TEACHERS OF OFFICE TECHNOLOGY AND MANAGEMENT FOR IMPROVED SECRETARIAL OUTCOMES IN POLYTECHNICS IN NORTH CENTRAL NIGERIA

T. A. Umoru, PhD
Department of Business and Entrepreneurship Education
Kwara State University, Malete

Zakka, Daniel Dazan
Department of Office Technology and Management
Plateau State Polytechnic, BarkinLadi
zakkaddazan@gmail.com

Abstract

The study determined the internet technology competencies required by teachers of office technology and management for teaching in Polytechnics in North central Nigeria. The study identified 15 critical internet technology competencies required by OTM teachers. One research question guided the study and the hypothesis of no significant difference was tested using the independent t-test at 0.05 level of significance. Descriptive survey design was adopted. The population of the study consisted of 85 teachers of office technology and management (OTM) drawn from Polytechnics in North central Nigeria. The entire population was adopted as the sample in view of the small size. The main instrument for data collection was a four point rating scale questionnaire. The data collected were analysed using mean and standard deviation. The mean was used to answer the research questions while the standard deviation was used to determine the closeness or otherwise of the responses from the mean. The findings revealed that OTM teachers highly required internet technology competencies in the use of Wi-Fi to gain access to teaching resources via internet, use of cloud computing for storing and sharing files, use of file transfer protocol to upload and download files, the use of collaborative sites and software, the use of social media platforms for teaching in Polytechnics. The study further revealed that there was no significant difference between the mean response of experienced and less experienced teachers of OTM on the internet technology competencies needed for teaching in Polytechnics (t_{80} = -1.265, P>0.05). It was concluded that OTM teachers must strive to acquire the relevant internet competencies aimed at improving secretarial outcomes. Based on the findings and conclusion of the study, it was recommended among others that School authorities should ensure that teachers are given the opportunities for re-training, in-service training or on-the job training where the identified internet competencies can be acquired.

Key words: *Internet technology; Competency; Secretarial outcomes.*

Introduction

The internet has become an integral part of the instructional process. This explains why an overwhelming body of literature in the information technology arena attests to the viability of the Internet as a resource that can revitalize teaching and learning. These reports

come from a cross-section of stakeholders in the educational sector: teachers, students, parents and public officials (Kumari, 1998 in Fwangmut, 2016). The predominant call is to explore the vast resources of the internet for education and to create models of integration for teachers to effectively and efficiently harness the potentials of the internet for teaching and learning.

Agomuo (2005) in Oguejiofor and Nwogu (2014) defines the internet as a world-wide system of computer networks in which users at one computer can, if they have permission, get information from any other computer. Mateja (2012) opines that the internet is essentially a large database where all different types of information can be passed and transmitted. The Internet has profoundly changed the way we perceive and interact with information in our everyday lives. Darejan (2015) reports that the internet is quickly reshaping the ways we relate to one another, communicate, educate and collaborate. The internet is also modifying our modes of accessing information, deciphering, filtering and recompiling it for practical use through applications such as world wide web, file transfer services, chat applications, cloud computing, file sharing, web 2.0 technologies, electronic mailing list, collaborative services, blogs, wikis, online survey tools, webcasting, podcasting, online portfolio, live streaming audio and video broadcast (Adeshina, Udoh, Ndomi, & Aliyu, 2013).

The *UNESCO institute for information technologies in education (2003) in* Bola and Ogunlade (2012) views internet technologies as the complex of hardware and software means for providing internet operation. Internet technologies are not limited to software and hardware alone, but also the human components which are integral part of the overall system of the internet. Internet technologies refer to any form of on-line technology or practices through which users create communities to convey information, ideas, independent learning, entertainment, collaboration and personal messages and thus facilitates communication and interaction between individuals and groups (Lyashenko, 2016).

