



LEVERAGING CLOUD-BASED DIGITAL COMPETENCIES FOR EFFECTIVE INSTRUCTIONAL DELIVERY IN BUSINESS EDUCATION

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Abstract

The study centered on business education lecturers leveraging on cloud-based digital skills for effective delivery of instruction in colleges of education in South-South, Nigeria. Two research questions guided the study. The study adopted the descriptive survey research design as it involved eliciting information from respondents using an observation checklist. The population of the study comprised all the 247 business education lecturers in colleges of education in South-South, Nigeria made up of both federal and state owned colleges in the region. The entire population of 247 business education lecturers in colleges of education in South-South, Nigeria was studied. A 20 item checklist indicating the various digital facilities in internet network and smart boards was designed by the researcher and used for data collection. Two experts validated the instrument. Mean and standard deviation were used to answer the research questions. The study revealed that business educators in colleges of education in South-South, Nigeria observed in the study possessed low competence in the use of Smart Boards for instructional delivery. It also revealed that business education lecturers were competent in the use of internet network for instructional delivery in business education. The study concluded that the use of Internet Network and smart board digital competencies significantly enhanced business education lecturers' delivery of instruction in colleges of education in South-South, Nigeria. It was recommended among others that: there should be a synergy between business education departments and Information and Communication Technology (ICT) units of respective colleges of education in South-South, Nigeria to enhance the implementation of business education programmes, in the various colleges. The Information and Communication Technology (ICT) units of colleges of education should also organize workshops and on-the-job-training programmes for lecturers in business education on how to effectively incorporate ICT facilities and resources in their instructional delivery.

Introduction

The vastness of a democratic self-reliant nation depends on effective development and prudent utilization of her human and natural resources for creative empowerment, employment generation, wealth creation and social wellbeing of the citizenry. It behooves the use of education as a systematic process through which an individual acquires sound knowledge, experience, skills and attitude needed to function effectively within and around the environment. Every nation places a great importance on education because it is a panacea for economic, social, political and societal well-being. The above affirmation according to Azih and Wagbara (2017) corroborates the cardinal principles of Business education as a medium for empowering people, especially the youths, for sustainable livelihood and social-economic development. It is a programme with the propensity of delivering the knowledge, skills, and values that persuade the development of attitudes and



behaviours likely to impact on the actualization of educational goals (Ezinwa, 2016). This implies that, the education of any citizen is predicated on the needs and aspirations of that particular nation and there are many ways individuals can acquire this skills or knowledge; the most trendy is through the electronics systems otherwise referred to as cloud-based digital literacy.

Cloud-based digital literacy is a new model that provides suitable collection of computing resources with its dynamic scalability and usage of virtualized resources as a service through the Internet. Mohammed and Al-momani (2016) posited that Cloud-based digital learning is commonly referred as the deliberate use of networked Information and Communications Technology (ICT) for instruction delivery. Mohammed and Al-momani stated that cloud-based digital learning is directly related to the increasing access to Information and Communication Technology ICT and that it is a technological innovation that utilizes the web and focal remote servers to keep up information and applications. Distributed computing enables shoppers and organizations to utilize applications without establishment and access their own documents at any time using processing device that internet-enable. This innovation takes into account significantly more productive registering by bringing together information stockpiling, handling and transfer speed (Ambika & Kavitha 2014). The internet resources required are bandwidth, servers, software, electronic devices, multi-media board, infrastructure and services (Koutsopoulos & Kotsanis, 2014).

Joyce, Weil and Calhoun (2009) stated that e-learning is the design programme and network system empowered through the exchange of skills and information; the applications and procedures incorporate Web-based learning, computer-based learning, and virtual training collaboration. The authors further posited that its content is delivered through technology assisted facilities like the Internet, smart board, satellite TV, audio or video tape, and CD-ROM. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio. With the tremendous advantages of cloud computing. Divya and Prakasam (2015) opined that this technology is relied upon to reform the field of e-learning education. The primary objective of cloud-based e-learning is to address the issues of the learners, for example, clearing up the questions from prepared instructors and getting to materials required for their scholarly reason (Divya & Prakasam, 2015).

The accessibility of potent e-learning offices has reformed the entire procedure of educating and learning. Numerous scholastic organizations and researchers are quickly grasping this stage which permits dynamic substance creation and conveyance along these lines making adapting all the more fascinating, successful, significant and engaging (Majid, Foo & Chaudhry, 2005). Utpal and Majidul (2013) maintained that these technologies (cloud-based) are utilized for increasingly proficient and savvy figuring by bringing together capacity, memory, processing capacity of computers and servers. With the remarkable advantages of cloud based e-learning, Divya and Prakasam (2015) observed that the main goal of cloud-based e-learning is to meet the needs of the students such as clarifying the doubts from trained teachers competence in accessing materials required for their academic purpose. Pedro (2009) maintained that extensive improvements have been made in the area of online collaborative learning, constraining teachers to reevaluate how they approach learning, directions, and the conditions made to cultivate these. In help of this, Selwyn (2010) expressed that sensational advances in instructive innovation have roused incredible new ways for students to learn with a wide range of improvised instructional media and exercises to promote



self-study. The juxtaposition of these situations made an exceptionally intriguing test and prospect a command to rethink and re-imagine learning methodologies ready to get ready and exceed expectations every person (learners) for long life learning.

