

The Competences of Information and Communication Technology Users among Students of Delta State Polytechnic, Ogwashi-Uku, Nigeria

***Aniogbolu, A. C.**

****Nwabudike A. A.**

*The Library, Delta State Polytechnic
Ogwashi-uku, Delta State, Nigeria*

***E-mail:** *aniogboluchukwudi@yahoo.com*

****E-mail:** *Austinong2002@yahoo.com*

ABSTRACT

This study examined primarily the competences in the usage of ICT infrastructure in academic institutions with particular focus on the students of the Delta State Polytechnic, Ogwashi-Uku. A total of 250 students were randomly surveyed using a structured questionnaire. Data obtained were analyzed using simple percentage and frequency counts. The study revealed that students lack the needed skills for the use of information systems and calls for an intensive training for student on information systems in order to ensure the proper utilization of information and communication technology facilities in academic institutions in Nigeria.

Keywords: *Information, Information and Communication Technologies, Skills, Utilization, competences.*

INTRODUCTION

The e-library provides both staff and students access to the intranet and internet on a daily basis. Technical education in the Nigerian Polytechnics lead to the acquisition of practical and applied skills as well as basic scientific knowledge in various subject areas. The National Policy on Education (FGN, 2004) notes that there are five types of technical education outside university system, these include: Prevocational, Vocational School at Post Primary level, Technical Colleges, Polytechnics and Colleges of Technical Education at post secondary schools. Technical education is an academic programme that prepares students for jobs involving applied sciences. It is aimed at preparing graduates for occupation that are classified above the skilled crafts but below the scientific profession.

Therefore, there is need for educational innovation as a good philosophical reason for seeking innovation in education to improve knowledge, skill and attitude of students. Such innovations in the educational sector are in the use of ICT in teaching and learning process. The Delta State Polytechnic, Ogwashi-Uku was established in 2003 with the primary objective of producing middle level technical man-power and training students in various professional skills. The polytechnic has five schools and ten departments. In addition, the Centre for Part-time Studies provides regular Part-time and Part-time training of students in information and communication technologies in order to accommodate other members of the society. The Delta State Polytechnic, Ogwashi-Uku as an academic system

has department of Computer Science, a unit of Computer Literacy Centre as well as an electronic library. These three Centres have ICT Packages that are relevant to the various needs of the Polytechnic Community. Hence, this study which draws its participants from the students of this polytechnic is set to examine the competences of information and communication technology users among the students. Studies in information and communication technologies revealed that it is the bedrock for the development of the information service sector. It is a generic term that encompasses human resource, information super highway, (Information Technology) Government support Libraries, Archives, Museums, Information Centres, Data Centres, book publishing firms as well as legal framework and is a pre-requisite for a developing country's success. The benefit of information infrastructure goes beyond general and academic considerations; it provides income in addition to providing access to information globally, education through ICT, access to radio programmes, learning, video conferencing and others. According to Ololube (2006) the academic scenario in tertiary institutions include teaching and learning process in the educational programmes and courses; the methodology of teaching; research process; libraries and information services. Thus the importance of ICT use becomes obvious.

Adeogun (2003) notes that the availability of full internet access in each Nigerian University library facilitates on-line access to the world of information. On the part of Davies (1997) he listed some of the benefits of ICT to include accessibility to learning opportunities and resources; economical delivery of instruction; enhanced instructional models as well as promote an improved learning. As the capability to gather access and distribute information grows with the demand on daily basis so also sophisticated information processing keep on emerging even faster than human imagination. This later led to the fusion of computer machine with communicating equipment. The advances in technological equipment dictate the dynamic nature of all the societal needs. The calculating machines of the old days have become an important infrastructure in digital communication so information creation and conservation is the only panacea to national development. In the light of the foregoing, the Nigerian nation needs to step up efforts to implement the Nigerian National Policy for Information Technology, which has been formulated for the country. The high sounding vision and mission statements in the Policy are as follows: To make Nigeria IT capable country in Africa and a key player in the information society by the year 2005, using IT as the engine for sustainable development and global competitiveness... And to use IT for education, creation of wealth, poverty eradication, job creation and global competitiveness. Thus, Marmeren (1996) identifies the relevant goals achievable to include:

- (i) Facilitating administrative processes by implementing financial information system and office automation systems.
- (ii) Improving communication by using advanced communication facilities, network and electronic mail facilities.
- (iii) Providing improved services to customers especially better information and faster responses to enquiries.
- (iv) Reducing cost by automating routine task and other repetitive jobs.
- (v) Improving flexibility and responsiveness to change of business processes.

Benefits of Library Automation

The use of computer is applicable to almost all operations in library services and its application has brought maximum efficiency to services of libraries through increased reductions of mistakes, increase in convenience, adequate statistical data keeping and controlling of literature, easy exchange of documentation and a host of others are the gains in automation. Oketunji (1998) posits that automation has now become a reality which nobody can neglect if he wants to follow and benefit from the recent trend in information technology in order to provide more efficient and effective services to his users. The problems of record keeping has been reduced as a result of ICT support services, like Network programming, hardware, software items like CD, CD ROM, Diskette, Flash Disk that can serve as good storage facilities for longer periods and records can be reproduced from them at will.

Ifidon (2004) notes that the most important advantage of automation is the processing speed, therefore the bibliographic checking, ordering, receipt, cataloguing and circulation operations are performed much more quickly. This makes readers requests to be serviced in good time as a result of speed that is associated with the computer errors are easily detected as such accuracy of records are significantly improved. Adeniran (1998) states that information technology provides numerous benefits and advantages that justify its application in African libraries which includes; provision of round-the-clock access; provision of access to unlimited information from different sources including international data bases; provision of flexibility to be used by any individual according to his or her requirement; facilitation of reformatting and combining of data from different sources; encourages possibilities for co-operation; encourage resource sharing; encourages improved productivity, promotes efficient and effective delivery of services; produces up-to-date information, generation and dissemination of better management reports.

