Availability, Utilization and Challenges Confronting the Use of Information and Communication Technology Resources in Adult Literacy Centres in Cross River State, Nigeria.

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This study investigated the availability, utilization and challenges confronting the use of information and communication technology resources in adult literacy programmes in Cross River State, Nigeria. Three research questions were formulated for the study. The design for the study was descriptive survey. The population of the study was 112 facilitators drawn from adult literacy centres in Cross River State. There was no sampling technique because the population was manageable and used for the study. Researchers developed questionnaire titled Use of Information and Communication Technology in Adult Literacy Programmes Questionnaire (UICTALPQ). The instrument for data collection was 22-items questionnaire which was validated by research experts and tested with a reliability estimate of 0.86 using Cronbach Alpha statistics. The data collected were analyzed using mean and standard deviation. The findings which emerged from the study revealed that resources are not available in adult literacy centres and are not being utilized and also adult literacy programmes are confronted with challenges such as epileptic power supply, inadequate trained staff and high cost of ICT resources among others. Based on the findings of the study, it was recommended among others that government at various levels and donor agencies should provide adequate funds for the purchase of ICT resources materials for effective service delivery and retraining programmes for facilitators for effective use of ICT facilities in adult literacy programmes.

Keywords: Availability, utilization, challenges, Information, communication technology, resources, adult literacy

INTRODUCTION

Information is the life wire of any organization or society. It plays a vital role in the educational system of any nation. Over the years now, this role has been growing rapidly with the introduction of new innovation or technologies in the educational system. This innovation is known as Information and Communication Technologies (ICT). It has brought about rapid changes affecting all aspects of human life. However, according to Essien and Anthony (2018), information and communication technology has turned the world into a global village and opened opportunities to accessing information. The 21st century lay much emphasis on

information and technology which has brought about drastic changes in instructional delivery in the educational system. The use of information technology, knowledge and information can be transferred and cross-fertilized in real time. Hence, the need to pay attention to technology has change the educational sector through the internet.

Similarly, Ukwuaba and Oboqua (2021) assert that our 21st century is characterized by an upsurge of information technology which dictates the peace of development and surely we have not stopped talking about technological transfer. A century

where communication infrastructural facilities such as telephone, fax and computer networking are tools that we are turning our world into a global village, where classroom may no longer play prominent roles as major access to education. From the above assertion, one can infer that information and communication technology has affected the educational system a greater extent. Therefore, to facilitate the process of adult teaching and learning, adult learners which deals with information generation and awareness creation must key into these new innovations or technologies.

Ukwuaba and Oboqua (2021) observes that adult education is an instrument for helping the entire population world wide with Information and Communication Technology (ICT), which is a decisive tool for the smooth integration of Nigerian economy in the global economy. ICT is therefore, technology that generally supports the individual's ability to manage and communicate information electronically. Thus for adult not to be left out in what happening in the world, they to key into the use of application of this technology and this can only be achieved through the integration by ICT into adult education programmes in Nigeria.

Adult literacy programmes assist adult to become literate and obtain the knowledge and skills necessary for employment and self-sufficiency. Literacy programmes usually allows individuals to acquire knowledge and skills through a variety of activities, promote informal learning and encourage people to make and follow their own educational plan. Adult literacy education means an educational programmes d esigned to provide basic academy skills and training in mathematics, writing, reading, language and may include English literacy instruction. Adult literacy education means education provided to adult learners to enable them acquire reading, writing, numeracy and other skills for sustainable livelihood.

According to Federal Republic of Nigeria FRN (2014) in its National Policy on Education NPE adult literacy education means education provide to adult learners to enable them acquire reading, writing, numeracy and other skills for sustainable livelihood. This level of education in Nigeria is faced with the problem of inadequate basic amenities for effective teaching and learning. Most important among these are instructional materials. Instructional materials are information carriers designed specifically to fulfill objectives in a teaching and learning situation, they include charts, models, posters, workbook, map's, magazines, television, radio, video players, projectors among others (Lagbe, 2010). Information and communication technology (ICT) gadgets also form an aspect of these instructional materials which are being used in educational institutions to promote effective teaching and learning situation in classrooms.

