

Challenges Faced by Students During the Covid-19 Lockdown: Rethinking the Governance of Higher Education in Cameroon

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Abstract

Change which is inevitable due to the changing needs of individuals and the society usually comes with some challenges. Knowledge and understanding of these challenges are relevant for effective implementation and efficient outcome. This study examined the extent to which challenges faced by students during the lockdown period will inform policy makers on restructuring the governance of higher education in Cameroon. The study adopted a cross-sectional survey research design of quantitative approach. Questionnaire was used to collect data from 1029 postgraduate students. The statistical package for social science (SPSS) version 23.0, frequency counts and percentage were used to analyse the closed-ended questions while the thematic approach was used to analyse the open-ended questions. The Spearman's rho test which is a non-parametric test was used to test the hypothesis. Results revealed that lockdown period significantly affected students' learning in higher education institutions in Cameroon and this effect was very strong justified with an R-square value of 0.826, $P = 0.000$, $far < 0.05$ and a high Chi-Square value of 964.612 at a degree of freedom of 81. This effect is related to the challenges faced with respect to knowledge and skills in online learning, access to online resources and management of online studies.

Keywords: challenges, COVID-19, governance, higher education, lockdown

1. Introduction

It is sometimes difficult to predict the future when things are going on normally as planned. Humans react differently to situations and when they cannot accommodate a change, resistance becomes inevitable. Bridges (2009) in Carlyon and Branson (2018, p. 108), further argues that "a person's reaction to a proposed change is not so much about the actual focus of the change per se but more about how they see themselves coping or not coping with the transitional implications that they believe will result from implementing the change". The drastic change from face-to-face to online teaching and learning in higher education in Cameroon as one of the measures to fight against the spread of COVID-19 was a string stress test for the management and administration of higher education and other members of the educational community especially students and teachers who are at the centre of teaching and learning. Governance in higher education within the context of this study is defined as "the process of steering higher education institutions (and related external actors) through collective action toward the common goal of sustainable development" (Niedlich et al., 2020). While the process of steering requires planning, 'collective action' denotes participation in decision making which is possible when the society and organizations are ready for change. But the advent of the coronavirus pandemic did not give room for preparation which poses major challenges at the level of implementation. Most often, policy reforms in Cameroon follows the top-bottom approach where managers of higher education simply make policies and administrators and other stakeholders in education are expected to implement. This study holds a strong view that, the voice of students through the challenges faced during remote learning amidst the coronavirus pandemic is a relevant input for policy makers to restructure the governance of higher education in Cameroon.

The pandemic broke out at a period where most higher education institutions (HEIs) in Cameroon were preparing for the resumption of classes for the second semester of the 2019/2020 academic year. Given the regulations by the World Health Organization (WHO) to prevent the spread of COVID-19, especially regarding

the issue of social distancing and considering the prevalence of large class sizes in public universities in Cameroon, members of the educational community ponder on the feasibility of the resumption of classes. In the urgency of an adequate and concerted response for the continuation of the 2019/2020 academic year, the Cameroon government on the 18th March 2020 announced lockdown of schools in basic, secondary and higher education including vocational training centres; lockdown of Cameroon's land (air and sea boarders), gathering of not more than fifty persons were prohibited, schools and university competitions were suspended; under the supervision of administrative authorities, bars, restaurants, and entertainments spots were systematically closed from 6pm and a system of regulating consumer flows was set up in markets and shopping centres (Republic of Cameroon, 2020).

The measures put in place affected the governance process of higher education as HEIs were expected to draw up internal policies for effective implementation. Some of which was the move from face-to-face teaching to e-learning, from face-to-face meetings to online meetings with teachers also needing to supervise undergraduate projects and postgraduate thesis using online platforms. As regards online teaching and learning, the government did not take into consideration the level of students and teachers' preparedness in terms of the relevant skills and didactic materials relevant for online education. But they expected results. This raised major questions about the governance process in HEIs by school administrators and teachers. The key question is what is the way forward for the administrative and governance process of higher education in Cameroon amidst COVID-19 and possible future health pandemics or crisis that may require lockdown of schools? It is worthy of note that before the occurrence of the COVID-19 pandemic which is a global challenge, Cameroon has been seriously hit by the Anglophone crises which necessitated school lockdown in the two English speaking regions of the country (North West and South West regions). Till date, a majority of the schools in these regions are not functioning especially in the rural and semi-urban areas. This implies pandemics are re-occurring and crisis are inevitable.

1.1 The Problem

HEI's are the major industries for knowledge and skills production that sustains economic and social development of the country through teaching, research and innovation. According to Manzoor, Hussain, Ahmed and Mohammad (2012), the goal of higher education was clearly defined in 1997 by the National Committee of Inquiry into Higher Education, chaired by the Ron and later, Lord, and Dearing. It is as follows: to inspire and enable individuals to develop their capabilities to the highest potential levels throughout life, so that they grow intellectually, are well equipped for work, can contribute effectively to society and achieve personal fulfilment; to increase knowledge and understanding for their own sake and to foster their application to the benefit of the economy and society; to serve the needs of an adaptable, sustainable, knowledge-based economy at local, regional and national levels and to play a major role in shaping a democratic, civilized, inclusive society. For these goals to be attained, effective teaching, learning and research have to take place. The teaching-learning process greatly determines the productivity of graduates.

