UTILIZATION OF NEW TECHNOLOGIES IN TEACHING BY FINANCIAL ACCOUNTING TEACHERS IN SECONDARY SCHOOLS IN RIVERS STATE

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Abstract

This study focused on the utilization of new technologies in teaching financial accounting in secondary schools. The study was carried out in Rivers State. The study was guided by two research questions and two null hypotheses tested at 0.05 level of significance. Descriptive survey design was used for the study. The population of the study consisted of 71 financial accounting teachers and no sample was drawn. The instrument used for data collection was a structured questionnaire developed by the researchers. The reliability coefficient of 0.78 was obtained. Data analysis was done using mean and standard deviation while t-test was used to test the hypotheses at 0.05 level of significance. The result of the study indicated no significant difference in the mean responses of male and female accounting teachers on the extent of utilization and barriers to utilization of new technologies in teaching financial accounting. On the basis of the findings, it was concluded that the introduction of new technologies has helped in enhancing teaching and learning process and effective utilization of new technologies will improve the teaching and learning of financial accounting in secondary schools in Rivers State. Based on the findings and conclusions, the study recommended among others that government should provide the needed new technological facilities in secondary schools for teaching financial accounting.

Introduction

Financial accounting is one of the business subjects taught at the senior secondary school level in Rivers State. In the view of Okoli (2013), Accounting is a skill subject which is expected to provide saleable skills to students for self-reliance. Obayi, Abuka and Onyebu (2014) reported that the goal of accounting education is primarily to produce competent, skillful and dynamic accounting teachers, office administrators and business men and women that will effectively compete in the world of work. According to Chukwu (2004), accounting is the process of recording, classifying, summarizing, analyzing and interpreting financial transactions and communicating the results thereof to interested users. Asaolu (2002) posited that accounting is the process of recording, classifying, selecting, measuring, interpreting, summarizing and reporting financial data of an organization to the users for objective assessment and decision making. Financial accounting is one of the branches of +accounting which is offered in senior secondary schools

Robert (2004) defined financial accounting as the process of collecting, recording, presenting and analyzing/interpreting financial statements. Furthermore, Akintelure (1998) noted that the effectiveness of financial accounting teachers depend on their ability to consider the nature of the subject during instructional planning. This is because financial accounting requires total involvement of the learner in the learning process, sound theoretical knowledge and intensive practice in the application of basic accounting principles.

Based on the experience of the researchers in teaching accounting over the years, students' academic performance in accounting can be linked to how the teaching of the subject is handled in the school in this era of information and communication technology. Poor academic performance of students in accounting has been an issue of concern to students, teachers, moderators and other stakeholders in accounting education as termly result sheets very often indicate poor performance in accounting (Obayi, Chigozie & Onyebu, 2014). Ogunu (2000) identified poor academic achievement as a problem in Nigeria Secondary School public examinations. For Instance, result analysis by WAEC showed that financial accounting recorded 52.5percnt, 58.4percent and 51.2percent failure in 1998, 1999 and 2000 respectively (Okoli, 2013). This may have contributed to the large number of school leavers who are unable to gain admission into business related disciplines in tertiary institutions in Nigeria.

Technological development is rapidly taking place globally and accounting education curriculum in secondary schools should continue to change in the same direction so that the products of the curriculum will meet the challenges of the technological changes in education. The improvement in the teaching of financial accounting in Senior Secondary School should include utilization of new technology in delivery process.

The introduction and use of computers in education has led to the application of e-teaching which is now seen as a sure way to quality teaching in our schools. E-teaching implies a new education technology based and designed computer-based courseware that allows students to teach themselves. E-teaching and learning helps to address the gap in subject offerings, enrich the curriculum and replace the existing face-to-face instruction. It encourages the facilitation of live teaching with streaming lectures, whiteboards, downloadable slide sets and discussion forums (Gbadamosi, 2006).

