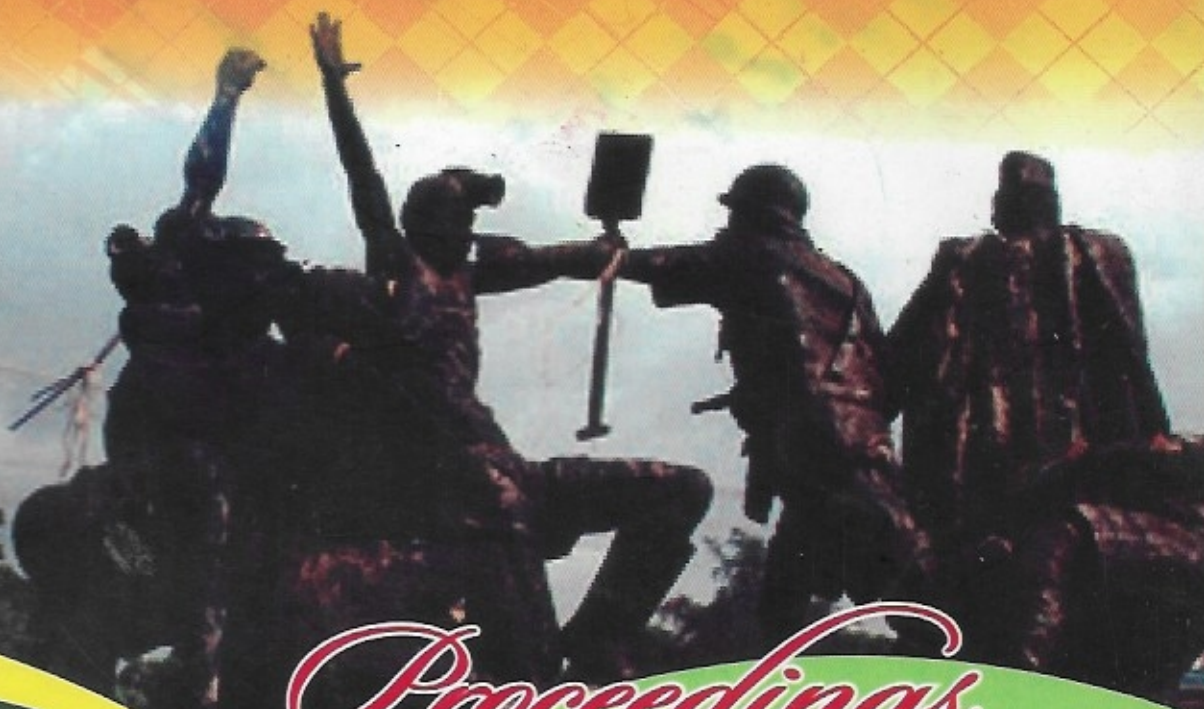


NATIONAL LIBRARY ASSOCIATION,  
ENUGU STATE CHAPTER



# *Proceedings* *of the*

# **13<sup>th</sup> ANNUAL CONFERENCE AND GENERAL MEETING**

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# Effective Utilization of Modern Communication Technology-Assisted Instructions for Teaching Library Education in Public Colleges of Education in South East, Nigeria

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## Abstract

The study was carried out to determine strategies for effective utilization of modern communication technology-assisted instructions in teaching library education in public colleges of education in South-East for achievement of quality instruction and quality output in E-librarianship. Five research questions and one null hypothesis guided the study. The research adopted a descriptive survey design. Seven public owned colleges of education in South-East, Nigeria constituted the population which comprises, three federal and four state colleges. Library academic staff in these Colleges is 48. Through a stratified random sampling, one federal and one state own colleges were selected as the sample for the study. Thereafter, 14 academic staff representing 29% of the population was selected. A structured questionnaire was used to obtain the opinions of library academic staff in the colleges. The findings show that library educators utilize modern technology-assisted instructions for personal research and academic enhancement, but little was practiced in classroom teaching-learning due to inadequate equipments. This hampers students' manipulative skills in accessing E-learning (librarianship) and audio-visual literacy. Recommendations were made for adequate funding by government to help achieve instructional objectives in teaching and learning library education.

