

EVALUATION OF RESOURCE AVAILABILITY, STAFFING, SERVICE DELIVERY AND INSTITUTIONAL RELEVANCE OF SOME SPECIALISED EDUCATIONAL MEDIA AND COMMUNICATION CENTRES (EMCCS) IN SOUTH-WESTERN, NIGERIA

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Abstract

Teaching and learning processes depend so much on both human and materials resources which are key factors in information sharing and knowledge dissemination. Some Educational Media and Communication Centres (EMCCs) in Nigeria were established to provide specific educational support services to their patrons especially in specialized institutions, but there seems not to be any evaluation reports on such centres. Therefore, this study reported on specialised EMCCs covering medical education, health sciences, agricultural and business education. The study adopted accreditation / certification approach to evaluate six purposively selected specialised Educational Media and Communication Centres (EMCCs) in South-Western, Nigeria. Data gathered were analysed using quantitative method and findings revealed that majority of the specialised EMCCs are well equipped, serviceable, highly productive and institutionally relevant to the overall mandate of the establishment they presently serve. However, the EMCCs need restructuring, infrastructural upgrading, and human capacity development through staff training and re-training in modern and technology-driven media resources management as well as periodic evaluation.

Key Words: Educational media and communication centres, Media Management, Evaluation, Specialised Media services, Manpower training.

Introduction

Educational Technology has become a meeting point for experts and enthusiasts from various backgrounds and fields by creating opportunities for collaborations, co-operation, coordination and management of educational media, materials and resources; for greater attainment in teaching and learning at all level of the Nigeria school system. This attests to Balogun (1988) submission cited in Otunla (2012) which stated that from the inception the field of educational technology has brought together practitioners in various fields such as education, journalism, media studies, mass communication, agriculture, health, information, social welfare, broadcasting, e.t.c. Educational planners in Nigeria have seen the need for integration of educational media and technologies in our educational system. Thus, the inclusion of educational support services in the National Policy on Education (NPE) as published by the Federal Republic of Nigeria in 1977, 1981, 1998, 2004, 2009 and the most recent in 2013 (being the sixth edition). The following goals of educational support services were highlighted under section 8 sub-sections 125-126. It states as follows:

'Educational Support Services shall facilitate the implementation of educational policy, the attainment of policy goals and the promotion of effectiveness of educational system'

According to the policy; the goals of educational support services shall be to:

- a. Develop, assess and improve educational programmes;
- b. enhance teaching and improve the competence of teachers;
- c. provide conducive environment for learning;
- d. make learning experiences more meaningful and realistic for children;
- e. make education more cost-effective;
- f. promote in-service education;
- g. enhance access to learning and
- h. develop and promote effective use of innovative materials in schools;
- i. promote partnership with Non-Governmental Organisations (NGOs) and International Development Partners (IDPs) to access resources (FGN, 2013; 70)

The policy document further states that to achieve these goals

Educational Resource Centres (ERC) shall be established, to the extent that the following facilities shall be provided:

- a.** Each State/FCT and local government authority shall establish Teachers' Resource Centres where teachers will meet for discussion, investigations, study workshop, short courses and conferences. These centres shall also be used for the development and testing of teaching materials.
- b.** Federal and State/FCT governments shall establish Educational Resource Centres whose activities shall be multi-disciplinary. Their functions shall include:
 - The enhancement of the study of language;
 - Curriculum adaptation;
 - Measurement and Evaluation;
 - Capacity Building for Teachers;
 - Guidance and Counseling; and
 - Provide for the need of special education and serve as centre of educational innovation (FRN, 2013:72-73).

