



Assessment of the Level of ICT Skills Possessed by Office Technology Lecturers for Effective Teaching in Colleges of Education

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ABSTRACT

One of the major roles of a business education programme is to provide instruction for and about Office Technology and Management and to prepare professional teachers to teach business. Office Technology as an integral part of business education requires some level of Information and Communication Technology (ICT) skills for effective transfer of knowledge from the teachers to the students, especially in this era of technology. The assessment of Office Technology and Management in Nigerian colleges of Education with the skills of Information and Communication Technology (ICT) is the focus of this research. The research is significant in that, Office Technology and Management courses are ICT driven. The purpose of the research was to determine the level of word and data processing skills possessed, internet skills possessed and power point skills possessed by the lecturers. The research shall be a suitable and appropriate research design, area of the research was colleges of education in Cross River State, population comprised of 100 lecturers of Office Technology and Management in the Colleges of Education. A structured questionnaire was the main instrument for data collection. Mean and standard deviation were used to analyse the data. From the analysis, the research found that Office Technology Management lecturers possess moderate skills in word/data processing skills and low skills in both internet technology and PowerPoint skills. Based on the findings, the research recommended among others that Office Technology and Management lecturers in Colleges of Education should be urgently retrained to enable them to cope with the challenges of implementing the new ICT curriculum in the Colleges of Education. Business Education lecturers should themselves embark on self-development to remedy their deficiencies in ICT-related courses.

Introduction

The success of any educational programme depends on the curriculum and the personnel whose implementation is dependent upon it. Office Technology and Management (OTM) came into being as a result of the recent curriculum review designed by the National Board for Technical Education (NBTE) to replace the Secretarial Studies programme which has been in use since 1989. As an academic programme, Office Technology and Management is designed at both NCE and degree levels to enable the graduates to acquire knowledge, attitude and vocational skills.

These skills will enable them to fit in properly into the office of any organization and perform the functions of a modern secretary professionally. The curriculum is Information and Communication Technology (ICT) based and as such the graduates are expected to acquire skills in word processing, ICT Office Applications, MS Excel, PowerPoint, Management Information Systems (MIS) and Advance Web Page in addition to Modern Office Technology (NBTE, 2008). The word skill according to Ezech (2008) is one of the most varied relative terms that has varied definitions. Obi (2005) opined that a skill is a manual dexterity acquired through repetitive performance of operation. Similarly, Okorie (2000) posited that skills in vocational areas are expertise, practice ability, dexterity and tact, adding that it is an organized sequence of actions, proficiency executed and usually displaying a flexible but systematic temporal patterning.

For the curriculum to achieve its desired objectives, Office Technology and Management Lecturer should possess adequate ICT skills for effective teaching. According to Eze (2005), the lecturer is the cornerstone of every educational foundation because no educational policy can be effective without adequate preparation of the teachers who are going to implement the policy. Ekwue and Sabo (2004) opined that the contemporary issue in which Nigerian Business Educators should not only be interested but also become fully involved in the lecturers should brace up for the challenges of acquiring ICT skills to impart these skills to students who should be prepared to adequately meet up with the demands of the present-day technological innovations in the business office.

Ayeni (2005) defined information and communication technology as the use of computers and telecommunication devices for the acquisition, processing, storage and distribution of various types of information. Similarly, Information and Communication Technology is a generic term referring to the technologies that are used for collecting, storing, editing and passing on information in various forms (Igberaharha, 2009). Since OTM lecturers are greatly involved in imparting skills to students for a world of work, they are expected to demonstrate adequate knowledge and skills in specific ICT areas.

Information and Communication Technology (ICT) according to Abifarin (2003) are those modern communication systems of all types used in transferring information. Ukandu (2004) stated that the term ICT includes electronics, information processing technologies such as computers, the internet, and other sophisticated gadgets used for the dissemination of information in the learning process. This includes all the technologies that support activities involving the creation of data, storage, manipulation and communication of information including other methods.

