

COVID-19 Crisis Times and Graduate Students Attitude towards Online Education: The Case of a Cameroon University

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Abstract:- The impact of the COVID-19 crisis on online education and university students' perception of online education in Cameroon remains under-evaluated with limited published literature. As human behavior is influenced by people's knowledge and experience; this paper discusses the notion of the lived experience with a particular focus on academic online education. In order to investigate graduate students' online education perceptions and lived experience beyond COVID-19 pandemic crisis times, a literature study and a case study of a Yaoundé, Cameroon based International University were undertaken. The case study employed online questionnaire (quantitative and qualitative). The results show that students have positive perception towards online education as implemented. The research findings revealed instructional disobedience, difficulties in communicativeness of the online learning management system interface, personal concerns about attention span, home responsibilities, time management, poor Internet access, lack of constant electricity supply, student-supervisor interaction, and academic collaboration as the biggest challenges for the students. Lastly, it is found that students' attitude and instructors' mindset are the key success factors in online education teaching and learning. This is essential as how we behave and perceives determines how we will cope.

Keywords:- COVID-19; Qualitative Research; Student Experiences; Student Perceptions; Educational Technology; Online Education.

I. INTRODUCTION

The purpose of the research study was to determine graduate students' attitudes, awareness, and perceptions of online education beyond the COVID-19 crisis times. An unprecedented pandemic, an unprecedented shift, and an unprecedented opportunity are three phrases that have been used to describe the impacts of Coronavirus disease 2019 (COVID-19) on human behavior with emerging technologies (Yan, 2020). The 21st century has brought about a massive change in the world of education and education is one aspects of daily life most impacted by COVID-19. COVID-19 pandemic just as Anglophone crisis that the country is already enmesh in is a situation that demands humanity and unity. There is an urgent need to protect and save our students, faculty, academic staff,

communities, societies, and the nation as a whole. The impact of online education on the wellbeing of university students in Cameroon remains under-evaluated, with limited published literature.

The COVID-19 pandemic and the lockdown had serious implications on mental health of university students (Savage et al., 2020), resulting in psychological problems including frustration, stress, and depression (Chaturvedi et al 2021). Empirical studies (e.g. Khan et al., 2020; Jiang, 2020;Essadek & Rabeyron, 2020;Kaparounaki et al., 2020;Savage et al., 2020; and Copeland et al., 2020) conducted in different countries found that a large proportion of students are suffering from mental disorders of varying severity. Saxena, Baber and Kumar (2020), suggest that assurance, reliability, responsiveness, and website content are the factors that influence the E-learning quality of the online courses during the pandemic. An Indian University case study by Chakraborty et al (2020) concluded that students felt that they learn better in physical classrooms and to most of their students, online education is stressful and affects their health and social life. Previous studies such as (Khan et al 2020; Lovric et al 2020) concluded that most of the students that participated in their studies preferred online education as it gives them much freedom to connect with their teachers, fellow students and engage with their study materials at the comfort and flexibility of space and time

According to (Xin and Keng 2020) study, there are many nice features with online education, however, there are many challenges to overcome (Adedoyin and Soykan, 2020; Gerashchenko, 2020; Beaunoyer, Dupéré & Guittou, 2020; Ferrari, 2012). Several arguments are associated with online education such as accessibility, affordability, flexibility, and learning pedagogy. In the recent time, the research on exploring students' perception and their expectation from online education has been on surge amidst of the recent COVID-19 chaos (Al-Rabiah et al. 2020; Hodges et al., 2020; Bozkurt & Sharma, 2020; Lovric et al 2020; Patricia, 2020). Even before COVID-19, online education is already experiencing high growth and adoption (Powers and Rossman, 1985; Branch and Dousay, 2015; Young and Norgard, 2006; Song et al. 2004). Previous studies (e.g. Lovric et al 2020), indicate the importance of examining the perceptions, feelings, and attitudes of students during major epidemic crises, to provide adequate

measures of student protection and support promptly. The literature review carried out as part of this study shows lack of available in-depth analyses of Cameroon based students' lived experiences, which could significantly affect the level of understanding of the seriousness of students' needs, problems, and difficulties in extreme crisis situations.

Given the fact that online education may affect the students in a variety of aspects, this research is designed as a single case study and it contribute to the existing literatures by examining what is happening at one university with a substantial online education. This study will add more knowledge towards descriptions of graduate students attitudes, emotions, expectations, and behaviors, under the influences of COVID-19 pandemic in the literature. Findings of this study would help to establish a well-scheduled online education strategy to optimize learning in a population yearning for digital infrastructure development.

