

# APPRAISAL OF INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS ESSENTIAL FOR OFFICE TECHNOLOGY AND MANAGEMENT GRADUATES

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## Abstract

*The world is highly computerized and this has affected the normal office work. Typing and taking notes through dictation and transcribing is almost obsolete now. There is need for Office Technology and Management graduates to possess information and communication skills to enable them to be gainfully employed upon graduation. These ICT skills include Electronic Spreadsheet skills, Power point Presentation skills, and Database management skills, Desktop Publishing Skills, word processing skills and internet application skills. This study appraised those various skills essential for the occupation of Office Technology and Management graduates in Oyo State tertiary institutions of Nigeria. The study adopted survey design. Four research questions were raised and two hypotheses were formulated and tested at 0.05 level of significance. Populations of 120 lecturers were used for the study. A structured questionnaires validated by experts was used for the collection of data which was analysed using mean and standard deviation, while hypotheses were tested using t-test statistics at 0.05 level of significance. The findings of the study revealed that OTM graduates in Oyo State tertiary institutions need to acquire all the ICT skills mentioned above such as word processing skills, Desktop Publishing skills, internet application skills for them to be gainfully employed. The following recommendations were made that relevant and functional ICT facilities should be made available to OTM department by their institutions. There is no skill acquisition programme that can be successful without the use of relevant equipment and facilities like e-mail and you tube. Tertiary institutions in Oyo State should come together and partner with international ICT training centers in their institutions where staff and students can develop their ICT skills as obtainable now in some universities in Nigeria.*

## Introduction

The economic potential of any nation depend largely on its technological advancement. There is a great link between functional education and technological growth. A functional education according to Agba (2019) is that aspect of education which acknowledges the global social, economic, political and technological trends. This is in agreement with the statement of Oranu and Ogwo (2006) that the ever increasing technological advancement justified the need for the inclusion of more skilled oriented subject

into school curriculum. One of the objectives of ICT is to integrate Information Technology into mainstream of education and training and also to empower the youths with ICT skills and prepare them for global competitiveness. ICT skills are those related to the use of computers and then the ability to transmit stored information through fixed line networks or through wireless phone networks. Ezeh (2018) advised that lecturers of OTM should possess ICT skills if they are to grow professionally and remain relevant in the modern era. This is in line with the statement made by Osuala (2004) that

business educators must remain aware of the changing scene in word processing with the ever increasing technological development and advancement. In order to achieve the stated objectives of ICT and also to ensure quality in the teaching and learning of OTM courses lecturers should possess ICT skills such as communication and media skills.

Effective and efficient communication is very essential in teaching and learning process. Therefore, there is need for transmission of information between the lecturers and the students. Communication skills refer to a set of skills that enable a person to convey information so that it is received and understood. Baba (2019) posited that effective communication is a *sine qua non* for lecturers who teach OTM Courses because, it contribute immensely towards their training of manpower for both private and public enterprise.

Skill is the ability of a person to accomplish a task with cleverness, expertise, dexterity and ability to perform a function which could be acquired or learned in school. Etonyeaku (2019) noted that skill is also an ability and capacity acquired through deliberate systematic and sustained efforts to smoothly and adaptively carryout complex activities or job functions involving ideas (cognitive skills), things (technical skills) and /or people (Interpersonal skills). All the mentioned skills are essentials for every OTM graduates who intends to excel in his or her place of work. As a result of this, the training of OTM graduates from tertiary institutions should be based on skill acquisition.

Office technology and management is regarded as office technology education in the tertiary institutions to replace secretarial studies. OTM programme can be seen as a curriculum response to the demands of dynamic and computerized workplace, which is aimed at the production of high proficient breeds of administrative personnel that would coordinate high office

information systems and provide technical skills with core business like function. The teaching and learning of OTM programme requires the utilization of digital instructional technologies for the inculcation of these skills especially to match pace with changes already experienced globally in the way both office and business activities are carried out in the era of globalization.

