Full Length Research Paper

Availability and use of Information and Communication Technology (ICT) Facilities in Adult Education Centers in Sokoto State, Nigeria

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ABSTRACT: The study was carried out to determine the availability and use of information and communication technology facilities in adult education centers. The study was conducted in Sokoto state, Nigeria, using the descriptive survey research method. Simple random sampling was used to select ten (10) respondents from six adult education centers. Both the qualitative and quantitative data were collected using questionnaires and interviews. The data collected from the respondents were analyzed using descriptive statistics; this provides both qualitative and quantitative analysis in form of frequency distributions, tabulation, range, and simple percentage. On the view of respondents on the kinds of technological equipment they have in their centers, 15% are of the view that they have desktop computers in their centers; 5% submitted that they have laptops, 5% said that they have projectors in their centers, and 0% said that they do not have any computers in their centers, 75% of the population said that they do not have desktop computers, laptops, and projectors in their centers. On the view of the respondents based on whether they like to be taught with technological devices, such as projectors, slides, and microphones, 85% said that they like to be taught with technological devices and 15% said that they do not like to be taught with technological devices. On the view of respondents based on why they like to be taught with technological devices, such as projectors, slides, and microphones. 35% said that the reason why they like to be taught with technological devices is that they make learning interesting, 45% said that the reason why they like to be taught with technological devices is that they make learning easy to understand, and 20% echoed the reason why they like to be taught with technological devices is that they arouse attention. On the view of respondents on how regularly they use the computer in their centers, 5% submitted that they use the computer every week, 10% said that they use the computer once a month; 85% said that they never use the computer in their center. In view of the respondents on the number of computers they have in their laboratories, 100% said that they have 0-5 computers in their laboratories, no respondent said that they have between 5-10, 11-15 and greater than 16 computer in their laboratories. In the view of respondents on whether they have practical computer lessons in their syllabus, 100% said that they do not have practical computer lessons in their syllabus. Conclusively, there is the availability of ICT facilities in some education centres, but adult learners do not benefit from them.

Keywords: Availability, Information, Communication, Technology, Facilities, Adult education, Centers, Sokoto state

INTRODUCTION

Information and communication technology (ICT) refers to all the technology used to handle telecommunication, broadcast media, intelligent building management systems audio visual processing and transmission systems and network-based control and monitoring functions (Tinio, 2002; Beal, 2015). Although ICT is often considered an extended synonym for information technology (IT), its, scope is more broad, ICT has more

recently been used to describe the emergence of several technologies and the use of common transmission lines carrying very diverse data and communication types and formats (Dighe, 2004). Converging technologies that exemplify ICT include the merging of audiovisual, telephone and computer networks through a common cabling system. Internet service provider (ISP) commonly provides internet, phone and television services to homes and businesses through a single optical cable. The elimination of the telephone networks has provided huge examine incentives to implement this convergence, which eliminates many of the costs associated with cabling, signal distribution, user installation, servicing and maintenance costs (Technopedia, 2015). According to Beal (2015) ICT is a short form for Information and Communications Technology and it is the study or business of developing and using technology to process information and aid communications. ICT is technology that supports activities involving information. Hence IT has become ICT: information and Communication Technology. Some underlying principles of technology does not exist in isolation, ICT, therefore, contributes at various points along a line of educational activities, such as knowledge, experience and products.

In recent years there has been a grounds well of interest in how computers and the internet can best be harnessed to improve the efficiency and effectiveness of education at all levels and in both formal and non-formal settings. But ICTs are more than just these technologies; older technologies such as the telephone, radio and television, that are now given less attention. For instance, radio and television have for over forty years been used for open and distance learning, while print remains the cheapest, most accessible and therefore, most dominant delivery mechanism in both developed and developing countries. The use of computers and the internet is still in its infancy in developing countries, if these are used at all, due to limited infrastructure and the attendant high costs of access (Wikibooks, 2014).