The office technology and management (OTM) programme is a programme of instruction which offers specialized instruction for office occupations and general business orientation. Baba and Akarahu (2012) assert that OTM is used as a comprehensive term referring to aspects of the educational process involving, in addition to general education, the study of related technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of the economic and social life. Internet technologies have the potential to forever alter the way OTM instruction is constructed and disseminated, due to their ease of use, their open nature and their support for collaboration and communication. Sahin, Balta and Ercan (2010) observe that internet technologies will foster collaborative learning, increase motivation and participation, help students to acquire skills for self-regulated learning and weave connections between formal and informal learning.

Onojetah (2014) observes that tremendous improvements in new technologies have certainly impacted the education sector in all societies. These improvements have been very pronounced and especially invaluable in OTM programmes. Similarly, Ekwue, Anyeabunam and Alfa (2016) opine that the increased use of new technologies in OTM makes teaching and learning increasingly flexible, multi-tasking and performance based, hence the need for OTM teachers to acquire the necessary competencies needed to be able to teach effectively using the internet technology.

Competency has to do with the knowledge, skills, attitudes and judgment generally required for the successful performance of a task. Jimoh (2014) observes that teachers' competencies should be of utmost concern when new subjects or media are introduced into the school system; this is because teachers' experience and competence will affect their ability to implement these new innovations.

It is imperative to state that the ineffective use of new technologies by students and graduates of OTM are the result of inadequate competencies in using new technologies for teaching. Umoru (2015) reports that secretarial graduates are believed not to possess the requisite work skills. This explains why most employers of labour in the nation consider the graduates as half-backed, unemployable and unsuitable without further training (Ado, 2014). A situation as obtainable in Nigeria where business education graduates are not found fit for employment is no longer acceptable. This therefore informs the need for the acquisition of relevant competencies in internet technology by OTM teachers which will help engender an outcome of real-world relevant skills in the graduates. To buttress this point, Jegede (2005) in Ajie-Uche and Jumbo (2016) observe that most Nigerian teachers lack basic skills and competencies required for effective use of new technologies for teaching. Nwosu and Mbeazue (2016) observe that most of the teachers of OTM were not effectively taught with new technologies. Therefore, they had to be retrained in the proper use of new technologies in instructional delivery.

The issue at stake now is that, as a matter of fact, not all the OTM teachers who claim to be computer literate have sufficient competence in the use of internet technologies and can demonstrate proficiency in imparting the knowledge to students. Fadare (2014) rightly observes that if an audit of business teachers with competencies in new technologies is to be conducted today, the result will reveal that only a few teachers possess the needed competencies. If a business teacher is not capable of teaching with new technologies, he/she will very soon be threatened by professional obsolence.

The problem of this study therefore is to examine the internet technology competencies required by OTM teachers for improved secretarial outcomes in Polytechnics in North-central Nigeria.

Research Question

What are the internet technology competencies required by teachers of office technology and management for improved secretarial outcomes in Polytechnics in North-central Nigeria?

Research Hypothesis

There is no significant difference in the mean response of experienced and less experienced teachers on the internet technology competencies required by teachers of Office Technology and Management for teaching in Polytechnics in North-central Nigeria.

Methods

The descriptive survey design was used for the conduct of the study. The population of the study consisted of all teachers of office technology and management drawn from the eight accredited public Polytechnics in the six states of North-central Nigeria. These Polytechnics include: Benue State Polytechnic, Ugbokolo; Federal Polytechnic, Idah; Kogi State Polytechnic, Lokoja; Federal Polytechnic, Offa; Kwara State Polytechnic, Ilorin; Federal Polytechnic, Nassarawa; Federal Polytechnic, Bida; and Plateau State Polytechnic, BarkinLadi. There are 85 teachers of OTM in the eight accredited public Polytechnics in the six states of the North-Central Nigeria. The entire study population was used for the study since the population was not too large. There was therefore no sampling. The instrument used was the Internet Technology Competencies Required by Office Technology and Management Teachers Questionnaire (ITCROTMTQ). The questionnaire consisted of 15 items based on the purpose of the study and the research question. The instrument was validated by one Senior lecturer in the Department of Business Education, Kwara State University Malete and one Chief lecturer in the Department of Office Technology and Management, Federal Polytechnic, Bauchi. A pilot study was conducted at the Federal Polytechnic, Bauchi, in order to establish the reliability of the instrument. Cronbach Alpha was used to determine the reliability of the instrument which yielded a reliability coefficient of 0.73. Each of the items was assigned four response options of Highly Required (HR-4 points), Moderately Required (MR-3 points), Slightly Required (SR-2 points) and Not Required (NR-1 point). The data collected were analysed using the mean and standard deviation. The mean was used to answer the research questions while the standard deviation was used to determine the closeness or otherwise of the responses from the mean. Positive decision rule for this study was established at a mean of 2.50 and above while any mean less than that was regarded as negative. The null hypothesis stated was tested using the t-test at 0.05 level of significance. Hypothesis of no significant difference was accepted when the observed probability value was greater than or equal to 0.05 level of significance. Where the calculated probability value was less than 0.05 level of significance, the null hypothesis was rejected.