The integration of ICT in teaching is a foremost circumstance in ensuring quality of OTM courses. These would allow students to become familiar with the use of ICT, since all jobs in the society today are dependent on ICT compliance and teaching of OTM education utilizing ICT resources will improve the quality of OTM education graduates thereby making them more effective and efficient (Elogbo & Akek, 2020). However, Nwazor and Udegbunam in Umeano and Ifi (2020) saw technology integration as focusing on 'how' to use technology to support the way teaching and learning is currently being done in schools. It also enhances the use of modern instructional mode of teaching and learning in tertiary institutions to meet the demands of the current trends in academics.

### **Statement of the Problem**

Development in information and communication technology has changed the world of today. Office automation which has not only brought about changes in office procedures and competencies but has created varying challenges to the students and lecturers. In order to move with the time, tertiary institutions has taken some steps to reform towards updating their business education programmes to meet with the challenges of these technological innovations.

There are allegations and counter allegations that the products (graduates) of OTM should be the basis of assessment. Other believed that the performance of OTM graduates in the world of work should

be the factor/basis for assessing the quality of OTM graduates. The factors assumed to be militating against the OTM programmes in tertiary institutions are the misinterpretation of the programmes in term of appraisal of the ICT skills for office technology and management (OTM) programmes. The reason for setting minimum academic standards for poor assessment of the contents impacts processes and products of the programmes and poor attentions of the management of these institutions.

The rapid growth in technology has transformed the occupational therapy profession, necessitating the acquisition of essential information and communication technology (ICT) skills by occupational therapy lecturers (OTM). However, there is a growing concern that many OTMs may not possess the requisite ICT skills to effectively manage and deliver occupational therapy services in the internet.

### **Purpose of the study**

The main purpose of the study examined:

- i. the essential of ICT skills required by OTM is to mange and deliver technology skills.
- ii. the current level of ICT proficiency among OTMs to manage and deliver occupational therapy services
- iii. the barriers to acquiring ICT skills among OTMs to manage and deliver occupational therapy services
- iv. the implication of the findings for OTM education, training and practice

### **Research Questions**

1. What are the essential ICT skills required by OTM to mange and deliver occupational therapy services
2. What is the current level of ICT proficiency among OTMs to manage and deliver occupational therapy services

3. What are the barriers to acquiring ICT skills among OTMs to manage and deliver occupational therapy services
4. What are the possible solutions to the barriers for effective acquiring the ICT skills among OTM lecturers

### **Hypotheses**

1. There is no significant difference between the essential ICT skills required by OTM male and female lecturers to manage and deliver occupational therapy services
2. There is no significant difference between the current level of ICT proficiency among OTM male and female lecturers to manage and deliver occupational therapy services

### **Methods**

The design for the study was descriptive survey. Descriptive survey design, according to Yomere and Agbonifoh (2016) is a quantitative approach using questionnaires to administer the data collected from a sample of occupational lecturers and students of OTM either by researcher or his with a view to assessing public opinions, belief, attitudes, motivations and behaviour. The population of the study consisted of 120 respondents. Therefore the entire population was used for the study because the population is manageable. A 40 items structured questionnaire was developed from the research questions for the study and utilized for data collection. Each questionnaire item had a four point rating scale of strongly agreed (SA = 4), Agreed (A = 3), Disagreed (D = 2) and Strongly Disagreed (SD = 1). Three experts face validated the instrument. Cronbach Alpha Co-efficient measure of internal consistency was used to determine the reliability of the instrument and a co-efficient of 0.79 was obtained. 120 copies of the questionnaires were administered to the respondents by the researcher and two research assistants and 116 copies were

retrieved on completion which gave a retrieval rate of 97%. The data generated was analysed through descriptive statistics of mean and standard deviation to answer the research questions while inferential statistics (T-test) was employed to test the hypotheses at 0.05 level of significance. Any item with a mean scores and standard deviation of 2.29 and 1.26 and above shows

high extent and a mean value and standard deviation below 3.00 and 1.50 indicates low extent (Adetula, 2018).