Similarly, John and Nnena (2017), describes information and communication technologies ICTs as audio and visual media that are of modern technology. They are gadgets that can be used for the processing of information, instruction, recording, storage and analyze data. These gadgets include television, radio, computer and network (internet) that are brought into classroom to enhance teaching and learning. Ukwuaba and Oboqua (2021) viewed ICT as the totality of methods and tools that are used in gathering, storing, processing and communication information. UNESCO, as cited in (Ukwuaba & Oboqua, 2021) opined that ICT as those tools and process used to retrieve, store, organize, manipulate, present and exchange information by electronics and other automated means which include

scanner, hardware, software, laptops, digital cameras, CD, DVD players, radio, television, data base programmes and so on. Igwe and Ewelum (2016) described ICT as a broad based electronic media used in the collection, storage, processing and transmission of information for various forms and usage. It helps individual's to manage and communicate information electronically.

John and Nnena (2017) viewed that ICT consists of hardware, software, network and media for collection, storage, processing, transmission and presentation of information which could be voice, data, text and images. There are many resources of information and communication technology that are useful and vital to the teaching and learning process. Some of them include the television, radio, video, computer, online instruction, white boards, email, films, projectors, tape recorders, compact disc, flash drives, assorted phones, such as Androids, iPads, etc. Each of these resources can play important roles in the advancement of the standard of education (Lagbe, 2010).

The importance of information and communication technology ICT in our adult literacy programmes cannot be overemphasized as they are vital mechanism in teaching and learning. Wosowie (2014) emphasizes that when information and communication technology ICT are utilized in education they can accelerate, enrich and deepen basic skills in reading, writing, arithmetic and the sciences besides motivating and encouraging learners to learn as they become independent and responsible for their learning. ICT bring new changes or approach into education which facilitates teaching and learning activities in adult literacy programmes. For instance, carrying out instructions via ICT resources or tools can be simultaneous as instruction and the learners' activities can take place at the same time in different classes. Wosowie (2014) stated that certain types of ICTs such as teleconferencing technologies, enable instruction to be received simultaneously by multiple geographically depressed learners.

The utilization of information and communication technology ICT in the teaching and learning of adult education programmes cannot be overemphasized. Adult education deals with awareness creation information generation, skill acquisition, knowledge development, attitudinal change and problem solving need to be fully launched or integrated into ICT. A good example of promotion ICT usage in adult education or any subject area is that, it emphasizes on learner centered teaching and not teacher centered approach. The educational system especially in Nigeria had over the years relied on pedagogical theories and principles which focused on teacher centered approach. The teacher centered approach showcase the teacher as the only custodian of knowledge or information where the learners depend on. With the introduction of ICT in the educational system today, the teacher is now seen as a facilitator or a guide who operates within a learner centered environment. This implies that learners in adult literacy centers can as well explore relevant information on their own through ICT components.

According to Ukwuaba and Oboqua (2021), opined that ICT encourages andragogical teaching. In the field of adult education androgogy is described as a teaching method which helps people or learners to learn. This method of teaching emphasized on independent study, as the learner is considered to have a reservoir of rich experiences which are resources for learning. Igwe and Ewelum (2016) reported that ICT contributed more to constructivist learning which brings about increase in activity and greater responsibility of the adult learner. Moreso, Nwanekezi and

Ugonna (2011) explained that knowledge therefore could be constructed by the enrichment processes of the mind. Therefore learners in adult literacy programmes could be encouraged to adopt independent learning study habits.

Utilization of ICT in the teaching and learning process of adult literacy programmes engages learners and create excitement among the learners as they involve in the new learning outcomes. This will go a long way to increase learners innovation, encourage them to become problem solver and explore more information. Ugwuanyi (2013) explained that utilization of information and communication technologies as to make use of available technological resources, application and services at the individual's disposal. With utilization of different technologies by literacy facilitator, this will aid to improve teaching and learning in the adult literacy programmes.

Umoshiet (2015) stated that ICT could be seen as devices that are used for instructional delivery. Information and communication technology ICT can be used by the facilitator to pass instruction to a fairly large crowd or a small number in classroom. With most of our adult literacy centers highly populated and with few facilitators to teach, the use of ICT by the facilitators can help in effectively carrying out teaching and learning activities in classroom. This has been hindering effective dissemination of lesson to the adult learners, turning learners into passive learners and making the teaching and learning process teacher-centered instead of learners-centered. Besides, this is an era of modern technology, where information and communication technology ICT is the order of the day in educational environment. It is against this background that the problem of this study is to investigate the availability, utilization and challenges confronting the

use ICT resources in adult literacy programmes in Cross River State, Nigeria.