The terms 'Educational Resources Centre' and 'Learning Resource Centre' are used interchangeable in the context of education and learning. Similar nomenclatures are Media Resource Centre (MRC), Centre for Educational Technology (CET), Information and Communication Centre (ICC) and Educational Technology Centre (ETC) among several others. For the purposes of this paper, the term 'Educational media and communication centre (EMCCs) has been adopted as a generic term that covers all the various types of educational support facilities in Nigeria. Otunla (2005) define educational resources as; people, materials and facilities that can be used to encourage, promote and facilitate teaching and learning activities. Otunla (2005) further define learning resources as; data, people and things which may be used by learners in isolation or in conjunction, usually in a formal or an informal manner to facilitate learning. Learning resources may include a combination of any and all of these; message, people, materials, devices, techniques and settings. According to Abimbade (2006) Educational Resource Centre (ERC) is a setting (space) where educational resources such as materials, tools and equipment can be designed, developed, utilized, borrowed and

stored. Efforts have been made in the past by successive government at both federal and state levels to implementation the relevant sections of the National Policy on Education as regards establishment of EMCCs.

There are varied reports largely on provision of educational resources among tertiary institutions in Nigeria such as; lecture rooms, laboratories, libraries, workshops, studios and provisions of other physical facilities all which are key determinants of quality assurance in any educational organisation. Jaiyeoba and Atanda (2008) posited that provision and effective use of adequate educational resources are key indicators of quality education in schools. To this end, relevant government departments, ministries and agencies as well as educational institutions especially, universities have set-up or established EMCCs for various reasons, ranging from teaching support to income-generation. More, recently, the federal government public-private-partnership initiatives have resulted in the establishment of resources centres; such as Chief Bola Ige Information Technology Centre (BIITC), Abuja which was launched in 1998 with the goal to; strengthen African education systems, provide access to education and technology, promote greater citizen involvement in governance and facilitate Africa's integration into the world community of free market democracies (Total Service Solutions, 2004).

Ideally, establishment of EMCCs through provision of required facilities and human capacity should be geared towards ensuring providing teaching and research support to the institutions they serve. EMCCs are also established to serve the purposes of training and re-training of teachers, lecturers and instructors at all levels of education for professional preparation and development as prescribed in the national policy on education document. Further, the establishment, sustenance and maintenance of specialized EMCCs is one of the accreditation requirements that must be fulfilled by both existing and newly established institutions to keep in line with national and international best practices. Therefore, medical schools, colleges of health sciences and other specialised institutions in Nigeria that are seeking accreditation or re- accreditation under designated regulatory bodies such as the National Universities Commission (NUC) and Medical and Dental Council of Nigeria (MDCN). Hitherto, institutions seeking accreditation are required to fulfil a singular and all important condition of establishing a specialised educational media and communication

service support facility, unit or centre (NUC, 1989; MDCN, 2006).

To this end, Stufflebeam (2001) noted that such educational institutions and other service organisations are subjected to periodic evaluation by regulatory bodies. Typically, the feedback reports should identify areas for review, reform or improvement. Stufflebeam (2001) further recommends that all area of profession that renders services that are required to be delivered by highly trained specialist in accordance with standards of good practices, should be subjected to evaluation and accreditation reviews. According to the author such evaluation is required for the maintenance of standards in the public interest and to monitor them to keep phase with the goals and aspirations of the organisation they serve. In Nigeria, specialized EMCCs that are established to serve specialized areas of human learning such as in the field of medicine, agriculture, health, education, business e.t.c. Recently, Otunla (2014) reported exclusively, on the establishment of educational media and resource centres, audio-visual units and media resource departments located at various tertiary institutions and inter-university centres in Nigeria. A comprehensive list of such specialised EMCCs located in medical and health institutions, faculties, colleges, institutes and other centres in Nigeria is presented in table 1.

Table 1: Some Specialised Educational Media and Communication Centres (EMCCs) in Nigeria

S/N	Specialized Educational Resource Centre / Department/ Unit	Institutional Affiliate / Location	Yr. of Estab.
1	Biomedical Communications Centre (BCC) - Formerly Medical Illustration unit	College of Medicine, University of Ibadan, Ibadan, Oyo State.	1957
2	Biomedical Communications Dept. - Formerly Medical Illustration unit	College of Medicine, University of Lagos Idi Araba, Lagos.	1962
3	Audiovisual Unit	Federal Institute for Industrial Research, Oshodi Lagos State	1972
4	Medical Illustration / Audiovisual Services Unit	College of Health Sciences, Obafemi Awolowo University, Ile-Ife (formerly, University of Ife)	1973