## Results

### Research Question 1

What are the essential ICT skills required by OTM to manage and deliver occupational therapy services

**Table 1:** Mean and standard deviation revealed the essential ICT skills required by OTM to manage and deliver occupational therapy services

S/N	ITEMS	$\bar{x}$	SD	REMARKS
1	Proficiency in using computer, laptops and mobile devices	4.46	.49	Agreed
2	Ability to manage e-mail account	3.45	1.19	Agreed
3	Ability to design and develop online courses including creating multimedia content	3.25	.78	Agreed
4	Ability to assess and feedback tools	3.82	.74	Agreed
5	Ability to use video conferencing	3.90	.77	Agreed
6	Ability to use social media platforms for professional purpose	3.60	1.24	Agreed
7	Ability to familiar with data analysis software	3.52	1.06	Agreed
8	Ability to use research software	2.91	1.38	Disagreed
9	Understanding accessibility principles and ability to create accessible digital content	3.22	1.27	Disagreed
10	Ability to familiar with database management method	3.29	1.26	Disagreed

**Source:** Field study, 2025

Table I revealed that out of ten essential ICT skills required by OTM lecturers, seven skills were possessed and acquired by the lecturers while only three skills were not possessed by the lecturers. These essential ICT skills will enable OTM lecturers to effectively integrate technology

into their teaching, research and professional practices.

### Research Question 2

What is the current level of ICT proficiency among OTM to manage and deliver occupational therapy services

**Table 2:** Mean and standard deviation revealed the current level of ICT proficiency among OTM lecturers to manage and deliver occupational therapy services

S/N	ITEMS	$\bar{x}$	SD	REMARKS
1	Knowledge of keyboarding	4.00	0.90	Very High Level
2	Type accurately with speed	3.80	0.93	High Level
3	Emphasise text by the use of underscore, bold and italics	2.15	0.80	Low Level
4	Align, centre and justify text	2.46	0.93	Low Level
5	Change paper orientation	4.00	0.78	Very High Level
6	Copy the file into flash drive and CD	4.30	0.60	Very High Level
7	Ability to use tele-video conferencing	2.15	0.80	Low level
8	Knowledge of protection of private of information	2.35	0.73	Moderate Level
9	Knowledge of internet equipment such as computers and telephone lines	3.95	1.08	High Level
10	Ability to have knowledge in the use of website browser	4.15	0.75	Very High Level

**Source:** Field study, 2025

The data in table 2 shows that the lecturer's level of ICT proficiency among OTM lecturers is very high in most of the skills tested. However, their level of skills is high skills and low in four skills. The lecturer possessed High Skills on 1,2,5,6,9,10 items, low skills on 3,4,7,8 items in the skills tested. The highest mean rating is in item six (4.30) which emphasizes text by use of underscore, bold

and italics and the lowest mean rating is in item 3,4,7 and 8 (2.15, 2.46, 2.15 and 2.35) respectively. The grand mean is 3.33 which implies that the lecturers possess ICT level of skills.

### Research Question 3

What are the barriers to acquiring ICT skills among OTMs to manage and deliver occupational therapy services

**Table 3:** Mean and standard deviation responses on the barriers to acquiring ICT skills among OTMs to manage and deliver occupational therapy services

S/N	ITEMS	$\bar{x}$	SD	REMARKS
1	Limited access to ICT infrastructure, inadequate computer, internet connectivity and software	3.92	0.44	Strongly Agreed
2	Insufficient ICT training and support, lack of training programs, workshops and technical support	4.26	0.62	Strongly Agreed
3	Limited funds for ICT infrastructure, training and maintenance	3.57	0.63	Agreed
4	Resistance to change, fear of technology or lack of interest	4.00	0.79	Strongly Agreed
5	Difficulty in learning and using new ICT tools and software	3.76	0.42	Strongly Agreed
6	Frequent technical issues, such as connectivity problems or hardware failure	3.57	0.57	Agreed
7	Heavy teaching, research and administrative responsibilities	3.61	0.82	Agreed
8	Uncertainty about how to integrate ICTs into teaching practices	3.96	0.66	Strongly Agreed
9	Lack of knowledge about learning theories and models that support ICT based learning	3.68	0.80	Agreed
10	Limited access to electricity, internet connectivity or other essential infrastructure	4.19	0.63	Strongly Agreed

**Source:** Field study, 2025

The data in table 3 above revealed that the respondent agree that there various barriers hindering the effective acquiring ICT skills among OTM lecturers. These factors included insufficient ICT training and support, (4.26; 0.62) limited funds for ICT infrastructure (3.57; 0.63) resistance to change, fear technology (4.00; 0.79) frequent technical issues (3.75; 0.63) uncertainty about how to integrate ICT into teaching practices (3.96; 0.66) lack of

knowledge about learning theories and model that support ICT based learning (3.68; 0.80) and limited access to electricity, interest connectivity and other essential infrastructure (4.19; 0.63).