II. METHODOLOGY

Study Design

The study is designed to accurately describe the phenomenon of students' experiences and is located within an interpretive, social constructivism worldview (Corbin and Strauss 2008; Creswell 2013). Phenomena and context are closely intertwined (Yin 2018). The participants in the study were over 70 graduate students from The ICT University (ICT-U), an institution located approximately one hour north of Yaoundé, Cameroon. The institution is a hybrid of online and onsite undergraduate and graduate degree programs. The research makes use of purposive sampling techniques bearing in mind the objectives of the work, and make use of secondary data as well as primary data collected from the field. The sample selection process was based on the following criteria: 1) a graduate student, 2) having at least one year experience of involvement with online education, and 3) acceptance of the invitation to participate in the study.

Survey instrument and data collection

A structured and open-ended written questions survey instrument on students' perception about online education, its advantages, limitations and recommendations was developed by looking at various literatures on online education. Data were collected using the online form, which included details of the study, additional guidelines, and major research questions. The reliability and validity of the survey items were tested in the designed questionnaire. It was sent via e-mail to all eligible participants. Prior to data collection, the researchers obtained written informed consent of the participants, with the guarantee of anonymity, privacy and confidentiality and assurance of the voluntary nature of their participation. Information on the study objectives and goals were explained in detail, and contact information of the principal investigator was provided to answer any questions of the participants.

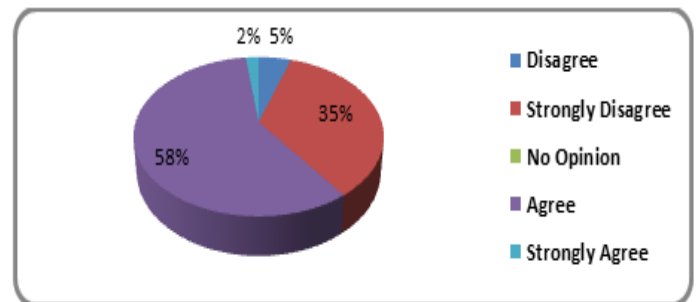
The structured questions were designed on 7-point Likert scale ranging from "strongly disagree" to "strongly agree". In addition, non-suggestible, open-ended written

questions were used to further encourage students to express their thoughts. Bengtsson (2016) has opined that open-ended written questions provide students with freedom of writing, a secure flow of thoughts, and a detailed description of their perceptions and experiences, which cannot be achieved using structured questionnaires with preconceived questions and provided answers.

III. RESULTS AND ANALYSIS

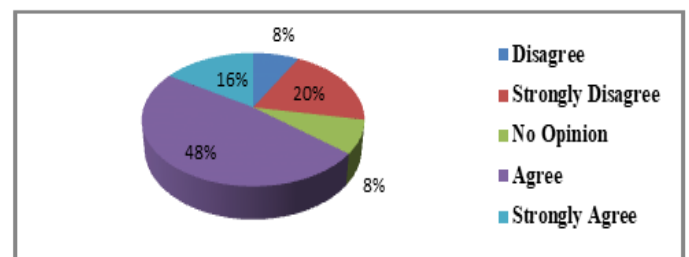
A total of 24 graduate (PhD & MSc) students participated in the study. There was 15 male (62.5%) and 9 female (37.5%) students. To obtain a detailed insight into phenomenon studied, the data based on about 1 to 30 participants is judged as being sufficient (Sandelowski, 1995; Mason, 2010).

A total of (60%) of the respondents agreed or strongly agreed (58% *Agree* & 2% *strongly Agree*) that learning takes place better in on-campus education [*Picture 1*], whereas (40%) felt that online education is better (35% *strongly disagree* and 5% *degree*). It is clear from this result that offline learning and online learning can go hand by hand.