In light with these central goals, HEIs in Cameroon have 'professionalization of education' as their main goal. This requires a lot practical work which to a greater extent cannot be done online. In addition, many students do not have the internet facilities to participate in online lessons. This poses a problem with the quality of teaching especially in training programs. Without innovative governance structures, university graduates for as long as the COVID-19 pandemic will last may not adequately acquire skills or job competences. This poses serious implications for a developing country like Cameroon with a mission of becoming a middle-income country by 2035 by making the tertiary sector professional, specialized and a source of decent jobs through entrepreneurship, match job demands with skills development offered and improve on the efficiency of the labour market (ILO, 2019). As such, major changes in the structure of teaching and learning should be continuously evaluated to ensure quality outcome and sustainability of higher education in Cameroon.

Based on the above problem, this study has as a goal to investigate the challenges that students in higher education institutions faced during the COVID-19 lockdown in Cameroon and the extent to which this has affected the governance of higher education institutions in Cameroon. The following specific objectives guided the study:

- 1) To what extent does student's knowledge and skills in online learning pose a challenge during the COVID-19 lockdown in Cameroon
- 2) To determine the extent to which access to online resources pose a challenge to students during the COVID-19 lockdown in Cameroon
- 3) To examine the extent to which management of online studies pose a challenge to students during the COVID-19 lockdown in Cameroon.

Based on the above objectives, one research hypothesis was tested which examined the effects of Lockdown during the COVID-19 pandemic on students' learning in higher education institutions in Cameroon.

Most research works on the impact of the coronavirus pandemic on education have examined the effect of the emergency response strategy by the government (Béché, 2020; UNESCO, 2020), the impact on teaching and learning (Pokhrel & Chhetri, 2021), challenges that students faced during the coronavirus pandemic lockdown with respect to students' experiences in online learning, access (Mahyoob, 2020) and financial issues (Khan et al., 2021; Sahaa, Dasb, & Singh, 2020). In all these, very little research is done in Cameroon and they mostly focused on basic and secondary education. This study links higher education governance and change; how the challenges that students faced during the lockdown period will inform policy makers on restructuring the governance of higher education in order to handle future pandemics or crisis that would require lockdown. Students in public universities in Cameroon are the major population of this study considering that they were more vulnerable. The remainder of the paper looks at review of related literature, methodology, findings, discussion, conclusion and recommendations.

2. Literature Review

Higher education (HE) is viewed as various post-secondary education institutions with varied structures. Higher education in Cameroon, as defined by Law No. 005 of 16 April 2001 to guide Higher Education comprised all the post-secondary training courses taught by public higher education institutions and private education institutions approved by the State as higher education institutions. The higher education realm shall be assigned a basic mission of producing, organizing and disseminating scientific, cultural, professional and ethical knowledge for development purposes (Article 2). This supports the objectives of HEIs as an agency of knowledge production. For the goals and objectives of HE education to be attained, governance policies are of relevance and reforming policies to the changing environment is required for sustainability.

With regard to strategies to manage crisis, UNESCO (2020) recommends that the response to a crisis such as the COVID-19 pandemic should be fast, coordinated, and cross-sectoral. First, education authorities will want to set priorities and involve all relevant stakeholders, creating a short-term plan based on a rapid analysis of the situation and an assessment of immediate needs. Once this is in place, all stakeholders should agree upon a medium-term plan, and anticipate the need for a strategy to manage the aftermath of the crisis. Also, making sure that learning can continue in times of crisis is important. It will also help with post-crisis recovery: students and teachers will need to resume normal activities with minimal disruption or transition, if the impact of the COVID-19 crisis on teaching and learning outcomes is to be reduced as much as possible.

However, the emergency response strategy put in place by the Cameroon government and other governments of the world posed major challenges in its implementation. Béché (2020) examined Cameroonian responses to COVID-19 in the education sector using documentary analysis, interviews, and digital observation of distance learning platforms. Results revealed that the Cameroonian education system is plagued by disorganisation, educational inequalities and exclusion – problems which affected learners' daily lives on a personal level during the lockdown period. As such, for Cameroon to guarantee educational normality in the event of other similar crises, she must integrate distance-learning technologies and improve the access to essential socio-educational services such as electricity, television and internet.

A related study was carried out by Sahaa, Dasb and Singh (2020) on the challenges in higher education during and after COVID-19 pandemic in India. The major challenge was the socio-economic inequality as the transition from face-to-face to online made education more cost-effective for poor/lesser privileged students. According to UNESCO (2020) report on COVID-19 and higher education, this inequity is reflected in the high dropout and non-completion rates in higher education. In addition, "the temporary cessation of classroom activity at HEIs has left students, particularly undergraduates and those on the verge of finishing high school and aspiring to begin tertiary education, in a completely new situation and without a clear idea of how long the impact will last, the immediate effect it will have on their daily life, costs and other financial burdens and, naturally, on the continuation of their studies". Similarly, Mahyoob (2020), evaluated the challenges and obstacles confronted by English language learners (EFL) in Science and Arts College, Alula, Taibah University, Saudi Arabia, during switching to online learning in the second semester of 2020 due to the COVID-19 pandemic. Results revealed that most EFL learners were not satisfied with continuing online learning, as they could not fulfil the expected progress in language learning performance due to challenges such as class access, class material downloading and audio and video playing.

