

Online learning challenges, stress experience and coping strategies among university Students during the lockdown due to COVID- 19 pandemic interaction

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ABSTRACT

The study investigated the types and levels of challenges of online learning and related coping strategies among Psychology students from the University of Nairobi. The study used a descriptive survey design. The sample consisted of 80 male and 70 female students from a population of students registered in online psychology classes in the Faculty of Arts, University of Nairobi. They were selected using purposive sampling procedure. This represented 90 percent response rate. The research tool was a questionnaire consisting of items derived from a preliminary survey carried out by the Faculty of Arts to identify problems faced by students and academic staff during online learning process. From the descriptive analyses, the findings showed that the students were concerned mainly with uncondusive learning environment, internet connectivity problems, inadequate training on the use of online learning platforms, unreliable electricity supply, cost of internet bundles and lack of online learning equipment such as laptops especially during examinations. The study revealed further that almost all the students were stressed by

online challenges. Coping strategies employed by the students to overcome the effect of the challenges included consulting with each other mostly through social media, accessing learning materials from their lecturers and the internet, using local internet cafes for most of their online learning needs, seeking technical help from staff from the University ICT Department. The findings revealed that the online learning process was instituted on emergency basis to cope with the sudden closure of the university. There is therefore need to invest more in online learning infrastructure and training so that quality of online learning can be improved beyond its current scope.

Keywords: Challenges, Lockdown, Coping Strategies, COVID-19 Pandemic, Online Learning, Stress Experience.

I. INTRODUCTION

With the onset of Covid-19 pandemic in 2019 almost all countries responded with various degrees of lockdowns to manage the spread of the corona virus (Owolabi, 2020; Henaku, 2020).

Many institutions of higher learning were affected as their academic programs were consequently disrupted due to the lockdowns (Li & Lelani, 2020). The major harmful effect of closure of learning institutions included interruptions of face-to-face learning.

Inadequate access to digital learning platforms and social isolation increased pressure on schools that remained open (UNESCO, 2020). Inevitably many institutions of higher learning had to find alternative ways of continuing their academic programs. Teaching and learning that are usually carried out with face-to-face meetings were turned into virtual meetings using various online learning platforms (Owolabi, 2020; Simanora, 2020; Toquero, 2020; Friedman, 2020). This was inevitable although online learning cannot fully replace traditional face to face learning (Toth, 2019). Moreover, e-learning in the developing countries unlike in the developed ones are faced with a lot of challenges (Heeks, 2002; Rajesh, 2003). These challenges tend to result in higher dropout rates (O'Connor et al, 2003; Simpson, 2004). The abrupt closure of educational institutions took place when many of these institutions were not fully ready for online learning (Houlden & Veletsianos, 2020; Li & Lelani, 2020; Lee, 2020; Basilaia & Kavavadze, 2020)

Many institutions had to undertake rapid establishment of online learning facilities in order to cope with the new undertaking (Crawford et al, 2020). Majority of the developing countries, especially those from Sub-Sahara Africa did not have adequate technological infrastructure to mount online courses devoid of challenges (Gunga, 2006; Aboegye et al 2020; Kimotho, 2018).

Although online learning offers increased learning opportunities to students, such opportunities are based on the assumptions that students have or can easily gain access to the technology requirements of online learning and that all students are competent with software provided for that purpose (O'Donoghue et al 2004). However, in the case of Sub-Sahara Africa, the full potential of online learning technologies in the delivery of higher learning and distance education have not been fully exploited so far (Nihuka, 2013). In addition to poor online learning infrastructure, most of the learners and their instructors appear to have limited skills in the use of online technology (Gunga, 2006).

Several studies have found that some students have taken online learning positively and are therefore highly motivated to participate in the learning process (Friedman, 2020; Rajab et al, 2020). However, other studies have identified several challenges faced by students during online learning which may be demotivating.