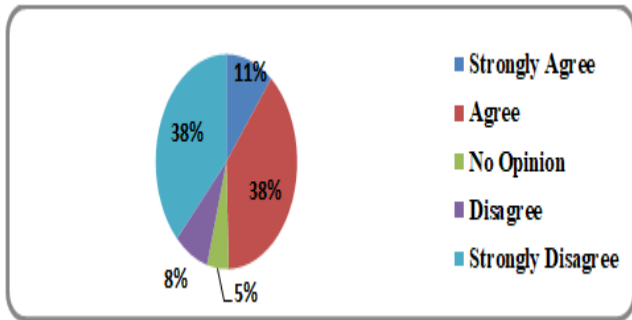
Picture 1 Student Perspective: Learning takes place better in online education than through physical classrooms

Questioning the students on a view that "Online education is affecting the daily life and general health of students and especially in the context of the current COVID-19 pandemic," *Picture 2* shows that 64% of the students (48% *Agree* & 16% *strongly agree*) agree; 28% of the students disagree while 8% has no opinion on the statement. Pandemics such as COVID-19 (YoungMinds, 2020) said can in many ways contribute to a worsening of preexisting mental health conditions, mainly due to school closures, loss of routine, and restricted social connections.



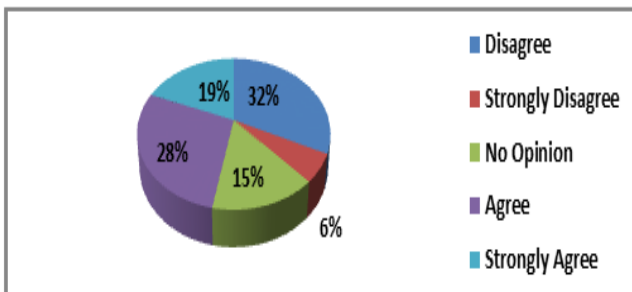
Picture 2 Student Perspective: Online education and daily life of students

On the question of interaction between students and teachers, students (49%) strongly agree or generally agree to the statement that online education allows for better interaction between students and teachers while (46%) totally strongly disagree or disagree (see Picture 3). Instructor – Student interaction is essential and has been shown to affect student satisfaction (Kuo et al., 2013), and may facilitate the social integration necessary for student retention (Kember, 1989). Keeping learners engaged is therefore a major challenge with online education in Cameroon.



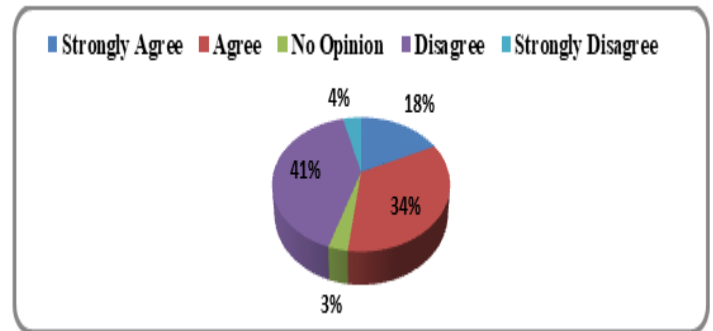
Picture 3: online education gives better interaction between students and teachers.

As seen in Picture 4, the survey demonstrated 47% (19% strongly agree and 28% degree) students thinks instructors have improved their online teaching skills; while 38% thinks otherwise (with 32% Disagree and 6% strongly disagree).



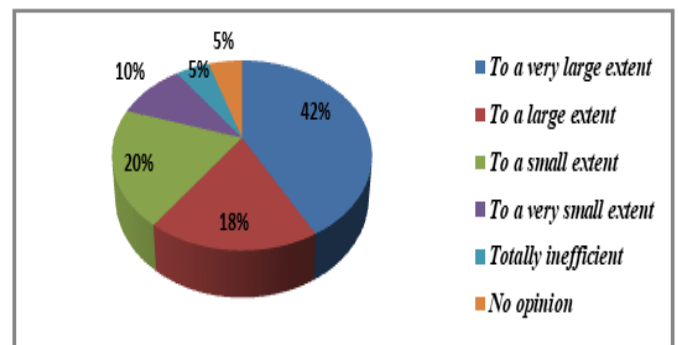
Picture 4: Instructors have improved their online teaching skills

Assessments are an important phase in the learning process. Interestingly, only 52% of the respondents (18% strongly agree and 34% agree) that online assessment/examination effectively assess knowledge (see Picture 5) while [4% strongly disagree and 41% disagree].



