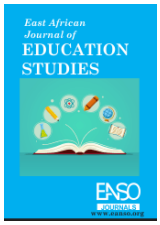
Article DOI: https://doi.org/10.37284/eajes.6.1.1100



East African Journal of Education Studies
eajes.eanso.org
Volume 6, Issue 1, 2023
Print ISSN: 2707-3939 | Online ISSN: 2707-3947
Title DOI: https://doi.org/10.37284/2707-3947

EAST AFRICAN NATURE & SCIENCE ORGANIZATION

Original Article

Impact of Covid-19 on Higher Education: Challenges and Responses as Perceived by Students: The Puntland-Somalia Context

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Article DOI: https://doi.org/10.37284/eajes.6.1.1100

Date Published: *07 March 2023*

Keywords:
Covid-19, Online, Challenges, Higher Education, Response.

ABSTRACT

The main objective of the study is to investigate the impact of Covid-19 on higher education: challenges and responses in Puntland-Somalia. This study was conducted through analytical survey design by using both quantitative and qualitative research methods with two parts: A which consists of a questionnaire for collecting data from selected student respondents. The study utilised a convenience sampling method to select respondents. The study utilised frequencies and percentages; tables were used in the presentation of data. In addition to that, data collection was analysed using themes and explanations while comparing the findings with the literature review part of the study. Findings reveal that universities worldwide are moving more and more towards online learning. Findings also reveal that apart from resources, staff readiness, student accessibility, and motivation play an important function in ICT-integrated learning. The inquiry has exposed the consequences of a new change in the scope of the teaching and learning environments of different universities in Puntland-Somalia. This is related to the perception of students to adapt to online education systems introduced by these Universities, as they both have access to the internet and technical resources. This sort of mindset and the current situation has greatly accelerated the digitalisation of the means of education. Likewise, related institutions as such are also showing their readiness to adapt to this teaching-learning methodology and contribute to the human resource development objectives of a country. This study suggests a number of recommendations; first, it is to organise training courses in online education methods for lecturers; the university's management should provide constant monitoring of the satisfaction of students and lecturers of the online education organisation for the accumulation of statistical data in the dynamics.

APA CITATION

Mohamed, M. A. (2023). Impact of Covid-19 on Higher Education: Challenges and Responses as Perceived by Students: The Puntland-Somalia Context *East African Journal of Education Studies*, *6*(1), 210-223. https://doi.org/10.37284/eajes.6.1.1100.

Article DOI: https://doi.org/10.37284/eajes.6.1.1100

CHICAGO CITATION

Mohamed, Mohamed Ahmed. 2023. "Impact of Covid-19 on Higher Education: Challenges and Responses as Perceived by Students: The Puntland-Somalia Context". *East African Journal of Education Studies* 6 (1), 210-223. https://doi.org/10.37284/eajes.6.1.1100

HARVARD CITATION

Mohamed, M. A. (2023) "Impact of Covid-19 on Higher Education: Challenges and Responses as Perceived by Students: The Puntland-Somalia Context", *East African Journal of Education Studies*, 6(1), pp. 210-223. doi: 10.37284/eajes.6.1.1100.

IEEE CITATION

M. A., Mohamed, "Impact of Covid-19 on Higher Education: Challenges and Responses as Perceived by Students: The Puntland-Somalia Context", EAJES, vol. 6, no. 1, pp. 210-223, Mar. 2023.

MLA CITATION

Mohamed, Mohamed Ahmed. "Impact of Covid-19 on Higher Education: Challenges and Responses as Perceived by Students: The Puntland-Somalia Context". *East African Journal of Education Studies*, Vol. 6, no. 1, Mar. 2023, pp. 210-223, doi:10.37284/eajes.6.1.1100