These challenges include mis-understanding task instructions, insufficient time to complete tasks (Friedman, 2020), inability to participate effectively in group work activities (Gillett-Swan, 2017), student support and academic confidence (Anderson, 2008), communication, time management, use of online learning tools, pandemic related anxiety and stress (Rajab et al 2020), fear of academic failure (Chandra, 2020), high chances of distraction, no social interaction, difficult in staying in contact with instructors (Sadeghi, 2019), technological challenges and poor feedback (Zirnkle (2011), internet connectivity issues (Tamrat & Teferra, 2020)

II. STUDY RATIONALE

The University of Nairobi which has traditionally based its academic programs on face-to-face learning joined the rest of the world in switching to online learning. The University undertook crash training programs for both staff and students on various online teaching/learning platforms to continue its academic programs. The sudden move from face-to-face learning to online learning was bound to create challenges for staff and students as reflected in a preliminary survey by the Faculty of Arts. There was however need to go deeper and find out whether the challenges resulted in stress and students copied with the stress.

III. PURPOSE OF THE STUDY

The purpose of this study was to identify the challenges faced by university students and how serious the students perceived stress resulting from these challenges. Furthermore, the study aimed at identifying the coping strategies used by the students to manage the challenges of online learning.

IV. RESEARCH QUESTIONS

1. What challenges do the students experience during their online studies?
2. What is the level of stress due to the challenges of online learning?
3. How do the students cope with stress due to the challenges of online learning?

2. METHODOLOGY

2.1 Research Design

This exploratory study was based on descriptive survey design using quantitative data. The data were derived for online learning challenges, levels of stress and coping strategies to manage the stress.

2.2 Population and Location of the Study

The target population of the study consisted of students registered in the online psychology courses of the Faculty of Arts from the University of Nairobi. The students were spread around the country, but they were undertaking online classes using various online learning platforms managed by the university's ICT staff.

2.3 Population and Location of the Study

The sample consisted of 80 male and 70 female psychology students registered in online courses in the Faculty of Arts. They were selected using purposive sampling.

2.4 Data Collection Instruments

The research instrument consisted of likert-type scale to measure the stress levels for each identified challenge. The items of the questionnaire were selected from those derived from a preliminary survey carried out by the Faculty of Arts to identify problems faced by students and staff during the online learning process.

The faculty had earlier formed a subcommittee to come up with a report to guide it in the execution of its online learning programs. The research tool consisted of both open-ended and closed-ended questions intended to identify types of challenges during online learning.

It also identified the stress levels associated with each challenge and the coping strategies used to manage the stress.

2.5 Data Collection Procedure

The questionnaires were administered online using the students' university email addresses. The students were requested to fill and return the questionnaires by within a week. They were assured of confidentiality in handling their responses.

2.6 Data Analysis

For purposes of analysis, the number of responses was considered as the basis for analysis since the numbers of responses do not match the actual participants. This is because the participants differ in the way they identify their challenges. Descriptive analysis involving frequencies, percentages, and tables were used to process the data. The frequencies and percentages of the identified challenges and coping strategies were calculated. The mean number of responses for the stress levels was calculated for all the challenges.

3. RESULTS

The results are based on all the 150 students who participated in the study.

3.1 Challenges of online learning reported by the students

The students said that they were experiencing a variety of challenges during their online studies. Almost all of them agreed that they were stressed by these challenges. These challenges are reported in Table 1 below.

Almost all students (93.33%) agreed that the environment was not conducive to online learning. 125 (83.33%) students felt that they did not have adequate training on the e-learning platforms provided by the university. Issues of internet connectivity were of major concern to most students.

For instance, 121 (80.67%) students indicated that they were experiencing poor internet connectivity while 40 (26.67%) did not have accessible internet services at home. Affordability of internet bundles was another major problem. 121 (80.67%) students said that the bundles were too expensive while 55 (36.67%) did not even have bundles at the time of the study. There was however a program by the university to provide internet bundles through Telkom service provider.

