UTILIZATION OF MODERN COMMUNICATION TECHNOLOGIES FOR EFFEVTING TEACHING OF ACCOUNTING COURSES IN COLLEGES OF EDUCATION IN ENUGU STATE

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Abstract
This article reports on a study which investigated the utilization of modern communication technologies for teaching accounting in colleges of education in Enugu State. Two research questions and two null hypotheses guided the study. The research adopted a descriptive survey design. A structured questionnaire was used to obtain the opinion of accounting educators. The instrument was validated by three experts from Faculty of Education, Enugu State University of Science and Technology. Reliability co-efficient of 0.83 was established using Cronbach Alpha to measure the internal consistency of the instrument. The population comprised 26 accounting educators teaching accounting in the five colleges of education used for the study. The findings revealed that with the exception of few modern communication technologies, modern communication technologies are not available for teaching accounting in colleges of education and the utilization by accounting educators in teaching is low. The recommendations arising from the findings was that accounting educators should on their own constantly up-date their skills on the modern communication technologies so that they can effectively utilize it in teaching. It was further recommended that stakeholders in education should endeavour as much as possible to support the colleges through funding to upgrade, equip and maintain needed modern communication technologies for effective teaching of accounting in Colleges of Education in Enugu State.

Keywords: ***C****ommunication technologies, effective teaching, colleges of education, availability and utilization.*

Introduction

The world is presently tending towards being a global village in this era of technological enhancement and information digitization. Many nations including Nigeria are bracing up to mark their position in the global square with the growing trend of modern communication technologies being a tool for educational reform. UNESCO (2003) as cited in Babalola (2010), opines that educators are centrally important in tapping the potentials offered by modern technology to enhance the quality of education.

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This has led to the application of modern technology-assisted instructions in teaching and learning in tertiary institutions all over the globe including colleges of education.

Colleges of education are tertiary institutions that produce teachers that can teach their specialized courses in secondary schools. Ifeanyieze (2010) citing Ella (2007) view colleges of education as tertiary educational institutions that prepare teachers for a minimum of three years to qualify to teach their respective subjects. Many programmes are offered in colleges of education including accounting courses.

Accounting is the recording, sorting, retrieving, summarizing and presenting of financial transaction of a business entity. According to Nwokike (2015), accounting is the process of recording, classifying, summarizing and interpreting financial transactions of the organization. Nweze (2015) opine that accounting helps an organization to have some information regarding the nature and amount of incomes, expenses, possible and actual losses of the business. No business entity can thrive without proper accounting records. The business world is changing likewise the accounting profession as a result of new technologies. Onah (2004) rightly observed that manual method of recording and processing data has been gradually replaced with computer leading to computerization of both the private and public sector accounting system. According to Nwokike (2015), one of the critical roles of an accountancy educator is the integration of these new technologies in teaching and learning of accounting in tertiary institutions. The integration of these new technologies depends largely on the availability and utilization of the modern communication technologies in Colleges of Education in Enugu State.

Modern communication technologies also known as Information and communication Technology, Information Technology, New Technologies are the new technological inventions by scientists to enhance communication. It involves all the sophisticated machines and equipments invented around 21st century for easy gathering, processing and transmission of information across the globe and for easy communication between people (Nwajinka, 2003). Chidobi (2015) stated that communication technologies are equipment that enables information to be transferred from the source to the users which try to overcome natural barriers to information transfer like speed and distance. The authors view communication technologies as new teaching aids used to impart knowledge, skills, and attitudes on accounting education students to enable them develop values, manipulative skills needed for educational achievements and technological transformation. In the same vein, the utilization of modern communication technologies in teaching and learning of accounting is based on the availability of modern communication technologies like computers, audio-visual, internet facilities, multi-media computers etc used in educational delivery to improve the teaching and learning of accounting in colleges of education, Enugu. This tallied with Chidiobi (2015) who identified facsimile machine (fax), telecommunication systems, telephone, e-mail,

internet, teleconferencing and electronic bulletin boards as some modern communication technology equipment.

Modern communication is changing our world and causing rapid transformation in all areas of our lives notably in education sector. Modern communication technologies will enable the students to develop manipulative skills, good communication skills and sound basis for scientific and reflective thinking. These can only be achieved if the modern communication technologies are available in our colleges and extensively utilized by educators in teaching. In some cases, these communication technologies may be available but not well utilized by educators to aid teaching and learning in these colleges due to lack of knowledge and skills of ICT and other factors that inhibits availability and utilization. In support of the author's view, Azih and Nwosu (2012) noted that institutions training students should have functional equipment for effective service delivery. Non utilization of the modern communication Technologies had led to production of accounting education graduates that may not fit into the labour market because they lack the requisite skills.