A review of previous studies shows that this area of research is of major interest to researchers but it is underexploited especially within the context of Cameroon. This study examines the extent to which student's

knowledge and skills in online learning, access to online resources and management of online studies pose a challenge to students during the coronavirus pandemic lockdown in higher education institutions in Cameroon. It also examines how the managers of higher education can see these challenges as an opportunity to restructure governance policies in higher education to accommodate future pandemics and crisis that may require lockdown of schools.

Theoretically, given the rapid environmental changes and internal turmoil that higher education institutions experienced, this study make use of the change theory by Fullan which is considered powerful in informing education reform strategies, especially if policy makers have an in-depth knowledge of the factors that prevail (Fullan, 2006). The purpose of educational change is for school improvement (Burner, 2018) that is most often determines by the changing needs of the society. In this regard, Fullan (2007) presents three ways by which “real change” can occur in the educational system. These include a revision in curriculum materials or technologies, new teaching approaches which include strategies and activities and changing peoples’ beliefs. Given that students were more vulnerable during this period of change, this study views educational change from the bottom top approach using the students’ perspective who are at the centre of the change process. Largely, educational change leadership has ignored the voices of those personally affected by a change. Carlyon and Branson (2018, p. 108) support that literature on educational change has often maintained a “hierarchical perspective whereby the leader is at the top and those affected are considered to be at the bottom”. As such, the challenges faced by students in transitioning to online learning amidst the coronavirus pandemic is relevant for policy makers to make online learning permanent, effective and efficient in higher education institutions in Cameroon an also to prevent future occurrences of such challenges in the midst of a pandemic or crisis.

3. Methodology

The study adopted a cross-sectional survey research design of quantitative approach.

Participants: The population of the study was made up of all postgraduate students who were admitted for the 2019/2020 academic year in all eight public universities in Cameroon. This choice of population was because they experienced the lockdown challenge and could better provide adequate response to the questions.

Ethical consideration: Students’ consent was solicited before participation. Each student clearly read the information sheet and consent form and agreed to participate in the survey. Students were given at least a week and at most two weeks to respond to the survey. This gave ample time to read the information sheet and consent form and make their decision whether to participate or not without being pressured. Anonymity of participants was ensured as names and personal characteristics of participants were excluded in the presentation of results. In addition, a letter of authorization was given by the University of Buea research unit where the researcher is attached to, to carry out this research project. This guaranteed access to other higher education institutions.

Instruments and data analysis: Questionnaire with closed and open-ended questions was used to collect data from 1029 students from a population of 6359 masters and PhD students. Proportionate sampling was used to select the total number of masters and PhD students in each university while simple random sampling technique was used to select the students. The statistical package for social science (SPSS) version 23.0, frequency counts and percentage were used to analyse the closed-ended questions while the thematic approach (using themes, frequency and sampled quotations) was used to analyse the open-ended questions. Likelihood ratio test in association with chi-square goodness of fit was used to test the hypothesis.

4. Findings and Discussion

4.1 Challenges Faced with Respect to Knowledge and Skills in Online Learning

During the lockdown period, teachers used varied online platforms for teaching and learning based on what they are versed with. The application of remote learning did not provide time for the training of teachers and students to effectively use it for teaching and learning. Table 1 depicts students’ opinion of the online platforms used during the lock down.

Table 1. Students' opinion of online platforms used during studies

Online platforms	N	Percentage (%)	Total
WhatsApp	870	84.5	1029
Google Classroom	719	69.9	
Zoom	544	52.9	
Email	373	36.2	
Face book	243	23.6	
Instagram	145	14.1	
Twitter	104	10.1	
Emor	53	5.2	
Telegram	9	.9	
Moodle	9	.9	
Wikipedia	6	.6	
Google group	6	.6	

Findings from Table 1 shows that WhatsApp was the most used as indicated by 84.5% of the students, followed by Google Classroom 69.9%, Zoom 52.9%, Email 36.2%, Facebook 23.6%, Instagram 14.1%, Twitter 10.1%, Emor 5.2%, Telegram and Moodle with equal proportion of 0.9% and Google Group and Wikipedia with equal proportion of 0.6%. However, among these platforms Google classroom, zoom and Moodle are structured for remote learning. But the extent to which students can effectively use these platforms will determine their outcome. Table 2 presents online platforms that students were most comfortable with based on their prior use and competency.

Table 2. Online platform that students are comfortable with

Online platform	Frequency	Percentages (%)
WhatsApp	487	44.8
Google Classroom	292	26.8
Zoom App	176	16.2
Email	45	4.1
Moodle	20	1.8
Facebook	14	1.3
Instagram	11	1.0
Twitter	10	0.9
Telegram	10	0.9
No response	23	2.1
Total response	1088	100

Findings on Table 2 shows that WhatsApp (44.8%) is the online platforms that many of the students were verse with followed by Google Classroom 26.8% and Zoom App 16.2% while the least platforms that students are versed with included Email 4.1%, Instagram 1.0%, Twitter 0.9%, Facebook 1.3% and lastly Telegram 0.9%. Students' knowledge in online learning has the tendency to affect their participation in class. Online learning focuses on a wide range of technological based learning platforms, delivery methods, and the integration of educational technology components into the learning environment (Barr & Miller, 2013). The extent to which students understand the functioning of the platforms and the various delivery methods used determines their participation in online classes and performance. Table 3 presents the frequency of class attendance by students during the lockdown period.

