

## UTILISATION OF COMPUTER TECHNOLOGY FOR ACADEMIC WORK BY LECTURERS OF UNIVERSITY OF JOS - NIGERIA

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**ABSTRACT:** *This study which is on the utilization of computer technology for academic work has assessed the computer literacy skills possessed by academic staff members of University of Jos (UNIJOS). It sought to find out the areas they use the computer for academic work as well as the problems affecting them in their quest to utilise the computer. An evaluative design was used for the study with a population of 974 academic staff. A sample size of 97 (10%) of the population was used for the study. The instrument for data collection was questionnaire. In analyzing the data, percentages, mean and frequency tables were used. The findings revealed that lecturers have average level of computer literacy skills and use it only for typing/printing of lecture notes, computing of students' results, surfing the Internet for information and sending e-mails. However, inadequate funds, inadequate power supply, lack of government sponsorship, time constraints, irregular organization of IT programmes, inadequate Internet cafes, too much work load for academic staff and inadequate computer training centres were discovered to be militating factors. Finally, possible suggestions to overcome the above problems are recommended.*

**KEYWORDS:** Computer Skills, Computer Utilization, Academic Work, Lecturers

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### INTRODUCTION

The Nigerian University has for long been recognised as an ivory tower of education. The university is seen as the factory for producing high level man-power in every conceivable field of human endeavour. It is populated by three major sector : The bureaucrats (administrators) the academics (Lecturers, Tutors/Instructors) and the students (Odoweje 1995). These three sectors are generally referred to as the University community, with each sector performing a defined role.

In the University, the roles of lecturers are geared towards achieving the University's goals as stated in the National Policy on Education (2004) which include: Teaching, Research, Dissemination of existing and new Information, Pursuit of services to the community and being a store house of knowledge. To accomplish these responsibilities efficiently require the use of computer. These therefore calls for a variety of computer skills which are useful and in some cases required as essential part of teaching and learning

The fact remains that, the computer technology holds the promise of increased productivity. However, this promise is not realized due to the limitless abilities of those who make use of the technology. In fact, effective use of computers depends on individuals' computer literacy and it has been widely recognized as a vital skill. Computer technology has come to stay. Education and training of University graduates has to be such that it empowers them to

unleash their potentials as they endeavour to offer relevant and efficient services within the current levels of technological sophistication. Anything short of this may be of grievous consequence to the educational system and the Nation at large. It is against this background that the researcher is assessing the utilization computer for academic work by lecturers of university of UNIJOS.

### **Statement of the Problem**

The need for computer technology and literacy in educational system has become more relevant. This is because, the computer can provide a convenient technique for designing and developing a course of instructions and can expose the academics to varieties of information that will equip them to face the task ahead.

However, it has been observed during preliminary visits to UNIJOS that, in spite of the multiplicity of advantages offered by the computer, the use of computer for academic work seems to be minimal in this institution among the academics. The conventional method appeared to dominate research, teaching and learning activities of this institution. This is supported by Aina 2015 who observed that, Previous researches on the availability and utilization of Internet resources for teaching and research by Academic Staff has been found to be low.

This scenario if not urgently addressed, will have far reaching negative effects on both the lecturers and the students of this university. The staff may not be able to adequately access current information to update their knowledge for effective teaching. This will lead to producing half baked graduates that may not be adequately prepared to face the challenges of the wider society.

Finally, the researcher's extensive search of the literature shows that, several works have been conducted on the utilization of computer technology for academic work but, none has been carried out on the utilization of computer technology for academic work by academic staff of UNIJOS. This research is therefore being carried out to fill this gap.

### **Purpose of Study**

The purpose of this study is to investigate the utilization of computer for academic work by lecturers of university of UNIJOS. Specifically, the study will:

1. Find out the computer literacy skills possessed by lecturers of UNIJOS
2. Assess the areas to which the lecturers employ computer skills in carrying out academic work.
3. Determine problems that militate against the utilization of computer by lecturers of UNIJOS.

### **LITERATURE REVIEW**

The computer technology has positively affected all the social and economic aspects of human development by improving work performance and productivity. Prior to the development of the first computers in the 1950s, the word computer refers to persons who

could count, calculate, and compute (Nuhu et al 2010). Nowadays, the various computer literacy skills possessed by users as observed by Allison (2005) include: Performing basic operations such as using the mouse, managing various windows, alternating between the use of key board and mouse, minimizing windows, opening and closing files, among others. The present age of technological advancement has brought changes in to virtually all human endeavour. The technology is increasingly becoming indispensable. Today, the computer has permeated nearly all aspects of the educational sector.

