UTILIZATION OF INTERNET AND MOBILE TECHNOLOGY SKILLS BY BUSINESS EDUCATION TEACHERS FOR TEACHING IN COLLEGES OF EDUCATION

BY

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Abstract

This study examined the utilization of internet and mobile technology skills by business education teachers for teaching in colleges of education in Kwara State. To facilitate the conduct of the study, two specific purposes and two research questions were developed and answered while two research hypotheses were formulated and tested. Survey research design was used. 71 business education teachers from eight colleges of education in Kwara State were used as population. The researcher used the entire population for the study, A 20 items questionnaire tagged Utilization of Internet and Mobile Technology Skills by Business Education Teachers for Teaching Questionnaire (UIMTSBETTQ) with 4-point rating scales was the instrument used for data collection. The reliability of the instrument yielded a reliability coefficient of 0.71. The data collected were analyzed using mean and standard deviation. The null hypotheses were tested using independent sample t-test and One-way Analysis of Variance at 0.05 level of significance. The study revealed that there was no significant difference in the mean responses of business education teachers on the utilization of internet and mobile technology skills for teaching in colleges of education based on gender and their years of experience. Based on the findings and conclusion of the study, it was recommended among others that Colleges of education authorities should take the issue of teachers development and re-training with all the seriousness it deserves by organizing workshops, seminars, conferences and in-service training for teachers of business education to acquire more internet and mobile technology skills.
Keywords: Internet technology, Mobile technology, Technology skills and Business education

Introduction

Educational programmes are often designed to equip the students with needed skills, knowledge, attitudes and capabilities to be useful in life and society at large. Several educational reforms and efforts have also been made in achieving objectives of education in Nigeria. For these goals and objectives to be achieved, the competencies/skills of the business education teachers in the teaching and learning process are therefore paramount. Education is one of the most important needs for the well-being of individual and that of the society. Thus, education is a powerful instrument of social, political, and economic progress without which neither an individual nor a society can attain professional growth. Information and Communication Technology (ICT) could make the schools more efficient and productive, by organizing a variety of tools to enhance and facilitate teachers' professional activities. Tertiary institutions with their core missions of creating, adopting and disseminating knowledge are expected to provide more and better educated individuals with better professional skills, more enterprising skills and willingness to make things happen. Business education programme has strong formative influence on the attitudes and behavior of the recipients. Business education has evidently come a long way from its infancy as an off shoot of the apprenticeship system to its current evolution as a technology driven formal system designed to give learners information for and about business.

The acquisition, possession and utilization of relevant new technology skills by the business education teachers are imperative as observed by Onojetah (2014). Hence, business education professionals agreed that utilization of relevant new technology skills by teachers have the prospects for improving teaching and learning of business education as well as enhancing the recipients' productivity. It is also evident as agreed by Amiaya (2016) that the traditional educational environments are not suitable for preparing learners to function or be productive in the workplace in today's society. Therefore, educational institutions that fail to incorporate acquisition of new technology skills into their programme cannot seriously claim to prepare their students for life in this 21st century technology driven economy.

The internet is a computer-based global information system. It is composed of many interconnected computer networks. Each network may link tens, hundreds, or even thousands of computers, enabling them to share information. The utilization of internet technology skills have made it possible for people all over the

world to communicate with one another effectively, inexpensively and to have free access to useful data for further processing. Internet technologies are constantly improving and are able to speed up the information highway. With the technologies powering the internet, speeds are faster; more information is available and processed. Internet technology skills have changed, and will continue to change the way the world does business and how people interact in daily life (Anucha, 2017). Bedesem and Amer (2018) viewed mobile technology skills as ability to use portable electronic devices that accept, process, and store data at high speeds (e.g, smart phone, tablets computing application software that facilitates access to, and sharing of information on portable hand-held internet-capable wireless computing devices (hardware).