INTRODUCTION

The Covid-19 pandemic crisis has significantly disrupted every aspect of human life globally. It was one of the cataphoric health crises which caused a crisis in economics, unemployment governance, poverty, education, and many others (UNESCO, 2020). Even the education sector has been greatly disrupted since the alarming outbreaks of the coronavirus have revealed emerging vulnerabilities in the education system across the globe. The spreading speed of COVID-19 has continued imposing educational institutions to shutdown face to face classroom environments (Ali, 2020; Zhang et al., 2020; Dawadi et al., 2020). Most college and universities have shut down their doors and each level of students have stayed at home with their family as self-quarantined individual (UNESCO, 2020). Furthermore, the education process of more than 1.6 billion students across 191 countries has been severely disrupted by the closure of academic institutions, in which Puntland-Somalia was not an exceptional case. In the present situation, Covid-19 has an increasing impact on the global higher education sectors (Crawford et al., 2020). Institutions and their faculties have rushed to convert their teaching-learning approach, including their curriculum activities, to an online model (Perrotta, 2020). It was a test of organisational capacity in handling such emergency pandemics; the majority of the education institutes were initially focusing on transitioning the content of the curriculum activities to an online educational model and not necessarily on online pedagogy (Wu, 2020). Moreover, it is also a demonstration of the socially advanced and non-advanced learners, as well as the adversely affected institutions in terms of poor resources such as limited devices, skilled human resources, technology, and internet facilities; in fact, such institutes had a major disruption impact on their academic response (Zhong, 2020). It also determined the students' ability to engage in an online teaching-learning environment and their position related to online learning resources utilisation for the coming digital era of learning (Houlden & Veleetsianos, 2020).

Most African countries including Somalia have taken the COVID-19 pandemic seriously only in the last few weeks following the confirmation of its first cases. Initial responses included the closure of schools, higher education institutions (HEIs), and other educational institutions that have been ordered closed in order to contain the spread of COVID-19 beginning in mid-March 2020. In response to school closures, UNESCO recommended the use of distance learning programs and open educational applications and platforms that schools and teachers can use to reach learners remotely and limit the disruption of education (UNESCO, 2020). Additionally, universities across the continent are setting up institution-wide task forces to mitigate the impact of the pandemic. Even some are striving to participate in high-end research towards finding

Article DOI: https://doi.org/10.37284/eajes.6.1.1100

a cure for the virus. Many others are attempting to shift to online teaching and learning through institutional, national, continental, and international initiatives. However, most of the plans are only at their initial stages of implementation and call for ramping up current efforts, forging wider cooperation and sharing experiences and resources across the whole continent (Tamrat & Teferra, 2020).

According to Radio Ergo (2020), a team of scientists at Puntland State University (PSU) Faculty of health sciences, Pharmaceutical Sciences department have succeeded in producing a locally-made hand sanitiser, spurred by the restrictions on imports due to the COVID-19 pandemic. "We Manufactured Hand Sensitizer 15,000 Bottles 100 ml size and 11,000 Face Masks", said Abdirahman Adan Gambool, a medical researcher and Dean of PSU's Faculty of Health Sciences.

Hence, this paper has mainly investigated and explored the first COVID-19 wave responses of Puntland Somalia higher education institutes and their challenges in containing COVID-19 educational disruption.

RESEARCH METHODOLOGY

This study was a quantitative research method. This study has explored the knowledge, practice, and adoption of the online education system during the Covid-19 pandemic lockdown in Puntland-Somalia. In order to carry out this study, primary data collection in closed and open-ended structure questions was utilised. Primary data was collected from students from three universities – East Africa University, Puntland State University, and the University of Bosaso. Furthermore, structured questionnaires were distributed and sent to gather the required information from students. Convened sampling technique was used to recruit the participants.

RESULTS AND DISCUSSION

This section describes the results and discussion of the study conducted at East Africa University, Puntland State University, and the University of Bosaso to define teachers' readiness for online teaching and learning during COVID-19, students' perception of online learning and the challenges they faced and the Puntland higher education readiness level to implement online teaching. The total population of the students was 400, but only 200 students were selected as a sample from different universities who take part in the study. Opinions and answers collected from university administrative staff, lecturers, and students, which are based on challenges and responses, are highlighted below:

Student Respondents

Demographic Characteristics

Table 1 indicates that 53.0% of the respondents were male, while 47.0% were female. This indicates that the majority of the respondents in universities were male. Regarding in *Table 1* indicates that the majority of the respondents were between the age ranges of 21-23 years. This means that the majority of the respondent were young which, constitute 41%, while those within the age limit of 24-26 years constituted 35%, while the age limit of 17-20 years constituted 12%, followed by those within the age limit of 27-30 years which constitute of 7% and the remaining age constitutes 5% and falls within the age of 31 years and above.

