The Reality of eLearning in Universities in Kenya

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Abstract

Modern Day communication has advanced in the 21st century. This, coupled with the reality that came with the Covid-19 pandemic around the world demanded adjustments in nearly all spheres of life, particularly the education sector. Many countries adopted a teaching /learning system in which content is delivered on-line. After the pandemic, quite a number of higher learning institutions adopted a hybrid system in which a given percentage of the teaching/learning is done online, and the other percentage is physical. However, there needs to be a re-examination of blended learning, bearing in mind the reality of the developing world. Online learning can only be effective if there is availability of the right equipment for communication and also internet connectivity. This paper highlights the reality in different universities in Kenya and the feeling of the learners who are the direct beneficiaries of eLearning. Learners from five universities were interviewed. The study was guided by Putnam (2000)'s Time Displacement Theory. The paper concludes that while eLearning is inescapable in the modern world, the issue of availability of smart digital devices needs to be considered if there is to be equitable access to education for all. The availability of internet alone is not enough.

Keywords Change, Elearning, Hybrid Learning, Smart Digital Devices, Access, Reality

Introduction

Change is the reality of life; and so human activities in the world keep changing. Technology which is aimed at improving life in the world keeps advancing. The 21st Century has seen technological advancements in many fields including blue tooth technology, cyber technology, genetic engineering, 3D printing, information technology, Artificial intelligence (AI), social media and smartphones. Teaching and learning, particularly in higher education, is experiencing change as well and this can be seen in eLearning. Kibuku, *et al* (2020) posit that e-Learning in Kenya is now being used by a number of higher learning institutions to increase access to university training and education. However, the implementation has challenges; and. indeed, this paper is concerned with the challenges regarding access to eLearning by university students. According to Khatri (2004), the integration of technology into higher education holds immense promise for realizing education goals. In Kenya, technology has expanded access to education through modern communication and this is what holds the key to the realization of vision 2030 in Kenya. Platforms such as Kennet, Kusoma, Musomi, Google meet and Zoom have been embraced by various universities to ensure that eLearning takes place. Most universities are now using the Learning Management System (LMS), a software application that is used to plan, manage, and deliver eLearning content. It is used widely in the eLearning industry and acts as a distribution vehicle of course content or training resources for different learning and development programmes (Mmbwanga, et al, 2021).

In Kenyan universities, online learning/teaching was introduced during the Covid-19 pandemic but even after the end of the pandemic, eLearning has remained as a way of complementing face-to-face content delivery. The introduction of the LMS in university learning meant that lecturers and students have had to adopt to a new way of giving and receiving knowledge. Universities now use a hybrid system in which percentage of the content is delivered on-line and another percentage is on a face-to-face basis.

Justification

After COVID-19, online communication gained popularity much faster than it was happening before. Government, companies and religious organizations quickly adopted this mode of communication in order to continue with normal transactions. In the education sector online teaching was introduced and the GoK, through the Ministry of Education came up with several online platforms to enable teaching and learning to go on. Reality became alive in the prediction by (Donovan et al., 2019) that there would be a rapid increase in online courses over the next few years. A survey at Kenyan universities shows the continuous improvement and maintenance of their Information Technology (IT) infrastructure in order to provide the hybrid kind of learning that was adopted after the Covid-19 pandemic. Although technological advancement is such an enabler of eLearning, the shift to eLearning has not gone as smoothly as it would have been expected. eLearning faces the challenge of, not just accessing online learning platforms for university students, but the learning material as well. The aim of this study was to find out the reality on the ground regarding university students' access to online teaching platforms and to the learning material and other learning activities that can only be accessed digitally.

Research Objective

The main objective of this study was to establish the accessibility of university students to eLearning platforms.

Research Question

The research question for the study was: Do all university students have access to eLearning platforms?

Methodology

This research used both qualitative and quantitative research methodology. A survey was conducted amongst university students from five universities (four public and one private) in Kenya. These included Machakos University, Kenyatta University, Embu University, Moi University and KCA University. Purposive sampling was used to get 100 respondents, 20 from each university. This information is illustrated in Table 1.