Therefore, if OTM lecturers should demonstrate professional qualities, they must not only have deep-rooted knowledge and skills in the ICT systems and operations but must effectively impart these skills to their students (Omeje, 2006). OTM lecturers should effectively teach ICT skills relating to word processing and other software packages. Chukwumezie and Ndinechi (2006) posited the use of electronic spreadsheets (MS Excel) for stock control, financial records or assisting management with budgetary control or sales analysis. Similarly, Ohakwe (2008) stated that a more effective teaching-learning process can be done electronically using PowerPoint presentation slides. He explained that PowerPoint is software that enables a teacher not only to create powerful presentations but to include formatted text, graphics, pictures, sound and animation in the presentation. With the use of PowerPoint, you can create educational presentations that can add variety and vitality to your teaching since it makes teaching refreshingly new, interesting, real, persuasive and lasting in the memories of learners. This is why Ngurukwem (2005) advised that teachers of business should possess ICT skills if they are to grow professionally and remain relevant. Ojukwu (2009) stated that manpower is paramount to drive the use of ICT effectively in tertiary institutions. He opined that the teacher is central to the successful implementation of the new ICT modules of the new curricula and that the teacher should be prepared to use technology and knowing how that technology can support student learning should become integral skills in every teacher's professional repertoire. Ugwuanyi and Eze (2009) observed that the senior lecturers expected to implement the OTM curriculum were trained without modern equipment, thus advocating that for business educators to do the right thing in the classroom, they need to be urgently retrained.

Office Technology and Management (OTM) came into being as a result of the recent curriculum review by the National Commission for Colleges of Education (NCCE). As an integral part of business education, OTM has witnessed an upsurge in office technology in recent times. Ntukidem (2000) observed that secretaries of yester years dealt with papers worked mechanically, relied on postal services for external communication and kept office records in file cabinets. Things have changed as virtually all office jobs are now handled with electronic and telecommunication equipment.

Statement of the Problem

The ICT components in the new curriculum were designed to equip students with knowledge, skills and attitudes that will enable them to function well in a modern office. The ICT components are computer-based, and many of these technologies were not in place when most of the lecturers were trained. It appears, therefore, that many lecturers who possess teaching skills lack skills in some ICT component areas. The situation is not in line with the view of Ekwue and Sato (2004) who stated that of all the factors which influence the quality of education and its contribution to national development, the quality, competence (skills) and characters of teachers are undoubtedly the most significant. Hence the teacher's competence is, therefore, a major requirement in the teaching process. The question now is: What is the level of ICT skills possessed by OTM lecturers for effective teaching in Colleges of Education? It is against this backdrop that this research is conceived to provide an answer to the question.

Purpose of the Study

The objective of the research therefore shall aim at determining the level of ICT skills possessed by lecturers of Office Technology and Management in Colleges of Education in Cross River State. Specifically, the research shall seek to identify:

1. The word and data processing skills possessed by lecturers of Office Technology and Management for effective teaching in Colleges of Education.
2. The internet skills possessed by lecturers for effective teaching of Office Technology and Management in Colleges of Education.
3. The PowerPoint skills possessed by lecturers of Office Technology and Management in Colleges of Education.

Research Questions

The following research questions guided the study:

1. What is the level of word and data processing skills possessed by lecturers of Office Technology and Management for effective teaching in Colleges of Education?
2. What is the level of internet skills possessed by lecturers for effective teaching of Office Technology and Management in Colleges of Education?
3. What is the level of PowerPoint skills possessed by lecturers of Office Technology and Management in Colleges of Education?

Methodology

Design

A survey design was used for this research. Nworgu (2006) describes a survey design as one in which data concerning the characteristics features or facts about a given population are collected systematically.

Area of the Study

The research was carried out in Colleges of Education in two states Akwa Ibom and Cross River States.

Population of the Study

All lecturers of Office Technology and Management form the population of the study. The population size comprised 100 lecturers.

Sample and Sampling Technique

The sample consisted of 100 lecturers. No sampling technique was used in drawing 100 lecturers from the Colleges of Education since the population was small.