Consequently, the 21st century knowledge based skills requires lecturers and instructors who are competent and can use e-learning platforms to inculcate better value and skills that could enable (Business Education) students upon graduation to gain employment and be self sustained. It was on this note that Nnadi and Maduagwu (2015) stressed the need for skill acquisition among Nigerian youth, they emphasized that skill acquisition will reduce the economic and social problem confronting Nigeria youths. Competencies can be measured in terms of skills; knowledge and values which lecturers possess to function effectively and efficiently in the discharge of their given mandate which is primarily geared towards the delivery of instructions. Okwelle and Allagoa (2014) posited that these are tools of teaching and only teachers who possess all these tools (skills, knowledge and values) can perform effectively in the classroom situation and are competent to teach in the situation. It therefore holds that lecturer's competencies in instruction delivery area fundamental input in realizing the objectives of cloud-based digital tutoring in business education.

Statement of the Problem

The cosmic of technologies available today affords learning setting much diversity and opportunity for leveraging cloud-based platforms as a through line for educational change. This is adduced to the fact that advances in ICT have inspired powerful new ways for lecturers to engage their students with all kinds of content and activities in their own self-direct learning experiences. But suffice it to say, participant observant experience revealed that most lecturers are still interested in the traditional form of education which is passive in nature and has evolved over time without reasonable remarks. The above situation calls for great concern because if not addressed could leave graduates more in particular of Business Education enclave far behind their counterparts in their quest for skill development and general well being.

Organization for Economic Co-operation and Development (2010) succinctly put that the skills for a mature life include technological literacy, and people who do not acquire and master these competencies may suffer from a new form of the digital divide, which would impede on their capacity to effectively operate and thrive in the new knowledge economy. Regrettably enough, most institutions in developing countries like Nigeria, still pay lip service to this clarion call as new technologies are confronted with many problems such as: epileptic power, high cost and maintenance, lack of instructors, lack of collaboration between the teachers and technicians and lecturers unwillingness in embracing this all important medium of instruction which invariably affects the output (graduates) and is capable of constituting threat to their survival and the sustainability of the nation, especially, where these graduates are faced with hardship and unemployment. Herein is the gap that this study tries to investigate how leveraging on cloud-based digital competencies effectively can enhance lecturers' instructional delivery in Business Education. Objectively the study sought to determine how the benefits of cloud-based such as smart board and Internet Network competencies possessed by business education lecturers can enhance their lecture delivery in colleges of education in South-South, Nigeria.

Research Questions

What extent are business education lecturers competent in the use of smart board to enhance their instructional delivery?

To what extent are business education lecturers competent in the use of Internet Network to enhance their instructional delivery?

Method

This study adopted the descriptive survey research design as it involved eliciting information from respondents using an observation checklist. The population of the study comprised all the 247 business education lecturers in colleges of education in South-South, Nigeria. The entire population of 247 business education lecturers in was studied. Mean and standard deviation were used to answer the research questions. A checklist indicating the various ICT facilities was designed by the researcher and used for the study. The checklist is Observational Checklist for Business Education Lecturers Competencies in the Use of Digital Facilities for Instruction (CBELCUDFI)".

Copies of the observational checklist were given to one expert in Computer Science, one in business education and one in science education for face and content validity.

Results

Research Question 1

To what extent are business education lecturers 'competent in the use of smart board to enhance their instructional delivery?

Table 1: Mean and Standard Deviation of Lecturers competencies in the Use of Smart Boards in Instructional Delivery

S/N	Item	VC	C	LC	IC	\bar{x}	SD	Interpretation
1.	Using smart board for instructional delivery	12	21	88	126	1.67	0.82	LC
2.	Deleting items on the board while using smart board for instructions	10	34	95	108	1.78	0.82	LC
3.	Using interactive boards with document cameras	8	19	109	111	1.69	0.75	LC
4.	Using smart boards with microscopes	7	21	106	113	1.68	0.74	LC
5.	Using smart boards with video cameras	6	22	98	121	1.65	0.74	LC
6.	Integrating smart boards with a wide range of software applications	4	16	124	103	1.68	0.66	LC
7.	Skills in cleaning and maintaining white boards before, during and after teaching	13	28	89	117	1.74	0.86	LC
8.	Using smart boards to conduction research	3	22	95	127	1.59	0.70	LC
Grand Mean		8	23	101	115	1.69	0.76	LC

Data in Table 1 reveal that the mean value of items 1, 2, 3, 4, 5, 6, 7, and 8 fall within the region of low competencies. Also, the grand mean of 1.69 falls within the region of low competencies. Thus, lecturers in colleges of education in South-South, Nigeria observed in the study possessed low competencies in the use of Smart Boards for instructional delivery in business education. The standard deviation shows the extent of consistency of scores of respondents in their observed competency in the use of Smart Boards for instructional delivery.