In the field of accounting, modern communication technologies are useful in helping the accounting education students to comprehend the courses and learn faster. It develops the intuitive reasoning in the students and makes them more interested and knowledgeable of ICT and applications of it in their studies. It can also be used to record statistical information in an office environment. Also, accounting courses such as financial accounting, cost accounting, management accounting, taxation, public sector accounting, communication technologies are applied to them as a means of improving the course performance, storage and aiding audio-visual resources when teaching in the classroom.

Accounting educators who make use of modern communication technologies have more advantages of imparting knowledge and skills to students than those who make use of traditional methods of teaching. Generally, when modern communication technologies are used in teaching and learning of accounting education, it improves academic qualities in our tertiary institutions, (Bakpo, 2005). Further, modern communication technologies such computers can be used in teaching and learning accounting packages such as excel and spreadsheet, internets provide opportunities for frequent access as well as an environment in which accounting education students' access information personally and do their assignments. Moreover, projectors are used by accounting educators to facilitate audio- visual materials to aid teaching and learning process. This conforms to Eze (2009) who stated that projectors can be useful for audio-visual literacy in accounting education. Utilization of these communication technologies by accounting educators makes teaching of accounting effective in this era of ICT

Effective teaching occurs when a teacher has imparted the right skills, knowledge and attitudes to the students. Effective teaching cultivates thinking skills, stimulate

interest in the subject and motivate learners to learn. Weimer (2013) opine that effective teaching is teaching that results in learning. An effective accounting educator should always be mindful of technological changes in his profession. This conforms to Adam and Pierce (2015) that effective teachers keep abreast of developments in their field or discipline and incorporate these ideas into their lesson. Adam and Pierce (2015) identified the following characteristics of effective teaching among others as knowledge of basic principles and procedure, self – reflection and modification of techniques and flexibility. The usefulness of modern communication technologies makes it imperative that all colleges of education offering accounting education should have necessary modern communication technologies and ensure that they are being utilized effectively by the accounting educators in teaching. It is against this background that the authors deem it necessary to find the availability of modern communication technologies and extent of utilization of them in teaching accounting in colleges of Education in Enugu State.

Statement of the problem

Education in Nigeria at all level has generally been influenced positively by the use of Modern Communication Technologies. The use of computers in data processing has significant impact in accounting. Moreover, the use of modern communication Technologies in schools is skyrocketing and for any effective teaching of accounting to take place in Colleges of Education in this 21st century, modern communication Technologies must be effectively utilized by accounting educators. Non utilization of these communication Technologies has led to ineffective teaching of accounting in Colleges of education by accounting educators. The study therefore undertakes to find the of availability and extent of utilization of modern communication technologies in teaching accounting in Colleges of Education in Enugu State.

Purpose of the study

The major purpose of the study was to determine the utilization of modern communication technologies for effective teaching of accounting in colleges of education in Enugu state. Specifically the study tends to:

(i) Determine the availability of modern communication technologies in teaching accounting in Colleges of Education in Enugu State.

(ii) Determine the extent of utilization of modern communication technologies in teaching accounting in colleges of Education in Enugu State.

Research questions

The following research questions were raised to guide the study:

1. What are the modern communication technologies available for teaching accounting in Colleges of Education in Enugu State?

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2. To what extent do accounting educators utilize modern communication technologies in teaching accounting in Colleges of Education in Enugu State?

Hypotheses

The following research hypotheses were tested at 0.05 level of significance.

(i) There is no significant difference in the mean responses of accounting educators in federal, state and private colleges of education in Enugu State on availability of modern communication technologies in colleges of education in Enugu state.

(ii) There is no significant difference in the mean responses of accounting educators in federal, state and private colleges of education on utilization of modern communication technologies in teaching accounting in colleges of education in Enugu State.

Method

The design for the study was descriptive survey. Enugu State was the study area. The study covered the five colleges of education in Enugu State, namely, Federal college of Education Ehamufu, Enugu College of Education (Tech), Institute of Ecumenical studies, Colleges of Education, Nsukka and Peace Land College of Education Enugu. The population comprised 26 accounting educators teaching accounting in the five colleges of education distributed as follows: Federal College of Education Eha-amufu (9), Ecumenical studies, Enugu (5), colleges of education Nsukka (5) and Peace land college of education Enugu (4). The entire population was used for the study, therefore, no sampling technique was drawn. The instrument was validated by three experts from the Faculty of Education, Enugu State University of Science and Technology. Structured questionnaire titled "**Utilization of modern communication technologies instrument (UMCTI)** was designed and used for data collection. The questionnaire was made up of two parts, part A&B. Part A was designed to elicit information on the background of the respondents using such variables as institutional ownership while part B has two sections. Section A consists of 15 items which sought information on the availability of modern communication technologies for teaching accounting. Section B with 15 items sought information on the extent of utilization of modern communication technologies for teaching. In order to establish the reliability of the instrument, 20 copies of the questionnaire was distributed to business educators teaching Accounting courses in colleges of education in Federal College of Education (Tech) Umunze and Nwafor Orizu College of Education, Nsugbe, Anambra State. Their responses were correlated using cronbach Alpha, a reliability co-efficient of 0.83 was established. Twenty six copies of the questionnaire were distributed to the respondents with the help of trained research assistants. Mean and standard deviation were used to answer the research questions while ANOVA was used to test the hypotheses at 0.05 level of significance. Any item with a mean rating of 2.50 or above was regarded as available while any with a mean rating less

