DIGITAL SKILLS NEEDED BY ENTREPRENEURSHIP EDUCATION LECTURERS DURING AND POST COVID-19 ERA IN NIGERIAN UNIVERSITIES

By

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Abstract

The study examined digital skills needed by entrepreneurship education lecturers during and post covid-19 era in Nigerian Universities. The study adopted descriptive survey re-search design. The study was carried out in all the government owned universities in south-western Nigeria that offered entrepreneurship education as a course. The population comprised of all the two hundred and two (202) entrepreneurship lecturers, currently teaching in all public universities in South-western Nigeria. The entire population was studied as it was too small to be sampled. The instrument for data collection was a structured questionnaire based on the purpose of the study and relevant literature. The instrument was face validated by six experts from four selected universities. The Cronbach alpha reliability method was used to determine the internal consistency of the instrument and a reliability coefficient of 0.87 was obtained from the instrument. Mean and Standard deviation were used to analyze the data. In interpreting the main cut off ratings up to 2.50 and above were regarded as needed while items with mean ratings below 2.50 were regarded as not needed. Based on the findings of this study, it was recommended among others that there should be training sections and workshop should be organized for entrepreneurship education lecturers on the effective use of the digital skills in the universities during this pandemic.

Keywords: Digital skills, covid-19, Entrepreneurship, Education, Universities, Lecturers

Introduction

The development of the new knowledge society implies social transformation in which citizens need digital skills. Digital literacy may be understood as an inter-related set of skills or

competencies necessary for success in the digital age. The digital skills boot camp has helped trainees to access new employment opportunities. It has become imperative to move digital skills into teaching and learning process due to the present COVID-19 pandemic that has plagued the entire world and its system. Within the context of the COVID-19 crisis, the World Health Organization (WHO) declared COVID-19 as a global public health emergency of international concern on 30th January 2020 as well as a pandemic on 11th March 2020 (Cucinotta & Vanelli, 2020). As of 6th April 2020, UNESCO reported that there have been 1,576,021,818 affected learners out of 91.3% total enrolled learners in 188 countries in all levels of learning. Exactly as in many other aspects of everyday life, COVID-19 had a serious impact on students, instructors and educational organizations around the globe (Mailizar, Almanthari, Maulina, Bruce, 2020). The pandemic caused schools, colleges, and universities across the globe to shut down their campuses and quickly move conventional education to distance and virtual learning (Toquero, 2020). The world is fast changing from analog to digital and the educational system is the most affected in its pedagogical contest. To remain relevant in teaching and learning in the present and post COVID-19 era, lecturers and students are to keep abreast of the digital trends. Digital skills are the abilities to use digital and network to access and manage information in order to achieve a desired goal. Usoro et 'al (2014) noted that digital skill is the basic understanding of how to interact with a computer, how to interact with applications on that computer and how to make it do what you want at the right time. Digital learning encompasses many different facets, tools and applications to support and empower teachers, lecturers and students, including online co-users, blended or hybrid learning, digital content and resources.   Essential digital skills in the view of Orji et'al (2016) include: using devices to handle information, creating and editing, communicating, transacting and being safe and responsible online. Cervi, Simelio and Tejedor (2020) argued that digital skills availability has motivated world-class universities to develop innovative, new ideas to accelerate and improve both teaching and learning of entrepreneurship education programmes.

Entrepreneurship according to Abusomwan (2019) involves identifying business opportunities, mobilizing resources, implementing business plants, marketing products or services, ensuring innovations through improved production and technology, monitoring and responding to environmental changes and opportunities. Shobowale, Adenle, Olatokunbo and Banjoko (2019) asserted that entrepreneurship contributes to the development of skilled and semi-skilled manpower for national development as well as self-employment and poverty alleviation. From these definitions, it is obvious that without the use of digital skills, any

entrepreneur may not achieve his or her desired goals. An entrepreneur will need some digital skills to identify business opportunities, source for information and materials about the business and to also market the products. Currently, it is inevitable that the usage and reliance on digital technologies will continue to grow unprecedented during this pandemic and post COVID-19 era. However, Printed books, paper resources and manual writing remain fundamentally important in teaching and learning process but this current period of COVID-19 pandemic where movement, large classes and gathering are restricted, may well represent a pivoted point in the march towards digital domination. Therefore, it is expedient to provide university lecturers of entrepreneurship education with the necessary tools, understanding and practice in using digital technologies to ensure they are not disenfranchised from the shift towards technology based literacy.