Business education is defined by different scholars in different ways. Nwagwu and Azih (2016) described it "as a vocational programme that equips the recipients with skills, attitudes, knowledge and understanding needed for effective participation and contribution as producers and/or consumer's education prepares individuals who will adequately participate in business activities and also equip individuals with business knowledge and skills". It is a form of vocational education that is directed towards developing the learner to become productive in teaching, paid employment and self – employment (Amoor, 2010). However, Onokpaunu, (2016) described business education as that aspect of general education that prepares students for employment and advancement in a broad range of office occupations, accounting professions, marketing occupation, teaching profession and entrepreneurship ventures. Thus, business education helps individual to acquire saleable skills that will enable him/her fit into various business organizations or be self-employed in the absence of paid employment. Business education prepares its recipients to acquire viable skills that will enable them fit into various business organizations or be self-employed in the absence of paid job (Oladunjoye, 2016). On the other hand, Nwachukwu, (2012) saw business education as an umbrella name concerning those educational processes involving the study of techniques, related science and acquisition of practical skills, attitudes and knowledge relating to occupation in vocational sectors of the economic and social life of people.

Statement of the Problem

Attention is presently shifting to the new trends in teaching and learning process. This new trend has also affected business education teachers in colleges of education with the advent of new technologies. This has added additional responsibilities to teachers and students of business education, particularly in the acquisition and utilization of relevant new technology skills for teaching and learning in order to make business education graduates acquire necessary skills needed for the world of work. However, Okoli and Wagbara (2016) observed that many of the teachers possessed new technology skills but do not utilized it for effective and efficient teaching and learning process of business education. New technology skills, which include internet technology skills and mobile technology skills are not utilized by business education teachers for teaching in colleges of education in Nigeria.

The problem of this study is that many business education teachers possessed internet and mobile technology skills but seems not utilized it for teaching and learning process of business education programme in colleges of education since many business education teachers/lecturers possessed relevant new technology skills and knowledge that are appropriate in imparting the right skills that are needed to operate in present day highly automated business world.

Purpose of the Study

Specifically, the study examined the following:
1. The extent of utilization of internet technology skills by business education teachers for teaching effectiveness in colleges of education.
2. The extent of utilization of mobile technology skills by business education teachers for teaching effectiveness in colleges of education.

Research Questions

Based on the specific purposes of the study, the following research questions were answered by the study.
1. To what extent do business education teachers utilized internet technology skills for teaching effectiveness in colleges of education?

2.   To what extent do business education teachers utilized mobile technology skills for teaching effectiveness in colleges of education?

Research Hypotheses
The following null hypotheses were tested at 0.05 level of significance.
H_{01}.   There is no significant difference between the mean responses of male and female business education teachers on the utilization of internet technology skills for teaching in colleges of education.
H_{02}.   There is no significant difference in the mean responses of business education teachers on the utilization of mobile technology skills for teaching in colleges of education based on their years of experience

Methodology
The study adopted descriptive survey research design with 71 Business Education lecturers drawn from eight Colleges of Education in Kwara State. These include: Kwara State College of Education, (T) Lafiagi, Kwara State College of Education, Ilorin, Kwara State College of Education, Oro, Muhydeen College of Education, Ilorin, Kinsey College of Education, Ilorin, College of Education, Ilemona, Nana Aishat Memorial College of Education, Ilorin and Pan African College of Education, Offa. The entire population was used for the study since the population was manageable and therefore, there was no sampling. This is in line with the view of Ademiluyi and Okwuanaso (2013) that it is ideal to study the entire population wherever possible.