Table 1: Sampled Universities and number of participants

University	Type	Number of participants
Machakos University	Public	20
Kenyatta University	Public	20
Embu University	Public	20
Moi University	Public	20
KCA University	Public	20
	Total	100

Questionnaires and interviews were used as data collection instruments from students and lecturers in the sampled universities. Observations were also conducted at extremely occupied zones on the university grounds, including around lecture rooms, around accommodation areas, around office areas, around the libraries and recreation areas where Wi-Fi facilities can be accessed. These observations were conducted during lecture hours, including in-between lectures and among students in their group discussions. This is the time when students would most likely be engaged in eLearning and interacting with others to complete tasks posted on the eLearning platforms. A variety of different interactions between other students and technology were recorded, including those texting, chatting or emailing on the phone, those browsing or googling on their desk/laptops, and those who did not have such devices to get online.

Time Displacement Theory (2000) was used to instigate the philosophical conceptualization of this study as it refers to the fact that new forms of communication may replace older ones and may reduce time for face-to-face interactions. These new activities that lead to displacement are mainly technology-based, in this case, this study focused on communication technology in relation to eLearning.

Results and Discussion

Summary of Findings

The research was designed to find out the percentages of the respondents who had the basic necessities to enable them access eLearning. The findings, summarized in Figure 1 show, in terms of percentage, the students with the essential tools to access eLearning platforms such as smartphones, laptops, desktops, electricity, study room, WI-FI.

The findings indicated that a total of 26% of the respondents had smartphones or Laptops, and 41% had neither of these basic necessities for eLearning. 23% had electricity at home while a mere 10% had a study

room at home and ability to attend on-line lectures while at home. This information is illustrated in Figure 1:

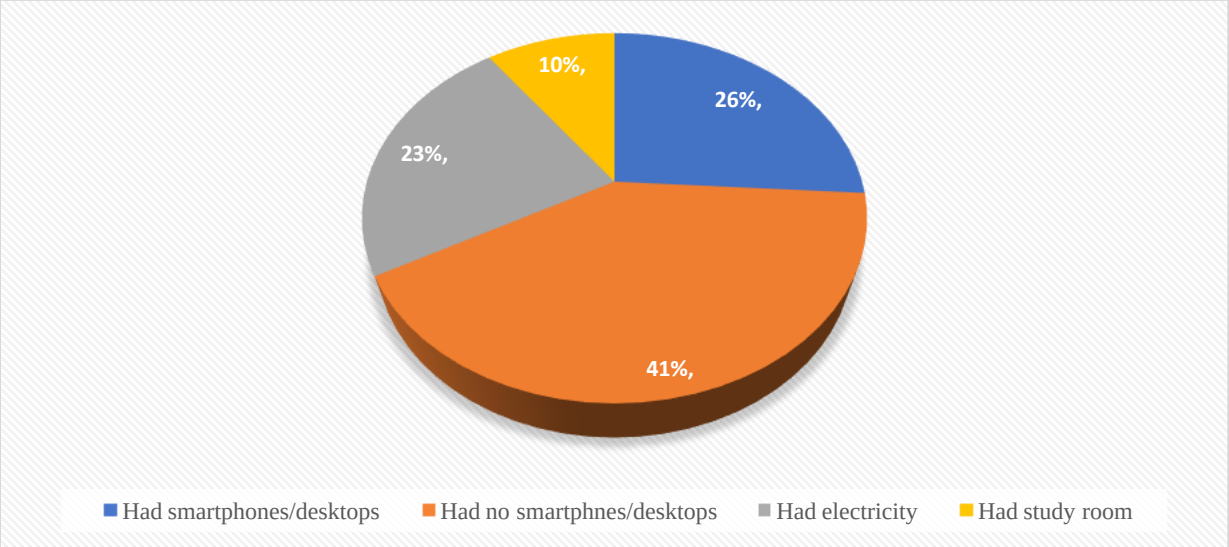

Figure 1: Basic Requirements for eLearning.