Entrepreneurship education is considered as an important way to influence the competitiveness of any country or industry, so it provides opportunities in the COVID-19 pandemic to progress to a more competitive educational environment (Toquero, 2020). Students of entrepreneurship education needs to be taught with digital skills that will also enhance their entrepreneurial interest, competencies and abilities. Entrepreneurship education has become so important in Nigeria Universities with the responsibility of training the students and equipping them with the right skills, knowledge and attitude required to face and compete with global market. Entrepreneurship lecturers have a distinctive role to play not only in their subject areas but they also need to have practical and up-to-date digital skills expertise relevant to the global market especially during this era of pandemic where workers are expected to work from home. Presky (2001) stated that the university lecturers as digital immigrants and the students as digital natives. Digital native refers to people who were born after 1980s. Digital immigrant refers to those who were born before 1980 and that the gap between the two groups has nothing to do with birth but with how they think. Digital natives are born surrounded by digital media thus their brains might function differently.

In Nigeria, there may be some challenges militating against acquiring and using digital skills in teaching entrepreneurship education in the various universities. The United Nations Educational, Scientific and Cultural Organization (UNESCO, 2014) posited that a number of issues may hinder tertiary institutions, lecturers and students in their effort to fully benefit from effective use of digital skills opportunities such as: not being able to afford digital devices and tools, lack of access to constant internet and suitable materials, and some software not being available in simple language.

Statement of the Problem

In Nigeria universities, there is a digital skill gaps existing between the lecturers and the students. Lecturers have the challenge of dealing with students who are coming to school more literate in digital world than the lecturers (Chandler & Mahar, 2003). Digital literacy is the awareness, attitude and ability of individuals to appropriately use digital tools and facilities to identify, access, manage, integrate, evaluate, analyze and synthesize digital resources, construct new knowledge, create media expressions, and communicate with others, in the context of specific life situations, in order to enable constructive social action; and to reflect upon this process. To cope with the digital age, universities lecturers must bear in mind that the 21st century learners, have different ways of thinking and practices which are connected to digital technology (Leu et 'al 2004). Differentiating the old generation from the new generation in terms of their digital abilities and thinking, observations revealed that the university lecturers as digital 'immigrants' and the students as digital, 'natives'. While the university lecturers may not be comfortable with the digital skills and tools which would create a gap between them and the students who are more comfortable with digital tools. With the current waves of COVID-19 pandemic, every lecturer, though, maybe digital immigrants, should not resist change, but should determine positive attitude towards technology and can decide to be enthusiastic adopter who will be able to change their teaching methods that fit the digital era. Therefore, it is imperative to determine digital skills needed by lecturers of entrepreneurship education during and post covid-19 era in South-Western States of Nigerian universities.

Purpose of the Study

The main purpose of the study was to determine digital skills needed by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States of Nigeria universities. Specifically, the study determined:

1. Digital skills needed by entrepreneurship education lecturers during and post COVID-19 Era.

2. Challenges militating against the use of digital skills by entrepreneurship education lecturers during and post COVID-19 era.

3. Ways of solving the challenges militating against the use of digital skill by entrepreneurship education lecturers during and post COVID-19 era.

Research Questions

1. What are the digital skills needed by entrepreneurship education lecturers during and post COVID-19 Era?

2. What are the challenges militating against the use of digital skills by entrepreneurship education lecturers during and post COVID-19 Era?

3. What are the ways of solving the challenges militating against the use of digital skill by entrepreneurship education lecturers during and post COVID-19 era?

Methodology

Design and Area of the Study: The study adopted descriptive survey research design. The study was carried out in all the government owned universities in South-Western States of Nigeria that offered entrepreneurship education as a course, namely: Federal University of Technology (Akure) Ondo State; Lagos State University Lagos; University of Lagos, Lagos State; University of Ibadan, Oyo State; Federal University of agriculture, Abeokuta, Ogun State; Obafemi Awolowo University, Osun State; Federal University, Oye-Ekiti; Koladaisi University, Oyo; Kwara State University, Melete, Kwara State; and National Open University respectively.

Population and Sample of the Study: The population comprised of all the 202 entrepreneurship education lecturers, currently teaching in all the public universities in South-western States, Nigeria. The entire population was studied as it was too small to be sampled.