Data Collection

A structured questionnaire was the main instrument for data collection. The questionnaire had a 5-point rating scale of Very High (5), High (4), Moderate (3), Low (2) and Very Low (1). The class boundary for interpreting the result includes Very High (4.50 – 5.00), High (3.50 – 4.49), Moderate (2.50 – 3.49), Low (1.50 – 2.49) and Very Low (0.50 – 1.49). the instrument was face-validated by two experts who are members of the Association of Business Educators of Nigeria (ABEN). The reliability of the instrument was 0.78 and it was established using Cronbach Alpha. The instrument was personally distributed with the aid of two research assistants in each of the colleges. The entire questionnaire was distributed and retrieved.

Data Analysis Technique

Mean (X) and standard deviation (SD) were used to analyze the data.

Results

Research Question 1

What is the level of word and data processing skills possessed by lecturers of Office Technology and Management for effective teaching in Colleges of Education?

Table 1: Mean and Standard Deviation of the level of word and data processing skills possessed by OTM lecturers.

S/No	Knowledge/Skills	Mean	SD	Remark
1.	Knowledge of keyboarding	4.00	0.90	High
2.	Type accurately with speed	3.80	0.93	Moderate
3.	Emphasize text by the use of underscore, bold and italics	4.30	0.64	High
4.	Align, centre and justify text	3.95	1.08	Moderate
5.	Change paper orientation	3.85	0.80	Moderate
6.	Copy the file into a flash drive and CD	4.15	0.73	High
7.	Insert page numbers	4.00	0.78	High
8.	Open spreadsheet environment	2.35	0.73	Low
9.	Enter data in cells	2.15	0.80	Low
10.	Formatting worksheet	2.50	0.75	Moderate
11.	Sort text in ascending or descending order	1.80	0.68	Very Low
12.	Use graphic facilities	1.90	1.00	Very Low
13.	Print spreadsheet texts	1.85	1.06	Very Low
	Grand Mean	3.12		

The data in Table 1 show that the lecturer's level of possession of word processing skills is not very high in all the skills tested. However, their level of skills is high in 4 skills and moderate in 3 skills. In data processing skills, the lecturers possessed moderate skills in 1 item, low skills in 2 items and very low skills in 3 variables tested. The highest mean rating is in item 3 (4.30) which emphasises text by the use of underscore, bold and italics, and the lowest mean rating is in items 11, 12 and 13 (1.80, 1.90 and 1.85) respectively.

The grand mean is 3.12 which implies that the lecturers possess ICT skills moderately.

Research Question 2

What is the level of internet skills possessed by lecturers for effective teaching of Office Technology and Management in Colleges of Education?

Table 2: Mean and Standard Deviation of the level of internet skills possessed by OTM lecturers.

S/No	Internet Knowledge/Skills	Mean	SD	Remarks
1.	Knowledge of internet equipment such as computers, telephone lines and modem	1.70	0.78	Very Low
2.	Website Knowledge	2.10	1.00	Very Low
3.	Knowledge in the use of website browser	1.90	0.70	Very Low
4.	Ability to use search engines	2.30	1.01	Low
5.	Ability to surf the net	2.04	0.71	Low
6.	Knowledge of Internet service providers	2.68	0.82	Moderate
7.	Ability to send/receive messages and attachments through email	1.81	0.72	Very Low
8.	Use of Net for e-shopping	1.59	0.49	Very Low
9.	Ability to utilize file transfer protocol	2.15	0.87	Low
10.	Use tele-video conferencing	1.94	1.00	Very Low
11.	Operation of internet relay chat	1.90	0.89	Very Low
12.	Ability to use Internet data security	1.68	0.57	Very Low
13.	Knowledge of protection of privacy of information	1.71	0.89	Very Low
	Grand Mean	1.96		

The result in Table 2 shows that the highest mean is in item 6 (2.68) which is the use of net for e-shopping. The lecturer's level of internet skills was not rated either very high or high in all the internet skills tested. The lecturer's level of internet skills possession ranges from moderate to very low with a grand mean of 1.96 which implies that the lecturer's level of internet skill possession is low.

Research Question 3

What is the level of PowerPoint skills possessed by lecturers of Office Technology and Management in Colleges of Education?