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Research Question: What are the internet technology competencies required by OTM teachers for teaching in Polytechnics in North-Central Nigeria?

Table 1: Mean and standard deviation of responses on the internet technology competencies required by OTM teachers for teaching in Polytechnics

S/N	Item Statements	$\bar{X}$	SD	Remark
1.	Ability to search for information using the search engines on the web	3.11	1.22	Moderately Required
2.	Ability to use hypertext markup language (HTML) editors to create educational web pages	3.06	0.95	Moderately Required
3.	Ability to use the file transfer protocol to upload and download files	3.34	0.53	Moderately Required
4.	Ability to mail teaching contents with attachment through the e-mail or list servers	3.05	0.68	Moderately Required
5.	Ability to create hypermedia web pages	3.18	0.77	Moderately Required
6.	Ability to use browsers to support access and navigation on the world wide web	3.10	0.62	Moderately Required
7.	Ability to organize virtual conferences or discussion forums online	3.25	0.84	Moderately Required
8.	Ability to create blogs and microblogs for publishing written materials	3.18	0.72	Moderately Required
9.	Ability to use collaborative sites and software such as wikis for content creation and editing	3.34	0.50	Moderately Required
10.	Ability to use social media platform such as Face book, YouTube, Twitter, Instagram etc. to post teaching contents.	3.26	0.49	Moderately Required
11.	Ability to use cloud computing for storing and sharing files	3.40	0.63	Moderately Required
12.	Ability to use the Wi-Fi to gain access to teaching resources via internet	3.45	0.54	Moderately Required
13.	Ability to create live streaming audio and video files (webcasting)	3.39	0.52	Moderately Required
14.	Ability to create online digital audio and video files (podcasting or netcasting)	3.40	0.58	Moderately Required
15.	Ability to create e-portfolio or digital portfolio for teaching purposes	3.38	0.49	Moderately Required
	Weighted Average	3.26	0.67	**Moderately Required**

Table 1 above showed the responses of OTM teachers in Polytechnics in North-Central Nigeria on the internet technology competencies required for teaching. The result of the analysis revealed that all the competency items outline were required for teaching by

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OTM teachers with a weighted mean of 3.26. Ability to use the Wi-Fi to gain access to teaching resources via internet was however rated high with a mean score of 3.45. The close range of the standard deviations showed that the respondents were not very far from each other in their responses.

Research Hypothesis

There is no significant difference in the mean response of experienced and less experienced teachers on the internet technology competencies required by teachers of Office Technology and Management for teaching in Polytechnics in North-central Nigeria.

Table 2: Summary of t-test of the difference between the mean responses of experienced and less experienced teachers of OTM on the internet technology competencies required for teaching in Polytechnics.

