

Academic Scholars Perception of Online Education Initiatives in Somalia

Mohamud Mohamed Hassan¹ and Husein Osman Abdullahi²

¹Zamzam University of Science and Technology, Mogadishu, Somalia

²Simad University, Mogadishu, Somalia

Keywords: Online Learning and Teaching, MOOC, Higher Education, e-Learning.

Abstract: This paper examines the Perception of the academic community in Somalia on implementation of online teaching and learning methods during the covid-19 pandemic. The pandemic created a significant challenge for the universities in Somalia. The paper implements a modified version of the open, online, flexible and technology enhanced (OOFAT) methodology with three main categories: content delivery, flexibility impact and platform adaptation. The data has been collected through online questionnaires and interviews involving 70 university educators in Somalia. The study found that instructors who had low degree of content delivery online with flexibility applications weakened the process of teaching and learning. In addition, the study suggested that the instructors lacked adequate knowledge on basic ICT literacy and showed a higher level of barrier of adaptation on online learning and teaching tools. The author argues that the higher education intuitions responsibility to build the capacity of academic staff regarding ICT literacy and provide a scholarly communication platform to enhance their knowledge and technology awareness and exposure.

1 INTRODUCTION

The World Health Organization (WHO) has declared coronavirus disease as a “Pandemic” toward the end of 2019 (COVID-19). This pandemic will have a profound effect on different aspects of our lives including economy, health care, food security and education (Basilaia & Kvavadze, 2020). The UNESCO estimated that 107 countries had implemented national school closures related to COVID-19, affecting 862 million children and young people, roughly half the global student population (Viner et al., 2020).

The Somali ministry of Health and Medical communities recommended avoiding any gatherings, all public places including all primary, secondary schools, and universities have been closed and expected to re-open depending on how the pandemic evolves (UNESCO, 2020). The decision was implemented as a preventive measure to flatten the curve of the spread of the virus.

In a situation where the students may not go to physical classes, the alternative was to move from traditional to online education (Basilaia & Kvavadze, 2020). Hence, thousands of universities and academic institutions have been encouraging social distancing

measures and thus limit the spread of the virus. The HEI started using online platforms to continue the teaching and learning.

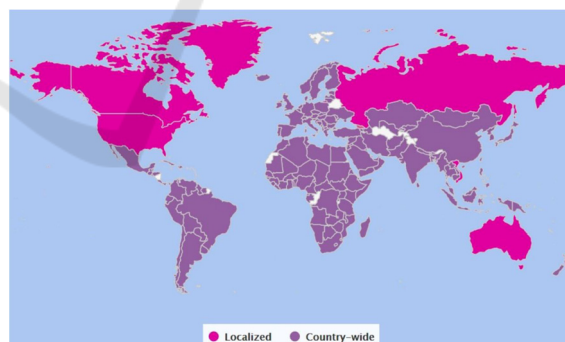


Figure 1: Countries that have shut down or localized the educational institutions in the world (UNESCO Report).

The Open Online learning and teaching platforms gained popularity in recent years, this new educational platform aims to share and provide endless access through the web (De Freitas, Morgan, & Gibson, 2015). Recently, Open Online learning and teaching platforms has become a global, major digital tools for academic institutions, because of its ability to provide interactive support between students and

instructors (Fagbohun et al., 2018). Mogadishu is the principal city in the country with a high population where there is a great need for online education.

This paper examines the academic scholar's perception towards online teaching and learning in higher educational institutions in Somalia during the coronavirus pandemic. The paper analyzes the insights of the digitalization methodologies and tools to deliver content, its flexibility, and platform adaptation on online education. This paper is structured under headings that include literature review, methodology, results, discussion, and conclusion.

1.1 Purpose

1. To examine the scholar's perception towards the institutions of higher education's online transition of teaching and learning.
2. To find out the challenges of the academic scholars in adopting Online education platforms.