ICT has a very important role to play in both adult and non-adult education; its tools provide both teachers and students with more opportunities in adapting teaching and learning to individual needs. At present, ICT is influencing every aspect of human life; playing salient roles in work places, businesses and education institutions among others (Mikre, 2011). Several studies reveal that students who use ICT facilities often show higher learning gains than those who do not use them (Kuliks, 1994; Volman, 2005: Mikre, 2011). For example, radio, when used in combination with printed, course materials, can make literacy lesson more true-to-life and interesting (UNCESCO, 2006). Due to the fact that, virtually all segment of society have changed dramatically by information technology and will continue to change in the future, schools programme must be changes and research activities should be proceed with the latest assumption that technology is creating for the better upgrading within the schools (Fouts, 2000). This research seeks to investigate the availability and uses of ICT facilities in adult education centers by adult learners in Sokoto State. The overall purpose is to see if the school curriculum especially in adult institutions and centers are used to ICT and if not what should be done to encourage the use of ICT in adult institutions and adults learning centers.

Statement of the problem

According to Ewelum (2015), access to information, incompetent management, weak information and communication policies, inadequate human resources, intellectual poverty, poor social infrastructure, unreliable and very limited telecommunication infrastructures and poor connection to worldwide network are some of the problems of ICT in Nigeria. Although, there are maintenance challenges facing the programme. These includes: This includes weak research and development, inadequate learning and use of ICT, poor system design and weak analysis of information requirement and user needs are all part of larger problem of ICT in Nigeria (Ewelum, 2015). These challenges further created even bigger problems of ICT in Nigeria, prime of which is the accessibility problem to ICTs in the country. Not all learners have full access to ICT facilities. This is due to the restriction of learners to such facilities. Sometimes, the technological devices may not be enough to all the learners, while in some cases, the learners are not even aware that certain technologies exist (Bell, 2000; Brown, 2000). There is also the problem of operational expertise. Learners are not capable of using the available technologies because they simply lack the technical know-how.

In order words, skills acquired by the facilitators are not enough for them to pass the knowledge to their students (Fouts, 2000). On top of this issue, there is the problem of manpower. Many educational centers in the country are shutting down their offices due to shortage of, or lack of manpower. A lot of personnel working in adult education centers have neither training nor experience in technology related disciplines (Ewelum, 2015). It is within this context that the researcher wishes to carry out this study.

The main aim of this study is to find solutions to the problem of availability of ICT in adult centers, the use of ICT tools by adult learners, with specific reference to some selected adult centers in Sokoto state. With the above problems in mind, the aims of the research was to investigate the impact of the Information and Communication Technology (ICT) in promoting adult education in Sokoto state and the specific objectives are stated below:

(i) To determine whether Information and Communication Technology are available in adult education centers.
(ii) To examine whether ICT facilities are used by adult learners.
(iii) To examine how facilitators effectively use ICT tools to improve education in adult centers in Sokoto State.

MATERIALS AND METHOD

This study was conducted using descriptive survey method. This involves visiting the centers, administering the questionnaire, earring out direct observation and collecting data for the purpose of data analysis. Survey approach was used to obtained information from the respondents that are learners from selected adult education centers in some selected local government in Sokoto state.

Population of the study

The population for this research study comprises of all learners in some selected local government of Sokoto state. The total number of all respondents in our study area is 200. All the respondents in our study area fall to almost similar age group 18 and above and have similar socio-economic characteristics (i.e majority of them are Muslim and Hausa Fulani).

Sample and sampling techniques

The researchers selected sixty (60) respondents out of the (200) in the six adult centers in the study area, namely: Agency for Mass Education in Sokoto South, Adult Education of Colombiya Centre in Sabon Birni, Women Centre for Continue Education in Tambuwal, Agency for Mass Education in Wamakko, Illela Youth Centre and Adult Centre in Tureta. Random sampling was used to select ten (10) respondents each centre of the study to be sixty (60) respondents. The researchers used simple random sampling because it has unbiased surveying techniques. The respondents in the study area have been chosen randomly by chance, as the average sample would accurately represent the entire population.