*Keywords: Modern communication technologies, Library, Education, teachers, instructions, teaching-learning and academic staff.*

## Introduction

Colleges of Education are recognized as part of tertiary institutions in Nigeria that offer courses in education for post-secondary graduate students, (National Policy on Education (NPE) revised, 2004). With the world's global era and the growing trend of modern communication technologies being a tool for educational reform, therefore, the Nigeria government formulated and launched a modern communication technologies policy in 1987. The policy was titled: "The National Policy on Computer Literacy and Education" with a major aim of equipping Nigerians at various levels of education with the preliminary modern technologies tools (Osuala, 2001). According to UNESCO cited, in Babalola (2011), teachers and teachers educators are central importance in tapping the potentials offered by modern technology to enhance the quality of education. This has led to the application of modern technology-assisted instructions to examine their effectiveness in teaching and learning use of library education as a veritable tool that will create infinite possibilities to reposition or re-orient reading culture, values, e-learning, etc among our youths in education system for empowering of Nigerian society at large through tertiary institutions with particular reference to public colleges of educations in South East.

Communication is the transfer of information, ideas, feelings, emotions and messages from one person to another or to a group. Communication is one very important human activity on which all actions with one another depends. Without communication therefore, the components of educational technology will not work. Without communication, there cannot be teaching and learning, all the activities in which we share our experiences, feelings or knowledge will not take place. Without communication the teacher may not teach use of library and the learner may not learn. For library education therefore, to be effective in classroom instructions, teachers must understand the communication process in teaching and learning.

According to Osuala (2004), technology is the application of scientific principles in research, design, development, production, distribution or service. It is often used to denote a segment of the applied science i.e electronic technology.



Modern communication technologies are the new technological inventions by scientists to enhance communication. It involves all the sophisticated machines and equipment invented for easy gathering, processing and transmission of information across the globe and for easy communication among people (Nwajinka, 2004). The modern communication technology-assisted instructions are teaching aids which teachers in public colleges of education use to impact knowledge, ideas, skills, and attitudes in students to enable them develop values, manipulative skills needed for educational achievements and technological transformation. In public colleges of education, modern technology-assisted instructions' components include: Computers, Audio Media Resources, Secondary Storage Devices, Internet Resources, and Projectors.

Computers, one of the modern communication technology-assisted instructions encompasses; administration and guidance, object of instruction and vehicle for instructions. (Bakpo, 2005). However, since the 1960's there has been steady increase in the awareness that computers can be used to enhance the overall library effectiveness. This trend was largely due to widespread availability of computers and production of conveniently cheap models. At the same time librarians have realized the advantages of using computers in libraries. These advantages include: speed, improved performance, permanent storage of information, dependability, retrospective conversion and creation of new services, (Edoka, 2000).

Eze (2009) defines audio media as anything concerned with the recording, broadcasting, or replay of sound which we can hear. This help to aid communication during teaching in classroom. The use of audio media for formal educational is also becoming popular in most African countries, where they have been found useful at all levels of education. It is the assisted instructions media that make use of one-sense organ, which is the organ for hearing (the ear). Library educators valued the principles of utilizing them in teaching-learning process. Audio resources are; radio, microphone/public address system, tape recorders etc. (Onyia, 2012).

According to IT Cymbals Training Manuals (2010), secondary storage device is a piece of hardware that is used to store data or programs that must be preserved if the computers main memory fails or is shut down (power off). This means that secondary storage devices must be able to retain data for some period of time even if there is no electrical power to the device. It helps library teachers in public colleges of education to enhance teaching and learning through storage and retriever of downloaded and processed data (library instructional materials) from the computer. Secondary storage device comes in two forms; disk drives and USB flash drives. Disk drive has two components- optical drives (CD/DVD ROMs) and magnetic disk drives (hard disk, floppy disk, zip drives). CD and DVD drives allow library teachers to access the data stored on CDs (Compact Disks) and DVDs (Digital Versatile Disks) with the computer. They store data as physical features (called pits and lands) on the surface of a slim plastic disk with its storage capacity. A CD can typically hold between 600 and 700 megabytes of data, whereas a DVD can hold 4 gigabytes to 8 + gigabytes of data (depending on the type of DVD disk). Hard disk drive stores data on a stack rotating magnetized platters with very high capacity, hundreds of gigabytes of storages. The same is applicable to USB flash drive, (Rajaraman, 2011).