### Research Question 4

What are the possible solutions to the barriers for effective acquiring the ICT skills among OTM lecturers

**Table 4:** Mean and standard deviation revealed the possible solutions to the barriers for effective acquiring the ICT skills among OTM lecturers

S/N	ITEMS	$\bar{x}$	SD	REMARKS
1	Provision of adequate number of ICT equipment for teaching and learning	4.61	0.49	Strongly Agreed
2	Regular and adequate maintenance of ICT equipment	3.73	1.18	Agreed
3	Adequate re-training of OTM lecturers to be able to teach ICT courses	4.00	1.69	Strongly Agreed
4	Regular and constant supply of electricity power to OTM ICT laboratories	4.30	1.08	Strongly Agreed
5	Provision of sufficient ICT teaching consumable	3.92	1.05	Agreed
6	Provision and use of multimedia teaching and aids in teaching ICT courses	3.92	0.27	Agreed
7	Employment of sufficient number of qualified OTM lecturers to teach ICT courses	4.88	0.32	Strongly Agreed
8	Ability of lecturers to cover ICT courses syllabi before the end of semesters	4.69	0.47	Strongly Agreed
9	Use of appropriate teaching methods	4.57	0.50	Strongly Agreed
10	Effective utilization of functional laboratories for students' practical learning	4.42	0.75	Strongly Agreed

**Source:** Field study, 2025

Table 4 data showed that the respondents agreed that there were various solutions to overcome the barriers hindering the effective acquiring the ICT skills among OTM lecturers. The identified ways included the provision of adequate number of ICT equipment for teaching (4.61; 0.49), regular and adequate maintenance of ICT equipment (3.73; 1.18), regular and constant supply of electricity power (4.30; 1.08), provision of sufficient ICT teaching consumable (3.92; 1.05) provision and use of multimedia teaching aids in teaching ICT courses (3.92; 0.27) employment of sufficient number of qualified OTM lecturers to teach ICT courses (4.88; 0.32). Results of data in table

iv further showed that effective utilization of functional laboratories for students practical learning (4.42; 0.75) and ability of lecturers to cover ICT courses syllabi before the end of semesters (4.69; 0.47) were possible ways to overcoming the effective acquiring the ICT skills among OTM lecturers

### Test of Hypotheses

#### Hypothesis 1

There is no significant difference between the essential ICT skills required by OTM male and female lecturers to manage and deliver occupational therapy service.

**Table 5:** Summary of t-test analysis of mean rating of male and female lecturers on the essential ICT skills required in delivering ICT skills

Variable	N	Mean	SD	DF	t-cal	t-crit	Decision
Male	53	3.52					
Female	67	3.92	0.812	118	1.09	1.65	Not significant

**Source:** Field Study, 2025

From the result on table 5, the t-calculated value (1.09), t-critical value (1.65), the null hypothesis is not rejected. This indicates that there is no significant difference between the mean responses of OTM male and female lecturers in tertiary institutions with respect to the essential skills required in delivering ICT skills.

#### Hypothesis 2

There is no significant difference between the current level of ICT proficiency among OTM male and female lecturers to manage and deliver occupational therapy services

**Table 6:** Summary of t-test analysis of mean rating of male and female lecturers on the current level of ICT proficiency

Variable	N	Mean	SD	DF	t-cal	t-crit	Decision
Male	53	2.69	1.14	118	0.45	1.96	Not significant
Female	67	2.78	1.21				

**Source:** Field Study, 2025

From the result on table 6, the t-calculated value (0.45) is less than that the calculated value of 1.96. This indicates that there is no significant difference between the mean responses of OTM male and female lecturers on the current level of ICT proficiency. The null hypothesis is therefore upheld.

