Relevancy of Online Learning in Training Learners in Five UBTEB Centres in Uganda during Covid-19 Pandemic; An Online Comparative Participatory Institute Based Research Appraisal Using Semi-Structured Questionnaire.

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Abstract

Background:

This research surveyed the relevancy of online learning in training learners, it was conducted in five UBTEB centers in the rural and urban learning environments of Team University, Uganda Wildlife Conservation Institute in Kasese, Yole Polytechnic Institute-ARUA, YMCA Comprehensive Institute, and BUGEMA University Vocational school. It centered on assessing students' acceptability of online learning, identifying the instructional tool used during online learning, the affordability of online learning by the institutions, and identifying challenges being faced during online learning.

Methodology: It was an online survey in which an electronic questionnaire was sent to participants who met the inclusion requirements.

Results:

Most institutions used zoom to deliver online learning with 107/167 participants saying that they used to zoom in delivering online learning, next was tele-conferencing followed by Google meet. WhatsApp though least used, was the most readily available means with little or no technical challenges and widely used by students. Almost all participants afforded online teaching, with exception of Yole TI, some tutors in Team (01), UWLI (03), Yole (02), and Bugema (01) said that online teaching was not affordable. Having access to mentoring, professional-pedagogical training, isolation from other students, campus life, and controlling the curriculum and academic honesty, students complain about the technical complications, internet connection, lack of time in preparing to handle each student's need, lack of institutional support, lack of pedagogical training in the transition to online teaching, lack of infrastructures of ICT, lack or poor of Wi-Fi, Economic implications and Workload of assignments to Tutors and Learners were some of the challenges that were identified

Conclusions:

Generally, online learning received resistance at first but later every institution embraced it.

Recommendations:

For sustainable implementation, Online learning should be incorporated into the learning curricula, first with higher institutions then later at the Advanced level.

Keywords: UBTEB, blended, learning, online, Submitted: 05th/10/2022 Accepted: 11th/11/2022

1. Introduction

The traditional classroom setting where the instruction method would require learners to gather to listen to the teachers was substituted with online learning due to Covid-19. Tertiary and Universities in Uganda were exploiting the use of innovative solutions that required the use of ICT technologies (zoom video conferencing, Google meet) to enhance virtual learning at any location in that time of the pandemic. Online e-learning is described as learning experiences using various (Fergus *et al.,* 2021, p. 19) electronic devices (e.g. computers, laptops, smartphones, etc.) with internet availability in synchronous or asynchronous environmental conditions. Online e-learning could be a platform that makes the process of education more student-centered, creative, and flexible. Online delivery of courses is cost-effective and easily accessible especially when delivering curriculum to students in rural and remote areas. Online e-learning is seen by the United Nations (UN) and the WHO as a helpful tool for meeting educational needs, especially in developing countries. Like other developing countries, Uganda's population is estimated to be 47,264,873 this year 2022 (World Bank, 2022), with about a 3.33% growth rate based on a fertility rate of 4.78 births per woman. As a younger population, Uganda's need for education is high. The covid-19 pandemic has highly slowed down efforts to provide much-needed education to school-going children. Educationists have had to rethink better and more effective mechanisms of delivering learning to learners (MoE, 2019). This has called for blended mechanisms of delivering much-needed education so as to ensure continued learning. Experts such as Mushengyezi (2022) have already pointed out the need for online learning for the further provision of higher education. According to research done at Uganda Management Institute in 2020 by the Commonwealth of Learning and Uganda Management Institute on The Impact of Blended Learning at the Uganda Management Institute, students were positive to online learning as part of blended methods of delivering education to learners in higher institutions of Higher learning (Damon *et al.,* n.d.). However, the use of ICT technologies has its own challenges both to the learners and institutions for instance the high costs of bandwidth, unreliable power or absence of electric power supply and low ICT proficiency exhibited amongst learners. It is therefore important that the relevancy of online learning is studied and recommendations made so as to guide the country on how best online learning can be incorporated into the curriculum for lower and higher levels of education

2. Methodology

The survey was conducted in five UBTEB Centers; Team University, Uganda Wildlife Conservation Institute in Kasese, Yole Polytechnic Institute-ARUA, YMCA Comprehensive Institute, and BUGEMA University Vocational school. A total of 167 participants were recruited from May to August 2020. An online Comparative Participatory Institute-based Research Appraisal was conducted using a semi-structured questionnaire to study the efficiency of online learning and to identify gaps that required UBTEB's attention. Participants agreed to own up to the entire research process because the findings would help in improving online teaching as part of learning and training in these selected institutions. Participants were selected from Team University, Uganda Wildlife Conservation Institute in Kasese, Yole Polytechnic Institute-ARUA, YMCA Comprehensive Institute, and BUGEMA University Vocational school. A total of 167 participants were involved

3. Table1: Participants distribution

To be included, a participant have had an email and a smart phone, all the 167 participants met this requirement

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Table 1: Participants distribution

Institution	No of participants	Students	Tutors	Administrators
Team Uni	42	33	05	04
UWLI-K'se	24	14	07	03
Yole TI- Arua	15	10	03	02
YMCA Comp In	31	17	08	06
Bugema Univ. Voc Inst	55	47	05	03

4. Findings and Discussions

Students' acceptability of the online learning system

To achieve this objective, students were asked whether they embraced online learning or not. Their responses were summarized below

The response rate was 90 percent in all institutions.