Instrumentation

Two types of instruments were used for collection data in the study, namely questionnaire and interview. The questionnaire was shared to adult learners, the aim of which was to determine not only whether ICT is used in adult centers and effectively applied in teaching and learning, but to examine its effect in promoting adult education in the selected local government adult centers in Sokoto state. Similar question was also asked in the interview. The questionnaire was divided into two section A (which contains the personal data of the respondents and section B (which contains both open and close ended question on various question on the subject of ICT and its impact on adult education).

Methods of data collection

A well structured questionnaire was designed by the researcher and administer to the respondents and interview was conducted by the researcher to collect data for the research. It consist of seven (7) parts, Part A bio-data of the respondent, Part B views of the respondent on the kind of technological equipment's they have in their centers, C whether they like technological devices, D why they like technological devices, E Views on adult use of computer, F and G availability and number of computers in their laboratories respectively. Interview with the respondents was conducted by the researcher using interview schedule. The interview schedule was framed to make contact with the entire selected respondent. List of questions were compiled and asked to the respondent. The interview was to build, clarify and complement information generated and the general assessment of adult learners conducts, and academic achievement based on the objectives of the study.

Method of data analysis

The data collected from the respondents were analyzed using descriptive statistics. This provides both qualitative and quantitative analysis in form of frequency distribution, tabulation, range and simple percentage.

RESULTS

The data were gathered from their primary sources, returned questionnaires filled by the respondents. Hence, we present each result in a tabular form. Table 1 shows distribution of respondents which indicates that (33) 55% of the respondents are males and (27) 45% of them are females. The findings on the participation of male and female in ICT programme shows that adult male learners participate more in learning ICT programme than female and that there is significance difference between the genders.
   Table 2 shows that (12) 20% of the respondents are between the age of 18 to 22; (15) 25% are between ages of 23 to 27 (18) 30% are between the ages of 28 to 32 and (15) 25% is above 33 years. Table 3 shows distribution of respondents based on marital status which

Table 1: Personal Data of Learners.

Sex	Frequency	Percentage
Male	33	55
Female	27	45
Total	60	100

Source: Field data, 2018

Table 2: Distribution of respondents based on age.

Age	Frequency	Percentage
18-22	12	20
23-27	15	25
28-32	18	30
33-above	15	25
Total	60	100

Source: Field data, 2018

Table 3: Distribution of respondents based on marital status.

Marital Status	Frequency	Percentage
Single	21	35
Married	39	65
Total	60	100

Source: Field data, 2018

Table 4: Distribution of respondents based on qualification.

Qualification	Frequency	Percentage
Primary School Certificate	21	35
JSCE Certificate	24	40
SSCE Certificate	9	15
Qur'anic Education	6	10
Total	60	100

Source: Field data, 2018

Table 5: Distribution of respondents on the kinds of technological equipment they have in their centers.

Tech. equipment	Frequency	Percentage
Desktop computer	9	15
Laptop computer	3	5
Projectors	3	5
All of the above	0	0
None of the above	43	75
Total	60	100

Source: Field data, 2018

indicates that (21) 35% of the respondents are single while (39) 65% of them are married. Table 4 shows that educational qualification of respondents which indicated that (21) of the respondents representing 35% have primary school certificate, (24) respondent representing 40% have junior secondary school certificate and (9) respondents representing 15% of the respondents have senior secondary school certificate (SSCE) and (6) respondents representing 10% of the respondents have Qur'anic Education. Table 5 shows the view of respondents on the kinds of technological equipment they have in their centers. Table 5 shows the view of respondents on the kinds of technological equipment they have in their centers. The table shows that (9) respondents, representing 15% are of the view that they have desktop computers in their centers ;(3) respondents,

Table 6: Distribution of respondents on whether they like to be taught with technological devices.

Marital Status	Frequency	Percentage
Yes	51	85
No	9	15
Total	60	100

Source: Field data, 2018

Table 7: Distribution of respondents based on what to be taught with technological devices.