Accessibility to Education

Education is a basic human right. Chapter 4 of the 2010 constitution of Kenya provides for the right to free basic education which is the gateway to higher learning. In Kenya, sessional paper No. 14 of 2012 states that education and training is one of the social pillars that is important in achieving vision 2030. Accessibility to learning at university level is hampered by poverty. In Kenya, many university students do not even have enough food, so having a smartphone, or laptop as some institutions of higher learning in Kenya require, is not practical. While the goal of the World Bank has been to bring the levels of extreme poverty in the world to less than 3% by the year 2030, the situation in the developing world does not seem to improve. The university student from households that live on less than $1.9 a day, finds himself in in a daily struggle to manage academic demands on an empty stomach.

Poverty has a direct impact on the attainment of education goals. In as much as education is said to be free in Kenya, the reality is that most families struggle with putting food on the table and cannot, therefore, afford the electronic devices and internet which are required to make eLearning effective. Access to reading and writing material, and for the case of online learning, laptops or smartphones are not provided by the government and parents and guardians cannot afford to provide them for their school going children. The results of the survey in Figure 1 show that only 26% of university students own laptops or have smartphones. Most (77 %) of the students are only able to access internet while they are in the university. To this category of students, eLearning does not give them the flexibility and choice that comes with it. This beats the purpose of education being more accessible and inclusive to all. Table 2 summarizes the findings on ownership of smart devices and access to information

Table 2: Ownership of smart devices and access to information

S/NO	Question	Yes	No	%
1	Do you own a smart phone or laptop?	26%	74%	100%
2	Do you have internet at home?	23%	77%	100%
3	Access internet only on campus?	77%	23%	100%
4	Access internet at home and on campus	23%	77%	100%
5	Are you able to access reading material online?	58%	42%	100%
6	Are you able access notes, course outline, etc in the LMS?	38%	62%	100%

The Hybrid Learning Approach

According to Bates (2019:65), a hybrid kind of learning is whereby online study elements are introduced into classroom teaching such that learning management systems may be used to store lecture notes in form of slides or PDFs, providing links to online reading and establishing forums for online discussion. In the Kenyan context, the hybrid system of learning/teaching is about delivering the lecture on-line or face-to-face. In this case, a "flipped learning" which enables the recording of the lecture so that students can listen to it at their own time is adopted. This mode of learning is hampered by the lack of the necessary electronic resources for most students. After the Covid-19 pandemic, Kenya adopted a hybrid teaching/learning system in which, depending on the institution, a given percentage of the teaching/learning in done online and the other percentage is physical. This study found out that for classes of between 190 - 250 students, the highest number of students who were recorded to attend the on-line class were 78. Table 3 summarizes the findings of the study.

Table 3: Online Class Attendance

Class /Course	Total Entry	Accessed online classes	Percentage	Failed to access online class	Percentage
Engineering	190	78	41%	112	59%
Bachelor of Arts	204	77	28%	127	62%
Bachelor of Education (Arts)	250	78	31%	172	69%
Bachelor of Education (Science)	248	72	29%	176	71%
General Education Psychology	250	77	31%	173	69%
Guidance & Counselling	248	78	31%	170	69%
Quantitative techniques	240	69	29%	171	71%
Human growth & development	224	71	32%	153	68%
Educational measurement & evaluation	215	70	33%	145	67%

From the data summarized in Table 3, it was evident that the online mode of learning is hampered by the lack of the necessary resources for most learners. In the four public universities that were sampled, a survey around the campuses showed groups of between 6 to 11 students using one laptop or phone. This was interpreted to mean than that many university students lack the electronic devices that are needed to join online classes. The idea of achieving that is envisioned in article 1.13 0f sessional paper No. 14 of 2012 that university education system must be accessible and equitable is far from being realized.