The instrument used was the Utilization of Internet and Mobile Technology Skills by Business Education Teachers for Teaching Questionnaire (UIMTSBETTQ). The Questionnaire consisted of 20 items based on the purpose of the study and research questions. The instrument was validated by two senior lecturers from Department of Business and Entrepreneurship Education and one senior lecturer from department of Educational Management, Kwara State University, Malete. A pilot study was conducted at Niger State College of Education, Minna, in order to establish the reliability of the instrument, Cronbach Alpha method was used to determine the internal consistency of the instrument which yielded a reliability coefficient of 0.71. Each of the items was assigned four response options of Very High Extent (VHE-4 points), High Extent (HE-3 points), Low Extent (LE-2 points) and Very Low Extent (VLE-1 point). The data collected were analyzed using mean while standard deviation was used to determine the closeness or other wise of the responses from the mean. The two null hypotheses of the study were tested using independent samples t-test and One-way Analysis of Variance at 0.05 level of significance. For the decision rule, weighted mean score of 2.50 and above were considered as utilized, while, weighted mean score of 2.49 and below were considered as not utilized. For the test of null hypotheses one and two, if the observed probability value is equal to or less than the fixed value 0.05, the null hypotheses was rejected and if the observed probability value is greater than the fixed value 0.05, the null hypotheses was retained.

Results
Research Question One: To what extent do business education teachers utilize internet technology skills for teaching effectiveness in colleges of education?
Table 1:Mean and Standard Deviation of Responses on the Extent to Which Business Education Teachers Utilize Internet Technology Skills for Teaching Effectiveness in Colleges of Education

S/N	ITEMS	$\overline{X}$	SD	Remark
1	Searching for teaching contents using the search engine on the web	3.31	0. 70	High Extent
2	Usage of hypertext markup language (HTML) editors to create educational web pages	3.11	0.73	High Extent
3	Usage of file transfer protocol to upload and download files for teaching	3.18	0.76	High Extent
4	Mailing teaching contents with attachment through the e-mail or list servers	2.90	0.66	High Extent
5	Usage of hypermedia web pages for teaching	3.50	0.56	Very High Extent
6	Usage of browsers to support access and navigation on the world wide web during teaching	3.36	0.61	High Extent

S/N	ITEMS			Remark
7	Organizing virtual conferences or discussion forums online for teaching	3.26	0.63	High Extent
8	Usage of blogs and micro blogs for publishing written materials	2.83	0.72	High Extent
9	Usage of collaborative sites and software such as wikis for content creation and editing	3.30	0.71	High Extent
10	Usage of social media platform such as face book, You Tube, Twitter, Instagram etc. to post teaching contents.	3.52	0.56	Very High Extent
	Weighted Mean	**3.28**	**0.60**	**High Extent**

Source: Field Survey, 2022

Table 1 revealed that the respondents search for teaching contents using the search engine on the web (mean = 3.31), Use hypertext markup language (HTML) editors to create educational web pages (mean = 3.11), use file transfer protocol to upload and download files for teaching (mean = 3.18), mail teaching contents with attachment through the e-mail or list servers (mean = 2. 90), use hypermedia web pages for teaching (mean = 3. 50), use browsers to support access and navigation on the world wide web during teaching (mean = 3.36). Table three also showed that the respondents organize virtual conferences or discussion forums online for teaching (mean = 3.26), use blogs and micro blogs for publishing written materials (mean = 2.83), use collaborative sites and software such as wikis for content creation and editing (mean = 3.30) and use social media platform such as face book, You Tube, Twitter, Instagram etc. To post teaching contents (mean = 3. 52). All the 10 items have their standard deviation ranged from 0. 56 to 0. 72 which are below the fixed value of 1.96. This means that the responses of the respondents were not too wide spread, the responses are slightly clustered to the mean. On the overall, the data analyzed in Table 1 revealed that business education teachers utilized internet technology skills for teaching effectiveness in colleges of education to a high extent(mean = 3.28, SD = 0.60).

Research Question Two: To what extent do business education teachers utilized mobile technology skills for teaching effectiveness in colleges of education?