Information Communication Technology (ICT) is integration of computer technology mainly in form of internet and information management. Due to the necessity of application of e-learning, there is growing need for the use of ICT in teaching. Okoro (2004) identified the following ICT resources such as the computer, scanner, printer, intranet, internet e-mail, videophone system, teleconference devices, Wireless Application Protocols (WAP), radio and microwaves, television and satellites, multimedia computer and multimedia projectors in teaching of financial accounting. E-learning in education is the wholesome integration of modern telecommunications equipment and ICT resources, particularly the internet, into the education system (Jim, 2011). Adaptation or utilization of new technology will ensure effective teaching of financial accounting in senior secondary

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schools in this computer age. New technologies imply new innovations and applications of concepts, principles and processes for the improvement of human life (Nwokike,2015). These new technologies include computers, telephone/wireless application, on-line/internet computers, scanners, printers, e-mail facilities, muti-media projectors, digital libraries and ready-made course ware. Unfortunately, there are numerous barriers to the effective utilization of new technologies in teaching financial accounting in secondary schools.

Okoli (2013) concluded that limited number of ICT resources remain the greatest challenge for most secondary schools in encouraging accounting teachers to use ICT in their teaching. Madu and Pam (2011) identified power failure, inadequate funding, poor infrastructure and lack of skilled manpower as some of the challenges on utilizing of e-learning in Nigerian Universities. If accounting students must be relevant in the information age, they must acquire relevant skills for utilizing new technological resources while in school.

Statement of the Problem

The application of new technologies in secondary education will enhance effectiveness in teaching and learning of financial accounting and other subjects. However, in developing countries like Nigeria, the application of e-learning is challenged with the provision of material devices such as computer, computer laboratories, internet and e-mail facilities, and teleconferencing devices, digital library, multimedia systems and the problem of multimedia courseware development, among others (Global Information Technology Report, 2005). There is also dearth of trained teachers for e-learning adoption, lack of facilities, infrastructures and equipment (Ikemenjima, 2005). The low utilization of new technologies is worrisome and disheartening considering the relevance of new technologies in teaching and learning of financial accounting.

Purpose of the study

The main purpose of this study was to determine the extent financial accounting teachers utilize new technologies in teaching of financial accounting. Specifically, the study determined:

1. extent financial accounting teachers in secondary schools in Rivers State utilize new technologies in teaching and
2. barriers to effective utilization of new technologies in teaching and learning by financial accounting teachers in secondary schools in Rivers State.

Research questions

1. To what extent do financial accounting teachers utilize new technologies in teaching accounting in secondary schools in Rivers state?
2. What are the barriers to effective utilization of new technologies in teaching by financial accounting teachers in secondary schools in Rivers State?

Hypotheses

1. Male and female financial accounting teachers in secondary schools in Rivers State do not differ significantly in their mean ratings on the extent they utilize new technologies in teaching.
1 There is no significant difference in the mean ratings of male and female teachers on the barriers to their effective utilization of new technologies in teaching financial accounting.

Method

The study adopted descriptive survey design. This study was conducted in public secondary schools in Rivers State. The population of the study consisted of 73 financial accounting teachers from 231 public secondary schools in Rivers State. The entire population was used for the study without sampling due to the size. Therefore, no sample was drawn. Two research questions and two null hypotheses were used for the study. Structured questionnaire was the instrument for data collection, with four points scale of Very high extent (VHE) High Extent(HE) Low Extent(LE) and Very Low Extent(VLE) for Research Question one and (Strongly Agree (SA), Agree (A), Disagree (DA) and Strongly Disagree (SDA) for research question two. The instrument was face validated by three experts from the Department of Technology and Vocational Education, Enugu State University of Science and Technology and the necessary corrections as suggested by the experts were effected by the researchers. The reliability of the instrument was established using test-re-test method. Product moment correlation coefficient was used to determine its reliability and reliability co-efficient of 0.78 was obtained which indicated that the instrument for the study was reliable. A total of 73 copies of the questionnaire were administered and retrieved by the researchers which indicated 100 percent return rate. Mean and standard deviation were used to analyze the research questions and t-test statistics was used to test null hypotheses at 0.05 level of significance with 71 degree of freedom. Real limits of numbers were adopted for research question 1 whereby items with 3.50-4.00 are very high extent, those with 2.50-3.49 are high extent, those with 1.50- 2.49 low extent and those with 1.00-1.49 are very low extent) while Criterion mean value of 2.50 and above is regarded as agree below 2.50 is considered disagree for Research Question 2. For hypotheses, where the calculated t.value is less than the critical t.value of 1.96, it means that there is no significant difference and the hypothesis is upheld otherwise the hypothesis is rejected.