Table 3. The frequency by which students attend online classes

How often did you attend online classes	Frequency	Percentage
Very Often	253	24.6
Often	412	40.0
Not Often	322	31.3
Never	42	4.1
Total	1029	100

When asked how often students attended classes, 35.4% of the student did not either attend classes at all (4.1%) or were irregular (31.3%). This implies approximately 364 students out of 1029 has the probability of performing poorly which may lead to repetition and dropout. Effective teaching cannot take place with irregular attendance of students. This challenge has the tendency to affect students' level of concentration during online learning. While it is difficult for students to assimilate concepts, it is more difficult for teachers to evaluate students' achievement and follow-up students learning (Etomes & Fonkeng, 2019).

With the introduction of remote learning, adequate skills in information and communication technologies (ICT) becomes relevant for students to effectively participate in the teaching-learning process. In this light, the research work of Batez (2021) revealed that students with higher knowledge of ICT were more satisfied with online education during the COVID-19 lockdown in the University of Novi Sad in Serbia. Table 4 below presents the challenges that students faced in relation to ICT skills which affected their attendance and participation in the teaching-learning process.

Table 4. Challenges in relation to ICT skills

Items	Strongly Agree	Agree	Disagree	Strongly Disagree	N
I was unable to submit my assignments online.	311 (30.2%)	393 (38.2%)	197 (19.2%)	128 (12.4%)	1029
I had no problem attending classes online*.	181 (17.6%)	165 (16.0%)	313 (30.4%)	370 (36.0%)	1029
I have adequate knowledge of computer *.	228 (22.2%)	115 (11.2%)	250 (24.2%)	436 (42.4%)	1029
I could not type fast online	334 (32.5%)	350 (34.0%)	167 (16.2%)	178 (17.3%)	1029
I found it difficult to login during online classes	360 (35.0%)	282 (27.4%)	207 (20.1%)	180 (17.5%)	1029
Multiple Response Set (MRS)	1414 (27.5%)	1,305 (25.4%)	1134 (22.0%)	1292 (25.1%)	5145

Note. *Coding reverse during calculation of MRS.

Findings indicated that a majority of the students (66.6%) do not have adequate computer knowledge. Consequently, many had problems attending classes online (66.4%). Specifically, students were unable to submit assignments online (68.4%), could not type fast (66.5%) and had difficulties logging into class. Besides the inadequate knowledge of computer that poses a major challenge to students, the emergency response strategy adopted by the government and the Ministry of Higher Education to shutdown schools and the transition to remote learning did not provide adequate time to train teachers, students and other members of the educational community on the use and management of remote learning. This poses a major challenge to students as seen on table 5 below.

Table 5. Challenges in relation to skills and knowledge of online learning

Items	Strongly Agree	Agree	Disagree	Strongly Disagree	N
I had difficulty participating in class activities online (e.g., ask questions, contribute in discussion, etc).	402 (39.1%)	411 (39.9%)	142 (13.8%)	74 (7.2%)	1029
I could not get support from classmates & teachers.	182 (17.7%)	375 (36.4%)	365 (35.5%)	107 (10.4%)	1029
I was able to attend all classes online without any help*	142 (13.8%)	281 (27.3%)	349 (33.9%)	257 (25.0%)	1029
Multiple Response Set (MRS)	841 (27.2%)	1135 (36.8%)	788 (25.5%)	323 (10.5%)	3087

Note. *Coding reverse during calculation of MRS.

Result from Table 5 reveals that a majority of the students (79%) had difficulties in participating in the teaching-learning process online, such as asking questions and contributing in class discussion. More so, 54.1% of the students could not get support from either classmates or teachers while 58.9% were unable to attend

classes without any help. Collaborative learning is relevant for greater students' output. Before the lockdown, students were taught in a face-to-face mode in class and usually divided into small groups for research and class presentations. They could easily ask questions from teachers or fellow mates where relevant and participate in the teaching learning process. Remote learning signifies independent study which many students were not abreast with. Students had to adjust their daily lives to situation of confinement while studying. Inadequate acquisition of skills and knowledge in remote learning made it difficult to consult mates or teachers where necessary.

According to Chandra (2015), collaborative learning enables groups of learners working together to solve a problem, complete a task, or create a product. In the present context, a majority of the students (79%) had inadequate knowledge on online studies which hindered collaboration. This placed students in a threshold which has the tendency to affect their performance negatively. Ansari and Khan (2020) support that collaborative learning through social media networks enable students to access course contents, video clip, and transfer instructional notes. This result is a continuation of the research work of Coman et al. (2020) that reveals that lack of interaction and poor communication between students and teachers affected students learning negatively during online teaching and learning in higher education institutions in Romania as a result of lockdown caused by the coronavirus pandemic.

4.2 Challenges Faced with Access to Online Resources

Online learning entails the use of electronic medium of learning. For this to function effectively, students and teachers need computers or phones, internet and electricity. Tables 6 and 7 below depicts students' opinion on the challenges encountered with respect to access.