The Internet is another important ICT facility that facilitates teaching and learning in Nigeria colleges of education. According to Edoka (2000), Internet originated in the United State Department of Defence in the 1960s as an experiment to help scientists and researchers from widely dispersed areas work together by sharing scarce computers, databases. At present, the internet connectivity is the highest level of computer-based information network. The Internet makes it possible for teachers, students and others to have access to current scientific knowledge, principles, theories, discoveries and practices in library management scarce resources such as textbooks, journals; magazines could be shared on Internet and On-line Public Access Catalogue (OPAC) among institutions when libraries of such instructions are interconnected. Library teachers, with the aid of internets provide opportunities for frequent success, as well as an environment in which students receive personal attention, and assignments. Using resources from internet students are better informed and teachers are more accessible to students. (Mba and Onwuzo, 2009).

Projectors are educational technologies for teaching library education in public colleges of education. Eze (2009), describes Projectors as devices that throw either motion picture images or still slide images onto a screen. The projectuals, which are the materials, is the software while the projector which is the equipment is the hardware. Projectors are media that can be used with electricity to project materials



onto board like film projector using film strips for teaching, slide projector using the slide for teaching and overhead projector making use of a sheet, wider than the slide and film strips. Projectors can be useful to library teachers in facilitating audio-visual projectiles onto board material to aid teaching and learning of library resources towards students. Examples of projectors are: Still projectors, Opaque projectors, etc. Onyia (2012),

### Statement of the Problem

Education in Nigeria at all level has generally been influenced positively by the use of Modern Communication Technologies. Initially, public colleges of education were equipped with little manual communication devices for teaching and learning in the classroom, seminar presentations, field work, etc such as typewriter, chalkboard, manuals, etc.

However, it is observed that this method of communication among library teachers towards the students have hampered the sustainable growth in electronic library access, management and development. And, students develop little or no interest in library. Therefore, effective utilization of modern technology-assisted instructions like: projector, Internet, computer, audio media, storage device for teaching use of library education in public colleges of education will enable the students to trained and develop practical skills in education for manipulation of technology, good library user-skills, sound basis for e-library, etc. Also, would facilitate library infinites opportunities for youth empowerment and increase their interest toward librarianship.

### Objectives of the Study

The purpose of the study is to:

- (i) Determine the extent of computer competencies and utilization among library academic staff in Public Colleges of Education South-East.
- (ii) Determine the extent of utilizing Internet Resources among library academic staff in Public Colleges of Education in South-East.
- (iii) Determine extent of utilizing Secondary Storage Devices for instructional purposes among library academic staff in public colleges of Education in South-East.
- (iv) Determine extent of using Audio Media Resources to teach in classroom among library academic staff in Public Colleges of Education in South-East.
- (v) Determine extent of using Projector Equipments for audio-visual Projections in classroom instructions among library academic staff in Public Colleges of Education in South-East.

### Hypotheses

- (i) The utilization of modern communication technology-assisted instructions among library academic staff in the Federal and State Colleges of Education does not significantly differ.

### Methodology

This study adopted a descriptive survey research design. Seven (7) public own colleges of education South-East, Nigeria constituted the population for the study. Of this figure, 3 were owned by the Federal government, while the remaining 4 were owned by the state governments. A total of 48 library academic staff existed in these Colleges. The Colleges were first stratified according to ownership and through simple random sampling; one Federal and one state Colleges were selected as the sample for the study with the size of 14 academic staff representing 29% of the population. Structured questionnaire known as *Effective Utilization of Modern Communication Technology-Assisted instructions (EUCTI)* was designed and used for data collection. The instrument was validated by experts in education and Library Science, University of Nigeria, and Enugu State College of education (Technical). 6 academic staff in one College of Education in South-south, Nigeria was administered this instrument on two different intervals. Correlating these responses, using Cronbach Alpha reliability test, reliability co-efficient of 0.76 was established which gave reasons for it acceptance. The instrument was personally administered by the researchers and all were returned. 10 points likert items which established a criterion mean of 2.50 was adopted and serves as basis for acceptance or rejection. A t-test statistic was used to test the research hypothesis at 0.05 level of significance.