Favorable Learning Environment

Article 53 (1)(b) of the constitution of Kenya (2010) states that every child has a right to free and compulsory basic education. For effective learning to take place, the environment must be conducive. The GoK's commitment in ensuring good learning environment can be seen in the provision of educational facilities and enabling transition by learners to institutions of higher learning. 90 % of the students in the sample reported that they lack adequate space at home to do any meaningful learning, leave alone eLearning. This means that even when one can use the telephone number provided by some online learning platforms to enable one listen to a lecture when there is no network, the space in some of the small houses at home cannot allow one to listen effectively. Other members of the household use the same space to do other household chores. This reveals that the constrained space at home makes students to find alternative ways of going around this. Some of the places students go to get access to internet or just the space itself are restaurants and even bars. In towns, some have to make friends with neighbors who have internet facilities. Most of those who are able to connect to online classes at home have to use the bedroom, if they have a separate one, or otherwise sit in bed or on the floor if they live in slum areas in towm. Those who come from the villages have to walk for many kilometers to find a place with network and many times they get to the designated place only to find that there is no electricity. The results also show that there are students who do not own telephones at all and rely on friends to communicate.

The hybrid mode of teaching/learning means that even when university students are on campus, they still have to attend some of their lectures online. Those with smartphones and laptops still crowd in rooms where students reside to use hotspots for those who are lucky to have them or crowd at specific places with internet on campus. The findings as shown in Table 1 indicate that 26% of the respondents said eLearning provided a favorable environment for learning and active participation while more than half of them, 74% reported that eLearning did not provide a favorable environment for learning and active participation. This is illustrated in Figure 2.

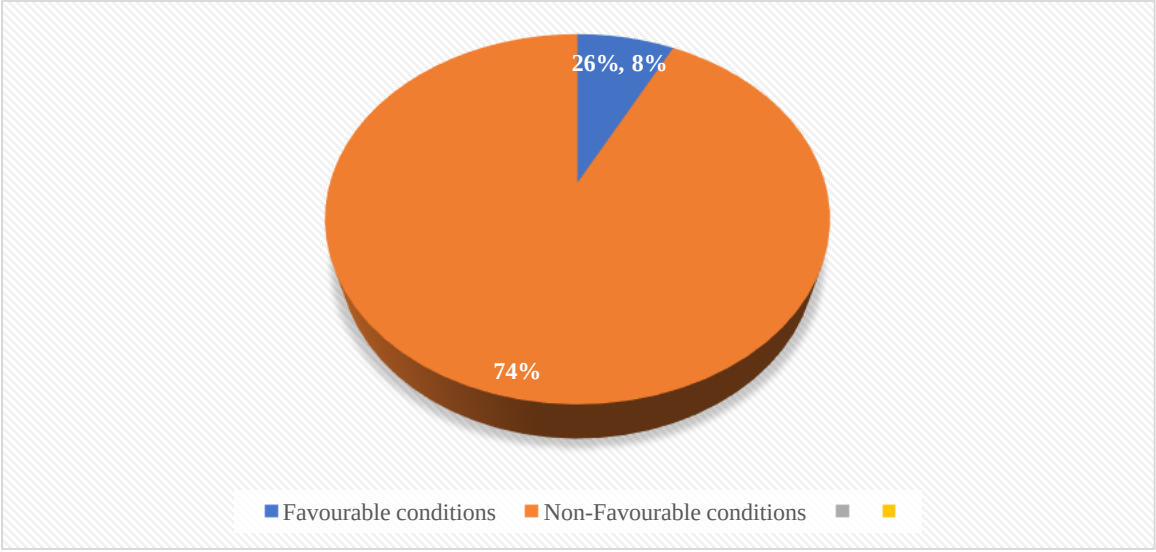

Figure 2: eLearning environment

The reality of learning from home for the few students who come from around their universities is also a hindrance to online learning. This group of students reported many interruptions resulting from usual activities in the home such as household chores, going to the farm and looking after livestock. Another hindrance to the learning environment is about the lecture. While the eLearning platforms provide allowance for interaction between lecturers and students, the interaction is limited most of the time because most lecturers do not like using the web cam that would otherwise make students to see them. Lecturers are also not in a position to see the students and, as such, make use of the non-verbal cues that enhance communication are not useful to the learning environment. The aspect of creativity and practice of application that is important in university training, particularly in technical courses is compromised, what with the hurry by students to use artificial intelligence.