The findings indicated in *Table 1* also shows that the majority of the respondent are in the second year of their academic study 35.5%, followed by first-year class 25.5%, those in the third year constitutes 21.5%, and the remaining student studying in their final year which constitutes 17.5%. *Table 1* indicates that 100.0% of the respondents(students) live in Garowe, and there is no student that lives outside of the city or rural area. *Table 1* below shows that 63% of the respondents (Students) have

Article DOI: https://doi.org/10.37284/eajes.6.1.1100

no experience with online learning/education, while 26% have occasional experience with online learning/education, and the rest constitutes 11% who have a frequent experience with online learning/education This indicates most of the students have no experience on online education

Table 1: Demographic characteristics of student respondents

Demographic Factor		Frequency	Percent
Sex	Male	106	53.0
	Female	94	47.0
	Total	200	100
Age group	17-20 yrs.	24	12%
	21-23 yrs.	81	41%
	24-26 yrs.	71	35%
	27-30 yrs.	14	7%
	31 yrs. and above	10	5%
	Total	200	100%
Level of education	First Year undergraduates	51	25.5%
	Second Year undergraduate	71	35.5%
	Third Year undergraduate	43	21.5%
	Final Year undergraduate	35	17.5%
	Total	200	100%
Residential Area	Urban	200	100%
	Rural	0.0	0.0%
	Total	200	100
Experience with online education	Yes, frequently	22	11%
	Occasionally	52	26%
	None	126	63%
	Total	200	100%

Impact of Covid-19 Pandemic on Student's Education

The researcher sought to establish whether the COVID-19 pandemic affects students' Education and/or Research. From *Table 2,* 39.5%,27% and 25.5% of respondents were mildly, greatly, and moderately affected, respectively. This is in line with Mandy's (2020) assertion that the current data showed that the average evaluation was 4.02 ± 1.11 points. Most of the participants (96.7%, 1,346) believed that the COVID-19 pandemic lockdown affected their academic performance to varying degrees. Nearly half of the participants (47.5%, n = 661) were greatly affected, whereas 19.9% (n = 278) were considerably affected, 23.3% (n = 324) were moderately affected, and 6.0% (n = 83) were slightly affected. Whereas only 3.3% (n = 46) of participants reported that the lockdown had no effect on their academic performance.

The researcher sought to find out whether the COVID-19 pandemic influenced students' interest in the current study. From *Table 2,* 31% of the respondents indicated that they were moderately affected, whereas 30.5% were greatly affected, and 26.5% were mildly affected. The study revealed that the COVID-19 pandemic influenced students' interest in the study.

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Table 2: Impact of the Covid-19 pandemic on student education

Questions	Greatly affected	Moderately affected	Mildly affected
Did the COVID-19 pandemic affect your Education/Research?	52 (26%)	51 (25.5%)	79 (39.5%)
Did the COVID-19 pandemic influence students' interest in your current study?	61 (30.5%)	62 (31%)	53 (26.5%)
Did your Classes or Research (Physical presence in campus class/research work) discontinue due to the COVID-19 pandemic?	44 (22%)	42 (21%)	61 (30.5%)
Did COVID-19 affect your moral feelings to be ready to continue your study?	68 (34%)	44 (22%)	35 (17.5%)
Did the COVID-19 pandemic influence your interest in your future study plans?	62 (31%)	52 (26%)	34 (17%)

The researcher sought to find out whether the students' Classes or Research (Physical presence in campus class/research work) was discontinued due to the COVID-19 pandemic. From *Table 2*, 30.5 % of the respondents indicated that they were mildly affected, whereas 22% were greatly affected and 21 % were moderately affected. The study revealed that the COVID-19 pandemic caused the discontinuation of the student's physical classes on campus and research work.