Purpose of the study
The main purpose of this study was to investigate the availability, utilization and challenges confronting the use of ICT resources in adult literacy programmes in Cross River State, Nigeria, specifically, the study sought to:
1. to determine whether ICT resources are available in adult literacy programmes in Cross River State.
2. to find out whether facilitators utilized ICT resources in adult literacy programmes in Cross River State.
3. to ascertain the challenges confronting the use ICT resources in adult literacy programmes in Cross River State.

Research questions
The following research questions guided this study:
1. What are the ICT resources available in adult literacy programmes in Cross River State?
2. What are the level of utilization of ICT resources by facilitators in adult literacy programmes in Cross River State?
3. What are the challenges confronting the use of ICT resources in adult literacy programmes in Cross River State?

Research Methodology
This study adopted descriptive survey research design. The population of the study was 112 facilitators in adult literacy centres drawn from three senatorial district of Cross River State. There was no sampling technique because the population was manageable. A self developed questionnaire was used as an instrument for data collection titled Use of information and communication technology in adult literacy

programmes questionnaire (UICTALPQ) designed by the researchers. The instrument had two sections, A and B. Section A contained respondents' demographic information while section B had 22 items on the research questions, in the form of four point Likert type scale of Strongly Agree, Agree, disagree, and Strongly Disagree. The instrument was dully validated by three experts, two from the department of adult and continuing education and one from the department of mathematics and computer education in Enugu State University of Science and Technology. An overall reliability coefficient of 0.86 was deduced as a measure of internal consistency through the use of Cronbach Alpha statistical technique. The questionnaires were personally administered by the researchers with three research assistants trained for the purpose. For ease of data presentation, codes were designed to each item and a coding schedule was prepared by developing a key for each of constructs of the instrument. Mean and standard deviation were use for data analysis. Here, the mean score of 2.50 was used as criterion for accepting and rejecting items. Items with mean score below 2.50 were rejected while mean above 2.50 were accepted.

Results

Table1: Summary of mean and standard deviation scores of facilitators responses on the of ICT resources in adult literacy programmes in Cross River State.

S/n	The following ICT resources are available in my centre	SA 3	SD 1	Total	Mean	SD
1	online instruction whiteboard	0 (0)	112 (142)	112 (142)	1.27	0.45
2	projectors	0 (0)	112 (169)	112 (169)	1.50	0.50
3	video players	0 (0)	112 (177)	112 (177)	1.58	0.49
4	television sets	0 (0)	112 (152)	112 (152)	1.35	0.48
5	computer sets/internet facilities	34 (116)	78 (121)	112 (237)	2.11	0.98
6	printers with scanners	7 (24)	105 (161)	112 (185)	1.65	0.58
7	photocopiers in my centre	15 (40)	97 (124)	112 (164)	1.46	0.47
8	e-library	0 (0)	40 (72)	112 (152)	1.35	0.48
	Grand mean				1.53	0.55

The result presented in Table1 above reveals that the mean scores of 1.27, 1.50, 1.58, 1.35, 2.11, 1.65, 1.46 and 1.35 for items 1, 2, 3, 4, 5, 6, 7 and 8 respectively were less than the cut-off mean scores of 2.50, with their respective standard deviation scores of 0.45, 0.50, 0.50, 0.49, 0.48, 0.98, 0.58, 0.47 and 0.48. On the whole, the grand mean response score of 1.53 was also less than the cut-off mean score of 2.50 with a standard deviation score of 0.55. This implied that, adult literacy centres in Cross River State lack ICT resources such as projectors, video players, television sets, computer

sets/internet facilities, printers with scanners, photocopiers, online instruction, white board for teaching and learning activities in adult literacy centres in Cross River State. These implies that the above these resources are not available.