Table 6. Challenges in relation with access to online resources

Items	Strongly Agree	Agree	Disagree	Strongly Disagree	N
Inadequate financial resources for internet facilities	466 (45.3%)	410 (39.8%)	120 (11.7%)	33 (3.2%)	1029
It was more costly to study online	446 (43.3%)	406 (39.5%)	128 (12.4%)	49 (4.8%)	1029
My phone was not good enough to download online learning resources	326 (31.7%)	396 (38.5%)	233 (21.7%)	84 (8.2%)	1029
Notes were well comprehended for easy understanding*	142 (13.8%)	401 (39.0%)	320 (31.1%)	166 (16.1%)	1029
As a student, I did not enjoy working independently	282 (27.4%)	456 (44.3%)	218 (21.2%)	73 (7.1%)	1029
Multiple Response Set (MRS)	1662 (32.3%)	2069 (40.2%)	1009 (19.6%)	405 (7.9%)	5145

Note. *Coding reverse during calculation of MRS.

Findings from Table 6 showed that 72.5% of the students had difficulties in accessing online resources due to inadequate finances, study materials such as phones, understanding study materials and the ability to study independently. Findings also reveals that mobile phones were the major learning material used by students for the online study. As such the quality of the phone was a major challenge as most of their phones (70.2%) did not have enough space to download online learning resources. If we collapse the figures above, the major challenge was inadequate financial resources (85.1%) to enable students acquire laptops, good phones and buy internet facilities. Reasons why 82.8% of the students reported that it was more costly to study online while 70.2% of the student agreed that their phones were not good enough to download online resources. This result is a continuation of the research work of Sahaa, Dasb and Singh (2020) on the challenges in higher education during and after COVID-19 pandemic in India which revealed that the socio-economic inequality was the major challenge as the transition from face-to-face to online made education more cost-effective for poor/lesser privileged students.

It should be noted that before the advent of the COVID-19 pandemic in March 2020 in Cameroon, the President of the Republic of Cameroon, in 2017 donated laptops for students in all higher education institutions in Cameroon. Since remote learning was not part of the curriculum of higher education in Cameroon, many students could not make productive use of this gift. It is not certain what they did with the laptops but during the lockdown period as a result of COVID-19, many students did not have laptops which was a major pedagogic tool during this period. This is depicted in Table 7 where 70.2% of the students' agreed that their phones were not

good enough, implying most of them were using phones as a medium of learning. To corroborate the quantitative findings, students' opinions were sampled to get an in-dept information on the challenges they encountered with respect to access to online resources. Table 7 presents students' opinion on the challenges faced with access during the COVID-19 lockdown in Cameroon.

Table 7. Students' opinion on other challenges faced in relation to accessibility

Themes	Sub-themes	Frequency	Sampled Quotations
Electricity problems	Irregular power supply	304	<p>"Frequent light cut".</p> <p>"Poor electricity to use computer to read notes".</p> <p>"Poor electricity".</p> <p>"Frequent power failure".</p> <p>"Lack of electricity at times".</p> <p>"Light failure"</p> <p>"Light problem in my area hinder me from going online".</p> <p>"In some of the classes, there is no electricity".</p>
Poor internet	Irregular and poor internet connection	256	<p>"Irregular Internet connection".</p> <p>"Poor connection when logging into the Google Classroom".</p> <p>"Poor internet connection".</p> <p>"Poor network".</p>
Difficulties in accessing classroom	Inability to use Apps	240	<p>"I find it difficult to use the Google Classroom".</p> <p>"It was difficult to manage the ZOOM App"</p> <p>"I could not download materials on WhatsApp".</p> <p>"Using WhatsApp was inadequate".</p>
	Lack of directives	180	<p>"I had no directives on how to access the online platform to study".</p> <p>"I had problem connecting to the Google Classroom".</p>
Lack of finance		216	<p>"Not always having money to activate data".</p> <p>"Money to always put data".</p> <p>"Lack of finance".</p> <p>"No money to afford for data".</p> <p>"No enough phone to go online".</p>
Inadequate learning material	Lack of android phone	208	<p>"I did not have an android phone".</p> <p>"Lack of android phone".</p> <p>"Lack of a smart phone".</p> <p>"I didn't have an android phone".</p>
	Inadequate phone storage	160	<p>"Phone storage limitation"</p> <p>"My phone storage was small and that affected me a lot".</p> <p>"Phone capacity was small".</p> <p>"Some lecturers send notes in softcopy and so, for us that have phones with limited storing capacity, it was difficulty for us to download all files sent".</p>
	Incompatibility between phone and prescribed App	80	<p>"My phone was not compactable to the Apps prescribed".</p> <p>"My phone was not compactable to the Apps used".</p>

From Table 7, the epileptic power supply and internet connection was a major challenge affecting learning. This result is in line with the World Bank (2017) report on connectivity in Cameroon. Based on this report, the national average of household electrification rate in Cameroon is approximately 54%, with 88% of this in urban areas and 17% in rural areas. In addition, while 73.19% have access to mobile phones, only 30% have access to internet (*Mobile Connectivity Network*, 2018). These results indicate that schools were not ready for remote learning since regular supply of internet and electricity are the major need for online learning. As such, even if students and teachers were trained and had access to computers and required mobile phones, remote learning cannot be possible without regular supply of electricity and internet. This result is a continuation of the research work of Ullah et al. (2021) which revealed that a huge majority of the students in Pakistan were not able to access the good internet facility due to technical as well as financial issues. They concluded that online learning cannot produce good results in developing countries due to issues of connectivity and electricity.