5	Biomedical Communications Dept. - Formerly Medical Illustration unit	University of Benin, Benin City	1973
6	Medical Illustration unit	National Orthopedic Hospital, Igbobi, Yaba-Lagos	1973
7	Medical Illustration / Audiovisual Unit	Faculty of Medicine, Ahmadu Bello University, Zaria, Kaduna State.	NA
8	Medical Illustration unit	Faculty of Medicine, Bayero University Kano, Kano State	1976
9	Medical Illustration unit	National Orthopedic Hospital, Kano	NA
10	Medical Instructional Technology Unit (MITU)	Faculty of Medical Sciences, University of Jos	1978
11	Audiovisual and Graphics Unit	National Institute for Medical Research, Yaba-Lagos	1979
12	Graphic Illustration Unit	Nigeria Institute for Oceanography and Marine Research, Victoria Island Lagos	1980
13	Agricultural Media Resources & Extension Centre (ARMREC)	Federal University of Agriculture, Abeokuta, Ogun State	1991
14	Medical Illustration unit	Faculty of Health Sciences, University of Ilorin, Ilorin, Kwara State.	NA
15	Biomedical Communications Dept.	General Hospital Lagos	1999
16	Biomedical Communications unit,	Medical Library, National Postgraduate Medical College of Nigeria, Ijanikin-Lagos	2000
17	Biomedical Communications Centre,	College of Medicine, Lagos State University, Ikeja- Lagos.	2000
18	Biomedical Communications Department	College of Health Sciences, Delta State University, Abraka	2005.
19	Medical Illustration unit	College of Health Sciences, Choba, University of Port Harcourt, Port Harcourt, Rivers State.	NA
20	Audiovisual Services & TV Production Unit	Agricultural and Rural Management Training Institute,	

		Ajase-Ipo Rd Ilorin	
21	Biomedical Engineering / Communication Division	College of Health Sciences, LadokeAkintola University of Technology, Ogbomosho, Oyo State &Oshogbo, Osun State	NA
22	Biomedical Communications Department	ObafemiAwolowo College of Health Sciences, Sagamu, OlabisiOnabanjo University, Ago Iwoye, Ogun State.	NA
23	Training Materials Unit	International Institute for Tropical Agriculture, Idi-Ose Ibadan, Oyo State.	NA
24	Medical Illustration unit	College of Medicine, University of Nigeria, Enugu Campus, Enugu State	NA
25	Medical Illustration unit	College of Health Sciences, University of Calabar, Cross River State.	NA
26	Audiovisual Services	Centre for Management Development, Sangisha-Lagos, Lagos State.	NA
27	Medical Illustration unit	College of Health Sciences, Usman Dan Fodiyo University Sokoto, Sokoto State.	NA
28	Medical Illustration unit	College of Medicine, Ambrose Alli University Ekpoma, Edo State.	NA
29	Medical Illustration unit	Faculty of Medicine, Ahmadu Bello University, Zaria, Kaduna State.	NA
30	Medical Illustration unit	College of Medical Sciences, University of Maiduguri, Maiduguri, Borno State.	NA
31	Chief Bola Ige Information Technology Center (BIITC)	National Center for Women Development, Central Business District, Abuja, FCT.	1998
32	South West Resource Centre	KudiratAbiola Complex, OkeMosan, Abeokuta,Ogun State.	NA
33	South-South Community Resource Center	Women Development CenterEkpoArchibong Street,	NA

34	South-East Community Resource Center	Madam Extension, Calabar, Upper Presidential Layout, Beside State Primary Education Board, Independent Layout Enugu, Enugu State	NA
35	North-East - Professor IyaAbubakar Community Resource	State Library Complex, Abdulkadir Ahmed Rd. G.R.A. Bauchi, Bauchi State	NA
36	North-West - Kaduna Community Resource	Women Multipurpose Center, 9, Bank Road off Ahmadu Bello Way, Kaduna, Kaduna State.	NA

Sources: Otunla, (2005); Otunla, (2008)

Establishment of Specialised Educational Media and Communication Centres (EMCCs) and Need for Manpower Training