**Result/Findings**

**Research Question 1:** What are competencies possessed by library academic staff in utilizing computers during teaching in Public Colleges of Education in South-East, Nigeria?

**Table 1: Opinion of respondents**

S/N	Substantive Issues	X	SD	REMARKS
1	Library teachers have basic computer training but, not applied in classroom during teaching and learning.	4.36	0.497	Agreed
2	Teachers acquire current/advance computer training and attain Workshops, applied it effectively during teaching and learning process.	1.50	0.519	Disagreed
3	Library teachers use computers to store data of library resources for teaching and learning purposes.	4.64	0.497	Agreed

Table 1 show that the mean score for the competencies in utilizing computer in teaching Use of library education ranges from 1.50 and 4.64. Library academic staff agreed on items 1, 3, while in 2 they disagreed having no funds for PCs (laptop) advance computer training/workshops in teaching library.

**Research Question 2:** To what extent are audio media used teaching among library teachers in public colleges of education in South-East, Nigeria?

**Table 2: Opinion of respondents**

S/N	Substantive Issues	X	SD	REMARKS
4	College management installed audio media equipments in classrooms to aid teaching of library education.	3.93	0.267	Agreed
5	Library teachers utilize microphone/public address system during teaching in classroom.	4.29	0.726	Agreed

Table 2 reveals the range from 3.93 to 4.29 mean scores of 4 and 5 items showing that library teachers agreed that audio media resources are provided by management and utilized.

**Research Question 3:** To what extent are competencies is secondary storage devices use to aid instructions among library teachers in public colleges of education in South-East, Nigeria?

**Table 3: Opinion of respondents**

S/N	Substantive Issues	X	SD	REMARKS
6	Library teachers utilize secondary storage devices (hard disk, USB flash drives, CD/DVD ROMs, etc) to aid teaching and learning of library.	4.21	0.426	Agreed

Table 3 shows that in item 6, library academic staff agreed using secondary storage devices to aid teaching with mean score of 4.21.

**Research Question: 4** What is the extent of reliance on Internet resources for educational research among library academic staff in public colleges of education in South-East, Nigeria?

**Table 4: Opinion of respondents**

S/N	Substantive Issues	X	SD	REMARKS
7	Library academic staff have personal Modem devices	4.93	0.267	Agreed



	to connect Internet resources in their computers but, not funded by college management.			
8	Library teachers make extensive use of internet resources for research, on-line Public Access Catalogue (OPAC), e-mailing, etc as assisted instructions for teaching and learning purposes.	4.36	0.497	Agreed

Table 4 library academic staff agreed in items 7 and 8 with mean scores of 4.36 and 4.93 showing that they have access to Internet resources and utilize it for educational research without management funding.

**Research Question 5:** What are the competencies possessed by library academic staff in utilizing projectors to project audio-visual materials onto classroom board in public colleges of education in South-East, Nigeria?

**Table 5: Opinion of respondents**

S/N	SUBSTANTIVE ISSUES	X	SD	REMARKS
9	Library academic staff utilize projectors to project audio-visual resources onto board during teaching and learning library education.	1.71	0.469	Disagreed
10	College management installed projector equipments in lecture halls but not utilized in classrooms for teaching library education.	4.50	0.519	Agreed

Table 5 show that library academic staff disagreed in item 9 with mean score of 1.71. this implies that projectors are not utilized in teaching students. But agreed in item 10 with mean score of 4.50 that college management only provide projectors for workshops, conferences etc, but not for classroom teaching and learning of library education.

**Research Hypothesis:** The utilization of modern communication technology-assisted instructions among library academic staff in the Federal and State Colleges of Education does not significantly differ.