Group	N	Mean	SD	t-cal	Df	p-value	Decision
Experienced Teachers	44	3.22	0.26	-1.265	80	0.210	Not Rejected
Less Experienced Teachers	38	3.31	0.43				

P > 0.05

The data in Table 2 revealed that there are 44 experienced OTM teachers and 38 less experienced OTM teachers. The experienced and less experienced teachers' responses showed that internet technology competencies are required by OTM teachers for teaching in Polytechnics (0 = 3.22; SD = 0.26) and (0 = 3.31; SD = 0.43). Their responses are close to the mean as the standard deviations are very low. The table revealed that there was no significant difference between the mean response of experienced and less experienced teachers of OTM on the internet technology competencies needed for teaching in Polytechnics (t_{80} = -1.265, P >0.05). Therefore, the null hypothesis that states that there is no significant difference between the mean response of experienced and less experienced teachers of OTM on the internet technology competencies needed for teaching in Polytechnics in North-Central Nigeria was not rejected. This implied that experienced and less experienced OTM teachers did not differ in their responses regarding the internet technology competencies needed for teaching in Polytechnics. Though there was a slight difference between their mean responses with less experienced teachers having higher mean responses, but the difference was not statistically significant (mean difference = 0.09).

Discussion of Findings

The findings revealed that OTM teachers require internet competencies in the use of Wi-Fi to gain access to teaching resources via internet, use of cloud computing for storing and sharing files, use of file transfer protocol to upload and download files, the use of collaborative sites and software, the use of social media platforms and the ability to organize

virtual conferences. Also ability to create hypermedia web pages, blogs, micro blogs, use search engines, hypertext markup languages (HTML) and ability to use the browser were revealed to be moderately needed by OTM teachers for teaching in Polytechnics. The findings further revealed that there was no significant difference between the mean response of experienced and less experienced teachers of OTM on the internet technology competencies needed for teaching in Polytechnics (t_{80} = -1.265, P>0.05).

This finding agrees with Ekwue, Anyeabunam and Alfa (2016) who opine that the increased use of internet technologies in OTM makes teaching and learning increasingly flexible, multi-tasking and performance based, hence the need for OTM teachers to acquire relevant and necessary competencies for teaching and learning. This view was also supported by Jimoh (2014) who observes that teachers' competencies should be of utmost concern when new subjects or media are introduced into the school system; this is because teachers' experience and competence will affect their ability to implement these new innovations. Effective teaching of OTM in any learning environment requires the demonstration of various competencies which invariably enables students to learn by improving their knowledge, skills, attitudes and values.

Conclusion

Based on the findings of the study, it was concluded that internet technologies are useful tools in the process of teaching and learning, and have increasingly improved the quality of students' outcome especially in the secretarial profession. The secretarial profession has come a long way and must strive for excellence and quality in order to constantly remain relevant and functional. Secretarial students must match the acquisition of relevant competencies with intellectual and academic prowess to enable them gain and maintain competitive advantage and age. This implies that OTM teachers must on their part strive to acquire the relevant internet competencies aimed at improving secretarial outcomes. A situation where secretarial students graduate from school without adequate knowledge, skills, attitude and competencies needed for survival in a globalized and technology driven economy leaves much to be desired, as the effect of producing half-baked graduate on the economy is better imagined.

Recommendations

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

1. School authorities should ensure that teachers are given the opportunities for re-training, in-service training or on-the job training where the identified internet competencies can be acquired. OTM teachers should also make personal commitments aimed at developing themselves in the identified internet technology competencies. This can be achieved through seminars, workshops and conferences

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that are organised periodically to keep OTM teachers abreast with developments in the area of technology.

2. Teacher training institutions should endeavour to integrate the identified competencies in to the curriculum for teacher training at all levels. This will help develop in the teachers the necessary competencies required for effective teaching and learning of OTM programmes. In the same vein, the curriculum for OTM should be reviewed regularly to incorporate the new technology competencies that keep changing almost on a daily bases. This will go a long way in improving the quality of secretarial outcome produced by the Polytechnics.
3. Management of Polytechnics should be committed to the provision of adequate new technology equipment, the relevant infrastructure and the creation of an enabling environment that will guarantee teaching and learning using internet technologies. Teachers and other stakeholders should ensure that the minimum standards in terms of equipment, infrastructure and personnel for teaching and learning especially in OTM which is a skill course is not compromised.

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