Otunla(2012) reported that two pioneer specialised educational media and communication centres were inaugurated as medical illustration units which formed part of the medical schools established by the Nigeria government in Ibadan (1957) and Lagos (1962) respectively. The medical illustration units at Ibadan started off production of media and communication resources as teaching-support services with British expatriates and some Nigerians later joined as technicians and trainees. Specifically, the medical illustration unit at the University of Lagos Medical School commenced operation with the appointment of some Nigerian who were later trained abroad. Subsequently, other categories of staff that are mostly ad-hoc staff from relevant units in the two institutions were re-trained through master-apprentice approach to fit into various required service areas of the centres. Within the first seven decades of the existence of these pioneer specialised EMCCs in Nigeria, many other specialised media and communication centres had emerged to meet various teaching and research needs of their patrons. This researcher observed that full-fledge academic training programmes is almost non-existing for preparing potential practitioners for the world-of-work in specialised areas of medical illustration, bio-medical communication, medical informatics, health communications and other related areas in Nigerian Universities.

However, there are existing academic programmes at the undergraduate and post- graduate levels that could prepare graduates who eventually may need some professional training and academic

preparation in medical media and health communication to qualify as experts in the specialised centres. Otunla (2014) highlighted some degree programmes that are somehow applicable and adaptable to the meet the manpower training needs of specialised EMCCs in Nigeria for the effective management and operations of the centres. Some of the educational technology programmes are offered at both undergraduate and postgraduate degree levels in the following Nigeria universities, University of Ibadan, University of Ilorin, Ahmadu Bello University, Zaria, University of Nigeria, Nsukka, University of Lagos, Obafemi Awolowo University, Ile-Ife, Lagos State University, Ojo-Lagos. Apart from these institutions, lately, other universities have introduced new programmes in response to the manpower demand in the educational media and communication field. Table 2 present some of the universities, available degree programmes and pioneer faculty members as compiled as at mid-2015.

Table 2: Updated List of Educational Technology Programmes in Nigerian Universities

S/N	Name of University	Available Degree Programme (s)	Some Faculty Pioneers, and Educational Technology Experts
01	University of Port-Harcourt, Port-Harcourt.	B.Ed; M.Ed. & Ph.D. in Educational Technology	Prof. I. Efebo
02	Federal University of Technology, Minna.	M.Ed. & Ph.D. in Educational Technology	Prof. G.D. Momoh, Dr. (Mrs) C.C. Nsofor
03	National Open University of Nigeria, Lagos	M.Ed. & Ph.D. in Educational Technology	Prof. I. O. Salawu, Dr. Gabriel Job, Mr. A. A. Adebajo
04	University of Benin, Benin City.	M.Ed.& Ph.D. in Educational Tech.	Prof. Inanoyalmogie
05	University of Uyo, Uyo	M.Ed. & Ph.D. in Educational Tech.	Prof. (Mrs.) G.S. Ibe-Bassey, Prof Comfort Ekpo,

06	Olabisi Onabanjo University, Ago-Iwoye, Ogun State.	M.Ed. & Ph.D. in Educational Technology	Dr. Uhie Prof. Niyi Benedict, Dr. Tayo Omoniyi
07	Tai Solarin University of Education, Ijagun, Ogun State	B.Ed. Media Technology	Prof. 'Niyi Benedict, Dr. Egunjobi, Dr. O.J. Akorede,
08	University of Calabar, Calabar	B.Sc. Educational Technology	Prof. M. E. Iyang-Abia, Dr. Ekpo Eluoma, Dr. Eno Asuquo

Sources: Otunla (2005); Abimbade (2006); Adeoye (2012); Otunla (2014)

The academic programmes in educational technology could be re-structured and revised to provide manpower training and capacity building re-training for personnel that serve specialised EMCCs to further enhance their effectiveness in service delivery in the institutions they serve.