What to do you like to be taught with	Frequency	Percentage
They make learning interesting	21	35
They make learning easy	27	45
They arouse my attention	12	20
Total	60	100

Source: Field data, 2018

Table 8: View of respondents on their frequency on whether they use computers regularly.

How regularly do you use computer	Frequency	Percentage
Everyday	0	0
Every week	3	5
Once a month	6	10
Never	51	85
Total	60	100

Source: Field data, 2018

representing 5% said that they have laptop computers, (3) respondents, representing 5% said that they have projectors in their centers, and (0) respondents, representing 0% said that they don't have any computers in their centers (43) respondents, representing 75% of the population said that they do not have desktop computers, laptops and projectors in their centers. This shows that ICT facilities are not available in adult centers in some selected local government in Sokoto state. Table 6 shows the distribution of respondents on whether they like to be taught with technological devices. Table 6 shows the view of the respondents based on whether they like to be taught with technological devices, such as projectors, slides and microphones. The table indicates that (51) respondents, representing 85% said that they like to be taught with technological devices and only a harmful of (9) respondents, representing 15% said that they do not like to be taught with technological devices. This clearly shows that learners like to be taught with technological devices (even though such devices are not available in their centers). Table 7 shows the distribution of respondents based on why they like to be taught with technological devices, such as computers, projectors and slides. Table 7 shows the view of respondents based on why they like to be taught with technological devices, such as projectors, slides and microphones. The table indicates that (21) respondents, representing 35% said that the reason why they like to be taught with

technological devices is because they make learning interesting (27) respondents, representing 45% said that the reason why they like to be taught with technological devices is because they make learning easy to understand, and (12) respondents representing 20% said the reason why they like to be taught with technological devices is because they arouse their attention. This clear shows that learners like to be taught with technological devices because it improves their learning.

Table 8 shows the view of respondents on how regularly they use computer in their centers. The table shows no respondents said that they use computer everyday (3) respondents, representing 5% said that they use computer every week (6) respondents representing 10% said that they use computer once a month; never and (51) respondents representing 85% said that they never use computer in their center. This shows that ICT facilities are not available in adult centers in some selected local government in Sokoto state. Table 9 shows the distribution of respondents based on the number of computer they have in their laboratories. Table 9 shows the view of the respondents on the number of computers they have in their laboratories. The table indicates that (60) respondents, representing 100% said that they have 0-5 computers in their laboratories, no respondent said that they have between 5-10, 11-15 and greater than 16 computer in their laboratories. This clearly shows that there are not enough computers in the laboratories in

Table 9: Distribution of respondents based on the number of computers they have in their laboratories.

How many computers do you have in your laboratory?	Frequency	Percentage
0-5	60	100
6-10	0	0
11-15	0	0
16 –above	0	0
Total	60	100

Source: Field data, 2018

Table 10: Distribution of respondents on whether they have practical computer lessons in their syllabus.

Do you have practical computer lesson in your syllabus?	Frequency	Percentage
Yes	0	0
No	60	100
Total	60	100

Source: Field data, 2018

adult centers. Table 10 shows the view of respondents on whether they have practical computer lessons in their syllabus. The table indicates that no respondents said that they have practical computer lessons in their syllabus. (60) Respondents, representing 100% said that they do not have practical computer lessons in their syllabus. This shows that neither ICT lessons nor ICT facilities are used to teach learners in adult centers in some selected local government in Sokoto state.

DISCUSSION

Results of this study show that learners in adult education centers are males and study indicates 55% of the respondents are male. This is in line with the findings of Murtala (2010) where there was less number of female participation in adult education programme in Nigeria It could be the reason why many females shun away from participation due to the intensive presence of males (Muhammad *et al*., 2017). The study revealed the higher frequency and percentage of the adult learners in rang of 28-32 years of ages participated more in adult education studies programme (ICT). Their participation could attribute to the high needs for them to study information communication technology skills. The above findings that the majority of the respondent are at the age of 28-32 years and are employed than the age of 33years and above of ages which indicates that the student at the centers need and like availability of ICT facilities Murtala (2010).