Availability of electricity was a major issue. Over three quarters (76.67%) of the students had access to electricity. However, the students complained that electricity supply was unreliable. 35 (23.33%) students did not have access to electricity. Other challenges that the students faced included lack of equipment such as laptops and smart phones (68.0%), fear of failure (66.67%), poor typing skills (63.0%), poor Telkom infrastructure (60.0%) and fear of exposure to Covid-19 in the internet cafes (33.33%)

Types of challenges	N	(%)
Unconducive online learning environment	140	(93.33)
Inadequate training on e-learning platforms	125	(83.33)
Cost of internet bundles was high	121	(80.67)
Poor internet connectivity	120	(80.0)
Unreliable electricity supply	115	(76.67)
Lack of equipment laptops, smart phones)	102	(68.0)
Fear of failing	100	(66.67)
Poor typing skills for exams	95	(63.33)
Poor telecommunications infrastructure (60.00)	90	
No internet bundles/sim cards	55	(36.67)
Fear of exposure to covid 19 in cyber cafes (33.33)	50	
Rarely accessible to internet at home (26.67)	40	
No electricity	35	(23.33)

3.2 Levels of stress attributed to the challenges during online learning

The students were asked to state whether they experienced stress due to the challenges of online learning. In addition to stating the challenges, the students were asked to indicate the level of stress

experienced due to the challenges by using a 5-point likert scale as follows: 1. Not stressful at all. 2. Slightly stressful. 3. Stressful 4. Very stressful 5. Extremely stressful. The numbers of responses, according to the extent of the stress level for each of the thirteen challenges, were calculated and are shown in Table 2 below. The table also shows total number of responses and percentages for the five levels of stress experience. Most of the students' responses indicated experience of stress at different levels (88.12%).

For instance, the students stated that the challenges were mildly stressful (12.82%), stressful (20.97%), very stressful (24.70%), or extremely stressful (29.63%). A small minority of students' responses indicated that the challenges were not stressful at all (11.88%).

Types of challenges	1	2	3	4	5
Unconducive online learning environment	10	14	30	38	48
Lack of training on e-learning platforms	16	16	25	31	37
Cost of bundle	19	22	23	27	30
Poor internet connectivity	12	16	23	28	41
Unreliable electricity supply	12	13	28	32	30
Lack of equipment laptops, smart phones)	11	13	22	25	31
Fear of failing	13	16	21	20	30
Poor typing skills for exams	16	16	19	21	23
Poor telecommunications infrastructure	9	10	18	24	29
No internet bundles/sim cards	9	9	12	13	12
Fear of exposure to covid 19 in cyber cafes	7	7	10	12	14
No electricity	4	5	7	9	10
Inaccessibility to internet	14	2	4	9	11
Total	140	151	247	291	349
%		11.88	12.82	20.97	24.70
29.63					

3.3 Coping Strategies Reported by the Respondents to manage the challenges of online learning

The students were asked to state the coping strategies they use to manage the challenges they face during the online learning; these strategies are reported in Table 3 below. Most students engaged in positive and problem-focused coping strategies. The main coping strategies regardless of gender are use of teaching modules (95.33%), consulting the ICT staff for technical skills on the use of available online platforms/portals (94.0%), googling for notes (92.67%), consultations with colleagues (90%), avoiding distractions in the learning environment (62.67%), and going to nearest internet café 60.67%). Nearly half of the students received lecture notes from their teachers (49.33%).

40% of the students tried to overcome the challenges they had with equipment by

borrowing laptops from friends and relatives.

A few students engaged in negative coping strategies such as self- isolation (18.0%), taking alcohol (16.67%) and taking drugs (5.33%).

Strategies	Males	%	Females	%	Total	%
Consult colleagues	70	87.5	65	92.8	135	90.0
Get notes from teachers	40	50.0	34	48.5	74	49.33
Use teaching modules	76	95.0	67	95.7	143	95.33
Google for notes	75	93.75	64	91.4	139	92.67
Borrow laptops	32	40.0	29	41.4	61	40.67
Go to the nearest internet café	50	62.5	41	58.5	91	60.67
Visiting friends for discussions	6	7.5	10	14.2	16	10.67
Consult the ICT dept for help	76	95.0	65	92.8	141	94.0
Stay motivated	30	37.5	28	40.0	58	38.67
Take alcohol	19	23.75	6	8.57	25	16.67
Isolate myself	20	25.0	7	10.0	27	18.0
Visit relatives	6	7.5	9	12.8	15	10.0
Avoid distractions	44	55.0	50	71.4	94	62.67
Take drugs	5	6.25	3	4.29	8	5.33
Engage in sports	12	15.0	11	15.7	23	15.33