Statement of the Problem

Educational resource centres are regarded as very important component of educational support services in Nigeria; more especially in the specialised field of human learning such as medicine, health sciences, agriculture, industrial, manufacturing, construction, e.t.c. Most of the specialised EMCCs were established decades ago with the original mandate to provide teaching support services in their respective institutions. However, this researcher observed that there are few evaluation reports and publications on the activities, services, growth and development of such specialised educational media and communication centres in Nigeria. It implies that most of the centres are hardly evaluated in term of their output, relevance and need assessment; such reports if provided could assist in the review, reforms or re-organisation of the policies guiding the specialised EMCCs. Therefore, the need to carry out the study on the activities, services, staffing and relevance of the selected specialized educational resource centres in Nigeria. Thus, this evaluation focused on available resources,

service delivery, staff strength and each centre's relevance to current needs of the organisation.

Research Questions

The following research questions were raised to guide the evaluation criteria:

1. What resources are available in the specialized educational media and communication centres?
2. What specialized media and communication services are rendered by the specialized educational media and communication centres?
3. What is the Staff strength in the specialized educational media and communication centres?
4. Are the specialized educational media and communication centres relevant to the current needs of the organization they serve?

Methodology

The study adopted accreditation/certification design approach of evaluation as described by Stufflebeam (2001). The author state that studies of institutions or an arm of an institution and personnel are in the realm of accountability-oriented evaluation. Institutions, institutional programmes and personnel are often studied to prove whether they meet requirements of given professions, service areas and whether they are fit to serve designated functions in the society. Therefore, Stufflebeam (2001) advance organiser was adapted to evaluate six purposively selected specialised EMCCs; that are located in Lagos, Oyo and Ogun States in South-Western, Nigeria. Data gathered through a duly validated open-ended interview and inventory schedule titled 'Resource Availability, Staffing and Services Rating Scale' (RASSRS) with $r=0.85$; were analysed using quantitative method. Structured interview and direct observations were carried out by the researcher between 2008 and 2012 through study visits to the selected centres. The data gathered was updated much recently to draw far reaching answers to the four research questions bothering on; resource availability, human capital resource, specialized services delivery and relevance of the centres to the overall organisational goals.

Findings and Discussions

Findings from the study are presented in Table3, Table4, Table5, Table6Table 7 and Table 8 using mostly quantitative and partly qualitative analysis techniques.

Table 3: Findings on Biomedical Communication Centre, College of Medicine, University of Ibadan, Ibadan, Oyo State

Summary of Centre Formation & Establishment	Biomedical Communication Centre, College of Medicine, University of Ibadan was established in 1957 as Medical Illustration unit by Professor Alexander Brown, Head of Department of Medicine at the commencement of clinical teachings in University College Hospital (UCH), Ibadan.
RQ 1: Availability of Resources	Medical Photographic studio, Photo laboratory, Photographic equipment, Still cameras, processing chemicals, etc. Medical Illustration equipment, Art materials, boards, papers; Computer systems, Printers, Multimedia projectors, Public Address System and accessories, Audio recording equipment, Video camera equipment and accessories, Video CD duplicators, Digital photo equipment and accessories. Other facilities are; Laboratories, studios and darkrooms.
RQ 2: Provision of Specialized Media and Communication Services	Clinical photographs (Black & White, Colour), Surgical photography (Colour, Black &White), 2x2 slides, Passport photographs/Identity cards, Colour photographs, Medical and biological book Illustrations, Diagrams, illustrations, Anatomical illustrations, Banners, Screen printing materials, Medical graphics, Posters, Diagrams, Charts, PowerPoint slides, Audio and Projection services for lectures, Medical instructional videos, audio recordings, simulations, e.t.c.
RQ 3: Manpower/ Staff Strength	Controller/ Deputy Controller (1); Senior Technologists / Technical Officers (8) Junior Technical Officers (2); Secretariat Clerical staff (2); Total - 13
RQ 4: Relevant	The center is still relevance to the current needs in

to current needs of the institution. medical education and the overall service delivery of the institution.