Results

Research Question 1: To what extent do financial accounting teachers utilize new technologies in teaching accounting in secondary schools in Rivers state?

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Table 1:
Mean ratings of the respondents on the extent of utilization of new technologies by financial accounting teachers in teaching accounting in secondary schools in Rivers State.

S/N	New Technologies	X	SD	Remark
1.	Computers with accounting packages	2.23	0.93	LE
2.	Telephone/Wireless Application	1.00	0.00	VLE
3.	On-line/Internet Computers	2.68	0.54	HE
4.	Scanner	3.26	1.00	HE
5.	Printer	3.05	1.06	HE
6.	E-mail facilities	1.97	0.81	LE
7.	Multimedia Television	2.35	0.87	LE
8.	Multimedia Projectors	2.36	0.67	LE
9.	Digital Library	2.04	1.07	LE
10.	Ready-made courseware	2.67	0.83	HE
11	Internet facilities	2.32	0.86	LE
	Weighted Mean	**2.35**		**LE**

Results in Table 1 show that items 3, 4, 5 and 10 with corresponding mean scores of 2.68, 3.26,3.05 and 2.67 are utilized to a high extent . The result equally shows that items 1,6,7,8 and 9 with mean scores of 2.23, 1.97, 2.35, 2.36, 2.04 and 2.32 are utilized to a low extent while item no.2 with a mean score of 1.00 is utilized to a very low extent. The weighted mean of 2.35 is an indication that new technologies are utilized to a low extent in teaching by financial accounting teachers in teaching accounting in secondary schools in Rivers State.

Research Question 2: What are the barriers to effective utilization of new technologies in teaching by financial accounting teachers in secondary schools in Rivers State?

Table 2:
Mean ratings of the respondents on the barriers to their effective utilization of new technologies in teaching financial accounting in secondary schools in Rivers State. N=73

S/N	Barriers to Effective Utilization of New Technologies	X	SD	Remark
1.	High illiteracy level	3.27	0.98	Agree
2.	Cultural barriers	3.34	0.96	Agree
3.	Lack of computer Skills and Technological Know-How	3.19	1.11	Agree
4.	Lack of access to computer networks as a result of the digital device	3.10	1.02	Agree
5.	No Internet Access	3.30	0.90	Agree
6.	Lack of significant usage opportunities	3.19	1.07	Agree
7.	Irregular power supply	3.47	0.81	Agree
8.	Inadequate fund	3.16	0.85	Agree
9.	Poor maintenance culture	3.08	1.03	Agree
	Weighted mean	**3.23**		**Agree**

Results of Table 2 indicate that the respondents agreed that all the nine items are the barriers they face in the effective utilization of new technologies in teaching financial accounting in secondary schools in Rivers State with a weighted mean value of 3.23.

Ho_1: There is no significant difference in the mean responses of male and female Accounting Teachers on the extent of Utilization of New Technologies in teaching financial Accounting in Secondary Schools in Rivers State.

Table 3:
t-test analysis of Male and Female Financial Accounting Teachers on the extent of utilization of new technologies in teaching financial Accounting in Rivers State.