Table 3 Coping strategies Employed by the Students to manage stress due to online learning challenges

4.0 DISCUSSION

Several researchers have postulated that many developing countries, especially countries from Sub-Sahara Africa lacked online learning facilities necessary to mount online academic programmes devoid of challenges (Aboegye, 2020; Anderson, 2008; Kimotho, 2018). The findings of the current study appear to reflect that position. Many students indicated that they experienced a variety of challenges during online learning. The most common challenges focus on the learning environment (93.33%). Many students had issues related to internet connectivity arising from several factors that include poor internet service due to poor telecommunication infrastructure (80.0%), high cost of internet bundles (80.67%) and unreliable electricity supply (76.67%). Furthermore, many students felt they did not have enough training on the use of online learning platforms (83.33%) and lacked the relevant learning tools such as laptops and smart phones (68.0%). Many students said that they lacked typing skills that would help them undertake online examinations with ease (63.0%). These findings concur with findings from other studies (Friedman, 2020; Sadeghi, 2019; Tamrat & Teferra, 2020; Zirnkle, 2011). Most of the students considered the challenges according to the level of seriousness. The levels of challenges were rated as challenging (19.0%), very challenging (22.39%) and extremely challenging (26.85%).

In an effort to mitigate the negative effect of the online challenges, the students engage in a variety of coping strategies that included consulting the staff at the ICT department (94.0%), consulting with colleagues mainly through WhatsApp groups (90.0%), reading books or teaching modules (83.33%), googling for notes (66.67%) and using the nearest internet cafes (56.67%)

Despite the challenges, some studies indicate that there are students who take online learning positively (Friedman, 2020; Rajab et al, 2020 and that opportunities for online learning in Sub-Sahara Africa have the potential which need to be exploited (Nihuka, 2013). More investments in online learning and teaching therefore need to be undertaken to minimize the challenges and reduce the dropout rates which are common in this type of learning (ADEA, 2020; Maphalala & Adiguni, 2020; O'Connor et al, 2003; Simpson, 2004).

5.0 Conclusions

The study provides information which shows that the students were forced into online learning without well-established infrastructure. There is need to put more investment into e-learning by various stakeholders since e-learning will continue to be a major part of the country's educational process.

REFERENCES

1. Aboagye, E., Yawson, J. A., Appiah, K. N. (2020) Covid-19 and E-Learning: the Challenges in tertiary Institutions in Ghana **Social Education Research**, 1(1)
2. Anderson, (2008) Seven Major Challenges for E-Learning in Developing Countries: Case Study eBIT, Sri Lanka. **International Journal of Education and Development Using ICT**, 4(3), 45-62
3. ADEA (2020) Delivering education at home in African member states and the COVID-19 pandemic: country status report. Retrieved from
4. https://www.adeanet.org/sites/default/files/report_education_at_home_covid-19.pdf
5. Basilaia, G & Kivavadse, D (2020) Transition to Online Education in Schools during SARS-COV-2 Coronavirus (COVID-19) Pandemic in Georgia **Pedagogical Research**, 5(4), 1- 9
6. Chandra, Y (2020) Online Education during Covid-19: Perceptions of Academic Stress and Emotional Intelligence Coping Strategies among College Students **Journal of Asian Education and Development Studies**
<https://doi.org/10.1108/ABDS-05-2020-0097>
7. Crawford, J., Butler-Henderson, K., Rudolph, J.& Glowatz, M. (2020) COVID-19 20 Countries
8. Higher Education Intra period Digital Pedagogy Responses **Journal of Applied Teaching and Learning (JATL)**, 3 (1)
9. Friedman, C (2020) Students' Major Online Learning Challenges Amid Covid-19 Pandemic **Journal of Pedagogy, Sociol. Psychol.**
10. Gillette-Swan (2017) The Challenges of Online Learning: Supporting and Engaging the Isolated Learner **Journal of Learning Design**, 10(1), 20
11. Gunga, S.O & Ricketts, I (2006) Facing the Challenges of E-learning Initiatives in African Universities **British Journal of Educational Technology**, 38(5), 896-906
12. Heeks, R. (2002) Information Systems and Developing Countries: Failure, Success and Local Improvisations **The Information and Society**, 18 (2), 101-112
13. Henaku, E. A (2020) Online learning experience of college students: The case of Ghana. **International Journal of Multidisciplinary Sciences and Advanced Technology**, 1(2)
14. Houlden, S.& Veletsianos, G. (2020) Coronavirus pushes universities to switch to online classes- but are they ready? **The Conversation**
<https://theconversation.com/coronaviruspushes-universities-to-switch-to-online-classes-but-are-they-ready-132728>
15. Kimotho, M.M., (2018). Review of the Coping Strategies used by Male and Female Open and