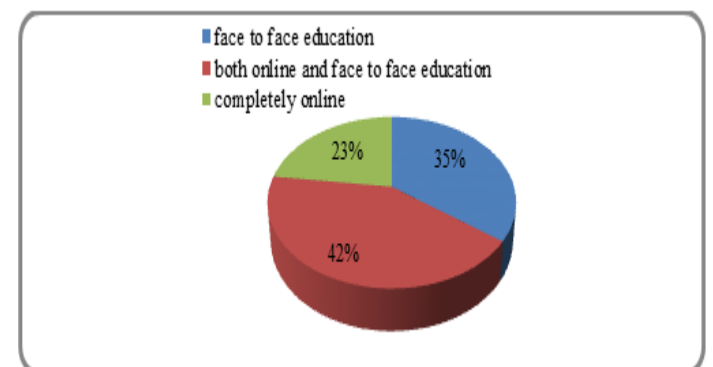
Picture 5: online assessment/examination effectively evaluate the knowledge of students

On the question: *To what extent do you consider the measures taken by the University ensure the continuity of the online teaching and learning as sufficient and effective;* respondents (42%) agree that the measures taken by the University was sufficient and effective to a very large extent (Picture 6), 18% said to a large extent and only 5% of them stated the opposite – *totally inefficient* with *No Opinion* at 5%.



Picture 6: To what extent do you consider the measures taken by the University ensure the continuity of the online teaching and learning as sufficient and effective?

Classroom learning can take many forms, as can online learning, and both have been severely impacted by this ongoing COVID-19 pandemic crisis. On the student’s preferences (see Picture 7), 35% of all the participants preferred completely face to face learning, 23% completely online and 42% favored a model consisting of both online and classroom education.



Picture 7: Preferences on education now and after the COVID-19 pandemic

Online education provides unique benefits for the students. The most frequent advantages of online learning opined by the students [see Table 1] were *continuous access to online materials* (68%), *Ability to record a class discussion meeting* (54%), *There are timelines to the whole process so everything is organized* (45%), *flexibility in the learning process* (45%) - *student learnt asynchronously at any time in a day, the opportunity to learn at your own pace*

(24%) and *Learning at your own pace - self-directed learning* (24%).

While online education presents specific benefits, not all students view them the same way. ON the challenges or disadvantages of their online education experience, *difficulties in using the online learning systems LMS or the communicativeness of the LMS interface* attracted 55% (see Table 2) of the participating students.

Table 1. Frequency of Nodes to Themes

Disadvantages of online learning	Number of Comments
Lack of good Internet access/download speeds, poor public electricity provision	68%
Poor quality or hard to understand recorded audios	25%
online instructors' ability to lead students in a way that maximizes the instructional time	48%
Short attention span and active learning time	20%
Difficulties in using the online learning systems LMS or the communicativeness of the LMS interface	55%
Lack of face-to-face communication and interaction with teachers and other students	45%
If and when you losses connection or your pc fails you will not be able to complete test or examination within required time	40%
Instructional disobedience - having a situation where students act not as expected in a learning environment such as students not muting their microphone during class discussion when they are not contributing.	75%
Advantages of online learning	
There are timelines to the whole process so everything is organized	45%
Online exams can be taken anywhere	15%
Flexibility in the learning process in the times of crisis	45%
Anywhere-Anytime feature of online education	68%
Learning at your own pace - self-directed learning	24%
Ability to stay at home and still learn	8%
Ability to record a class discussion meeting	54%

Online education is not without its disadvantages. The main problem for respondents in the survey was *instructional disobedience* (75%) and *lack of good Internet access/download speeds, poor public electricity provision* (68%). *Instructional disobedience* (as defined in Elen, 2020) is remarkable indicator of student's high or low self-regulation. Other identified technical difficulties of online education Cameroon includes *Lack of face-to-face communication and interaction with teachers and other students* (45%), *Online instructors' ability to lead students in ways that maximizes the instructional time devoted to meaningful learning* [48%], *Attention span and active learning time* [20%], *Poor quality or hard to understand recorded audios* got attention of 25% of the students. As shown in Table 1, *If and when you losses connection or your pc fails you will not be able to complete test or examination within required time* attracted 40% of the participated students attention.

IV. CONCLUSIONS

This research study examines the attitudes of Cameroonian higher education students towards online education amid COVID-19 crisis times. Students wished to be more informed about COVID-19. In the opinion of the respondents in our survey, online education is a valuable method, effective in increasing knowledge and is highly accepted. However, the study reveals that most of the students were short on self-regulation and self-motivation. Reduction in instructional disobedience is an issue that must be addressed. The university management must encourage the instructors more to motivate the students better. Also, we suggest that a strategic plan should be designed to strengthen the weak points of the online educational systems, especially in students with low access to internet connectivity, internet's stability and speed, ease of using the learning platform and electricity provision.

The generalizability of our findings may be limited due to a sample including mainly graduate students from one university. The results might differ if undergraduate students or students from other universities are also included in the study.

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