Table 2:Mean and Standard Deviation of Responses on the Extent to Which Business Education Teachers Utilize Mobile Technology Skills for Teaching Effectiveness in Colleges of Education

S/N	ITEMS	$\overline{X}$	SD	Remark
1	Usage of e-portfolio or digital portfolio and mobile phone for sending teaching contents	3.27	0.68	High Extent
2	Usage of cloud computing for storing and sharing Files	3.04	0.69	High Extent
3	Usage 3GP to compress and deliver audiovisual teaching contents	3.28	0.66	High Extent
4	Usage of Wi-Fi to gain access to teaching resources via internet	3.06	0. 70	High Extent
5	Usage of GPRS mobile data service for delivery of teaching contents	3.31	0.71	High Extent
6	using short message service for delivering of teaching contents	3.42	0.67	High Extent
7	Using the multimedia message service for delivering of graphical contents	3.13	0.72	High Extent
8	Using the voice mail for language and sound Lesson	3.19	0.73	High Extent
9	Using GPS for determination of position, time and direction or navigation	3.30	0.70	High Extent
10	Using the high speed downlink or uplink packet access for download and upload of teaching contents	3.27	0.63	High Extent
	Weighted Mean	**3.28**	**0.62**	**High Extent**

Source: Field survey, 2022

Table 2 revealed that the respondents use portfolio or digital portfolio and mobile phone for sending teaching contents (mean = 3. 27), use cloud computing for storing and sharing files (mean = 3.04), use 3GP to compress and deliver audiovisual teaching contents (mean = 3.28), use Wi-Fi to gain access to teaching resources via

internet (mean = 3. 06), use GPRS mobile data service for delivery of teaching contents (mean = 3.31), use short message service for delivering of teaching contents (mean = 3.42). Table four also showed that the respondents use multimedia message service for delivering of graphical contents (mean = 3.13), use voice mail for language and sound Lesson (mean = 3.19), use GPS for determination of position, time and direction or navigation (mean = 3.30) and use high speed downlink or uplink packet access for download and upload of teaching contents (mean = 3.27). All the 10 items have their standard deviation ranged from 0.63 to 0.73 which are below the fixed value of 1.96. This means that the responses of the respondents were not too wide spread, the responses are slightly clustered to the mean. On the overall, the data analyzed in Table 5 revealed that business education teachers utilized mobile technology skills for teaching effectiveness in colleges of education to a high extent(mean = 3.28, SD = 0.62).

Hypotheses

H_{01}. There is no significant difference between the mean responses of male and female business education teachers on the utilization of internet technology skills for teaching in colleges of education.

Table 3: Summary of T-Test of the Difference between the Mean Responses of Male and Female Business Education Teachers on the Utilization of Internet Technology Skills for Teaching in Colleges of Education

Group	N	Mean	SD	t-cal	Df	p-value	Decision
Male	53	3.21	0.26				
				0.619	69	0.49	NS
Female	18	3.22	0.28				

Source: Field survey, 2022   **P>0.05**

The data in Table 3 revealed that there are 53 male teachers and 18 female teachers. The response of male and female teachers indicated that internet technologies skills are utilized by business education teachers ($\overline{X}$ = 3.21; SD = 0.26) and ($\overline{X}$ = 3.22; SD = 0.28). 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 ratings of business education teachers on the utilization of internet technology skills for teaching in colleges of education (t_{69} = 0.619, P>0.05). Therefore, the null hypothesis that states that there is no significant difference between the mean responses of male and female business education teachers on the utilization of internet technology skills for teaching in colleges of education was not rejected. This implied that male and female business education teachers did not differ in their responses regarding the utilization of internet technology skills for teaching in colleges of education.

H_{02}. There is no significant difference in the mean responses of business education teachers on the utilization of mobile technology skills for teaching in colleges of education based on their years of experience

Table 4: Summary of One-Way Analysis of Variance of the Difference in the Mean Responses of Business Education Teachers on the Utilization of Mobile Technology Skills for Teaching in Colleges of Education Based on Their Years of Experience

Group	N	Mean	SD	f-cal	Df	p-value	Decision
1 – 5 years	24	3.19	0.19				
6 – 10 years	10	3.17	0.18				
				1.049	3,67	0.377	NS
11 – 15 years	24	3.25	0.22				
16 and above	13	3.29	0.20				

Source: Field survey, 2022   **P>0.05**

The data presented in Table 4 revealed that there are 24 respondents with 1 – 5 years of experience, 10 with 6 – 10 years, 24 with 11 – 15 years, 13 respondents with 16 years and above experience. The calculated value of F is 1.049 (F_{cal} = 1.049). Since the observed p-value is 0.377 which is greater than the fixed p-value of 0.05 (P>0.05), the null hypothesis which stated that there is no significant difference in the mean responses of

business education teachers on the utilization of mobile technology skills for teaching in colleges of education based on their years of experience was therefore not rejected ($F_{3.67}$ = 1.049; P>0.377). This implied that there was no significant difference in the mean responses of business education teachers on the utilization of mobile technology skills for teaching in colleges of education based on their years of experience.