The researcher also sought to establish whether COVID-19 affected students' moral feelings to be ready to continue their studies. From *Table 2,* 68(34%) of respondents were greatly affected whereas 44(22%) were moderately affected, and 35(17.5%) mildly affected. This is in line with Browning et al. (2020) assertion that the Qualitative data from the open-ended responses demonstrated a broad array of impacts from COVID-19 on college students' feelings. The most common changes in how students felt compared to before the pandemic were increased lack of motivation, anxiety, stress, and isolation. For example, one of the students reflected, "I'm normally extremely motivated, and I've never struggled with depression, but have recently felt very sluggish and melancholy". Another student described their feelings related to isolation as "I feel trapped. I do not have anywhere I need to go since I cannot socialise, and I have schoolwork. But I still feel trapped due to actual restrictions and suggestions". The most frequent changes in student behaviour compared to before the pandemic included more social distancing, more online classes through google classroom, and less going out.

Other concerning changes ranged from entrapment, boredom, fatigue, hopelessness, guilt, and inconvenience to hygiene, sleep, housing, employment, personal finances, and caretaking. For example, some students expressed their frustration with the financial situation, including one statement indicating: "I am BROKE. I lost my job because of this pandemic and now I can't pay for groceries." Other students were curious about online learning. For example, one student commented: "I am constantly on edge about coursework: Did the computer register I submitted my exam? Did I see everything my teacher posted in Moodle? What happens if my internet goes out and I miss an assignment?" This is in line with Chakraborty et al. (2020) assertion. The students felt that online education is affecting their health. It was found that 66.0% of students felt that online education is causing phobia of losing due to the poor internet connectivity among them. A large majority of the students (82.7%) felt that online education is leading to the overuse of digital technologies and 74.6% of students felt that excessive screen time is causing stress and affecting their sleep. 54.2% also

Article DOI: https://doi.org/10.37284/eajes.6.1.1100

felt that online assessment causes more anxiety than traditional forms of assessment.

The researcher sought to find out whether the COVID-19 pandemic influenced students' interest in their future study plans. From *Table 2*, 31% of the respondents indicated that they were greatly affected, whereas 26% were moderately affected, and 17% were mildly affected. The study revealed that the COVID-19 pandemic influences students' interest in their future study plans.

Students' Attitude Towards E-Learning During the Covid-19 Pandemic

The researcher sought to establish whether students feel comfortable using the online education version for efficiently communicating with the instructor. From *Table 3*, 96(48%) of respondents strongly agree that the students feel comfortable using the online education version for efficiently communicating with the instructor, while 44.22% agreed, in another side 35(17.5%) and 25(12.5%) strongly disagree and disagree respectively. The findings of Puljak et al. (2020) support this study's findings, and their study found that satisfied with how fast have adjusted to e-learning, 122 (4.8%) completely disagreed, 195 (7.7%) disagreed, 382 (15.2%) neither agree nor disagreed 869 (34.5%) agreed, and 952 (37.8%) completely agreed.

The researcher sought to find out whether learning through the online version can enhance students' ability to understand the subject more easily compared to the physical class. From *Table 3*, 86(43%) and 53(26.5%) of respondents disagree and strongly disagree, respectively, that learning through the online version can enhance students' ability to understand the subject more easily compared to a physical class, while 43(21.5%) and 18(9%) agreed and strongly agree respectively. The study revealed that learning through the online version cannot enhance students' ability to understand the subject more easily compared to a physical class. That means physical classes are preferable for enhancing students' ability to understand their subject.

