are at home due to pandemic.

E. Integrated Digital Learning Platform

Students were able to indicate the digital learning platform they are using during COVID-19 pandemic. The results were as in the Table 3.

Digital Tools	Frequency	Percentages
Video Conferencing	67	33.5
Zoom	44	22.0
Internet	21	10.5
WhatsApp	30	15.0
Google Drive(Google Mail)	38	19.0
Telegram	0	0
Twitter	4	2
Total	200	100

From Table 3 Majority (33.5%) of the students stated that they are using Video conferencing platform in learning. Other common digital platforms were zoom (22.0%), Google mail (19.0%) and WhatsApps (15.0%).The least used digital platforms were Telegram and Twitter where those who never used any digital tools were (10.5%) due to internet challenges.

F. Wearing masks when Universities reopens

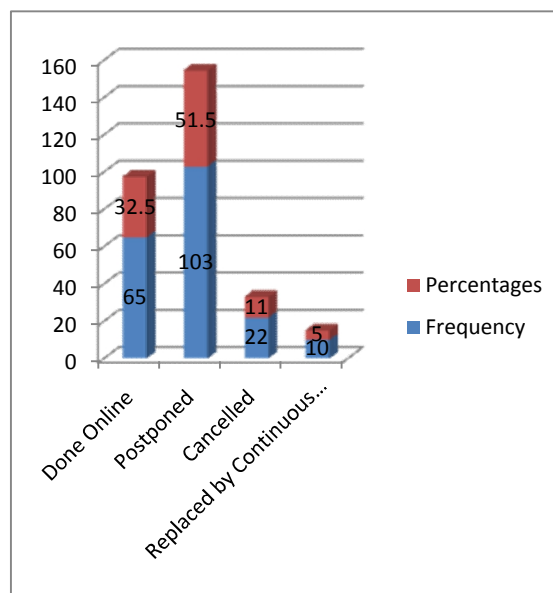
Students were asked to note down their proposal on wearing of masks when Universities reopens after COVID-19 pandemic and the response was as in Table 4.

Response	Frequency	Percentage
Only students to wear masks	23	11.5
Only Lecturers to wear masks	12	6.0
Both Lecturers and students to wear masks	165	82.5
Total	200	100.0

From Table 4 Majority (82.5%) of the students suggested that both the lecturers and students must wear masks when the University reopens for face to face learning, while minority proposed that only lecturers should wear masks since majority of them are old and they are at high risks of contacting COVID-19 virus. It is a clear indicator that even university students they understand the risks involved when university resume for face to face teaching and learning. Therefore it will be order for both lecturer and students to be in masks to prevent the spread of the virus.

G. Effects of COVID-19 on Students Examinations

Students were asked to indicate if they did their exam at the end of that semester, the results were as shown in Figure 3



From Figure 3 Majority (51.5%) of students confirmed that their exams were postponed to further date since Universities had no laid down digital platforms for online examination, only (32.5%) did their exams online since their Universities were well versed with digital platforms. Also (11.0%) of students admitted that their exams were cancelled and (5.0%) confirmed that their exams were replaced by continuous assessment test. University closures have necessitated changes and also caused serious disruptions to a how students are evaluated. In most countries exams have been postponed like in Kenya and in a few, they have been cancelled and in others they have been replaced by continuous assessments or alternative modalities, such as online test for the final exams innovative continuous assessment methods have received a lot of attention.

4.8 Infrastructures in their Universities

Students' response on infrastructures in their Universities and the findings was as shown in Table 5.

Infrastructures	Enough	Percentage	Not enough	Percentage
Lecture halls	26	13.0	174	87.0
Hall of residence (Hostel)	15	7.5	185	92.5
Library	18	9.0	182	91.0
Cafeteria/ Hotels	67	33.5	133	66.5
Laboratories	29	14.5	171	85.5

From Table 5 majority of students stated that Lecture halls(87.0%), Halls of residence/Hostels (92.5%), Library (91.0%), Cafeteria (66.5%) and Laboratories (85.5%) are not enough to accommodate all students in their respective Universities, and therefore, these infrastructures needs to be

increased in number especially this period of COVID-19 pandemic, so that when students resumes they can maintain social distance during face to face learning and this will curb the spread of COVID-19 virus. An average of 15.5 percent of students admitted that Lecture halls, Halls of residence/Hostels, Library, cafeteria and Laboratories in their Universities are enough, which is very small percentage, Therefore, a lot of infrastructure development is needed in various universities.

H. Internet Connectivity

Students were asked to indicate on internet connectivity in their homes. The finding was as in Figure 2.

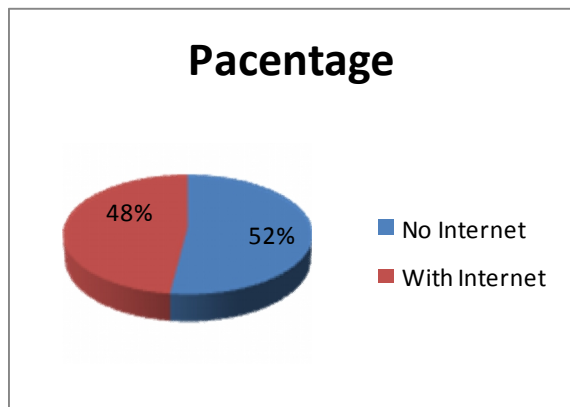


Figure 4 shows that majority (52.0%) of students admitted that in their homes they don't have internet connectivity and therefore students cannot access digital learning from their universities and only (48%) of the students admitted that they can access digital platform learning process since their homes have internet connectivity at the same time internet network is available. The percentage of households with internet connectivity in Uasin-Gishu County is less than expected and therefore, Universities should not assume that in households where there is university students are more likely to have connectivity, it would be very risky to assume that all students have efficient internet connectivity in their homes. There still a big digital gap that needs to be addressed before embarking on e-learning as a means of ensuring education continuity.

V. CONCLUSION AND RECOMMENDATION

A. Conclusion

Lack of access to technology or effective internet connectivity is an obstacle to continued learning, especially for students from poor background. As the pandemic continue to disrupt University education, Universities have known that "necessity is the mother of invention" whereby most Universities in Kenya have adopted online learning through introduction of a virtual learning culture and this will steer the University education sector forward with technological innovation and advancements. The opportunities created by the pandemic in Kenyan Universities will lead towards a better tomorrow. collective measures should be taken to mitigate negative effects on University students to enhance equity in education at the same time to ensure that the impact of the current and possibly prolonged COVID-19

pandemic period is not too severe on learning outcomes and well being of University students.

5.2 Recommendations

- Universities should adopt blended learning which should take the leading role. This will combine both face to face and online learning modes.
- Kenyan government should make sure that all parts of the country are well versed and connected with internet and necessary digital tools are adequate in all universities, to make digital learning a reality.
- The executive of exams should be altered in Universities, reducing the exam content, skipping pre-tests, allowing for partial tests or oral presentations exams. Where final examination could also be replaced by continuous assessment tests.
- The government should increase the financial aid to support University students especially those from lower income households in order to minimize education wastage through withdrawal or drop-out of students from Universities due to financial challenges.

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