Access to Digital Platforms

This section discusses students' access and interaction with Moodle and the Learning Management System. With the ever-advancing technology, massive amounts of information (books, audio, images, videos) are available at one's fingertips through the internet, and opportunities for formal learning are available online worldwide. Cloud-based learning platforms enable delivery of educational content in ways that are flexible and should be easily accessible to students from anywhere in the world. The collaborative tools integrated into these platforms enable students and educators to interact, work on projects, and share knowledge in real time, regardless of their physical location.

Technology has brought forth a new age in communication and has profoundly changed education by greatly expanding access. Technology serves as an important tool that enables lecturers to deliver content to learners who may be in different locations using eLearning platforms like Kenet, Kusoma, Google Meet among others. For effective eLearning, both the lecturer and students should be able to access these online platforms by, not just having smart digital devices but internet connectivity as well. Although all universities in Kenya now have internet connectivity, the main challenge that students have is their ability to own the smart devices in terms of laptops and smart phones to enable them use the internet. Quite a number of lecturers also report their hardships in having internet at home or buying internet bundles. Most use zoom which is free for around 40 minutes. The study by Mmbwanga *et al* (2022) shows that only students who have digital devices like smartphones and laptops as well as internet connectivity can access online classes at home or wherever they may be. Technical problems are an issue that both students and lecturers have to deal with. Sometimes the devices develop unexpected problems or get connectivity issues such that by the time this is sorted out the lecture has progressed on or is over. Although this is alleviated by use of the "flipped classroom" model which allows for a recorded lecture which students should access at any time through the link provided, the results of the study show that the students do not use this option.

When it comes to evaluation, online examinations are supposed to be done during the time that is allocated after which the system closes. The results of this study show that 29 % of the students who afford online classes are not able to log in on time because of technical issues and network.13% got quality service from the online platforms.

From the sample in the study, 33% think that the examinations lack the aspect of making students think critically because they are composed of short answer or multiple-choice questions. The students think that the online tests are very simple because they do not allow them to think critically. 31% of the students are

also apprehensive about being locked out before they complete all the questions due to limited time online and the fact that once an answer is submitted, the system does not allow any changes or review.7% had great challenges navigating on the LMS and were apprehensive about completing exams in good time. Student access to online platforms is illustrated.