Table 4: Findings on the Biomedical Communication Department, College of Medicine, University of Lagos. Idi-Araba, Lagos State

Summary of Centre Formation & Establishment	Biomedical Communications Department, College of Medicine, University of Lagos, Idi-Araba, Lagos school in 1962 to provide teaching support services to the then University of Lagos, Medical School and Lagos University Teaching Hospital, (LUTH), Idi-Araba, Lagos.
RQ 1: Availability of Resources	Medical Photographic studio, Photo laboratory, Photographic equipment; Still cameras, Processing chemicals, etc. Medical Illustration equipment, Art materials, Boards, papers; Computer systems, Printers, Multimedia projectors, Public Address System and Accessories, Video camera equipment and accessories, Audio recording and Video CD duplicators and accessories, Digital photo equipment and accessories.
RQ 2: Provision of Specialized Media and Communication Services	Clinical photographs (Black & White, Colour) Surgical photographs (colour, B&W), 2x2 slides; Passport /Identity cards, Colour photographs, Medical and biological book Illustrations, Banners, illustrations, Anatomical illustrations, Medical graphics, Posters, Screen printing materials, Diagrams, Diagrams, Charts, PowerPoint slides, Audio and Projection services for lectures, Medical Instructional videos, audio recordings of lectures and programmes, Academic Training of Diplomates and industrial experience supervision, e.t.c.
RQ 3: Manpower/ Staff Strength	Ag. Head of Dept. (1) ; Senior Technical Officers (5) ; Junior Technical Officers (4) Secretariat Clerical staff (3) ; Total - 15
RQ 4: Relevant	Very relevance to the current needs in medical

to current education and the overall service delivery of the needs of the College. institution.

Table 5: Findings on Agricultural Media Resources & Extension Centre (ARMREC), Federal University of Agriculture, Abeokuta, Ogun State

Summary of Centre Formation & Establishment	Agricultural Media Resources & Extension Centre (ARMREC), Federal University of Agriculture, Abeokuta. The centre was established in November, 1991 to provide Agricultural media training and extension services to the tripodal mandate of the University i.e. training (manpower development), research (particularly problem directed and result-oriented research) and extension services. (William, 1996, FUNAAB, 2002a, FUNNAB 2002b)
RQ 1: Availability of Resources	Video camera and audio recording equipment, Graphic media equipment and materials, Computer systems, multimedia projectors and accessories, printers, drawing / printing papers and boards, Photographic laboratories, Digital photo equipment and accessories. Laboratories, studios and darkrooms, Public Address System; Amplifier, Loudspeakers, e.t.c.
RQ 2: Provision of Specialized Media and Communication Services	Agricultural Media Production: Agro-Instructional video, Posters, Charts, Pamphlets, Book Illustrations, Banners, Screen printing materials, Diagrams, Colour photographs, Monograph, Media communication support services for teaching and research in FUNAAB. Audio and projection services for lectures and training, Media development & publications, of Agricultural research findings, Radio & TV broadcasting of Agro-research breakthroughs, Coordination of Specialized Agro-Media training for extension officers, Farm family Health Promotion Supervision of Agricultural extension / outreach work of FUNAAB etc
RQ 3;	Director –1; Academic / Research Staff - 11; Senior

Manpower/ Staff Strength	Admin / Secretariat Staff - 8 ; Farm / Extension ; Officers – 4 ; Livestock Junior / Support Staff - 2 ; Total - 26
RQ 4: Relevant to current needs of the institution.	Very relevance to the current needs in bio-technology and agro-based services and entire University mandate in local food production drive.

Table 6: Findings on the Training Materials Unit, International Institute for Tropical Agriculture, Ibadan, Oyo State

Summary of Centre Formation & Establishment	Training Materials Unit, International Institute for Tropical Agriculture, Ibadan was established to collaborate with Agricultural Scientists, Researchers, Extension agents and Institutions within and outside Africa
RQ 1: Availability of Resources	Video cameras and Computer Editing equipment, Large Format Printers, Macintosh Multimedia Computers, Graphic media production equipment and materials, Photographic laboratories, Digital photo equipment and accessories. Laboratories and studios Equipment, Multimedia projectors with Computer systems, Web facilities and accessories, printers, drawing / printing papers and boards, audio recording, Public Address System; Amplifier, Loudspeakers, e.t.c.
RQ 2: Provision of Specialized Media and Communication Services	Research and training materials and multimedia / audiovisual products for researchers, technicians, extension specialists, educators and students that are involved in agricultural research and training. Colour photographs, Graphics, Slides, Posters, Banners, Charts, Biological Illustrations, Agro-based instructional / interactive video CDs, Posters, Charts, Pamphlets, Agro-procedure manuals and monograph, Media training services and teaching, Audio media and projection services for lectures and training, Media publicity and advertising, production of Radio & TV broadcast of Agro-research breakthroughs, research findings, e.t.c.