Table 3: Students' attitude towards e-learning during the Covid-19 pandemic

Questions	SA	A	D	SD
Do you feel comfortable using the online version for efficiently communicating with your instructor?	96 (48%)	44 (22%)	35 (17.5)	25 (12.5%)
Does learning through the online version enhance your ability to understand the subject more easily compared to physical classes?	18 (9%)	43 (21.5%)	86 (43%)	53 (26.5%)
Does learning online enhance your ability to remember the subject more easily compared to physical classes?	16 (8%)	40 (20%)	60 (30%)	84 (42%)
Do you feel that online education can enable you to finish assignments on time?	105 (52.5%)	60 (30%)	26 (13%)	9 (4.5%)
Does learning online encourage you to share your thoughts with students during the lecture periods compared to the physical class?	35 (17.5%)	53 (26.5%)	61 (30.5%)	51 (25.5%)
Would physical classes provide more interaction between the teacher and students compared to online lectures?	78 (39%)	54 (27%)	33 (16.5%)	35 (17.5%)
Would it be more difficult for you to focus during online teaching class compared to physical class?	42 (21%)	88 (44%)	43 (21.5%)	27 (13.5%)
Based on your performance, the online classes are better than the physical classes	34 (17%)	17 (8.5%)	106 (53%)	43 (21.5%)

Key: SA = Strongly Agree, A = Agree, D = Disagree, SD = Strongly Disagree

Article DOI: https://doi.org/10.37284/eajes.6.1.1100

The researcher wanted to find out whether learning online can enhance your ability to remember the subject more easily compared to physical classes. From *Table 3*, 84(42%) and 60(30%) of respondents strongly disagree and disagree, respectively that learning online can enhance your ability to remember the subject more easily compared to a physical class, while 40(20%) and 16(8%) agreed and strongly agreed respectively. The study revealed that learning online cannot enhance your ability to remember the subject more easily compared to physical classes. That means that physical classes are preferable for enhancing students' ability to understand their subject.

The researcher sought to establish whether students feel that online education can enable them to finish assignments on time. From *Table 3*, 105(52.5%) of respondents strongly agree that online education can enable them to finish assignments on time, while 60(30%) agreed, whereas 26(13%) and 9(4.5%) disagreed and strongly disagreed, respectively. The findings of Radha et al. (2020) support the findings, and their study found that in spite of the challenges associated with the abrupt changes to the spring 2020 semester, more than half (53.6%) of the respondents reported that they were able to stay motivated and complete their assignments on time. Only a small percentage of students (3.4%) reported difficulty with staying motivated to learn. A little over 50% of students surveyed remembered to log in to take scheduled course quizzes online and 47.5% were able to communicate with their colleagues on group course assignments. Less than half (45.1%) of students said they were able to set time aside to focus on and do their schoolwork.

The researcher sought to find out whether learning through online can encourage more sharing of thoughts with students during the lecture periods compared to the physical class. From *Table 3*, 61(30.5%) and 51(25.5%) of respondents disagreed and strongly disagreed, respectively, that learning online encourages more sharing of thoughts with students during the lecture periods compared to a physical class, while 53(26.5%) and 35(17.5%) agreed and strongly agreed respectively. The study revealed that learning through online cannot encourage students to share thoughts with other students during the lecture periods compared to a physical class. That means that in physical classes, students have more time and flexible conditions, but online classes have very limited time with a lack of space, so students' preferable physical classes.

The researcher also sought to establish whether physical classes provide more interaction between the teacher and students compared to online lectures. From *Table 3*, 78(39%) of respondents strongly agreed that physical classes provide more interaction with the teacher and students compared to the online lecture, while 54(27%) agreed. 33(16.5%) and 35(17.5%) disagreed and strongly disagreed respectively. This means that the students preferred traditional learning to enhance their interaction with the teacher and students. The findings of Radha et al. (2020) support the findings, and their study found that among 175 respondents, 80 per cent of students are supportive of conventional teaching for the practical session. This is in line with Chakraborty et al. (2020) assertion of how students expressed their thoughts on how lectures can be made more interactive. 75.1% felt that they could interact better with professors in a physical classroom. Interestingly, only 36.0% of students felt that the interaction could improve if professors and students showed their faces during lectures. The students (76.3%) felt that communication between professors and students through chat boxes during lectures would make them more interactive.