Instrument for Data Collection: The instrument for data collection was a structured questionnaire title: Digital Skills Needed by Lecturers of Entrepreneurship Education Questionnaire (DSNLEEQ). The instrument was divided into three sections based on the specific purposes of the study. Section one and three items were assigned a Four Likert Scale of Very Highly Needed (VHN=4), Highly Needed (HN=3), Moderately Needed (MN=2) and Not Needed (NN=1), while section items were assigned a Four Likert Scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD) with weighted values of 4, 3, 2, and 1 respectively.

Validation and Reliability of the Instrument: The DSNLEEQ was face validated by six experts from four selected universities. The experts assessed the instruments to ensure its clarity and appropriateness of the DSNLEEQ items and their corrections were effected. The Cronbach alpha reliability method was used to determine the internal consistency of the DSNEELQ and a reliability coefficient of 0.87 was obtained.

Method of Data Collection: The administration of the DSNLEEQ was done with the help of 10 research assistance because of the distance of the various universities. One was assigned to each university. All copies DSNLEEQ distributed were retrieved using on- the spot distribution and collection.

Method of Data Analysis: Mean and Standard Deviation were used to analyze the data for answering the three research questions. An item with the *Mean* of 2.50 and above were regarded as *needed* or *Agreed*; while any one with *Mean* score below 2.50 was considered as *Not Needed* or *Disagreed*.

Results

Research Questions 1: What are the digital skills needed by lecturers of entrepreneurship education during and post COVID-19 era?

Tables 1
Mean ratings and Standard Deviation on the Digital skills needed by Entrepreneurship Education lecturers during and Post COVID-19 Era.

N=202

S/N	Digital Skills Needed by Entrepreneurship Education Lecturers			
	Digital Skills in Creating Videos	$\bar{x}$	SD	Remark
1.	Video for collaborative and storing additional videos	3.78	0.60	Needed
2.	Google story builder to create min-movies or video	3.76	0.61	Needed
3.	Pixorial to shoot, edit and share videos	3.37	0.81	Needed
4.	Powtoon to create engaging and captivating content.	3.49	0.84	Needed
5.	Intervue to gather short video responses online from anyone with a webcam for teaching	3.33	0.82	Needed
6.	Web of stories to record direct to their computer with a webcam	3.48	0.88	Needed
7.	Web of stories to upload a video filmed on handycam or phone.	3.52	0.85	Needed
8.	Flextime to mix photos, videos and music to create mind interesting videos	3.85	0.58	Needed
9.	Videos an online animation platform to create edit and share videos for free	3.42	0.88	Needed

	X	SD	Remark
10. Google Presentation to integrate text and images	3.30	0.95	Needed
11. Google Presentation to add videos	3.64	0.89	Needed
12. Google Presentation to import/export slides	3.72	0.67	Needed
13. Google Presentation to customize the size of our slides and insert themes.	3.82	0.58	Needed
14. Haiku Deck to present using mobile devices	3.81	0.59	Needed
15. Prezi to create and deliver presentation	3.53	0.87	Needed
16. Zoho-Presentation to create and deliver presentation.	3.64	0.72	Needed
17. Zoho-Presentation to apply new ideas, review, edit, share presentation.	3.81	0.57	Needed
18. Picmonkey to edit pictures.	3.64	0.86	Needed
19. BeFunky to crop, resize or add a frame to Photo. BeFunky to adjust the color, and brightness of pictures	3.71	0.67	Needed
20. BeFunky to adjust the color, and brightness of pictures	3.80	0.63	Needed
21. BeFunky to contrast, saturation, and sharpen a picture	3.86	0.54	Needed
22. Pixir photo editor to crop re-size and fix any picture	3.67	0.86	Needed
23. Picghost to edit images online quickly and easily	3.76	0.63	Needed
24. Aviary to generate beautiful photos using stunning filters and frames create stickers, touch-up tools.	3.60	0.87	Needed
25. Fotor to resize photo and crop them.	3.85	0.74	Needed
26. Fotor to adjust the lighting curve and rotate a picture.	3.69	0.65	Needed
27. Fotor to add photo effects and other frames	3.89	0.59	Needed
28. Fotor to add clip art and text, or use unique color splash and tilt shift tools.	3.69	0.79	Needed
Digital Skills in Note Taking			Needed
29. Evernote to remember what you did in a given activity	3.79	0.63	Needed
30. Evernote to organize, save ideas and improve productivity	3.68	0.70	Needed
31. Penultimate to learn how to write on paper.	3.81	0.62	Needed
32. Studyblue to flip online flashcards for fast feedback	3.78	0.60	Needed
33. Studyblue to re-study concepts one have not yet mastered with the help of filters.	3.92	0.52	Needed
34. Sticky note pro to create personal reminders, shopping lists, school notes and special notes.	3.65	0.79	Needed
35. Microsoft word to jot down ideas, add pictures, and update one shopping list.	3.79	0.61	Needed
36. Simple note to share notes and publish them for other people.	3.81	0.74	Needed
37. Super notes to create notes and make voice recording during events.	3.74	0.82	Needed
38. Notability to sketch ideas and annotate documents	3.76	0.71	Needed
39. Notability to sign contracts, complete worksheets, jot travel notes and make presentations	3.85	0.80	Needed