5. Table 2: Students' acceptability of the online learning system

Of the 55 students from Team University, 23 embraced online learning leaving 10 students not to embrace it. The response at Uganda Wildlife institute in Kasese was different, with 8 students not embracing it and 6 students saying that they embraced online learning. Bugema University Vocational Institute had more students embracing online teaching than the rest of the institutions. Generally, more students did not embrace online learning in these institutions. These findings relate to the findings of Alsaywid *et al.*(2021) where most students were not satisfied with online learning.

6. Table 3: Instructional strategies used in online learning

The instructional strategies were ways used to deliver learning to learners. To achieve this objective, a question was posed to Tutors, Learners and Administrators. Their responses were are recorded.

Table 3 shows most institutions used the zoom to deliver online learning with 107/167 participants saying that they used to zoom in delivering online learning, next was teleconferencing followed by Google meet. WhatsApp though least used, was the most readily available means with little or no technical challenges and widely used by students. This agrees with the finding of (Alfadda & Mahdi, 2021) where results of the study reveal a strong positive correlation between the actual use of Zoom and the students' attitudes and behavioral intention. In addition, there was a positive correlation between computer self-efficacy and other variables (PU, actual use, PEU, attitude, and behavioral intention).

Table 4, almost all participants afforded online teaching, with exception of Yole TI, some tutors in Team (01), UWLI (03), Yole (02), and Bugema (01) said that online teaching was not affordable. Francis et al. (2019), compared the cost of online teaching with face-to-face teaching. Participants indicated similarities in costs.

Table 5, with exception of Team University with 20 learners saying that they were able to afford online learning and YMCA Comp Ins, most of the learners especially in Bugema University Vocational institute afforded online learning. Francis and others examined this trend (Francis *et al.*, 2019).

Table 6, almost all Administrators said that online learning was affordable. This was anticipated so a question was posed to find out whether some participants took online learning to be affordable. We only cater to the internet and ask Tutors to use their phones or laptops, this is cheaper than having learners on campus, and the cost of operating online classes is relatively more affordable than on-campus learning. What we did was to ensure a running and faster internet was in place, we empowered the system's administrator who

Table 2: Students' acceptability of the online learning system

Institution	Yes	percentage	No	Percentage
Team University	23	32	10	20
UWLI-K'se	06	09	08	16
Yole TI-Arua	02	03	08	16
YMCA Comp In	07	10	10	20
Bugema Univ. Voc Inst	33	47	14	28
Total	71	100	50	100

Table 3: Instructional strategies used in online learning.

Institution	Zoom	Google meet	Tele- conferencing	Whatsup
Team University (n=42)	30	01	10	01
UWLI-K'se (n=24)	18	03	02	01
Yole TI-Arua (n=15)	07	01	06	01
YMCA Comp In (n=31)	30	0	01	0
Bugema Univ. Voc Inst(n=55)	22	18	10	05
Total	**107**	**23**	**29**	**08**

Table 4: **Affordability of online learning by Tutors**

Institution	Affordable	Not affordable	Not Sure
Team University (n=05)	04	01	0
UWLI-K'se (n=07)	04	03	0
Yole TI-Arua (n=03)	0	02	0
YMCA Comp In (n=08)	08	0	0
Bugema Univ. Voc Inst (=05)	04	01	0

Table 5: Affordability ofonline learning by Learners

Institution	Affordable	Not affordable	Not Sure
Team University (n=42)	15	20	07
UWLI-K'se (n=24)	22	01	01
Yole TI-Arua (n=15)	11	04	0
YMCA Comp In (n=31)	04	19	08
Bugema Univ. Voc Inst (n=55)	53	02	0

Table 6: Affordability of online learning by students Administrators.

Institution	Affordable	Not affordable	Not Sure
Team University (n=04)	04	0	0
UWLI-K'se (n=03)	03	0	0
Yole TI-Arua (n=02)	02	0	0
YMCA Comp In (n=06)	05	01	0
Bugema Univ. Voc Inst (n=03)	03	0	0

has done a great job, one of the administrators at Bugema University Voc. Institute on phone interview done on 14th May 2022.X. Zheng et al. (2022), examined factors associated with satisfaction, their findings agree with the findings of this research. Rasmitadila et al. (2020), further examined the perceptions of teachers on online teaching and their findings feed into the findings of this research.

7. Figure 1 and 2: Challenges faced during the online learning.

To achieve this objective, a question was posed to the administrators and students; what challenges have your encountered during online learning?