2 RELATED WORK

Higher Education Institutions (HEI) has been recognized as the primary engine for creating future workforce and disseminating knowledge through research. In Somalia context the higher education institutions with all basic institutions were disseminated by the 1990 civil war. Since 1997 Somali scholars started restoring Higher Education Institutions by building private formal institutions. However, the Universities had a limited education budget with no government grants. Universities relied on student tuition fees and foreign aid. The lack of funding and budget shortage forced HEI to adopt the recovering war-torn nation and build institutions that are resilient to the hardship. Unfortunately, certain aspects of academic services have been compromised including educational quality, ICT infrastructure and scholar development (Adam, Elmutalib, & Mohamed, 2019).

Many studies are carried out on the adaptation of technology in the administrative level and in the classrooms during this coronavirus pandemic. The Somali government does not have the capacity to invest in higher education institutions to support academic quality with modern technologies. Oyo and Kamema suggested that the sustainability of online education in developing countries depends on the soundness of its financial, operational, and technological (Oyo & Kalema, 2014). Due to the country's struggling economy, higher education institutions are unable to meet all ICT infrastructure requirements (Li et al., 2012).

Idrissi Jouicha and his coauthors suggested that technology become more used as we continuously developing. The study found that online teaching and learning for instance became a part of the education sector and aids the knowledge delivery to be extended to larger audiences and facilitate the access to information (Idrissi Jouicha et al., 2020).

Most universities in the country introduced various solutions to continue the education process during the pandemic. For Example, developing countries reported implementing low technology solutions to support online instruction, including narrated PowerPoint presentations and freeware, such as Skype, Zoom, Google Classroom, Moodle, and WhatsApp (Mulenga & Marbán, 2020). They can engage their students with the resources available, so that the impact on learning is minimized where possible. According to study performed by G. Basilaia (2020), the first week of the transitioning from the traditional to the online education systems at the school was successful.

However, the scholars carried the weight of dealing with students with different levels of economic classes. This forced the lecturers to have necessary flexibility to deliver lecture content. Students who are from low-income families cannot avoid capable devices, thus they use low quality devices with low quality technologies. In this circumstance good applications of ICT in learning and teaching involve integration of technology, subject matter, and learning online culture in education contexts (Li et al., 2012).

These researches offer a broad perspective of the use of modern technology in education. However, these studies did not provide detailed analysis regarding the perception of the lecturers and scholars of the higher education institutions in Somalia, which is the focus of this study. Therefore, a modified version of open, online, flexible and technology enhanced (OOFAT) model is used to examine the perception of the HEI scholars regarding the transition to online teaching and learning methods.

3 METHODOLOGY

In order to structure this study, a conceptual model was introduced. This model adopts the open, online, flexible and technology enhanced (OOFAT) model developed by the International Council for Open and Distance Education. The following are three central processes: Content development, Delivery of learning and Recognition (Orr, Weller, & Farrow, 2018).

The introduced model uses three core processes for academic provision: content delivery, impact of flexibility and platform adaptation as shown in figure 2. Using this principal model analysis and implements the perception of the scholars using the three central processes and by what role flexibility and platform adaptation play in execution and content delivery.

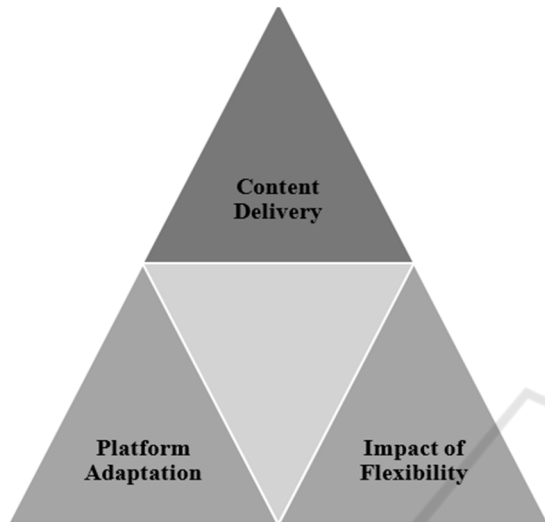


Figure 2: The open, online, flexible and technology enhanced (OOFAT) conceptual model (Orr et al., 2018).