Other major challenges reported were inadequate finances and the use of phones with low storage capacity which negatively affected their participation in class. Lastly, lack of guidance/directive on how to go about the

online classes and the incompatibility between Apps prescribed during the online classes and the phones that some students had were other issues of accessibility faced by few of the students.

4.3 Challenges in Relation to Management of Online Studies

The drastic transition from face-to-face to online studies required students to possess skills in managing their studies especially time management. Given that each student was learning from home, intrinsic motivation and commitment was required for effective participation. Table 8 presents students' opinion of the challenges encountered in managing their studies online.

Table 8. Challenges in relation to the management of online studies

Items	Strongly Agree	Agree	Disagree	Strongly Disagree	N
Lack of motivation and commitment to study	335 (32.6%)	481 (46.7%)	186 (18.1%)	27 (2.6%)	1029
Lack of support and guidance from other students	271 (26.3%)	521 (50.6%)	201 (19.5%)	36 (3.5%)	1029
The time table was not respected by some teachers	375 (36.4%)	461 (44.8%)	142 (13.8%)	51 (5.0%)	1029
Too many distractions during classes.	251 (24.4%)	465 (45.2%)	239 (23.2%)	74 (7.2%)	1029
Unavailability of some of the lecturers	302 (29.3%)	547 (53.2%)	136 (13.2%)	44 (4.3%)	1029
Multiple Response Set (MRS)	1534 (29.8%)	2475 (48.1%)	904 (17.6%)	232 (4.5%)	5145

Note. *Coding reverse during calculation of MRS.

Findings from Table 8 above showed that a majority of the students (77.9) had a challenge in managing their studies online. If we collapse the figures above, the main challenge is unavailability of the lecturers as reported by 82.5% of the students, followed by non-respect of time table, lack of motivation and commitment to study, lack of support and guidance from other students and distraction during class. Distraction may either come from students since most of the teaching was done through WhatsApp (see Table 1) which students were versed with and used for conversation rather than studies. Distraction may also come from home. Table 9 presents a thematic analysis of students' opinion on the challenges faced in the management of online studies.

Table 9. Other challenges faced by students in relation to online class management

Themes	Sub-themes	Frequency	Sampled Quotations
Teachers' assiduity	None respect of time allocation by some lecturers	663	<i>Extended class hours</i> <i>"None respect of teaching hours".</i> <i>"Time management was really a problem because the hours allocated for classes will be over without class being over".</i> <i>"The time table was not respected by some lecturers".</i> <i>"Yes, some lecturers did not follow or respect their time and some were only concentrating on giving notes without explaining".</i> <i>"The time table is not respected by some lecturers".</i>
	Short duration of lectures and inadequate explanation of notes	128	<i>The duration for lectures was very short</i> <i>"Time allocated for the online classes was very short"</i> <i>"I was supposed to have 40 minutes class but the actual time used for the class is 20 minutes".</i> <i>"I could not ask questions because the time was too short and not properly managed by the teacher".</i> <i>Some lecturers did not explain notes which were online".</i> <i>"Most often, some lecturers will just send notes without explanations".</i> <i>"The explanation of notes was inadequate, a situation that we faced with many of the lecturers.</i>
	Absenteeism by lecturers	127	<i>Most of the lecturers were unable to make it to the online classes".</i> <i>"My teachers were not regular"</i> <i>"Some of the lecturers were not serious at all with the online classes as they were never present".</i>
	Lack of follow up by lecturers	105	<i>"Teachers are not checking for understanding".</i> <i>"There was no follow up".</i> <i>"Follow up of students to check for understanding was very poor".</i>
Low level of student commitment	Irregular class attendance by students	516	<i>"I was unable to meet up with studies because of distraction from home".</i> <i>"Study time clash with working time at home".</i> <i>"I was unable to manage my study time with the online study time".</i> <i>"I had difficulties managing my house hold chores and going for the same online classes".</i> <i>"It affected my studies due to the fact that some lecturers decided to have lectures in the night which was my sleeping time".</i> <i>"Sometimes I forgot that I have lecturers".</i>
	Lack of concentration	317	<i>Lack of concentration during online studies".</i> <i>"Most often, my concentration toward studies was affected with discussion from friends on WhatsApp".</i> <i>"My concentration towards studies was low in most of the times".</i>
	Lack of commitment/ Motivation	134	<i>I was not motivated due to poor network".</i> <i>"Because of the poor network, my commitment to study was negatively affected".</i> <i>"My motivation and commitment to study were negatively affected".</i>
Internet Facilities	Poor internet connection	418	<i>"Poor internet connection".</i> <i>"The internet connection was really bad".</i> <i>"Network breakdown".</i>
	Lack of finances	312	<i>"Lack of money to activate data".</i> <i>"No finance in activating data".</i> <i>"I did not have internet data all the time due to lack of finance"</i>
Inadequate peer support	Lack of interaction with other students	161	<i>"The unavailability of association with other classmates affected me".</i> <i>"I could not interact with my peers to gain more ideas about the lessons".</i> <i>"Lack of interaction with my course mates".</i>

Based on the students' opinion on challenges in relation management of studies, findings showed that teachers' assiduity which is depicted in non-respect of time allocated for classes, short duration of lectures, absenteeism of some teachers and lack of follow-up of students learning were the challenges students faced in managing online studies. This is depicted in some of their statements: *"I was unable to meet up with studies because of distraction from home"*. *"Study time clash with working time at home"*. *"I was unable to manage my study time with the online study time"*. *"I had difficulties managing my house hold chores and going for the same online classes"*.