### Discussion of findings

The result of the present study revealed that the office technology and management lecturers possessed essential ICT skills in delivering the technology skills. ICT skills possessed by the ranges from 4.46 to 2.91 which include the ability to have proficient skills in using computer, laptops and mobile device as well as ability to design and develop online courses including creating multimedia content. This result agreed with the work of Chukwumezie (2015) who found that OTM lecturers required the following ICT skills such as ability to manage e-mail account, ability to use social media platform for professional purpose. On the other hand, the study revealed that OTM lecturers do not possessed the ability to use research software and ability to familiar with database management method. It was also found that there was no significant difference between mean responses of male and female OTM lecturers regarding the essential skills required in delivering ICT skills in tertiary institutions ( $t_{118}= 1.65$ ,  $p>0.05$ ) thus, the null hypothesis was not rejected.

The result of this study in research question 2 revealed that the OTM lecturers current level of ICT proficiency on delivery professional service with 70% with high

level of ICT proficiency and 10% moderate level of proficiency and 20% low level of proficiency. This agree with the study carried out by Oborah and Obi (2012) who observed that there is high level of skill fullness in the usage of ICT resources among lecturers and students in tertiary institutions. He further pointed that lecturers and students often appreciate the skills require to search electronic source stating that they are forthright easy to use those proficiency skills. It was also found that there was no significant difference between mean responses of male and female OTM lecturers regarding the current level of ICT proficiency in tertiary institutions in Oyo state ( $t_{118}= 1.96$ ,  $p>0.05$ ). Thus, the null hypothesis was upheld. Furthermore, result revealed that OTM lecturers in Oyo State tertiary institutions emphasise text by the use of underscore, bold and italic, align, centre and justify text and this supports the findings of Obuh (2019) who observed that knowledge of internet equipment such as computers and telephone lines and ability to tele-video conferencing.

The findings of this study in respect of research question three found that most of the tertiary institution were faced with many barriers in acquiring ICT skills. Many OTM programme do not have access to ICT infrastructure, no internet facilities, no adequate computer. Machine such as franking machine, shredding machine, collating machine etc are lacking. This is in support with study of Iweh and Ufot (2019) which revealed that OTM departments in some tertiary institutions lack adequate computer studio as a result, those institutions continue with the use of

discussion methods of teaching. This is not different from the study of Egbri (2018) which also revealed that ICT resources are not available for teaching and learning OTM in most tertiary institutions. Many tertiary institutions offering OTM programme also lack lecturers who are proficient in the teaching of ICT. This was evidenced by the report of Bongoton and Onyenwe (2020) who asserted that although there are OTM lecturers available they lack pre-requisite ICT competency and this hinders the ability to effectively direct teaching and learning.

The finding of this study in respect to research question four offer possible solutions to the barrier for effective acquiring ICT skills among OTM lecturers. Most of the items were strongly agreed by the respondents. The identified ways included regular and adequate maintenance of ICT equipment, adequate training and re-training of OTM lectures, supply of electricity power to OTM ICT laboratories, effective utilization of functional laboratories for students' practical learning. The finding is also in line with Maharana, Sathi and Pands (2021) who initiated the use of internet are e-resources by the lecturers and students of OTM management.

## Conclusion

The study investigated ICT skills essential for office technology and management for teaching and learning to enable the students to be gainfully employed upon their graduations and the lecturers to have ICT proficiency in their occupational career. The study appraised the essential ICT skills required by OTM lecturers in delivery occupational services and their level of competencies as well as barriers of acquiring ICTY skills among OTM lecturers and possible solutions were offered by the researchers. It was also observed that a large number of pliers in OTM which have vital roles to play in

bringing about these facilities in students, as reported that the level of usage of ICT and electronic resources are relatively low.

## Recommendations

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

1. Essential awareness, accessibility, usability and training should be constant efforts and with seriousness, this could be achieved by making, computers available, established necessary modern facilities and ensure effective internet connectivity that will provide opportunity for the lecturers to update themselves.
2. Conferences, workshops, seminars and other medium of information dissemination on information and communication technology facilities should be organized and sponsored by the management for training and retraining of OTM lecturers through the authorities of tertiary institutions
3. Employment of sufficient number of qualified OTM lecturers to teach ICT courses and lectures should have the effective utilization of functional laboratories for students practical learning.

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