Table2: Summary of mean and standard deviation scores of facilitators on the utilization of ICT resources in adult literacy programmes in Cross River State

S/n	Facilitators & learners in my literacy centre utilize:	SD 4	A 3	D 2	SD 1	Total	Mean	SD
1	online white board for teaching and learning activities	0 (0)	0 (0)	84 (164)	28 (28)	112 (192)	1.71	0.43
2	Projectors for teaching and learning activities in my literacy centre	0 (0)	0 (0)	42 (84)	70 (70)	112 (154)	1.37	0.48
3	utilize video players in my literacy centre.	0 (0)	0 (0)	37 (74)	75 (75)	112 (149)	1.33	0.47
4	television sets for teaching and learning in my literacy centre.	0 (0)	0 (0)	38 (76)	74 (74)	112 (150)	1.33	0.48
5	computer sets/internet facilities in my literacy centre.	10 (40)	20 (60)	65 (130)	17 (17)	112 (247)	2.20	0.80
6	printers with scanners in my literacy centre.	2 (8)	4 (12)	20 (40)	86 (86)	112 (146)	1.30	0.48
7	photocopiers in my literacy centre.	2 (8)	4 (12)	53 (106)	53 (53)	112 (179)	1.59	0.53
8	e-library in my literacy centre.	0 (0)	0 (0)	42 (84)	70 (70)	112 (154)	1.37	0.48
	Grand mean						1.52	0.51

The result presented in Table 2 above reveals that, the mean scores of 1.71, 1.37, 1.33, 1.33, 2.20, 1.30, 1.59 and 1.37 for items 1, 2, 3, 4, 5, 6, 7 and 8 respectively are less than the cut-off mean score of 2.50, with their respective standard deviation scores of 0.43, 0.48, 0.47, 0.48, 0.80, 0.48, 0.53 and 0.48. On the whole, the grand mean response score of 1.52 was less than the cut-off mean score of 2.50 with standard deviation score of 0.51. This implies that, ICT resources such as online instruction white board, projectors, video players, television set, computer sets/internet facilities, printers with scanners, photocopiers, and e-library are not being utilized for teaching and learning activities in adult literacy programmes in Cross River State.

Table3: Summary of mean and standard deviation scores of facilitators responses on the challenges confronting the use of ICT resources in adult literacy programmes in Cross River State

S/n	Use of ICT resources in my centred is confronted with;	SA 4	A 3	D 2	SD 1	Total	Mean	SD
1	inadequate trained facilitators on ICT	71 (284)	41 (123)	0 (0)	0 (0)	112 (407)	3.63	0.49
2	inadequate infrastructures in adult literacy centres	23 (92)	89 (267)	0 (0)	0 (0)	112 (359)	3.20	0.40
3	high cost of ICT resources,	77 (308)	35 (105)	0 (0)	0 (0)	112 (413)	3.68	0.47
4	epileptic power supply	41 (164)	71 (213)	0 (0)	0 (0)	112 (377)	3.36	0.49
5	lack of ICT resources in adult literacy centres	33 (132)	79 (237)	0 (0)	0 (0)	112 (369)	3.29	0.45
6	lack of e-library	49 (196)	63 (189)	0 (0)	0 (0)	112 (385)	3.43	0.46
	Grand mean						4.43	0.46

The result presented in Table 3 above reveals that, the mean scores of 3.63, 3.20, 3.68, 3.36, 3.29, and 3.43, for items 1, 2, 3, 4, 5 and 6 respectively were greater than the cut-off mean score of 2.50, with their respective standard deviation scores of 0.49, 0.40, 0.47, 0.49, 0.45 and 0.46. On the whole, the grand mean response score of 4.43 was also greater than the cut-off mean score of 2.50 with a standard deviation score of 0.46. This implies that, challenges confronting facilitator in the use of ICT resources in teaching and learning include; adequate trained facilitators on ICT, inadequate infrastructures, high cost of ICT resources, epileptic power supply, lack of ICT resources and lack of equipped e-library in adult literacy programmes in Cross River State.

Discussion
From the findings, the study reveals that adult literacy centres in Cross River State lack information and communication technology ICT resources. It was observed that the responses of the respondents show that the grand mean response score was less than the cut-off mean responses score was less than the cut-off mean score. This reveals that ICT resources are not available in the various adult literacy centres in Cross River State. The finding of this study is in agreement with the view of Fowoyo (2009) opined that, adult literacy programmes lack resources needed for effective teaching and learning.

From the findings it was also observed that the grand mean response score of 1.52 was less than the cut-off mean score. This mean that, ICT resources are not being utilized by

facilitators in teaching and learning activities in adult literacy programmes in Cross River State. It shows that the facilitator do not make use of ICT resources in their various literacy centres while teaching. This findings is in consonant with Ukwuaba and Oboqua (2021) who stated that facilitators do not utilized ICT resources for teaching in the classroom not because they do not want to, but because of the ICT resources are not available for them to use.