The next challenge is low level of students' commitment. Most students were irregular during the online

teaching due to distraction from home and classes schedule late at night. One of the students reported that, “*I was unable to meet up with studies because of distraction from home*”, while another said

“*It affected my studies due to the fact that some lecturers decided to have lectures in the night which was my sleeping time*”. Other challenges come from their peers who distracted them on WhatsApp during class time. This made students loss concentration and motivation in online studies. The third challenge is poor internet facilities which is depicted in irregular supply of internet and lack of finances to buy air time. Lastly, the lack of interaction with peers made it difficult for students to cope during online classes. All these affected studies negatively as depicted in Table 10 below.

Table 10. Students’ opinion how issues of online class management affected their studies

Themes	Frequency	Sampled Quotations
Low level of understanding	328	<p>“<i>It slows down my understanding</i>”</p> <p>“<i>My understanding of lecturers was less so; it affected my performance negatively</i>”.</p> <p>“<i>The lack of face-to-face interaction with my instructor slows my learning</i>”.</p> <p>“<i>I became a slow learner because I could not ask most of the questions I wanted to</i>”.</p> <p>“<i>Poor understanding of lectures</i>”.</p> <p>“<i>It affected my understanding greatly because I could not really understand all the courses</i>”.</p> <p>“<i>Poor understanding of concepts</i>”</p>
Low grade/performance	325	<p>“<i>I had low grades</i>”.</p> <p>“<i>I failed nearly all my courses</i>”.</p> <p>“<i>My CA marks dropped</i>”.</p> <p>“<i>It made me to drop in my performance</i>”.</p> <p>“<i>It makes my CA marks to drop</i>”.</p> <p>“<i>Poor performance</i>”.</p> <p>“<i>It poorly affected my studies leading to poor results</i>”.</p> <p>“<i>Poor CA performance</i>”.</p>
Low level of concentration	211	<p>“<i>My level of concentration slows down</i>”.</p> <p>“<i>Loss of concentration to due to lack of teacher support</i>”.</p> <p>“<i>Little or no concentration</i>”.</p> <p>“<i>My concentration level was low</i>”.</p> <p>“<i>My level of concentration was low especially in moments that the internet connection is poor</i>”.</p> <p>“<i>Unable to pay attention and follow up lectures</i>”.</p>
Low motivation	197	<p>“<i>It makes we unwilling to continue studies</i>”.</p> <p>“<i>I felt reluctant to study due to the way the lectures were presented</i>”.</p> <p>“<i>Low moral</i>”.</p> <p>“<i>It discouraged me a lot. I almost gave up in the academic that year</i>”.</p> <p>“<i>It made me to have low motivation for studies</i>”.</p> <p>“<i>Lack of motivation to studies</i>”.</p>

Finally, based on the students’ opinion on how issues of online management of studies affected their learning, findings showed that many of the students had low level of understanding as depicted in some of their statements, “*It slows down my understanding*” “*My understanding of lecturers was less so; it affected my performance negatively*”. “*The lack of face-to-face interaction with my instructor slows my learning*”. “*I became a slow learner because I could not ask most of the questions I wanted to*”.

Findings also showed that many of the students had poor performance/grade as supported with some of their statements “*I failed nearly all my courses*”. “*My CA marks dropped*”. “*It made me to drop in my performance*”. “*It makes my CA marks to drop*”. Low level of concentration and lack of motivation to study were other effects of the issues on online studies on the students’ learning as they reported, “*My level of concentration slows down*”. “*Loss of concentration to due to lack of teacher support*”. “*Little or no concentration*”. “*My concentration level was low*”.

4.4 Verification of Hypothesis

Table 11. Likelihood Ratio Test depicting the effect of lockdown period on students' learning in higher education institutions in Cameroon.

Challenges of lockdown period	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	Df	Sig.
Intercept	3223.700 ^a	.000	0	.
Students' knowledge and skills in online learning	4297.110 ^b	1073.410	27	.000
Access to online resource	4140.015 ^b	916.315	27	.000
Management of online Studies	4143.568 ^b	919.868	27	.000
Overall effect	3223.700	964.612	81	.000
Pseudo R-Square	.826			

Statistically, findings showed that the lockdown period significantly affected students' learning in higher education institutions in Cameroon and this effect was very strong justified with an R-square value of 0.826, $P = 0.000$, $far < 0.05$ and a high Chi-Square value of 964.612 at a degree of freedom of 81. In other words, the challenges in relation to students' inadequate knowledge and skills for online learning, their difficulties in attending online classes and challenges in relation to management of studies characterized by poor internet connection, the epileptic power supply inadequate finances and other factors significantly affected the provision of higher education in Cameroon.