The researcher also sought to establish whether it would be more difficult for students to focus during online teaching classes compared to physical classes. From *Table 3*, 88(44%) of respondents agreed that it would be more difficult for students to focus during online teaching class compared to a physical class, while 42(21%) strongly agreed. 43(21.5%) and 27(13.5%) disagreed and strongly

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disagreed respectively. This is in line with Chakraborty et al. (2020) assertion that students had mixed opinions about online education during the COVID-19 pandemic. 65.9% of respondents (students) agreed that learning takes place better in physical classrooms than through online education, and only 31.6% of the respondents agree that online education is better than attending Massive Open Online Courses (MOOCs)

The researcher sought to find out whether the performance of students can improve by using online classes compared to physical classes. From *Table 3*, 106(53%) and 43(21.5%) respondents disagreed and strongly disagreed, respectively that the performance of students can improve by using online classes compared to a physical class, while 34(17%) and 17(8.5%) strongly agreed and agreed respectively. The study revealed that learning through online classes cannot compare to physical classes due to the student's performance/results. That means the physical classes, students had more time and flexible conditions, but online classes had very limited time with limited interaction, so students preferable physical classes to improve their performance.

Quality of Online Classes and Proffered Learning Model

From *Table 4*, 65% of the respondents (students) indicate that the university did not deliver high-quality online learning, while 18% indicate that the university did deliver high-quality online learning but not all the time. The rest constituting 17%, indicates that the university did always deliver high-quality online learning.

Table 4: Did your university deliver high-quality online classes for continuing your academic timetable?

Work experience	Frequency	Percent
Yes, for all the time	34	17%
Yes, but not all the time	36	18%
No	130	65%
Total	200	100%

The researcher sought to establish which education version students prefer; physical or online classes. *Table 5* shows that 70% of students (respondents) preferred physical classes, while 30% of respondents preferred online education classes. Therefore, during the time of the pandemic lockdown, respondents preferred physical classes. The findings of Radha et al. (2020) support the study's findings, and their study found that among 175 respondents, only 22.29% prefer e-learning. Nearly 77.71% of them prefer classroom learning. From this evidence, it is noted that most of the students prefer a classroom learning environment rather than e-learning

Table 5: Which education version do you prefer more?

Work experience	Frequency	Percent
On-campus classes	140	70%
Online education classes	60	30%
Total	200	100%

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Challenges Facing Students for Appropriate E-Learning During the COVID-19 Pandemic

First, the study sought to find out whether the challenges students face is the unavailability of online education devices (e.g., Smartphones/Tablets/Laptops). *Table 6* shows that 64.5% of the respondent indicated that they frequently had faced challenges of unavailability of online education devices while 22% occasionally, only 13.5% did not face challenges of unavailability of online education devices. The findings of Bassett and Arnhold (2020) support the findings, and their study found that Somalia ranks the lowest among its counterparts in Africa in terms of internet penetration, reaching 10% of the population. Although students in Somali cities may include a group with higher levels of internet access, it is evident that many students face difficulties in accessing online education as they do not have computers/smartphones or internet connectivity that would give them access to virtual classes.

Table 6: Challenges facing students for appropriate e-learning during the Covid-19 pandemic

Questions	Yes, frequently	Occasionally	No
Unavailability of online education devices (e.g., Smartphone/Tablet/Laptop)?	129 (64.5%)	44 (22%)	27 (13.5%)
Lack of sufficient technical skills to cooperate with online education tools?	78 (39%)	88 (44%)	34 (17%)
Lack of motivation to cooperate with online education tools?	85 (42.5%)	70 (35%)	45 (22.5%
Too challenging e-Learning tools?	114 (57%)	45 (22.5%	41 (20.5%)
Lack of instructor in assisting with using online education tools?	54 (27%)	59 (29.5)	87 (43.5)
Poor internet connection?	96 (48%)	68 (34%)	36 (18%)
Difficult to find a quiet place in my residential place?	95 (47.5%)	85 (42.5%)	20 (10%)
Inconvenient timeline of the online classes?	75 (37.5%)	72 (36%)	53 (26.5%)
Insufficient electricity supply in my residential place for charging the online education devices (e.g., Smartphone/Tablet/Laptop)?	80 (40%)	94 (47%)	26 (13%)
Too difficult to focus during online teaching?	86 (43%)	88 (44%)	26 (13%)

The findings of Al-Baadani and Abbas (2020) support the findings, and their study found that the challenge regarding the internet infrastructures in Yemen is the lack of internet, fixed telephone lines, limited mobile coverage, and devices that facilitate access to the internet outside the main provinces such as desktops, laptops, tablets, smartphones as a result of its high cost for this age group.