Discussion of Findings
Research question one: Sought to determine the extent of utilization of internet technology skills by business education teachers for teaching effectiveness in colleges of education. The findings revealed that business education teachers utilized internet technology skills for teaching in colleges of education which include the use of search engine on the web, hypertext markup language (HTML) editors to create educational web pages, file transfer protocol to upload and download files, the e-mail or list servers, use hypermedia web pages, the use of collaborative sites and software, the use of social media platforms and the ability to organize virtual conferences among others. This finding agreed with Ekwue, Anyeabunam and Alfa (2016) who maintained that the increased use of internet technologies in business education makes teaching and learning increasingly flexible, multi-tasking and performance based, hence the need for business education teachers to acquired and utilized relevant necessary new technology skills for teaching and learning.

Research question two: Sought to determine the extent of utilization of mobile technology skills by business education teachers for teaching effectiveness in colleges of education. The findings revealed that business education teachers utilized mobile technology skills for teaching in colleges of education which include skills in the use of portfolio or digital portfolio and mobile phone for sending teaching contents, the use of cloud computing for storing and sharing files, the use of 3GP to compress and deliver audiovisual teaching contents, the use of short messaging services and multimedia messaging service for access to and delivery of teaching contents and use Wi-Fi to gain access to teaching resources via internet among others. This finding is supported by Umoru (2015) who reported that the Business education teachers are vital in the impartation of required skills to the students through the acquisition, possession and utilization of mobile technology skills.

Hypothesis one: The (Ho_1) stated that there is no significant difference between the mean responses of male and female business education teachers on the utilization of internet technology skills for teaching in colleges of education. The findings revealed that there was no significant difference between the mean responses of male and female business education teachers on the utilization of internet technology skills for teaching in colleges of education (t_{69} = 0.619, P=0.49 >0.05).

Hypothesis two: The (Ho_2) stated that there is no significant difference between the mean responses of experienced and less experienced business education teachers on the utilization of mobile technology skills for teaching in colleges of education. The findings revealed that there was no significant difference in the mean responses of business education teachers on the utilization of mobile technology skills for teaching in colleges of education based on their years of experience ($F_{3.67}$ = 1.049; p=0.377 >0.05).

Conclusion
Based on the findings of the study, it was concluded that the responsibility of the teachers in any circumstance is the education of the students; and if the students are to receive the best type of skills, then the teachers ought to possessed and utilize the best type of skills. This therefore implies that the need for the utilization of new technology skills by teachers of business education for effective teaching is imperative and perhaps necessary for the realization of the objectives of business education programme. If in any case the teachers lacked the relevant skills to utilize internet and mobile technologies then the ingenuity, agility, competence and skills of business education teachers and students that are crucial to their success and competitiveness would be compromised. This clearly indicates that business education programme would be producing graduates who would not be able to function effectively in the 21st century world of work and who cannot contribute anything meaningful to the development of an economy driven by technological innovation.

Recommendations

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

1. Colleges of education authorities should take the issue of teachers development and re-training with all the seriousness it deserves by organizing workshops, seminars, conferences and in-service training for teachers of business education to acquire more internet and mobile technology skills.

2. Business education teachers should endeavor to be up to date on the mobile technology skills needed and utilized same for teaching. Teachers who are still deficient in the identified mobile technology skills should also make personal efforts to update themselves in order to be more effective and efficient in teaching using mobile technologies.

3. Government should make provision for these new technology tools to colleges of education in term of subvention, grants and intervention.

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