4.5 Implications of the Challenges on the Governance of Higher Education

Challenges with respect to access to online resources, management of online studies and knowledge and skills in online learning created inequality in the provision of education during the lockdown period. For example, the challenge of inadequate finances to buy air time, good phones and computers for online studies gave advantage to students from high socio-economic background. This created inequality of access to education which affected students' performance even after the lockdown as some students had to repeat some of the courses that were taught online while others had very low performance. One of the justifications was that change was sudden. As such, students and parents were not ready for the increased in expenditure since online learning was not integrated into the curriculum of higher education in Cameroon. This has exposed the inadequacy of the higher education system which needs a reformation to better accommodate future pandemics and easy adaptability to the changing environment.

Nevertheless, the issue of epileptic power supply and irregular supply of internet was a general problem despite their socio-economic background that hindered effective participation of students in online studies. This study is a continuation of the study by Khan et al. (2021) which revealed that quality of internet, poor knowledge of ICT and family income were the major challenges that positively impact online classes during the COVID-19 lockdown in India. In a similar study on the challenges of e-Learning during the COVID-19 pandemic, Mahyoob (2020) found that most English language learners in Science and Arts College, Alula, Taibah University, Saudi Arabia, are not satisfied with continuing online learning, as they could not fulfil the expected progress in language learning performance due to technical, academic, and communication challenges. This study supports the first two dimensions of educational change propounded by Fullan (2007), (change in teaching approach and curriculum materials) that was experienced during the transition from face-to-face to online teaching as a result of the coronavirus pandemic. Students used different forms of classrooms such as google classroom, zoom, Moodle and WhatsApp while they were obliged to possess new curriculum materials such as smart phones, iPad, computers and internet facilities to enable them attend classes. It was more of a student-centered approach as students had to study alone from home. This transition poses major challenges to students which requires attention by the educational managers.

Adopting the online mode of teaching and learning during the lockdown period is applaudable for a country like Cameroon where a majority of the students have not had such experiences as it was not part of the curriculum. Leaving students at home during this period would have been more challenging for the educational authorities to handle in the post-COVID-19 era. Despite the challenges, it has registered some success rates as some students and teachers who were not abreast with online studies could actually study and teach online respectively. This implies if students and teachers acquired relevant training on remote learning while the University administration put in relevant infrastructures and technical services to accommodate remote learning such as regular supply of

internet, teaching and learning during the COVID-19 lockdown in Cameroon would have registered more success rate. Though it was a string stress test for the government, the challenge is a call for concern for the managers and administrators of higher education to rethink the governance structure in terms of teaching and learning to enable them handle future pandemics or crisis that may require lockdown of schools.

Professional and social support for teachers, learners, and their families is an important part of education's response to a crisis such as the COVID-19 pandemic. Support needs to be appropriate, effective, and ongoing to ensure that learning continues and that the post-crisis recovery is, in turn, as straightforward as possible. When schools are closed because of an epidemic or pandemic crisis like COVID-19, it is important to continue to provide specific hygiene and health education and regardless of a country's capacity to provide appropriate, continued access to learning during crises and school closures, all education systems should prepare for schools to reopen when the time comes. This process poses many challenges for education authorities, and careful planning is essential (UNESCO, 2020).

Looking to the post-coronavirus future, universities will have to reassess how to organize work both on campus and remotely; reconsider their approach to hybrid and online teaching, their student support and their staff development; look at the balance and interactions between the sciences, the social sciences and humanities; and reset their priorities (Sursock, 2020). The COVID-19 pandemic has provided an opportunity for online studies in higher education institutions Cameroon. Putting in plans to make it permanent through a gradual process of implementation and continuous evaluation will lead to an increase in productivity and sustainability of higher education.

5. Conclusion and Recommendations

The study investigates the impact of the challenges faced by students during the coronavirus pandemic lockdown on the governance of higher education institutions in Cameroon. Results revealed that the challenges in relation to students' inadequate knowledge and skills for online learning, their difficulties in attending online classes and challenges in relation to management of online studies characterized by poor internet connection, the epileptic power supply inadequate finances and other factors significantly affect the governance of higher education institutions in Cameroon. Despite the challenges, online learning, distance and continuing education have become a panacea for this unprecedented global pandemic. Transitioning from traditional face-to-face learning to online learning is an entirely different experience for the learners and the educators, which they must adapt to with little or no other alternatives available (Pokhrel & Chhetri, 2021). Based on the above conclusion, the following recommendations are made:

- 1) The government should provide training for educational stakeholders, especially students and teachers on the technical skills needed for online learning. In the same light, students should be trained on how to manage studies remotely to avoid frustration and effective participation in studies. In addition, the university administration can recommend online certification training programmes for lecturers that are free or affordable and certificate presented to the administration at the end of the course. This will reduce cost of training.
- 2) The government should institute a blended approach to teaching and learning during the face-to-face teaching to enable students and teachers acquaint themselves with remote learning. For change to be effective, it should be a gradual process while all necessary equipment's are put in place.
- 3) For the blended approach to be successful, each university is expected to develop an online learning management system which ensures regular supply of internet services and electricity.
- 4) Lastly, the government should put in place measure to ensure the constant supply of electricity and internet facilities which are key to online learning.

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