The incursion of the electronic computer system into the educational sector, according to Bada, Adewole & Olaleka (2009) provides the possibilities to solve teaching and learning problems even more rapidly and accurately than hitherto conceived. This has eventually made the computer system the doyen of humanities as it continues to extend greater acceptance. The computer, according to Jayesimi (1985), has become the neology in our society and possibly futuristic years ahead. In schools, computers are widely used; and the need for computer technology and literacy in the educational system has become more relevant. It has been found to be effective device for presentation of instructional programme.

In a contribution, Watson (2005) says that, in today's high, tech multi-sensory approach to learning, education, information and recreation, the use of the computer technology becomes inevitable. It has been used in academic for one purpose or the other practically since their inception. In support of the above, Nnamdi (2008) states the relevance of the computer technology to academic work to include: Computer aided teaching; Audio – visual learning software and compact disk; Automation; Multimedia and hypermedia; Computerized grade books; Database management system; Simulation etc. Several authors have contributed variously on how the computer has become an inevitable tool in the academic work. Chime (2004) in his opinion maintains that, the internet is one of the major innovations of the computer that has found it way deeply into the academic sector. According to him, the internet is the largest computer network in the world. Most of the information on the Internet is free. The Internet has made the whole world a global village and has great potentials for educational research. Another advantage of the internet according to Nwokede and Sani (2009) is that, it enables the researcher to have discussion group with other researchers in his chosen area of study. Once a group is formed, all that the researcher needs to do is to post plea for ideas on his or her research topic on a “notice board” in the website. Having so many people out there, you will be surprised at the different ideas and suggestions that will come your way within split seconds. Hence the internet has become an invaluable tool for learning, teaching and research. However, as excellent and important the computer is, it has not really gained its root in our Nigerian schools, let alone the entire society. Its impact is not strongly felt by all, especially by our students. This is likely because of some challenges faced in the utilization of the computer in our society.

According to Bada et'al (2009), the challenges of computer education are both educational and administrative. The prominent among the administrative problems is cost. Over the years, the price of computer has been on the high side. This has been a deterrent to the adoption of computer for instructional purposes in most Nigerian institutions of learning. Coupled with this is the exorbitant price of software; it follows the same pattern as that for the hardware. Where attempts are made to purchase computers for instructional purposes, the costs of installation, maintenance and replacement are unavoidable.

Closely related to the problem of cost as noted by Ezeji and Mole (2010), Achibong et al (2010), and Nworgu (2006) is the problem of poor technological development in Nigeria.

Facilities such as adequate air condition, appropriate computer environment and building are not provided. Furthermore, electricity which is the primary source of power supply to the computer is not stable.

Despite these challenges, the need for computer technology and literacy in educational system has become more relevant, as such, acquisition of computer literacy skills among lecturers has been viewed as a prerequisite in adoption and integration of computers in schools system. This work is therefore an attempt to assess the utilization of computer for academic by lecturers of UNIJOS.

## METHODOLOGY

This study which used the survey design was carried out in plateau state of Nigeria. The population of this study consisted of all the lecturers of UNIJOS. According to Nigeria University Commission (NUC) (2010) there are 974 academic staff in University of Jos as at 2010/2011 academic session. Since the population is relatively large, a sample size of 97(10%) was used.

The structure questionnaire was used for collecting data for this study. The researcher used frequencies, percentages (%) and mean scores ( $\bar{x}$ ) to analyse each item in the questionnaire for the purpose of answering the research questions. For clarity, each item was presented in a table and all findings were presented as the tables revealed. A percentage score of 50% and a mean score of 2.5 were used as bench mark.