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than 2.50 was regarded as not available. On the extent of utilization of communication technologies, the upper and lower class limits of the mean were adopted. Therefore, any item with a mean between 3.50-4.00(very high extent), 2.50-3.49(high extent), 1.50-2.49(low extent) and 1.00-1.49(very low extent). Any item with a standard deviation between 0.00 and 1.96 indicated that the respondents were very close in their opinion. The study upheld hypothesis of no significant difference for any item whose t-calculated value was less than the t-table of 196 at 0.05 level of significance.

Results

Research Question1: What are the modern communication technologies available for teaching accounting education in colleges of education in Enugu State?

Table 1: Modern communication Technologies available in teaching of accounting education in colleges of education in Enugu state.

S/N	ITEMS	$\bar{x}$	SD	Remarks
1	Desktop computers with accounting software	3.11	0.32	Available
2	Personal laptop with accounting software's	3.03	0.82	Available
3	I pad with accounting software's	2.15	0.96	Not Available
4	Printer	2.07	1.05	Not Available
5	Calculator	2.96	0.95	Available
6	Adding machine	1.50	1.10	Not Available
7	Scanners	1.92	1.12	Not Available
8	power point	1.50	1.06	Not Available
9	Mobile phones	3.26	0.96	Available
10	Interactive white board	2.50	0.81	Available
11	CD Roms	2.34	0.68	Not Available
12	DVD Roms	2.42	0.75	Not Available
13	Projectors	2.15	0.67	Not Available
14	Flash drives	2.38	0.75	Not Available
15	Internet resources	1.96	1.18	Not Available
	Grand mean/Std Deviation	**2.35**	**0.87**	

The respondents' response to research question one as shown in Table 1 revealed that out of 15 items, only 5 items had their mean score above 2.50. They are items 1,2,5,9 and 10 with mean scores of 3.11, 3.03, 2.96, 3.26 and 2.50. However, items 3, 4,6,7,8,11,12,14 and 15 with mean scores of 2.15, 2.07, 1.50, 1.92, 1.50, 2.34, 2.42, 2.15, 2.38 and 1.96 had their mean scores below 2.50. The grand mean of 2.35 signifies that modern communication technologies are not available for teaching accounting in colleges of Education in Enugu State. Similarly, a grand standard derivation of 0.87 is an indication that the respondents are very close in their responses irrespective of their institutional ownership.

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Table 2: summary of analysis of variance (ANOVA) of accounting educators in federal, state and private colleges of education on availability of modern communication facilities for teaching accounting in colleges of education in Enugu State.

Source of variance	DF	Sum of squares (SS)	Mean of square (MS)	F- cal	Critical value of	Dec
Between groups	2	0.1542	0.77	-0.01	2.59	Do not reject
Within groups	23	-254.56	-11.06			

Table 2 shows the summary of analysis of variance of accounting educators' mean ratings in Federal, State and Private Colleges of Education in Enugu State on availability of modern communication technologies for teaching accounting. The result shows that F-ratio calculated is - 0.01 which is less than the F critical ratio of 2.59, therefore the null hypothesis of no significant difference is upheld. Hence, there is no significant difference in the means ratings of accounting educators in Federal, State and Private Universities on the availability of modern communication Technologies for teaching accounting in Colleges of education in Enugu state

Research Questions 2

To what extent do accounting educators utilize modern communication technologies in teaching of accounting in colleges of education in Enugu State?

Table 3: Mean ratings of accounting educators on the extent of Utilization of Modern Communication Technologies for teaching accounting in colleges of Education in Enugu State.