Challenges of ICT (Library Automation)

On the problems of library automation, Ifidon (2004) stated that although electronic technologies and their components are available and accessible, nevertheless there are the following obstacles to usage, lack of skills in using IT, electric power failure, frequent breakdowns, restriction of use, high initial capital required, misuse for personal/unofficial work, theft, improper handling and care, high cost of maintenance, cost of staff training, lack of appropriate software, fear of staff being replaced by computers as well as lack of hardware. Chisenga (2000) in a study of global information infrastructure and the question of African content cites some problems of information infrastructure to include; low level of computerization in most countries; scarcity of computers, lack of proper guidelines on the use of computer facilities; limited training and lack of skilled manpower; lack of mechanisms to improve collaboration in areas of electronic networking; vandalism of network infrastructure; high import duties on computer and communication equipment, high price of internet services in some countries as well as lack of internet bandwidth. Zaid (2004) identified some of the challenges encountered in the library in achieving full application of information technology to include; inadequate finance; shortage of manpower; lack of skill

by some professional librarian. Occasional system failure; staff attitude towards information technology application; power outage; inadequate training, political instability; problem of social and cultural belief; poor support from vendors and lack of automation policies. Others include: influence of moral and overall psychological development of the students; logging on to websites dedicated to pornography, homosexual and bad social behaviours; time consumption and wastage on watching programmes, films and worthless video CDs and teaching student games of "art to kill among others. In addition, poor maintainace culture is also a serious challenge steering the ICT industry in the face.

METHOD

This study adopted the survey research design. A well structured questionnaire entitled Information Infrastructure Usage Questionnaire (IIUQ) was administered on the selected students of Delta State Polytechnic, Ogwashi-Uku to collect data for the study. The institution has ten departments. In each of the ten departments of the institution, 25 students were randomly sampled. This gave a total sample size of 250 participants. In all, 250 copies of the questionnaire were administered which sought information on the reasons for ICT usage, extent of use, pre-level of use, level of competence of users and the problems of ICT usage. The population for the study consisted of all ND I students in Delta State Polytechnic, Ogwashi-Uku. The data collected were analysed using frequency count and simple percentage.

RESULTS AND DISCUSSION

Table one shows the responses of the respondents on the purpose of using the ICT infrastructures. Majority of the respondents attest that they use information and communication technologies for academic purposes, others are of the view that they use ICT for personal purpose such as e-mail etc., while 18% of the respondents use ICT for the fun of it. On table two, it is clear that various ICT facilities exist. The entire respondents are of the view that telephones dominated the available information infrastructure, while significant others claimed that computers and tape recorders also constitute the information infrastructure available at the Polytechnic respectively. Others include printers and CD-ROMs. On table three, it is obvious that internet facilities exist for students' use but the students do not possess the needed skills to adequately manipulate it.

A small proportion of the respondents attest that they access the internet themselves. A significant proportion of the respondents claimed that others do it for them while some say that they are assisted to use it. Table four dealt on the frequency of information and communication technology usage among Polytechnic students. The table shows that while some students use the available information infrastructure daily others use them twice a week, once a week, once a month, twice a month respectively. The implication is that there is no effective usage of these infrastructure. Table five is on the challenges associated with the usage of ICT. From the table, it is crystal clear that various challenges are associated

with the usage of ICT infrastructure. Majority of the sampled respondents attest that lack of competence in the use of information infrastructure is the militating factor against ICT infrastructure usage large user's population. Power outage and lack of adequate ICT facilities also constitute problems of ICT facilities usage.

Table one: Reason for using information and communication technologies)

Options	Response	Percentage (%)
Research (Academic)	150	60%
Personal (mail)	55	22%
Games (Fun)	45	18%
Total	250	100

Source: Survey, 2011

Table two: Availability of ICT facilities

Options	Responses	Percentage (%)
Computers	190	76
Telephone	250	100
C D - ROMs	20	8
Printers	110	44
Tape recorder	190	76

Source: Survey, 2011

Table three: Internet usage by students

Options	Responses	Percentage (%)
Internet		
I do it for myself	20	6
Others do it for me	140	56
I am assisted to do it	90	36
CD-ROM	-	-
Total	250	100

Source: Survey, 2011

Table four: Frequency of ICT usage

Options	Responses	Percentage (%)
Daily	74	29.6
Once a week	10	4
Twice a week	120	48
Once a month	5	2
Twice a month	21	8.4
Occasionally	20	8
Total	252	100

Source: Survey, 2011

Table five: Challenges of ICT.

Options	Responses	Percentage (%)
Lack of awareness	-	-
Lack of access to information infrastructure		
Lack of adequate information infrastructure	120	48
Lack of competence in the use of information infrastructure	220	88
Lack of interest	-	-
Large users population	180	72
Power outage	180	72

Source: Survey, 2011

CONCLUSION

The finding of this study revealed that students are fully aware of the existing and available ICT facilities and that they use the available information infrastructure mainly for research (academic work). Telephone constituted the bulk of the available ICT facilities at the Polytechnic and that they frequently use the available ICT infrastructure. The finding further showed that although they appreciate the importance of these infrastructures, various problem militate against their usage, these include lack of competence on the part of the students, large users population, power outage as well as lack of adequate ICT facilities. In the light of these, it is therefore recommended that a more intensive training be given to students especially ND students to equip them with all the necessary and required skills needed for the use of information system, and they should be exposed to the practical computer training at all times.

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