16. Distance Learning Students. **Africa Research Journal of Education and Social Sciences, 5(3)**
17. Lee, K (2020) Coronavirus : Universities are shifting classes online – but it is not as easy as it sounds. Retrieved from <https://theconversation.com/coronavirus-universities-are-shifting-classes-online-but-its-not-as-easy-as-it-sounds> 133030
18. Li, C. & Lelani, F (2020) The covid-19 pandemic has changed education for ever: This is how. Retrieved from <http://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid-19-online-digital-learning>
19. Maphalala, M., C. & Adigun, O. T. Academics Experience of Implementing E-learning in South Africa Higher Education **Institution International Journal of Higher Education, 10(1), 1-13**
20. Nihuka, K.A. (2013) Factors of Effective E-Learning Integration in Higher Education in Sub-Saharan Africa **Huria: Journal of the Open University of Tanzania, 15 (1), 128- 145**
21. O'Connor et al(2003) **Departure, Abandonment and Drop-out of E-Learning : Dilemma and Solutions James Madison University**
22. O'Donoghue, J. Singh, G, & Green, C (2004) A Comparison of the Advantages and Disadvantages of IT-based Education and the Implications upon Students **Interactive Educational Multimedia, 9, 63-76**
23. Owolabi, J.O. Visualizing the School during COVID-19 and beyond in Africa: infrastructure pedagogy, resources, assessment, quality assurance, student support system, technology, culture and best practices. **Advances in Medical Education and Practice, 11, 755-759**
24. Rajab, M.H., Gazal, A.M.& Akattan, K (2020) Challenges to Online Medial Education During the Covid-19 Pandemic, **Cureus, 12 (7)**
25. Rajesh,M. (2003) A Study of the Problems Associated with ICT Adaptability in Developing Countries in the Context of Distance Education **Turkish Online Journal of Distance Education, 4 (2)**
26. Sadeghi, M. (2019) A Shift From Classroom to Distance Learning: Advantages and Limitations. **International Journal of Research in English Education (IJREE), 4(1), 80-88**
27. Simora, R.M.(2020) The Challenges of Online Learning During the Covid-19 Pandemic: An Essay Analysis of Performing Arts Education Students **Studies in Learning and Teaching,1 (2)**
28. Simpson, O (2004)The impact of retention of interventions to support distance learning students. **Open Learning, 19 (1)**

29. Tamrat, W& Teferra, D (2020)
COVID-19 poses serious threat to
higher education. Retrieved from
[https://www.uiversityworlnews.com/
post.php?
Story=20200409103755715](https://www.uiversityworlnews.com/post.php?Story=20200409103755715)
30. Toquero, C.M. (2020) Challenges
and opportunities for higher
education amid COVID-19
Pandemic: The Philippine Context.
Pedagogical Research, 5(4)
31. Toth, Z. (2019) Managing Some
Institutional Sociocultural On-screen
Reading Challenges of
Online Learning **International
Journal of Recent Technology and
Engineering, 8(154)**
32. UNESCO (2020) Covid-19
Education Disruption and Response.
Retrieved from
[https://en.unesco.org/covid-
/educationreponse](https://en.unesco.org/covid-educationreponse)
33. Zirnkle, C. (2011) Access barriers I
distance education **Journal of
Contemporary Education
and Research, 72 (2), 39-42**