#### Hypothesis table

Variable	X	SD	N	T-Cal	T-Critical	Lev..	Remark
Federal	37.33	2.859	9	2.97	2.179	0.05	Significant
State	40.4	0.894	5				

Table 6 indicates that the t-calculated of 2.97 at 0.05 level of significance is greater than the t-critical of 2.179. Since the t-calculated is greater than the t-critical, the null hypothesis is rejected and alternative hypothesis accepted. Therefore, there is significant difference in the mean ratings of federal and state colleges of education in effective utilization of modern communication technology-assisted instructions in teaching and learning library education.

#### Discussion

Results reveal that library academic staffs in public colleges of education are passionate about modern communication technologies necessary for contemporary teaching and learning process. Evidently, they agreed that they have access to laptop computers with basic computer training for personal use, academic research etc. But, the paradigm shift from personal academic research and enhancement to classroom practicum is lacking due to inadequate of these equipments in classroom where teaching and learning take place. Due to knowledge explosion and competition, there is need for transformation in curriculum. This will provides preparatory education and then a job to serve a nation, (Achebe, 2012).

Result from table 2 shows that audio media are effectively used for instructions among library academic staff to facilitate teaching and learning. For example, in classroom teaching are mostly done by the use of public address system and/or microphone to aid speaking and listening. This help to aid communication during teaching in classroom, (Eze, 2009).

Results from table 3 also show that secondary storage devices are utilized among library educators to store information gotten from Internet research. Sometimes students are given assignments and ask to research for materials through internet. Nworgu (2006) opines that with aid of Internet resource and Online-library, library teachers can carry out research work, give student researchable assignments, search and review literature from time to time.

Table 4 results indicate that library educators possessed competencies in utilizing Internet resources aid research for educational purposes. Mba and Onwuzo (2009), opines that the Internet makes it possible for teachers, students and others to have access to current scientific knowledge, principles, theories, discoveries and practices in library management scarce resources such as textbooks, journals; magazines.

The result shown in table 5 implies that projectors are not installed in classrooms and utilized among library academic staff in teaching. However, they are, installed by management in halls, and conference centers for workshop trainings, seminars and other school programmes purposes. Projectors can be useful to library teachers in facilitating audio-visual projectiles onto board material to aid teaching and learning of library resources towards students, (Onyia, 2012).

Result from the hypothesis suggests that there is significant difference in mean scores of academic staff of federal and state colleges of education in South-East, Nigeria in educational technologies. The global impacts of these technological changes on higher education include transformation in quality instruction and output. (Babalola, 2010).

### **Conclusion**

Based on the findings made, the following conclusions were drawn:

That some of the modern communication technology-assisted instructions identified were utilized effectively in teaching library education among library academic staff in public colleges of education.

Library academic staff in public colleges of education agreed that they have basic manipulative skills of the educational technologies for personal academic research but, not all are applicable in classroom teaching and learning process due to inadequacy. Inadequate provision of educational technologies in classrooms affected the effective utilization of them, in teaching and learning library education. While those provided by management are used for conferences, seminars, workshops etc.

### **Implications**

The findings of this study have important implication for library teachers in public colleges of education, which includes:

The current library education curricular needs a review to incorporate and enforce the different modern communication technology-assisted instructions in teaching library education components.

Library teachers and librarians are facilitators, guide and co-learners and as such require frequent in-service training to equip themselves with the current knowledge of utilizing modern communication technology-assisted instructions in teaching library education. Also, educational technologies have the potential to drastically change the way students learn library education into acquisition and transfer of knowledge into practice and access the new way of e-librarianship which is a beneficial tool in aiding students to a higher level of achievement, because they are more engaged in their activities.

### **Recommendations**

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

- (1) Library teachers should be given adequate remunerations and encouraged to undergo effective workshop training in current modern technology-assisted instructions to enable them utilize these resources in practical teaching and learning process.
- (2) The Federal and State Ministries of Education should support the authorities of these colleges through funding to upgrade, equip and maintain the needed modern communication technology-assisted instructions for teaching of library education as well as other courses in the colleges. Restructure the philosophy of teaching as education technologies are currently reshaping the world at an astounding speed.



- (3) Personal modern communication technology-assisted instructions such as: computers, projector/projectual boards, adequate access to internet resources, public address system, and secondary storage devices should be given to library and other teachers and/or installed in classrooms of the colleges.

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