__Note:__ X= Mean, SD= Standard Deviation, N= Needed, NN= Not-Needed

Table 1 revealed that all the items on digital skills were needed by lecturers of entrepreneurship education with the Mean scores raged from 3.30 to 3.92 of 39 items. This revealed that all the digital skills are needed by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States Nigerian universities.

Research Question 2: What are the challenges militating against the use of digital skills by lecturers of entrepreneurship education during and post COVID-19 era?

Table 2

Mean ratings and Standard Deviation on the Challenges Militating against the use of Digital Skills by Lecturers of Entrepreneurship Education During and Post COVID-19 Era.
N=202

S/N	Challenges Militating against the use of Digital Skills	$\bar{x}$	SD	Remark
1.	Digital gap issues (Generational gap)	3.97	0.52	Agreed
2.	Lack of professional recognition	3.67	0.61	Agreed
3.	Poor internet connectivity	3.44	0.70	Agreed
4.	Inadequate digital devices	3.57	0.60	Agreed
5.	Poor power supply/electricity.	3.73	0.49	Agreed
6.	High cost of digital equipment and tools	3.64	0.62	Agreed
7.	Lack of technical support by the university management.	3.66	0.58	Agreed
8.	Theft of exiting digital facilities.	3.72	0. 49	Agreed
9.	Phobia for digital device utilization lecturers.	3.55	0.63	Agreed
10	Lecturers resistance to change and negative attitude towards the new system	3.79	0.65	Agreed
11	Lack of incentives and motivation by the university management.	3.86	0.50	Agreed
12	Lack of awareness about some common digital skills	3.98	0.42	Agreed
13	Slow and fluctuating network.	3.76	0.57	Agreed

Note: X= Mean, SD= Standard Deviation, A= Agreed, D= Disagreed

Table 2 indicated that the respondents agreed to all the items on challenges militating against the use of digital skills by lecturers of entrepreneurship education with the Mean scores raged from 3.44 to 3.98 of 13 items. This indicated that all the digital skills are needed by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States Nigerian universities.

Research Question 3: What are the ways of solving the challenges militating against the use of digital skills by entrepreneurship education lecturers during and post COVID-19 era?

Table 3

Mean ratings and Standard Deviation on ways of solving the challenges militating against the use of digital skills by Lecturers of Entrepreneurship Education during and post COVID-19 era. N= 202

S/N	Ways of Solving the Challenges Militating against the Use of Digital Skills	$\bar{x}$	SD	Remark
1.	Training and retraining of entrepreneurship education lecturers on the need for digital skills usage.	3.61	0.74	Needed
2.	Entrepreneurship education curriculum should be upgraded to incorporate uses of digital devices in teaching and learning.	3.82	0.54	Needed
3.	Power supply should be regular.	3.54	0.80	Needed
4.	Universities management should provide enough digital devices for teaching and learning.	3.61	0.59	Needed
5.	Establishing efficient and functional digital centers in the various universities	3.45	0.82	Needed
6.	Organizing seminars, workshop and conferences for entrepreneurship education lecturers	3.78	0.61	Needed
7.	Time management by allocating enough time for regular practice and use of the acquired digital skills.	3.29	0.89	Needed
8.	Professional development of teachers in the various aspects of entrepreneurship education.	3.77	0.51	Needed

Note: X= Mean, SD= Standard Deviation, N= Needed, NN= Not-Needed

Table 3 showed that all the items on ways of solving the challenges militating against the use of digital skills by lecturers of entrepreneurship education with the Mean scores raged from 3.30 to 3.92 of eight items. this showed that all the eight ways of solving the challenges militating against the use of digital skills are needed by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States Nigerian universities.