Also from the findings, the study reveals that challenges confronting facilitators the use of ICT resources in adult literacy centres in Cross River State. It was observed that the grand mean response score was greater than the cut-off mean score. This indicates that adult literacy programmes are faced with the above mentioned challenges in the utilization of ICT resources in teaching and learning activities in adult literacy programmes. The findings of this study is in agreement with Wosowie (2014), who stated that inspite of the numerous benefits of using ICT resources in teaching and learning activities in school, facilitators are confronted with such challenges as stated in Table 3 above. The author explained that such challenges in place it will be difficult for facilitators and learners to fully grap the benefits associated with the use of ICT resources as a means of teaching and learning in adult literacy centres.

Conclusion
Based on the results of the findings, it was observed that utilization of information and communication technology ICT resources in teaching and learning in adult literacy centres in Cross River State was not available. Inspite of the relevance of information and communication technology ICT, in the teaching and learning of adult literacy centres, it is observed that the educational policies in Nigeria are not yet as comprehensively developed to meet up with ICT age. However, the provision of ICT facilities or devices are not adequately provided for facilitators and learners for instructional delivery.

Recommendations
Based on the findings and conclusions of this study, the following recommendations were made:
1. Government at various levels and donor agencies should provide adequate funds for the purchase of ICT resources for effective service delivery.
2. There should be retraining programmes for facilitators for effective use of ICT facilities in adult literacy programmes.
3. Adequate infrastructures should be put in place as well as installment of the ICT materials in adult literacy centres.

REFERENCES
Essien,C.K.&Anthony,B.G.(2018).Information and communication technology in the teaching and learning of environment adult education. *International Journal of Contemporary Social Science Education, 1*(1),15-20.

Fowoyo, J. T. (2009). The usage and influence of Media technologies as a means to teaching and learning in the primary schools. In M. A. Kayoed (Ed): *Ilorin Journal of Teacher Education, 5*(1),189 - 194.

FRN (2014). *National policy on education* Lagos: NERDC Press.

Igwe, V. O. & Ewelum, J. N. (2016). Adult education and information and communication technology ICT in Nigeria; challenges and prospects. *Journal of Research and Method in Education, 6*(4), 62 - 65.

John,B.M.&Nnenna,N.B.(2017).ICTandscienceteachinginNigeriaschool.InM.Omolewa.B.O.Lawal,F.G.Paulley,&Y.M.Abdulrahman(Ed's).*ThetheoryandpracticeofeducationinNigeria*.Abookofreadingsinhonourof ProfessorAugustusAdelekeAdeyinka,pp639-645,PH:UniversityofPortHarcourtPress.Ltd.

Lagbe,S.I.(2009).Adiscourseofrationalproceduresfordesigninginstructionalmaterialsforteachingvisualartsandintroductoryatupperbasiceducationclasses.InM.A.Kayode(Ed),*IlorinJournalofTeacherEducationKwareStateCollegeofEducationIlorin,5*(1),96-101.

Nwanekezi,A.V.&Ugonna,R.C.(2011).IntegratinginformationandcommunicationICTintobasicsciencecurriculumforqualityassuranceattheprimaryeducationlevel.*AfricaJournalofEducationalResearchandDevelopmentAJERD,4*(2),84-93.

Ugwuanyi, J. I. (2013). Availability, adequacy and utilization of physical education teaching resources in secondary schools in Enugu State. Unpublished M.Ed thesis. Submitted to the Department of health and physical education, University of Nigeria, Nsukka. Retrieved from http://www.unn.edu.ng/.

Ukwuaba,L.C.&Oboqua,E.D.(2021).UtilizationofICTinteachingandlearninginadulteducationcentresinEnuguState,Nigeria.*JournalofContinuingandDevelopmentEducation(JCDE),1*(1),131-137.

Umoshiet, E. A. (2015). Assessment of adequacy of available new technologies in business education for instructional delivery in state-owned universities in Delta and Edo States. International journal of innovative education research, 3(4), 31 - 37.

Wosowie, M. (2014). Information and communication technologies in schools in F. N. Obasi & J. D. Asodike (Eds) *Educational resource management*. Pearl Publishers.