3.1 Survey Design

Survey Questionnaire used was based on the conceptual model developed for open, online, flexible and technology-enhanced (OOFAT) in higher education context (Orr et al., 2018). The main aim for the online survey was to gather data while practicing social distancing. The authors conducted 100 random selections sufficient for understanding the perception of the academicians in higher education intuitions. The selected participants were faculty members from 15 different universities in Mogadishu Somalia from various disciplines. Google app technologies were used to gather and organize data.

3.2 Reliability Testing

The table 1 below indicates that the reliability of 19 items in the questionnaire has been tested with Cronbachs' alpha (Cronbach, 1951). Cronbach alpha reliability coefficient is 0.887 which is exceeding the suggested level of 0.70 (Nunnally, 1978). This shows that the data in this questionnaire is consistent and reliable, therefore this data can be used for further analysis.

Table 1: Reliability testing using Cronbachs' alpha.

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	392.052	69	5.682	8.835	2.84593E-68	1.3071274
Columns	42.367	18	2.354	3.660	3.62282E-07	1.6121641
Error	798.791	1242	0.643			
Total	1233.210	1329				
			Cronbach alpha :	0.887		

4 RESULT & DISCUSSION

From the figure below illustrates the demographic of the participants based on discipline of their study, with 25% from Agriculture and Veterinary, followed by 16% Education, Medicine and Health Science respectively, followed by 14% Law, 11% Management Sciences, followed by 7% for both ICT and Social Science and finally 4% Natural & Applied Sciences. All the responses were academicians from different disciplines. Descriptive statistical analysis was employed to analyze the results. A mean and standard deviations of the responses.

The responders preferred Zoom video conferencing application to be their primary communication channel were more than 70% of the instructors use zoom application for suitability and class control, whereas Google meet preferred for the ecosystem integration with google apps such as Gmail, classroom and calendar. The Somali Research Education Network (SomaliREN) member universities embraced a SomaliREN developed an online communication solution.

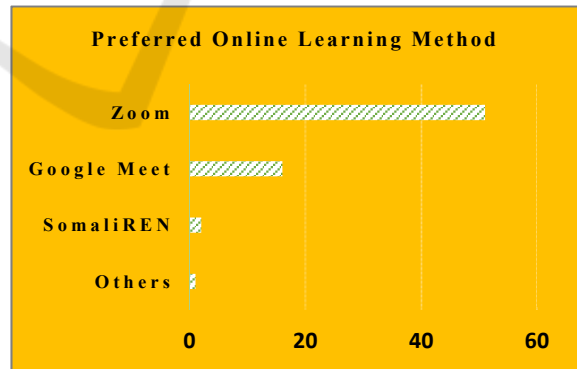


Figure 3: comparison of the Preferred Online Learning communication solutions.

4.1 Content Deliverability

The strategy of going online was unavoidable for a time of COVID-19. Since the course contents are designed for live audience on physical classes, the higher education instructors face a challenge in

managing the transitioning process. the data showed that the instructors struggled in reaching the learning objectives of the course. 38% strongly agree while 41% agree that the content was not designed to deliver through online. Another main factor that affect the content delivery was the lack of access to digital libraries for both teachers and students to reference and cite. It's not yet known why higher education embracing the open access which became the driving force for the global open knowledge.

4.2 Impact of Flexibility

The inadequacy of higher education’s ICT infrastructure failed to facilitate the smooth delivery of transforming online education. The study discovered that the absence of proper ICT infrastructure imposed the HEI to implement loose and flexible policies. This policy increased the difficulty in student teacher engagement in online activities. Online learning requires a very high degree of self-motivation, which is found to be lacking among our learners (Bojuwon & Ahmed, 2013). The figure below shows the academic scholars perspective on the drawback that too much flexibility has on delivering the courses.

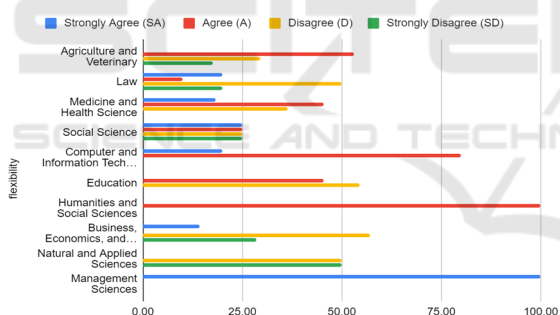


Figure 4: Comparison of the Preferred Online Learning communication solutions.