The study also sought to find out whether there has been any lack of sufficient technology skills to cooperate with online education tools. From *Table 6*, 39% of the respondent indicated that they frequently have sufficient technical skills, while 44% occasionally, and only 17% lack sufficient technical skills to cooperate with online education tools. The study by Kaur (2020) supports the findings about challenges facing Students for appropriate e-learning during COVID-19; the study shows that the analysis of Some of the faculties faced problems like how to operate any online platform. They were not really aware of how to share content in online teaching. They face

Article DOI: https://doi.org/10.37284/eajes.6.1.1100

problems in operating Apps; for example, they do not know how to mute and how to share screens. Initially, they faced problems in creating meeting IDs and when students faced any problem with the operating link then, they did not know how to handle that. In addition, in the focus group discussion, one responded as follows, "For the first time when I came to know that we have to take classes of students through online mode, I was a lit bit confused about how will I operate and handle all such things. If I commit any mistake in operating, I will not be able to deliver and in this lockdown situation which will help me".

The researcher sought to find out whether e-Learning tools are too challenging. From *Table 6*, based on the using e-learning tools, 57% of respondents frequently agree that it is Too challenging, while 22.5% and 20.5% indicated occasional and too hard, respectively. The study revealed that e-Learning tools are too challenging because it is a new system of teaching and learning. Students and teachers are used to the traditional way of teaching and learning, which is why most of the respondents indicated that e-learning tools are too challenging.

The study sought to find out whether students are motivated to cooperate with online education tools. *Table 6* shows According to the use of online education, 42.5% of the respondents frequently agree to create motivation, while 35% and 22.5% of the respondent occasionally and not motivated, respectively. Over 50% of students surveyed indicated that they were motivated to learn regardless of the learning environment. Thus, it was not surprising that they completed their assignments and turned them in on time and also remembered to log in to take quizzes. Some aspects of student motivation can be attributed to their access to faculty during the semester, their ability to access course materials and recorded lectures asynchronously, and the flexibility of schedules. Schunk et al. (2008) define motivation as the process whereby goal-directed activity is instigated and sustained. One's motivation can influence what one learns, how one learns, and when one chooses to learn (Schunk, 1995). According to available literature, motivated learners are more likely to engage in challenging activities, be actively engaged, adopt an approach to learning, and exhibit enhanced performance and persistence even under challenging circumstances (Schunk et al., 2008).

As per the lack of instructors in assisting with the use of online education tools, *Table 6* shows that 43.5% of the respondents indicated getting teachers' assistance during online education, while 29% and 27% indicated getting occasional and not getting any assistance, respectively. The findings of Puljak et al. (2020) support the findings, and their study found the teachers' instructions were tailored to e-learning (68.4%), teachers made an effort to enable students to follow e-learning more easily (66.9%), teachers verified whether students understood the lessons by asking feedback (70.4%), the tasks and activities provided during lessons and homework usually helped students to understand the course material better (55.3%).

The researcher also sought to establish whether respondents had a poor internet connection. From *Table 6*, 48% of the respondents indicated that they frequently faced a poor internet connection, 34% occasionally, and 18% have not faced any poor internet connection. The study by Yusuf (2020) supports the findings, and his study on examining the impact of COVID-19 on higher education in Mogadishu found that the poorer students who live at the outer edges of Mogadishu experience poor internet networks, unstable mobile connections, and are sometimes off–grid because giant electric suppliers do not reach these lower population density areas. Additionally, those who depend on their mobile to get access to online classes encounter constant disconnection from the class owing to the incoming calls causing disruption and distraction. The study by Al-Baadani and Abbas (2020) supports the findings regarding challenges faced by students through COVID-19; the study

Article DOI: https://doi.org/10.37284/eajes.6.1.1100

shows that one of the most important challenges of Higher Education Institutions (HEIs) in coping with Covid-19 pandemic is changing the strategy to deal with the new situation while Yemen is suffering from the speed of internet connection with (0.38 MBPS) which put the country at 207th in the world ranking as the slowest internet connection in the world for the third year in a row (Hananto, 2019).