Discussion of Findings

Data presented in table 1 showed that all the digital skills presented were needed by entrepreneurship education lecturers during and post COVID-19 era. These digital skills include ability to: use Picmonkey to edit pictures, Befunky to crop, resize or add frame to images, Picghost to edit images online quickly and easily, among others, were in agreement with the view of Chukwuemeka and Anaele (2015) who stated that lecturers require computer graphics from various sources such as clip art, digital image, using digital camera to create a graphic file, using scanner to convert pictures into graphic file, creating a web page, teleconferencing, accessing,

copying, and pasting information from internet to a different applications. The findings are also in agreement with Ahmed (2006) who stated that using analog to digital conversion techniques, digitizers, light pens-connected to graphic computer terminals, using scanners to convert a picture into graphic file are some of the computer graphic skills required by entrepreneurship education lecturers. The view and the agreement of authors above helped to justify the findings of this study on digital sills needed by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States Nigerian universities.

The result of the findings presented in Table 2   revealed that all the respondents agreed to the 13 items on challenges militating against the use of digital skills by lecturers of entrepreneurship education during and post COVID-19 era. These challenges include: Digital gap issues (Generational gap), poor internet supply, poor electricity supply, lecturers resistance to change and negative attitude towards the new system, lack of incentives and motivation by the school authority, lack of awareness about some common digital skills. The findings of the study is in conformity with the finding of Rashida and Abir (2016) who opined that lecturers resistance to change and negative attitude towards the new system gap issues (Generational gap) whereby lecturers have the challenge of dealing with students who are more literate in the new digital world. The findings of the study also supported the opinion of Obi and Akarahu (2010) who emphasized that teachers require online teaching skills, which involves transferring of knowledge through internet, holding discussion class, sending e-mails giving and assessing students' performance. The findings and the opinions of authors above helped to justify the findings of this study on 13 challenges militating against the use of digital skills by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States Nigerian universities.

The results presented in Table 3 showed that all the eight items on ways of solving the challenges militating against the use of digital skill by lecturers of entrepreneurship education during and post COVID-19 era. These challenges include: Universities management to provide enough digital devices for teaching and learning, Training and retraining of entrepreneurship lecturers on the need for digital skills usage, Universities management should provide enough digital devices for teaching and learning, establishing efficient and functional digital centers in the various universities. The findings of the study is in conformity with opinion of Department of Business Innovation and Skills (2016) who asserted that equipping the workforce with digital skills encourage deeper and faster usage of digital technologies that make lecturers achieve their stated goals. The findings of the study is also in agreement with opinion of Ishiyaku (2012) who

posited that entrepreneurship education teachers and graduates require constant training and re-training on the need and use of digital devices, tools and equipment. The findings and the views of authors above helped to justify the findings of solving the challenges militating against the use of digital skill by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States Nigerian universities.

Conclusion

Digital technology has changed the way we go about our teaching and learning during the covid-19 pandemic era. To remain relevant in teaching and learning in the present and post COVID-19 era, entrepreneurship education lecturers are to keep abreast with the digital trends. Digital skills in creating videos and in note taking are needed; poor internet connectivity and lack of incentives and motivation by the university management are challenges militating against the use of digital skills and Entrepreneurship education curriculum should be upgraded to incorporate uses of digital devices for solving the challenges militating against the use of digital skill by lecturers of entrepreneurship education during and post COVID-19 era in South-Western States Nigerian universities.

Recommendation

Based on the findings of this study, the following recommendations were made:

1. Training sections and workshop should be organized for lecturers of entrepreneurship education on the effective use of the digital skills during and post COVID-19 era in South-Western States Nigerian universities.

2. Lecturers of entrepreneurship education should be encouraged by the university management to use digital skills and other available pedagogical technologies for teaching and learning during and post COVID-19 era in South-Western States Nigerian universities.

3. Government and University management should provide all necessary digital devices, constant electricity supply and technical support for entrepreneurship education lecturers during and post COVID-19 era in South-Western States Nigerian universities.

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