4.3 Platform Adaptation

The use of devices, apps and multimedia tools help to make teaching and learning a more interactive and enjoyable prospect. However, the study found out that the majority of Somali scholars had the difficulty of communicating online due to lack of familiarity of the tools as well as teaching techniques (57%). For the exception of computer Science and Information Technology scholars who had the unfair advantage of being in the field of technology. The adaptation was not easy specifically for senior scholars whom first time was required to teach online. The results show that the main concern for the scholars is the lack of

effective capacity building programs towards MOOC, as 54% of the responders expressed. With this in mind, this could be caused by the fact that many universities do not over regular online courses.

5 CONCLUSIONS AND RECOMMENDATIONS

Online Teaching and learning have been growing in recent years and is likely to continue to grow as more institutions adopt technology enabled methodologies. The results of the study showed that the immediate transition to online education was challenging due to lack of computer literacy among the scholars, especially the tools that enable the online education.

The study concludes that this unprecedented situation brought by the COVID-19 showed vulnerabilities of HEIs in Somalia in that they are unpreparedness and ill-equipped to deliver higher quality content with flexible academic staff and adoptable learning tools.

As the HEIs around the world are evolving in technologically, the Somali universities should adopt new strategies to increase the teaching staff literacy in technology. Thus, the findings of this study form a basis for universities and HE associations to offer technology literacy trainings to enhance scholar’s capacity in education applications, and in along with scholarly communication platforms to exchange ideas and advance their skills and careers. The scholarly communication platforms can be positively beneficial to technophobic educators to adapt to new technology more comfortable and to help them advance in their teaching and research obligations.

REFERENCES

Muhammad, S. H., Mustapha B, A., & Haruna, K. (2016). Massive Open Online Courses: Awareness, Adoption, Benefits and Challenges in Sub-Saharan Africa. *International Journal of ICT and Management*.

UNESCO (2020). Somalia Education Sector COVID-19 Response Plan. 2020(April), 48. Retrieved from <https://planipolis.iiep.unesco.org/en/2020/somalia-education-sector-covid-19-response-plan-6926>

Jouicha, A. I., Berrada, K., Bendaoud, R., Machwate, S., Miraoui, A., & Burgos, D. (2020). Starting MOOCs in African University: The experience of Cadi Ayyad University, process, review, recommendations, and prospects. *IEEE Access*, 8, 17477-17488.

Adam, M., Elmutalib, E. A., & Mohamed, B. (2019). A Quantitative Study of the Factors Affect Cloud Computing Adoption in Higher Education Institutions:

- A Case Study of Somali Higher Education Institutions. *European Journal of Computer Science and Information Technology*, 7(4), 16–39.
- Barre, A. G. (2020). Somalia Education Sector COVID-19 Response Plan. 2020(April), 48. Retrieved from <https://planipolis.iiep.unesco.org/en/2020/somalia-education-sector-covid-19-response-plan-6926>
- Basilaia, G., & Kvadadze, D. (2020). Transition to Online Education in Schools during a SARS-CoV-2 Coronavirus (COVID-19) Pandemic in Georgia. *Pedagogical Research*, 5(4). <https://doi.org/10.29333/pr/7937>
- Bojuwon, M., & Ahmed, S. B. (2013). The Impact of Learning Flexibility, Student Attitude and Internet Quality on E-Learning among (CELPAD) in (IIUM) Malaysia. *International Journal of Management Entrepreneurship and Technology (IJMET)*, 3(1), 1–20.
- De Freitas, S. I., Morgan, J., & Gibson, D. (2015). Will MOOCs transform learning and teaching in higher education? Engagement and course retention in online learning provision. *British Journal of Educational Technology*, 46(3), 455–471. <https://doi.org/10.1111/bjet.12268>
- Fagbohun, M. O., Nkiko, C., Adetomiwa, B., Asaolu, A. O., Nwokeoma, N. M., Esse, U. C., & Usman, K. O. (2018). Adoption of massive open online courses (MOOC) for librarians' professional development in Africa. In *Library and Information Science in the Age of MOOCs*. <https://doi.org/10.4018/978-1-5225-5146-1.ch003>
- Idrissi Jouicha, A., Berrada, K., Bendaoud, R., Machwate, S., Miraoui, A., & Burgos, D. (2020). Starting MOOCs in African University: The experience of cadri ayyad university, process, review, recommendations, and prospects. *IEEE Access*. <https://doi.org/10.1109/ACCESS.2020.2966762>
- Li, K. C., Wang, F. L., Yuen, K. S., Cheung, S. K. S., & Kwan, R. (2012). Engaging Learners Through Emerging Technologies - International Conference on ICT in Teaching and Learning, ICT 2012, Proceedings. In *Communications in Computer and Information Science*.
- Mulenga, E. M., & Marbán, J. M. (2020). Is-Covid-19-the-Gateway-for-Digital-Learning-in-Mathematics-Education. *Contemporary Educational Technology*, 12(2), ep269. <https://doi.org/10.30935/cedtech/7949>
- Orr, D., Weller, M., & Farrow, R. (2018). Models for online, open, flexible and technology enhanced higher education across the globe – a comparative analysis. Retrieved from https://icde.memberclicks.net/assets/RESOURCES/Models-report-April-2018_final.pdf
- Orr, D., Weller, M., & Farrow, R. (2019). How is digitalisation affecting the flexibility and openness of higher education provision? Results of a global survey using a new conceptual model. *Journal of Interactive Media in Education*, 2019(1). <https://doi.org/10.5334/jime.523>
- Oyo, B., & Kalema, B. M. (2014). Massive open online courses for Africa by Africa. *International Review of Research in Open and Distance Learning*, 15(6), 1–13. <https://doi.org/10.19173/irrodl.v15i6.1889>
- Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., ... Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. *The Lancet Child and Adolescent Health*, 4(5), 397–404. [https://doi.org/10.1016/S2352-4642\(20\)30095-X](https://doi.org/10.1016/S2352-4642(20)30095-X)
- Safiya, O.-U., Ardzejewska, K., & Imran, A. (2015). A Systematic Review of Mobile Learning Adoption in Higher Education: the African Perspective. *I-Managers Journal on Mobile Applications & Technologies*, 4(2), 2017.
- Mailizar, Almanthari, A., Maulina, S., & Bruce, S. (2020). Secondary school mathematics teachers' views on e-learning implementation barriers during the COVID-19 pandemic: The case of Indonesia. *Eurasia Journal of Mathematics, Science and Technology Education*, 16(7). <https://doi.org/10.29333/EJMSTE/8240>
- Naciri, A., Baba, M. A., Achbani, A., & Kharbach, A. (2020). Mobile-Learning-in-Higher-Education-Unavoidable-Alternative-During-Covid-19. *Aquademia*, 4(1), ep20016. <https://doi.org/10.29333/aquademia/8227>
- Merkel-Davies, Doris M.; Brennan, N. (2001). Provided by the author(s) and University College Dublin Library in accordance with publisher policies. Please cite the published version when available. *Discretionary disclosure strategies in corporate narratives: incremental information or impression ma. The Irish Journal of Psychology*, 32(1–2), 4–13. <https://doi.org/http://dx.doi.org/10.1680/geot.2008.T.003>
- Campbell, J., & Duplice, J. (n.d.). OneNote Class Notebook for Teachers at Multiple Universities in Japan Jonathon Campbell, Ferris University John Duplice, Asia University. 26(26), 30–36.
- Mulyanti, B., Purnama, W., & Pawianto, R. E. (2020). Distance Learning in Vocational High Schools during the COVID-19 Pandemic in West Java Province, Indonesia. *Indonesian Journal of Science & Technology*, 5(2), 271–282.
- Hashim, S., Masek, A., Abdullah, N. S., Paimin, A. N., & Muda, W. H. N. W. (2020). Students' intention to share information via social media: A case study of COVID-19 pandemic. *Indonesian Journal of Science and Technology*, 5(2), 61–70. <https://doi.org/10.17509/ijost.v5i2.24586>
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(3), 297-334.
- Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical diagnosis of mental disorders*, 97-146.