Having access to mentoring, professional-pedagogical training, isolation from other students, campus life, and controlling the curriculum and academic honesty, students complain about the technical complications, internet connection, lack of time in preparing to handle each student's need, lack of institutional support, lack of pedagogical training in the transition to online teaching, lack of infrastructures of ICT, lack or poor of Wi-Fi, Economic implications and Workload of assignments to Tutors and Learners were some of the challenges that were identified by Tutors, Learners, and Administrators. From every institution at least more than two challenges were identified. Lack or poor Wi-Fi, Poor internet connection, and Economic implications were widely mentioned by all three categories of participants (Ref. Table 3). These findings are in line with the findings of Hashemi (2021) from research which was conducted in Afghanistan

8. Conclusions

Online learning which started as a trial version of learning has gained popularity and is useable in institutions of higher learning.

9. Policy Recommendations

This research suggests the following policy recommendations

1. Online learning should be incorporated into the learning curricula, first with higher institutions then later at the Advanced level

2. All institutions acquire ITC facilities for online learning

3. A blended learning system, that is face-to-face blended with online learning be introduced in institutions of higher education

4. All Instructors in higher institutions should have knowledge and expertise in online teaching platforms such as zoom, Google meet among others.

10. Source of funding

11. Conflict of interest

There was no conflict of interest during and after carrying out this survey

12. List of abbreviation/acronyms

UBTEB: Uganda Business and Technical Examinations Board
WHO : World Health Organisation

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Responses	Team University T=Tutors L=Learners A==Admins	UWLI-K'se T=Tutors L=Learners A==Admins	Yole TI-Arua T=Tutors L=Learners A==Admins	YMCA Comp In T=Tutors L=Learners A==Admins	Bugema Univ. Voc Inst T=Tutors L=Learners A==Admins
Lack of access to mentoring	T=2/5 L=30/33 A=4	T=7 L=14 A=2/3	T=3 L=8/10 A=2	T=5/8 L=14/17 A=1/6	T=3/5 L=2/3 A=44/47
Lack of professional-pedagogical training	T=5 L=20/33 A=4	T=7 L=14 A=3	T=3 L=10 A=2	T=8 L=10/17 A=2/6	T=5 L=15/47 A=1/3
Isolation from other students	T=5 L=33 A=4	T=7 L=14 A=3	T=3 L=10 A=2	T=8 L=17 A=6	T=5 L=45/47 A=3
No Campus life	T=1/5 L=33 A=0	T=2/7 L=14 A=0	T=3 L=10 A=2	T=0 L=17 A=5/6	T=0 L=40/47 A=0
Monitoring the curriculum	T=1/5 L=0 A=4	T=0 L=1/4 A=3	T=3 L=2/10 A=2	T=3/8 L=0 A=6	T=5 L=5/47 A=3
Lack of academic	T=5	T=1/7	T=3	T=8	T=5

Figure 1: Challenges faced during the online learning

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honesty	L=23/33	L=10/14	L=10	L=17	L=40/47
	A=4	A=3	A=2	A=6	A=3
Availability and accessibility of Tutors and reading materials	T=5 L=33 A=4	T=7 L=10/14 A=3	T=3 L=10 A=2	T=8 L=17 A=6	T=5 L=45/47 A=3
Technical complications	T=5 L=33 A=4	T=7 L=10/14 A=3	T=3 L=10 A=2	T=8 L=17 A=6	T=5 L=45/47 A=3
Poor internet connection	T=5 L=23/33 A=4	T=1/7 L=10/14 A=3	T=3 L=10 A=2	T=8 L=17 A=6	T=5 L=40/47 A=3
lack of time in preparing to handle each student's need	T=1/5 L=0 A=4	T=0 L=1/4 A=3	T=3 L=2/10 A=2	T=3/8 L=0 A=6	T=5 L=5/47 A=3
lack of institutional support,	T=5 L=23/33 A=4	T=1/7 L=10/14 A=3	T=3 L=10 A=2	T=8 L=17 A=6	T=5 L=40/47 A=3
lack of pedagogical training in the transition to online teaching	T=5 L=20/33 A=4	T=7 L=14 A=3	T=3 L=10 A=2	T=8 L=10/17 A=2/6	T=5 L=15/47 A=1/3
lack of infrastructures of ICT,	T=2/5 L=30/33 A=4	T=7 L=14 A=2/3	T=3 L=8/10 A=2	T=5/8 L=14/17 A=1/6	T=3/5 L=2/3 A=44/47
lack or poor of Wi-Fi facilities,	T=5 L=23/33 A=4	T=1/7 L=10/14 A=3	T=3 L=10 A=2	T=8 L=17 A=6	T=5 L=40/47 A=3
Economic implications	T=2/5 L=30/33 A=4	T=7 L=14 A=2/3	T=3 L=8/10 A=2	T=5/8 L=14/17 A=1/6	T=3/5 L=2/3 A=44/47
Workload of assignments to Tutors and Learners	T=1/5 L=0 A=4	T=0 L=1/4 A=3	T=3 L=2/10 A=2	T=3/8 L=0 A=6	T=5 L=5/47

Figure 2: Challenges faced during the online learning

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