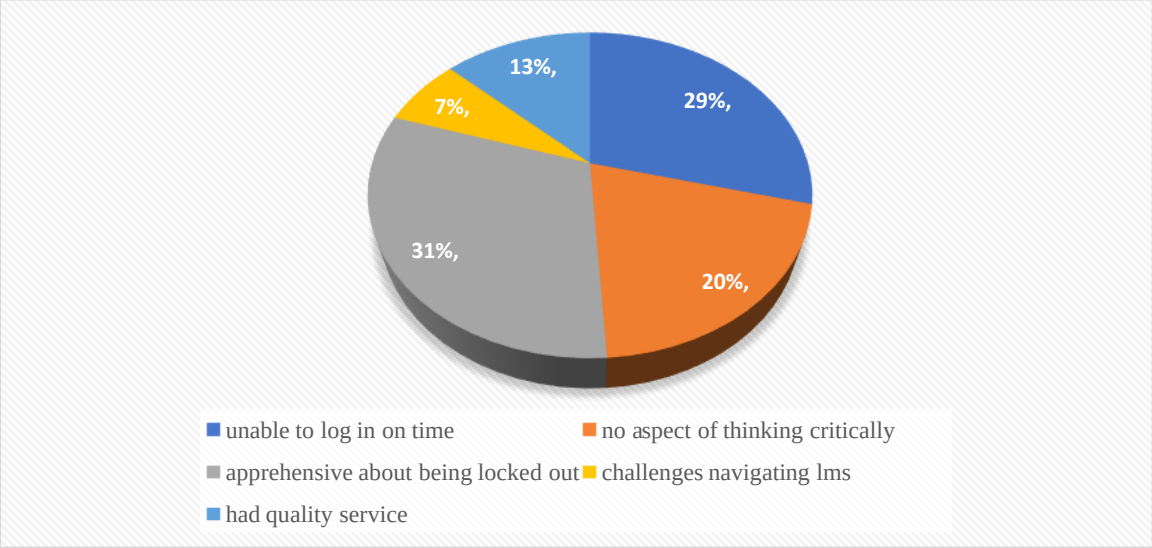

Figure 3: Online access by students

From the findings of the study and as shown in Figure 3, only 13% of the respondents got quality service of the online platform-audio and video during contact hours.

Ability To Interact with the Moodle

Moodle refers to Modula Object- Oriented Dynamic Learning Environment was designed by Douglamas (2002) to provide educators administrators and learners with an open, secure and free platform to create and deliver personalized learning environment. It is believed that Moodle is important in creating the best environment for eLearning as proved by Jones & Lau, (2010). With the placement of social and content sharing networks such as YouTube (which is now over eight years old) and Facebook, it has become very easy to share images, videos and content promptly with hundreds of people with a single click. As such tools become easily available and almost free, daily home and work-related responsibilities have become obligatory to achieve online. Although the adoption rates are slower, education and academia are also benefiting from this advancement (Fuentes, Gomez, Garcia and Ayuga, 2012).

LMS platforms centralize course delivery and student interaction, facilitating communication and collaboration (Khatri,2024).

The results of this study as shown in Figure 4 indicate that less than half of the respondents (45%) were able to interact efficiently with the Moodle while above half of them (55%) did not have the ability to interact efficiently with the Moodle. This study revealed that the students who owned smartphones / laptops and had electricity at home were able to effectively access the eLearning platforms and successfully understood the content delivered just like in a traditional face to face setting. The basic requirements used to access the Moodle learning management system were laptops, computers, and smartphones which

enabled them to download and access the e-notes and course materials easily. However, these respondents cited problems such as slower processing and loading time in the Moodle learning management system due to poor internet connectivity. Many students are also not able to access online material, including notes, because of failure to complete fees payment on time. Many complete paying fees before the examinations which shows that they lack access to important material for the entire semester. Student interaction with Moodle is shown in Figure 4.