The researcher also sought to establish whether respondents had difficulty finding a quiet place at the residential place. *Table 6* highlights that 47.5% of the respondents indicated that they frequently faced difficulty in finding a quiet place, 42.5% occasionally, and 10% had not faced any difficulty. This is in line with Kaur's (2020) assertion that when anyone works from home, then it is possible that person gets some family disturbance. This challenge is especially faced by female faculties where they are fulfilling family needs and job requirements both. At the same time, managing both aspects of family and work is quite difficult for them as all family members are at home, so females have to fulfil their demands and take care of everyone. One of the female respondents shared the experience and said, "I usually finish all domestic work before online teaching starts, but when I indulge in my work, my child starts crying and asks, I have to sit with you, and sometime in between he asks to give food etc."

The researcher sought to find out whether there was an inconvenient timeline for the online classes. From *Table 6*, 75(37.5%) respondents said yes, frequently there is an inconvenient timeline of the online classes, while 72(36%) occasionally, and only 53(26.5%) indicated that online classes had a convenient timeline. The study revealed that the inconvenient timeline of online classes was one of the main challenges faced by e-learning during online classes.

The researcher also sought to establish whether respondents have issues with insufficient electricity supply in the residential place for charging online education devices (e.g., Smartphones/Tablets/Laptops). *Table 6* gives that the 40% of the respondents indicated that they frequently face issues with insufficient electricity supply, 47% occasionally, and only 13% have not faced any issue with insufficient electricity supply. Additionally, those who depend on their mobile to get access to online classes encounter constant disconnection from the class owing to the incoming calls causing disruption and distraction.

CONCLUSION

This study has outlined various impacts of Covid-19 on higher education in Puntland/Somalia. The recent pandemic created a lot of changes in educational approaches and the introduction of virtual education at all levels of education. As we do not know how long the pandemic situation will continue, a gradual move towards virtual education is the demand of the current crisis. Higher education in Somalia as a whole and Puntland particularly have launched many virtual platforms with online depositories, e-books, and other online teaching/learning materials. A combination of traditional technologies and mobile/web technologies to a single platform with all depositories would enhance better accessibility and flexibility to education. This would involve upgrading the service platform to enable it to meet the required volume of educational demands of students. Virtual education is the most preferred mode of education at this time of crisis due to the outbreak of Covid-19. The post Covid-19 education seems to be an education with widely accepted online education, which may perhaps be a corresponding system of education. In conclusion, this study showed that E-learning has become quite popular among students across Somalia, particularly during the lockdown period due to the COVID-19 pandemic.

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Recommendations

After discussing the most prominent challenges facing higher education institutions in Puntland, a set of recommendations are provided to help the educational sector to overcome the impact caused by (Covid-19) pandemic or any other emergency conditions that prevent traditional education in the future.

Taking into consideration the deadly COVID-19 and in its endeavour to avoid its spread government have put in place stringent measures such as national lockdowns and social distancing initiatives. These restrictions have led many universities to choose online learning to limit the spread of Corona Virus. As such, it is recommended that:

- To establish a hybrid education system; because of the complex and interrelated problems such as lack of infrastructure, the high cost of transformation to online systems, and the difficulty of evading traditional education in some applied disciplines in medicine and engineering, which prevent Higher Education Institutions (HEIs) in Puntland from a rapid transition to e-learning system.
- To organise training courses in online education methods for lecturers;
- To organise in-depth training courses in online education methods for lecturers of non-pedagogical specialities, including training in interactive online teaching methods, online multidisciplinary courses development
- To engage the students to enjoy learning in this initiative, universities must provide the faculties with appropriate and required resources. For effective students understanding, universities must prepare some strict rules and guidelines for the class so that students can actively participate
- To reduce the tiredness of online classes, universities should prepare content in a way that students enjoy the learning
- University's management should provide constant monitoring of the satisfaction of students and lecturers of the online education organisation for the accumulation of statistical data in the dynamics.

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