Table 3: Mean and Standard Deviation of the level of PowerPoint skills possessed by OTM lecturers.

S/No	PowerPoint Knowledge/Skills	Mean	SD	Remarks
1.	Knowledge of the concept of presentation	1.95	0.88	Low
2.	Use of PowerPoint	1.85	0.85	Low
3.	Ability to create a new presentation	2.04	0.85	Low
4.	Ability to save and close presentation	2.07	1.11	Low
5.	Ability to insert and delete slides	2.46	0.93	Low
6.	Insert and modify text boxes	1.89	0.98	Low
7.	Insert images	2.05	0.85	Low
8.	Use of PowerPoint to present lectures	2.18	0.74	Low
9.	Ability to change slides' background	1.83	0.68	Low
10.	Ability to use custom animation	1.98	1.04	Low
11.	Ability to present animation	1.75	0.74	Low
12.	Ability to apply transition effect	2.10	0.88	Low
13.	Ability to use slide master	1.57	0.82	Low
	Grand Mean	2.11		

Data analysis in Table 3 revealed that the lecturer's level of possession in PowerPoint skills is low in all the variables tested. The highest mean is item 5 (2.46) which is the ability to insert and delete slides. The lowest mean is in item 13 (1.57), which is the ability to use slide master. The table shows a grand mean of 2.11 which implies low possession of PowerPoint skills.

Findings

1. It was found that OTM lecturers possess moderate word and data processing operational skills necessary for teaching this course. Out of 13 items used to answer research question 1, the respondents rated possession of high skills in 4 items, moderate skills in 4 items and low skills in 5 items. The grand mean of 3.12 was obtained and this falls within the moderate skill possession according to the scale used for this research.
2. OTM lecturers possess low operational skills required for teaching internet technology. The respondents rated possession of moderate skills only in 2 items, low in 6 variables and very low in 5 variables in this cluster. A grand mean of 1.96 was obtained and this falls within the low skill according to the scale used for this research.
3. OTM lecturers possess low operational skills necessary for teaching PowerPoint. Table 3 shows that the respondents rated low possession of PowerPoint skills in all the variables tested. A grand mean of 2.11 falls within the low skill based on the scale used for this research.

Discussion of Findings

The result of the research showed that OTM lecturers possess moderate skills in word and data processing, and low skills in both internet technology and PowerPoint skills. A grand mean of 3.33 for word and data processing skills and 1.96 and 2.11 respectively authenticate this claim. This by implication means that OTM lecturers lack the competence to teach ICT skills in colleges of education. It is expected that lecturers should possess very high skills in their subject areas to be able to impart the same to their students. Corroborating these findings, Ojukwu (2009) citing Mumah (2008) stated that manpower is paramount to drive the use of ICT effectively in tertiary institutions. He stated that the lecturer is central to the successful implementation of the new ICT modules of the new curricula and that the lecturer should be prepared to use technology and knowing how that technology can support student learning should become integral skills in every lecturer's professional repertoire.

Furthermore, Ugwuanyi and Eze (2009) posited that the experienced senior lecturers expected to implement the OTM curriculum were trained without modern equipment. They were doubtful of whether lecturers would be able to implement the ICT-emphasized curriculum and advocated that for business educators to do the right thing in the classroom; they need to be retrained urgently. Therefore, adequate lecturer preparation is essential to enable OTM lecturers to cope with the challenges posed by the new curriculum.

Conclusion

The research has established the need to urgently address the issue of business lecturer preparation to enable them to cope with the development in the ICT world. This has become necessary as most lecturers were trained before the emergence of the new technologies to enable them to fulfil their roles of imparting the desired knowledge to the learners.

Recommendations

Based on the findings, it is recommended that:

1. Office Technology and Management lecturers in Colleges of Education should be urgently retrained to enable them to cope with the challenges of implementing the new ICT curriculum in the Colleges of Education.
2. Business Education lecturers should themselves embark on self-development to remedy their deficiencies in ICT-related courses.
3. Adequate provision of ICT equipment/facilities is very essential for implementing the ICT curriculum in Colleges of Education. Management in Colleges of Education should do their best in this direction.

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