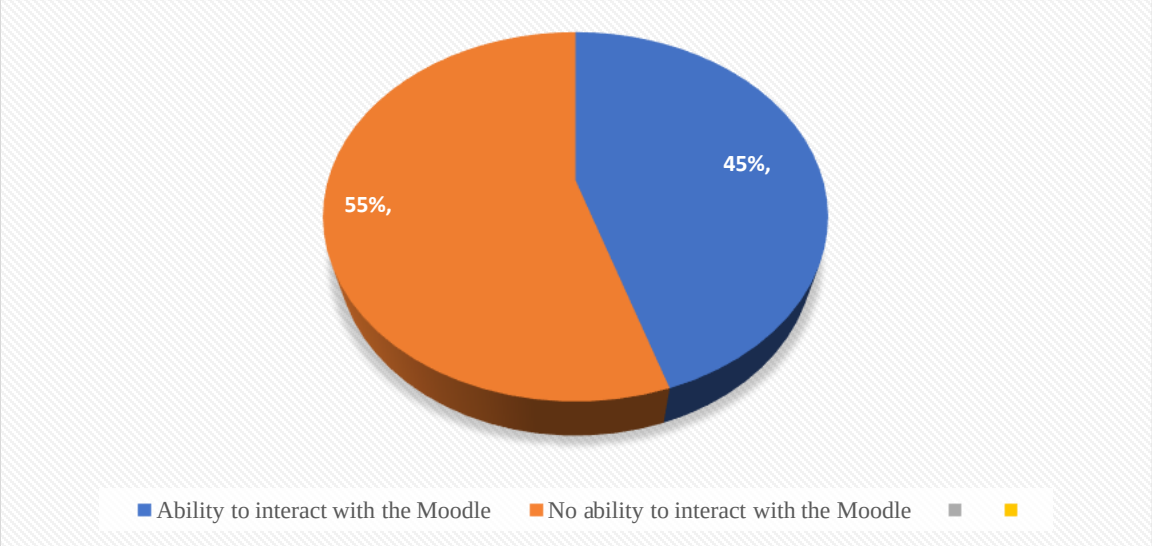

Figure 4: Ability to interact with the LMS

As illustrated in Figure 4, the 55% who reported inability to interact efficiently with Moodle attributed this to lack of the basic requirements such as laptops, smartphones, computers, internet and even electricity. They thus had no exposure to these tools and therefore lacked adequate training and practice on how to interact with Moodle so as to take part in online learning.

The Role of the Instructor/ Lecturer

The lecturer is important with regard to student access to education. In the 21st C, technology is fast changing the role of, not just the lecturer, but the student as well. The traditional lecture method used in universities is such that the lecturer is the centre of all learning activities while the student is simply a receiver. University teaching/learning across the country is now taking shape in the model of education that fosters more interaction and small group and class discussion in which technology is the enabler. Advancement of technology now gives the lecturer a chance to use diverse learning styles and schedules. The student can access information from different sources and this enables the lecturer to give students a chance to share whatever knowledge they get. Student access to information and educational opportunity enabled by technology, is increasingly shifting the lecturer's role to a facilitator as students take more responsibility for their own learning using technology to gather relevant information.

However, with the availability of search engines like google, there still arises the issue of the university student accessing the knowledge that is abundant with modern technology from libraries all over the world. One needs smart digital devices and internet to access information. This means that the lecturer finds himself dealing with the few students who have the devices to access information. Most students have to

wait and listen to the class discussions in the lecture hall and then make notes using traditional methods of the note book and pen. The lecturer still finds himself as the centre of imparting knowledge because only a few students will have accessed information from digital platforms. The findings from this study showed that the lecturer is still very important with regard to the student's access to education, information, learning materials and involvement in learning activities.20% of the learners reported to have accessed knowledge through modern technology,18% accessed information through libraries and 62% depended wholly on lectures and class discussions in the lecture halls. These findings are summarized in Figure 5.