## RESULTS:

**Table 1 Lecturers response on their possession of computer literacy skills.**

s/n	Items	F	%	Ranking	D
1	The booting process	89	96.7	1 <sup>st</sup>	A
2	Use the mouse	87	94.5	2 <sup>nd</sup>	A
3	Correctly turn off the computer	87	94.5	3 <sup>rd</sup>	A
4	Printing out documents	80	86.9	4 <sup>th</sup>	A
5	Surfing the internet	80	86.9	5 <sup>th</sup>	A
6	Sending e-mail	79	85.8	6 <sup>th</sup>	A
7	Create files	76	82.6	7 <sup>th</sup>	A
8	Use the key board	66	71.7	8 <sup>th</sup>	A
9	Delete files	61	66.3	9 <sup>th</sup>	A
10	Copying data into secondary device	54	58.6	10 <sup>th</sup>	A
11	Word processing	54	58.6	11 <sup>th</sup>	A
12	Start a programme	52	56.5	12 <sup>th</sup>	A
13	Find answers to questions using online HELP features	47	51.1	13 <sup>th</sup>	R
14	Access Online data base	46	50	14 <sup>th</sup>	R
15	Adjust monitor	41	44.5	15 <sup>th</sup>	R
16	Create own data base	35	38	16 <sup>th</sup>	R
17	Corel draw	36	39.1	17 <sup>th</sup>	R
18	Power point presentation	33	35.8	18 <sup>th</sup>	R

19	Graphic presentation	34	36.9	19 <sup>th</sup>	R
20	Use excel spreadsheet	29	31.5	20 <sup>th</sup>	R
21	Scanning of images for uploading into text	26	28.2	21 <sup>st</sup>	R

**Key**

F = Frequency of the respondents,

% = Percentage of respondents

D = Decision (A = Accepted, R = Rejected)

Table 1 above shows the computer literacy skills possessed by lecturers of UNIJOS in a descending order. The table revealed that, the lecturers of the university under study have possessed average computer literacy skills. It was discovered that majority of the staff possessed the skills for the booting process with the highest percentage of 96.7%, while the skill for Scanning of images for uploading into text was considered not to have been possessed by the lecturers with 28.2%

**Table 2: Lecturers' response on the use of computer for academic work.**

S/N	ITEMS	F	%	Ranking	D
22	Typing/printing of lecture notes	88	95.6	1 <sup>st</sup>	A
23	Computing of students results	68	73.9	2 <sup>nd</sup>	A
24	Surfing the internet for information	66	71.7	3 <sup>rd</sup>	A
25	Sending of e-mail	65	70.6	4 <sup>th</sup>	A
26	Recording lecture notes on compact disc	44	47.8	5 <sup>th</sup>	R
27	presenting papers during conferences and workshops	47	51.1	6 <sup>th</sup>	R
28	Creating data bases	36	39.1	7 <sup>th</sup>	R
29	Publishing of papers through the internet	39	42.3	8 <sup>th</sup>	R
30	Use of power point to present lecture to students	26	28.2	9 <sup>th</sup>	R
31	Sending of lecture notes to students via the internet	16	17.3	10 <sup>th</sup>	R
32	Simulation programmes	15	16.3	11 <sup>th</sup>	R
33	Production of instructional materials	7	7.6	12 <sup>th</sup>	R

Table 2 above indicates that, the areas in which the academic staff members of the institution under study use the computer for academic work range from questionnaire items 22 to 25. While items 26 to 33 were not considered as areas in which the staff use the computer.

**Table 3: Lecturers' response on the challenges confronting them in the use of computer.**

S/N	ITEMS	VGE	GE	LE	VLE	X	Ranking	D
50	Inadequate funds	55	24	11	2	3.4	1 <sup>st</sup>	A
51	Lack of government support	37	31	19	-	3.1	2 <sup>nd</sup>	A
52	Inadequate power supply	25	52	17	-	3.1	3 <sup>rd</sup>	A
53	Time constraint	12	52	22	6	2.7	4 <sup>th</sup>	A
54	Too much work load for academic staff	2	27	34	10	2.6	4 <sup>th</sup>	A
55	Inadequate computer training centers	20	21	45	6	2.6	6 <sup>th</sup>	A

56	Irregular organization of IT programmes	14	45	23	10	2.6	6 <sup>th</sup>	A
57	Inadequate internet cafes	15	18	55	4	2.4	8 <sup>th</sup>	A
58	Lack of interest by the staff	9	13	54	16	2.2	9 <sup>th</sup>	R
59	Inadequate computer instructors	7	14	49	22	1.9	10 <sup>th</sup>	R

Table 3 above reveals that, inadequate funds, lack of government support and inadequate power supply constitute the major hindrance to the utilization of computer by the lecturers of UNIJOS. Furthermore, time constraint, too much work load for academic staff, inadequate computer training centers, irregular organization of IT programmes, inadequate internet facilities were also considered as impediments in the utilization of computers by the lecturers. On the other hand, lack of interest by lecturers and inadequate computer instructors were not considered as constraint to the utilisation of computer by the lecturers.