RQ 3; Manpower/ Staff Strength	Head of Communication / Manager -1; Graphic -4; Video /TV Prod -1; Photography2 -Printing- 2, Web Development-2; Media Support – 2. Total -14
RQ 4: Relevant to current needs of the institution.	The unit is highly relevance to the overall activities of IITA especially with the current global drive for food sufficiency through bio-technology and genetics. Therefore, the unit is very relevance to the institute.

Table 7: Findings on the Medical Illustration Unit. National Orthopaedic Hospital, Igbobi-Yaba, Lagos State

Summary of Centre Formation & Establishment	Medical Illustration unit, National Orthopaedic Hospital, Igbobi Yaba-Lagos was established in 1973 to support the hospital in the areas of medical training, practice and research.
RQ 1: Availability of Resources	Medical Illustration tools and equipment; Art materials, papers and boards, Medical Photographic studio, Photo laboratory, Photographic equipment and accessories; Digital photo equipment and accessories Still cameras, Black and white photo processing chemicals, etc. Computer systems, Printers, e.t.c Audiovisual materials and equipment; Multimedia projectors, Public Address System and accessories, Video camera equipment and accessories, Other facilities are: Laboratories, studios and darkrooms.
RQ 2: Provision of Specialized Media and Communication Services	Surgical photography (Colour, Black &White),/ Clinical photographs (Black & White, Colour), Passport /Identity cards, Colour photographs, Medical and biological book Illustrations / Medical graphics Diagrams, illustrations, Anatomical illustrations, Banners, Screen printing materials, , Posters, Diagrams, Charts, Audio and Projection services for trainings, videos recordings, e.t.c.
RQ 3; Manpower/ Staff Strength	Acting Head / Head - 1; Senior Medical Artist / Higher Technical Officers-Graphics-2, Senior Medical photographer / Higher Technical Officers - Photography (2), Higher Technical Officers -

	Audiovisual (2) Other Technical Officers- 3 ; Secretariat Clerical staff- 2 ; Total - 12
RQ 4: Relevant to current needs of the institution.	The unit is still relevance to the current needs in medical education and training especially in the management of patients with orthopaedic conditions. Thus, the unit is making useful contributions to the overall service delivery of the institution.

Table 8: Findings on South-West Resource Centres, Abeokuta, Ogun State

Summary of Centre Formation & Establishment	South-West Resource Centres, Abeokuta was established and commissioned in 10 th Feb 2004 with the support from the United States of America Government Education for Development and Democracy Initiative (EDDI).The centre was one of the six Community Resource Centres (CRC) established in Nigeria which was spread across six geo-political zones in Nigeria.
RQ 1: Availability of Resources	Video Conferencing, Computer equipment and accessories, Multimedia projectors, Enabling technology computer equipment with JAWS software for the visually impaired, Braille printers; Laser and Inkjet Printer and accessories, Laminating machine and accessories, Binding machine and accessories, Photostat machine, Cutting machine, Stitching Machine, Industrial Stapler, Halls; Auditorium, conference / seminar / syndicate rooms, e.t.c
RQ 2: Provision of Specialized Media and Communication Services	Video conferencing services, Computer training for Civil servants in Ogun state and Local Governments Staffs, certification training, computer consultancies services, Hosting of the National Open University of Nigeria (NOUN) as temporary study centre, Business development; Word processing & Typesetting, Computer graphics, Reprographic-Scanning, Photocopying, e.t.c. Spiral binding Plastic I.D. Card production, Fax services, Lamination,

RQ 3; Manpower/ Staff Strength	Stitching, Stapling, Director- 1 ; Training Dept. - 4 ; Technical Dept. - 6 ; Finance - 4 ;Admin & Staff - 5 ; Junior / Media Support - 4 ; Total-24
RQ 4: Relevant to current needs of the institution.	The centre services is still relevance to the current drive for ICT literacy and competency training and manpower development to keep-up with technology trends in the global e-business development for regional integration.