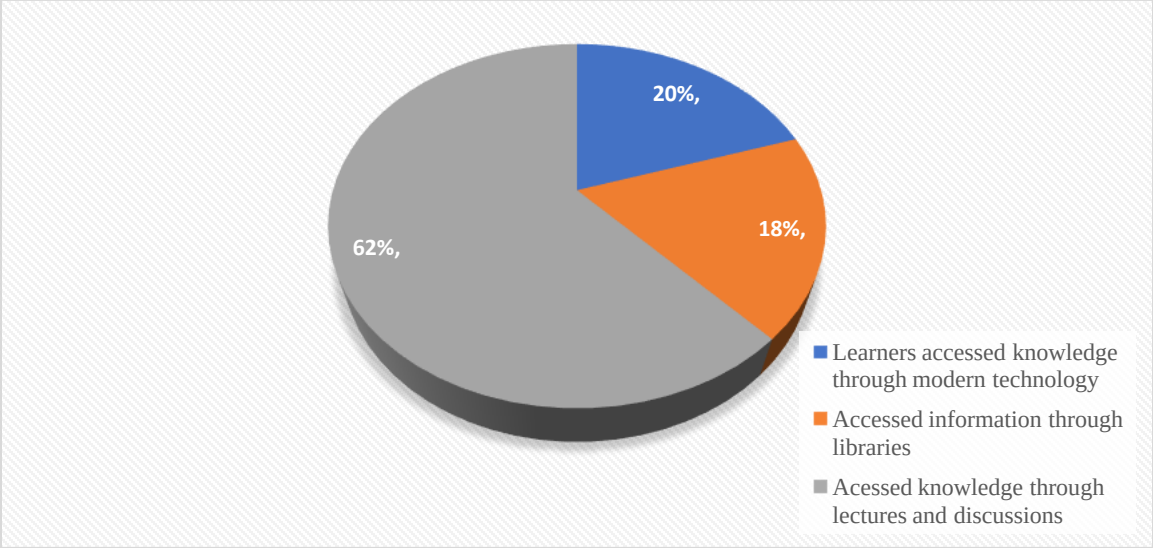

Figure 5: Role of the lecturer

Conclusion

While a hybrid approach involving online and face-to-face learning is in line with modern technological advancements, the reality is that it can only be effective if students own smart digital devices. Students who cannot afford laptops think online teaching/learning is for the privileged because it excludes many university students from poor backgrounds who have to struggle through their degree programmes. Indeed, some universities in Kenya have made it a requirement for first years to report with a laptop. Making the possession of laptops and smartphones by university students a requirement is unrealistic and unfair as it denies all qualified Kenyans equal access to higher education and is, therefore, unwarranted. The conclusion in this paper also echoes the frustrations of some faculty members as they try to implement the 2006 Kenyan national ICT policy which was revised in 2019. It set out objectives pertaining to scaling up ICT in education including through the development of eLearning resources, facilitating public to private partnerships to mobilize resources in order to support eLearning. Feelings of some faculty members were that '*sometimes one wonders what we are doing as faculty by insisting on teaching online even when the turn-out is extremely poor'*. This is a clear indication of the challenges yet to be addressed for digital learning to be adequately administered in Kenyan universities.

Recommendations

The GoK should ensure that all students who join university are in a position to access online learning platforms. All students should be provided with modern means of communication and a conducive learning environment that are necessary for accessing material and knowledge in the ever-advancing technological world.

The GoK should consider establishing and funding innovation departments/centres in engineering departments in Kenyan universities to manufacture electronic devices that can then be supplied to all students. This will, not only create job opportunities, but avenues of supplying electronic devices in the country and beyond.

References

Akyol, Z., & Garrison, D. R. (2011). Understanding cognitive presence in an online and blended community of inquiry: Assessing outcomes and processes for deep approaches to learning. *British Journal of Educational Technology*.

Bates, A. W., & Poole, G. (2003). *Effective teaching with technology in higher education: Foundations for success*. Indianapolis, IN: Jossey-Bass.

Bates, A. W. (Tony). (2019). *Teaching in a digital age: Guidelines for designing teaching and learning*. University of British Columbia: BCcampus.

Bonk, C. J., & Graham, C. R. (Eds.). (2005). *Handbook of blended learning: Global perspectives, local designs*. San Francisco, CA: Pfeiffer Publishing.

Conceição, S. C. O., & Lehman, R. M. (2011). *Managing online instructor workload: Strategies for finding balance and success*. San Francisco, CA: Jossey-Bass.

Douglamas, M. (2002). What is Moodle™? The comprehensive Moodle learning management system (LMS) guide. *eThink*.

Donovan, T., et al. (2019). *Tracking online and distance education in Canadian universities and colleges: 2018*. Halifax, NS: Canadian Digital Learning Research Association.

Gok. (2010). *The Constitution of Kenya*. Nairobi: Government Printers. Retrieved from https://www.medscape.com/answers/2500114-197401/what-is-covid-19

GoK. (2012). *Sessional Paper Number 14 of 2012 on Vision 2030*. Nairobi: Government Printers.

Means, B., et al. (2010). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. Washington, DC: U.S. Department of Education.

Mmbwanga, F., Etakwa, E., & Maroko, G. (2021). Challenges university students face in eLearning as a result of the COVID-19 pandemic.

Moon, J. A. (2004). *A handbook of reflective and experiential learning: Theory and practice*. New York: Routledge.

Khatri, S. K. (2024). Higher education in the digital era: Exploring the transformative effects of technological advancements on higher education. *International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)*, 4(5).

Kibuku, R. N., Ochieng, D. O., & Wausi, A. N. (2020). e-Learning challenges faced by universities in Kenya: A literature review. *The Electronic Journal of e-Learning*, 18(2), 150–161. Available online at www.ejel.org [accessed Oct 30, 2024].

Putnam, R. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.