Distribution of respondent based on marital status also revealed that married people participated more than single individuals in the centers (Table 3). Table 4 findings agreed with Umoh, (2010) and that educational

qualification of respondents which indicated 35% of the respondent have primary school certificate, 40% of the respondent have junior secondary school certificate and 15% of the respondent have senior secondary school certificate and 10% of the respondents have Qur'anic education. Tables 3 and 4 findings aligns with similar findings of Umoh, (2010) titled Information and communication technology (ICT) and graduates preparation for leadership. Looking at the Table 5 critically reveals that the view of the respondent on the kind of technological equipment they have in their centers. The study shows there were no enough facilities and that 75% of the respondent indicated non-availability of ICT equipment. This prove the findings of Mba, (2016) who reported that most of the adult education centers in Nigeria lack technological equipment such as desktop computers, projectors e.t.c

Table 6 indicates that 85% of the respondent said they like to be taught with technological devices and only 15% of them do not like to be taught with information technological facilities. This shows that learners like to be taught with technological devices, the study Agreed with the findings of UNDP (2012) titled information and communication technology in education. The study shows that in modern adult literacy programme, most of the student want to be taught in classes using ICT equipments, this is because the students in the centers likes and have interest in teaching with ICT skills in their programme.

The reason why the learners need to be taught with technological devices was because of learning skill involves in teaching and learning and that Table 7 findings showed 45% of the respondents want to be taught with such devices (i.e computers, projectors etc.) because using ICT facilities according to them make

learning easy. Views of the respondent on the use of computers in adult education centers, table 8 shows that 85% of the respondent said they never use computer in their centers. Table 7,8, 9 results also agreed with the findings of (Odo, 2010) who reported a study titled crises in Nigeria education system and in adult education in particular would obstruct free flow of information in conventional classroom setting. Some of the crises include; inadequate infrastructure, lack of reading materials, over-populated classroom, and inadequate qualified teaching personnel. The above findings of (Odo, 2010) could attribute to the lack of enough ICT facilities to develop interest among adult learners in the learning centers. Tables 9 and 10 also revealed that, there were no adequate ICT facilities in all adult learners in the state. Table 9 showed 0% availability of computers in the learning centers and as a result Table 10 shows 100% of the respondent said they do not have practical computer lessons in their syllabus. This shows neither ICT lesson nor ICT facilities are used in teaching and learning of students. Also the finding aligns with that of Umoh, (2010) who reported a similar observation as a reason for lack of ICT equipment in adult education centers in Nigeria.

Conclusion

In conclusion, some of the major findings of the study include; Lack of availability of ICT facilities in adult centers in some selected local government in Sokoto state, that facilitators not only lack ICT facilities, they also does not use the ones they have in teaching and learning in adult centers and adult learners do not drive any benefits from ICTs, as researchers, we wish that the findings will not only solve the ICT challenges in adult education centers, but will also be beneficial to educational stakeholders in one way or the other, and be useful for further academic researchers.

Recommendations

Based on the findings of this study the following recommendations are suggested by the researchers:

(a)   The government should also supply not just desktop and laptop computers to educational institutions and centers, it should provide latest technologies, such as projectors and other technological devices used as instructional materials that will facilitate teaching and learning in adult centers.
(b)   The state government should also help educational centers with enough funding that will enable them build computer laboratories in adult centers. This will help the learners to be conversant with the technology and improve their learning.
(c)   Practical computer subjects should be included in

the curriculum of adult education. This will help to speeding their learning on how not just to master the theoretical concepts of the technology, but learn how to use it practically.
(d)   Wireless technology tools, such as wifi and broad band internet should be provided within and across educational centers. By so doing, both learners and facilitators and members of the public will become use to the World Wide Web and leverage the technology to improve and change our world.

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