Research Question 2

To what extent are business education lecturers competent in the use of Internet Network to enhance their instructional delivery?

Table 2: Mean and Standard Deviation of Lecturers competencies in the Use of Internet Network in Instructional Delivery

S/N	Item	VC	C	LC	IC	\bar{x}	SD	Interpretation
1.	Locating internet sites	38	49	68	92	2.13	1.05	C
2.	Opening an internet environment	43	56	64	84	2.23	1.11	C
3.	Making use of internet materials	53	63	58	73	2.39	1.12	C
4.	Blogging	60	69	63	55	2.54	1.08	C
5.	Use of YouTube	58	65	68	56	2.51	1.07	C
6.	Opening a facebook	66	71	53	57	2.59	1.11	C
7.	Opening a Google account	68	70	57	52	2.62	1.10	C
8.	Surfing the net	71	63	53	60	2.59	1.14	C
9.	Using internet materials to plan the lesson	56	75	70	46	2.57	1.03	C
10.	Create a website	43	51	76	77	2.24	1.07	C
11.	Access to the internet through laptop or desktop	65	62	71	49	2.58	0.76	
Grand Mean		56	63	64	64	2.45	1.10	C

Data in Table 2 indicate that the mean values of item 1, 2, 3, 4, 5, 6, 7, 8 9, 10 and 11 fall within the region of competence. Also, the grand mean of 2.45 fall within the region of competence. Thus, lecturers in colleges of education in the South-South, Nigeria observed in the study is competent in the use of Internet Network for instructional delivery in business education. The standard deviation reveals the extent of consistency of scores of respondents in their observed competencies in the use of Internet Network for instructional delivery

Discussions

The findings from the result of the analysis of research question one in Table 1 revealed that lecturers in business education in colleges of education in South-South, Nigeria possessed low



competencies in the use of smart boards in instructional delivery. The above finding is in conformity with the findings of Okoli (2013) who posited that lecturers in Anambra State of Nigeria possess low competence in the use of Smart Boards in instructional delivery in business education.

Table 1 shows that lecturers in business education in colleges of education in South-South, Nigeria have low competence in the use of Smart Boards in instructional delivery for deleting items on the boards while using smart boards for instructions, using interactive boards with document cameras, using smart boards with microscopes, using smart boards with video cameras, integrating smart boards with a wide range of software applications, skills in cleaning and maintaining white board before, during and after teaching and using smart boards in conducting research.

Furthermore, the findings agree with Tordero (2016) that lecturers in Business Education in colleges of education lack the needed competence in the use of smart boards for instructional delivery. Similarly, the findings also support the views of Iwu (2016) who noted that most business educators in colleges of education (Technical) Omoku had not acquired the requisite skills necessary to effectively use of smart boards in teaching.

The result of research question two revealed that lecturers in business education in colleges of education in South-South, Nigeria were competent in use of Internet Network for delivery of instructions.

This finding is in disagreement with Akasi and Adebayo (2014) who maintained that most lecturers in colleges of education do not have the competencies in the use of Internet in instructional delivery in business education. Table 2 shows that lecturers in business education to a great extent are competent in the use of Internet Network for instructional delivery such as locating internet sites, opening a face book, opening a goggle account, opening an internet environment, making use of internet materials, blogging, use of you tube, surfing the net, using internet materials to plan the lesson, creating a website and accessing the internet through laptop or desktop.

The above finding is inconsistent with the views of Lawson (2015) who emphasized that most business educators in Colleges of Education in Rivers State, Nigeria lacked competency in the utilization of ICT facilities in instructional delivery in business education in the area.

Conclusion

The study concludes that the possession of cloud-based digital competency (Internet Network and smart board) significantly enhances business education lecturers' delivery of instructions in colleges of education in South-South, Nigeria. Furthermore, the effective use of cloud-based digital competency skills in teaching and learning automatically rob off the graduate of business education programme the problem of unemployment and whose contributions will greatly affect the socio-economic well being.

Recommendations

Based on the findings of the study, the following recommendations are made:

There should be synergy between business education department and Information and Communication Technology (ICT) unit of respective colleges of education in South-South, Nigeria to enhance the implementation of Business Education programmes in the various colleges of education in the area.



The Information and Communication Technology (ICT) unit of Colleges of education should also organize workshop and on the job training programmes for lecturers in business education on how to effectively incorporate ICT facilities and resources in their instructional delivery.

Technicians or technical staff should be employed as support staff to the business education department to enhance their capacity to utilize ICT facilities in their instructional delivery in colleges of education.

There should be collaboration between lecturers in business education in colleges of education in South-South, Nigeria and other agencies responsible with the use of technologies for service delivery as to enable them to understudy and have the expertise knowledge on how to use this technology in the classroom setting. This will have a multiplier effects on the students who would pass through these lecturers on how to use such ICT facilities before graduation.

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