Group	N	X	SD	DF	t-cal.	T-crit.	Decision
Male Teachers	25	2.78	0.31				
				71	0.79	1.96	Not Significant
Female Teachers	48	2.36	0.77				

Table 3 show that the calculated t-value of 0.79 is less than the critical t-value of 1.96. It means that there is no significant difference and the hypothesis is upheld.

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Ho$_2$: There is no significant difference in the mean responses of male and female Accounting Teachers on barriers of utilization of new Technologies in teaching financial Accounting in Secondary Schools in Rivers State.

Table 4:
t-test analysis of Male and Female Financial Accounting Teachers on the barriers to effective utilization of new technologies

Group	N	X	SD	DF	t-cal	t-crit.	Decision
Male Teachers	25	3.50	0.31				
				71	0.83	1.96	Not significant
Female Teachers	48	2.80	0.77				

Table 4 shows the summary of t.test analysis of financial accounting teachers' responses on barriers to effective utilization of new technologies in teaching financial accounting in secondary schools in Rivers. The result shows the calculated t.value at 0.05level of significance and 71 degree of freedom is 0.89 while the critical t. value is 1.96. Since the calculated t.value is less than the critical t. value, the null hypothesis therefore, is not rejected. This means that there is no significant difference in the mean responses of male and female financial accounting teachers on the barriers to effective utilization of new technologies in teaching financial accounting in Rivers State.

Discussion

The result of research question 1 had it that new technologies are utilized to a low extent in teaching financial accounting in secondary schools in Rivers State. The finding of the study agrees with the finding of Nwokike and Umah (2016) that the utilization of modern communication technologies by accounting educators in colleges of education in Enugu State is low. This finding supports the finding of Nwokike (2015) which shows that accountancy educators do not extensively integrate new technologies in teaching and learning of accounting in public tertiary institutions in Enugu State. This could be attributed to non availability of these new technologies in our school system as indicated by many research findings such as Enoh and Etim (2014), Okoli (2014) and Nwokike (2015). Result relating to hypothesis 1 shows that male and female financial accounting teachers in secondary schools in Rivers State did not differ significantly in their mean ratings on the extent they utilize new technologies in teaching. This indicated that both male and female financial accounting teachers in Rivers State agreed that new technologies are utilized to a low extent in teaching.

Results relating to Research Question 2 show that barriers to effective utilization range from irregular power supply to poor maintenance culture. The findings was in

agreement with the findings of Ikemenjima (2005) who stated high illiteracy level, cultural barriers, Poor internet access, poor maintenance culture and irregular power supply as barriers to effective utilization of new technologies. The barriers to effective utilization of new technologies in teaching financial accounting are similar to the finding o Okoli (2014) who found that lack of ICT resources, lack of teachers' digital literacy, power fluctuations, lack of confidence on the part of accounting teachers were some of the factors that hinder the teaching of accounting in secondary schools in Abakaliki.

Results of null hypothesis 1 and 2 indicated that there was no significant difference in the mean responses of male and female financial accounting teachers on the extent of utilization of new technologies and barrier to effective utilization. Therefore, the two null hypotheses were accepted.

Conclusion

The introduction of new technologies has helped in enhancing the teaching and learning process and ensures corresponding changes in the educational sector in line with societal changes and demand. New technologies include time combination of computers and telecommunication system to improve research, teaching, learning, and communication through its gathering, processing, storing analyzing, data functions and dissemination of information. Invariably, their utilization by financial accounting teachers will enhance students' achievement or performance in the subject at the secondary school level.

Recommendations

Based on the findings and conclusions of the study, the following recommendations were made;

1. The Rivers State Government and other good visional individuals should improve the provision of new technology facilities in secondary schools.
2. Government and teacher training institutions should ensure that financial accounting teachers equipped skills and competencies for utilizing the new technologies in teaching.
3. Government should endeavour to vigorously the identified barriers to effective utilization of new technologies by financial accounting teachers.

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