S/N	ITEMS	$\bar{x}$	SD	Decision
1	Desktop computers with accounting software	2.46	0.81	Low extent
2	Personal computers with accounting software.	2.69	0.84	High extent
3	I pad with accounting software.	1.84	1.04	Low extent
4	Printer	2.38	1.09	Low extent
5	Calculator	3.38	0.94	High extent
6	Addling machine	2.50	1.27	High extent
7	Scanners	1.70	0.90	Low extent
8	Power point	1.46	0.76	Low extent
9	Mobile phones	3.19	1.29	High extent
10	Interactive white braid	2.05	1.05	Low extent
11	CD ROMS	2.00	0.69	Low extent
12	DVD ROM	2.00	0.69	Low extent
13	Projectors	2.19	0.74	Low extent
14	Flash drives	2.26	0.66	Low extent
15	Internet resources	2.48	0.58	Low extent
	Grand mean	**2.29**	**0.88**	**Low extent**

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Table 3 research question 2 shows that all the 15 items except items 5, 6 and 9 (calculator, adding machines and mobile phones) are utilized at low extent by accounting educators in teaching accounting in colleges of education in Enugu State. The grand mean of 2.33 shows that the utilization of modern communication technologies by accounting educators in Colleges of Education in Enugu State is low. However, a grand standard deviation of 0.88 shows that accounting educators in Federal, State and Private colleges of Education in Enugu State are very close in their ratings.

Table 4: Summary of Analysis of variance (ANOVA) of accounting educators in Federal, State and private Universities on utilization of modern communication technologies for teaching accounting in colleges of education in Enugu State.

Source of Variance	DF	Sum of squares (SS)	Mean of squares (MS)	F.cal	Crit. Value of F.	Dec.
Between groups	2	0.5657	0.28	2.59	-0.00	Do not reject.
Within groups	23	-2160.92	-93.92			

Table 4 shows the summary of analysis of variance of accounting educators' mean ratings in federal, state and private colleges of education in Enugu State on the utilization of modern communication technologies in teaching accounting. The result in table 4 shows that F. ratio calculated is -0.00 which less than the F. critical ratio of 2.59 is. Therefore, the null hypothesis of no significant difference is upheld. Hence there is no significant difference in the mean ratings of accounting educators in Federal, State and Private colleges of Education on the utilization of modern communication Technologies for teaching accounting in colleges of Education in Enugu State.

Discussion of Results

The result of the study in research question one, revealed that modern communication technologies except computers, calculator, mobile phones and white board are not available for teaching accounting in colleges of education in Enugu state. This tallied with the findings of Egomo, Enyi and Tah (2012) that the availability and utilization of ICT tools for effective instructional delivery is significantly low and the use of ICT tools among lecturers in tertiary institutions in Cross River State is relatively low. According to Utibe (2013), Nigeria is still behind other developed nation in ICT use as it relates to educational delivery. This ugly trend could be attributed to low availability of modern communication technologies in institutions of higher learning.

Hypothesis 1 (Table1) showed that significant difference did not exist in the mean ratings of accounting educators in federal, state and private colleges of education in Enugu State. This indicates that modern communication technologies are not available for effective instructional delivery of accounting courses in federal, state and private colleges of education in Enugu State.

With respect to research question 2, the study revealed that utilization of modern communication technologies by accounting educators in teaching accounting in colleges of Education in Enugu State is significantly very low. It is interesting to note that, the utilization of modern communication technologies depends on the availability of the modern communication technologies and the teachers' competency in using them. This is in line with the finding of Apagu and Bala (2015) that there are no functional ICT facilities in most technical colleges in Yobe State and this hampers the teachers' ability to use them. Apart from the availability of modern communication technologies in colleges of education in Enugu State, the usage is also hindered by lack of requisite ICT skills by most accounting educators. This statement is in agreement with Ezeani (2014) who stated that most lecturers do not have the knowledge and skills of ICT in order to promote the uniqueness of the content and skills relating to particular curricula area. Further, Osuala (2004) identified inadequate infrastructure, funding, skilled manpower and resistance to change as the challenges facing the adequate utilization of ICT in Nigeria. Most of the accounting educators are not sensitive to technological flux and as a result may not care to update their skills on the use of these modern communication technologies.

Hypothesis 2(Table 4) revealed that significant difference did not exist in the mean ratings of accounting educators in Federal, state and private colleges of education in Enugu State. This indicates that modern communication Technologies are not effectively utilized by business educators in teaching accounting in Colleges of Education in Enugu State.

Conclusion

Conclusively, from the findings of the study, modern communication technologies are not available for teaching accounting and the utilization by accounting educators is low in colleges of education in Enugu State. In order to prepare accounting education graduates from colleges of education for global competiveness, ensure quality and standard in accounting education, colleges of education in Enugu State need to be provided with modern communication technologies and accounting educators should effectively utilize them in teaching accounting.

Recommendations

In the light of the findings of the study, the following recommendations are suggested.

1. Accounting educators should on their own constantly up-date their skills on modern communication technologies
2. Stakeholders in education should endeavour as much as possible to support the colleges through funding to upgrade, equip and maintain the needed modern communication t

3. Accounting educators in Colleges of Education should be given adequate remunerations and encouraged to undergo effective training in teaching with modern communication technologies.

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