Discussion of Findings

Arising from the findings of this study; it is evident that all the Specialised Educational Media and Communication Centres (EMCCs) are equipped with basic facilities and are adequately staffed with some variations in provisions in specialised services to the institutions they serve which are largely due to staff strength and capacity building. Findings further revealed that the Biomedical Communication Centre (BCC), College of Medicine, University of Ibadan and the Biomedical Communication Department at the College of Medicine, University of Lagos are highly relevant to the academic programmes of the institutions. The two pioneer specialized resource centres in Nigeria are very important for the current needs in medical education and for the overall medical and health institutional service delivery of the two colleges. Findings also revealed that both the Agricultural Media Resources & Extension Centre (ARMREC), Federal University of Agriculture, Abeokuta and the Training Materials Unit, International Institute for Tropical Agriculture (IITA) Ibadan are highly relevance to the overall mandate of the institutions especially, as regards product packaging, information dissemination of research breakthroughs and diffusion of current and emerging trends in the global drive for food sufficiency through bio-technology, genetics and agro-based services in local food production.

Findings also affirm that Medical Illustration unit, National Orthopaedic Hospital, Igbobi-Yabais still relevance to the current health service delivery in Orthopaedic medical education and training as well as in the management of patients with orthopaedic conditions. Thus, the unit is making useful contributions to the overall service delivery of the institution and lastly, the South-West Resource Centres, Abeokuta

in terms of composition and services is very relevance to the current drive for computer and ICT literacy, competency training and manpower development, the centre is keeping up with technology trends in the global e-business development for regional integration especially in Nigeria.

Recommendations

Arising from the quantitative analysis presented above on six specialised Educational Media and Communication Centre (EMCCs) using advance organiser proposed by Stufflebeam (2001); the following recommendations are put forward for considerations by the patrons of the six specialised ERCs that were covered in this study.

- Review the mandate or objectives for setting-up the centres through in-house or commissioned periodic programme evaluation in line with prevailing development in the Universities and Institutes or establishment of affiliation.
- Improved funding and infrastructural development through procurement of modern digital communication equipment to facilitate upgrade of the Biomedical communications and medical illustration units to a full-fledge health communication and bioinformatics academic research units with the mandate to conduct research in medical education and allied health sciences.
- Aggressive human capacity building through staff development, training and re-training so as to prepare the work force for the future expansion and development.
- Expansion of the agricultural media center and unit activities in line with information and communication technologies for effective dissemination of research findings to the end users i.e. regional and local farmers.
- Upgrade of short courses in Agricultural media extension and outreaches to full fledge degree and postgraduate programmes for expansion in training on materials production among researchers, scientists for ease of dissemination of research findings to the end users re-strategize
- Affiliation of the South-West Resource Centre Computer training programmes with higher Institutions of learning to upgrade the quality of programmes presently offered. The centre could also

seek for accreditation with National Board for Technical Education for the upgrade of computer training to appropriate National Diploma courses in computer and ICT.

- Establishment of academic programmes that could provide training and re-training opportunities for staff members in specialized EMCCs by faculties and department in Nigerian Universities especially in the following postgraduate degree specializations:
 - Educational Media Resources Management,
 - Health Media and Communication Studies,
 - Health Media and Communication Administration
 - Media Resources Centre Management,
 - Agricultural Media Resources Management,
 - Communication Technology Management,
 - Information Technology (IT) Resource Management,
 - Higher Education Facility and Resources Management,
 - Media and Communication Design and Evaluation,,
 - Media and Communication Development and Administration,
 - Media and Communication Facility Management,
 - Telemedicine and Medical Informatics Studies; among others.

Conclusion

In conclusion, this empirical study has established that all the specialised Educational Media and Communication Centres (EMCCs) covered in this study are well equipped, serviceable, very productive and institutionally relevant to the overall mandate of the establishment they are presently serving. However, it is imperative that some of the specialised EMCCs need review in terms of their mandate, development of vision and mission which should necessitate restructuring through infrastructural upgrading and human capacity development through training and re-training in modern and technology-driven media resources management and periodic evaluation.

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