## DISCUSSION OF FINDINGS

The discussion of findings of this study is organized under the following headings:

### Computer literacy skills possessed by the lecturers of UNIJOS

The fact that computer literacy skills have become essential in every aspect of human endeavour is indisputable. In determining the computer literacy skills possessed by academic staff, attention was given to the critical skills that are needed in order to make effective utilization of the computer. Different skills at different levels of proficiency were incorporated in this study's questionnaire in order to determine the lecturers' computer literacy level. The findings revealed that lecturers have average computer literacy skills but have problems in major areas considered to be very vital for a computer literate. This is in line with the findings of Safahie and Asemi, (2008) on the assessment of computer literacy of academic librarians which reveal that majority of the respondents do not yet possess a good level of computer literacy skills. Palvia (2009) attributes this to the dwindling interest among the lecturers to embrace the internet deeply in their academic and research activities. Bacon (1995) therefore, notes that the academic staff members require a holistic knowledge and utilization of the computer for optimum service delivery. In his own opinion, the researcher attributes this scenario to the failure of the authorities concerned in providing the enabling environment for the full integration of this technology in the educational system.

### The use of computer for academic work by lecturers of UNIJOS

Findings revealed that, a greater percentage of lecturers of the university under study make use of the computer in areas such as typing/printing of lecture notes, computing of students' results, surfing the Internet for information and sending of e-mails. On the other hand, areas such as recording of lecture notes on compact disc, publishing of papers through the Internet, creating on-line data base, using the power point to present lecture to students, sending of lecture notes to students via the Internet, simulation programmes and production of instructional materials are not utilized by the lecturers of this institution to enhance teaching, learning and research.



The findings above relates to those of Ogunrewo and Odusina (2010), Safahie and Asemi (2008), who in their separate works reveal that most of the academic staff use their personal computers for typing and surfing of information on the Internet for research and other academic materials; and that most academic staff do not yet possess a good level of computer literacy skills and so are incapacitated in the use of computers to perform complex activities such as a power point presentation, simulation, etc. This further conforms with the researcher's view that lack of commitment from the concerned authorities in the full implementation of ICT programmes in the institutions of learning is no doubts the reason behind the slow space in the full incorporation and utilization of this technology to enhance teaching and learning.

### **Problems militating against the utilization of computer by lecturers.**

Despite the fact that computer has been found to be more crucial in information sourcing, retrieval and dissemination, some problems are discovered from the study to be militating against the effective utilization of the technology among lecturers. The findings revealed inadequate funds, inadequate power supply, lack of government sponsorship, time constraint, irregular organization of IT programmes, inadequate Internet cafes, too much workload for academic staff and inadequate computer training centers as some of the problems hindering the effective utilization of computer by the lecturers. These results relates to the findings of Ezeji and Mole (2010) who discovered that, irregular power supply, high cost of computers, time constraint due to pressure from school academic work among others are some of the problems militating against the use of computers. In line with the above, Achibong et al (2010), and Nworgu (2006) in their separate findings maintain that fund-related challenge is one major factor militating against the effective utilization of computer by academic staff. Also, in their separate views supporting the findings above, Olorundare (2006) and Nwidum (2000) discover inadequate power supply among factors militating against effective acquisition of computer.

From the researcher's view, it was noted that lecturers of UNIJOS are still faced with a lot of militating factors in their desire to acquire the computer literacy skills that can lead to effective utilization of computer for enhance productivity. This could be as a result of economic factors.

From the findings above, it is evident that the lecturers of university of are yet to fully integrate the computer in carrying out their academic activities

### **RECOMMENDATIONS**

Based on the findings of this study, the following recommendations are made to improve on the situation.

1. The lecturers should put in more efforts towards acquiring adequate computer literacy skills to enhance their academic activities.
2. Government should show more commitment to the development of an ICT based in the country by making available ICT grants to our universities and staff on annual basis.

3. The universities should also meet the computer training needs of the staff through sponsorship for workshops, seminars, conferences, orientations; and attendance should be made compulsory for all the staff.
4. Government should support and provide more stable power supply and university authorities to supplement this power supply by providing stand-by generating sets to all departments in the universities.

## CONCLUSION

Computer technology in schools is one of the most far reaching and fast growing developments in education. It has brought a lot of innovations and revolutions into teaching and learning. This study on utilization of computer for academic work among academic staff of UNIJOS confirmed this.

From the aforementioned, it has become imperative that a holistic approach must be taken if the potentials of the computer must be fully utilized particularly within the educational parlance.

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