

**Assessment of Information and Communication Technology Resources
Provision in Secondary School Libraries in Gwagwalada Council,
Federal Capital Territory, Abuja, Nigeria**

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Abstract

The paper assessed Information and Communication Technology (ICT) resource provision in secondary schools of Gwagwalada Area Council, FCT, Abuja. The population of the study comprised 82 school library personnel's in Gwagwalada Area Council, FCT while the sample comprised 34 school library personnel randomly selected from the 13 public secondary schools in Gwagwalada Area Council of FCT. Data for the study was gathered with a research instrument developed by the researchers. The instrument was validated by two experts from the fields of librarianship and measurement and evaluation and trial tested using the test-retest method with four library personnel's that were not part of the original study. The test yielded a reliability coefficient of 0.83 which was considered adequate for the study. Data collected from the study was analyzed using descriptive statistics of frequency count and percentages. Findings revealed provision of computers and interactive white board by few libraries, low level of ICT resource provision, lack of support from other stakeholders in acquisition and barriers such as funding, internet instability, lack of training for library personnel and lack of infrastructure. Based on the findings, the study recommended creation of awareness for teachers, school administrators on the importance of ICT resource provision, exploration of other alternative power supply such as solar among others.

Keywords: *ICT, School Library, Assessment, ICT Resources Provision*

Introduction

School libraries are type of libraries found in pre-primary, primary and secondary schools with the purpose of providing information and ideas that are fundamental to functioning successfully in today's information and knowledge based society. Onuoha and Ogbuji (2019) opined that the purpose of establishing school libraries is to serve as a pivot for reading and the promotion of a viable reading and studying culture. If good reading, study culture and library use patterns are evolved, the young people will attain lifelong learning and maximize their potentials in life. Section 3 numbers 5 and 10 of the National Policy on Education (NPE) states that

libraries are the most important educational service. The policy recommends that every state ministry of education should provide funds for the establishment of school libraries and for the training of librarians and library assistants.

The school library of the 21st century is regarded as the hub of academic activities Onuoha, and Ogbuji (2019). They bring together the teachers and students/pupils with the teacher librarian or school librarian serving as an anchor. They went further to opine that libraries at secondary school level serve as reading rooms and information centres as well as meeting points for young people where ideas are shared and there are constant flow and exchange of information. Any high school without an efficient and effective library is comparable to a generator without fuel and issues that have to do with educational standards cannot be properly addressed in isolation of the school library. School libraries are information unit that is concerned with collection, processing, disseminating, storage and retrieval of information Unagha (2008). They provide information and ideas that are fundamental to the successful functioning in society and gives students life-long learning skills, develops the imagination, citizenship, critical thinking skills and ability to use information in different media. The crucial importance of school libraries in literacy, social and cultural development demands that they be supported by legislation, policy and funding.

Ajebomogun and Salaam (2011) enumerated the purpose of the school library to include the following: To encourage the development of skill in reading; prompt reading habits to some literacy appreciation; support and enrich the formal curriculum of the school; acquisition of ICT resources such as computers, email, internet, fax machines and books; inculcate intellectual development. For school libraries of the 21st century to function at optimal level in the areas of organization of information, capacity building, management of information system, digital libraries, resource sharing and document delivery, there is need to adopt Information and Communication technology(ICT) in its operations. ICT have the potentials to innovate, accelerate, enrich and deepen skills, to motivate and engage students, to help relate school experience to work practice, create economic viability for workers as well as strengthening teaching and helping schools change. Within a short time, ICT have become one of the basic building blocks of modern society.

The various applications of ICT have a revolutionary impact on how we see the world and how we live. It is becoming the driving force for effective and efficient operations of trade and commerce, government, medicine, education, human resources development, arts and culture, agriculture, national security and other areas of human endeavour. Examples of ICT are personal computers, digital television, email teleconferencing audio conference, CD-ROM and robots among others. Adedoyin, Akinuwesi and

Adegoke (2008) enumerated examples of ICT to include personal computers, specialised software, hand-held devices, interactive white board, intranet and visual library. ICT are diverse set of tools and resources used to communicate, create, disseminate, store and manage information. It is the use of computers and telecommunication systems in collecting, collation, analysis, processing and retrieval, transmitting and communicating different forms of data which may include audio/visual. According to Eluwa, Madu and Ihechu (2019) it is the technology that supports activities involving information. Such activities include gathering, processing, storing and data presentation. It covers any product that will store, retrieve, manipulate, transmit or receive information electronically in digital form. In the views of Akomolafe (2008) ICT is a wide range of activities and equipment including all tools, applications and information, in which are available and accessible via computer. It encompasses various forms of information delivery systems such as television, radios, newspapers, computers, internet etc. ICT is the electronic technology for collecting, sorting, processing and communicating information. It is an instructional program that prepares individuals to effectively use technology in learning, communication and life skills.

There has been pockets of published works on Information and Communication Technology (ICT) such as Eluwa, Madu and Ihechu (2019) on Evaluation of Information and Communication Technology utilization in National Open University of Nigeria, South East zone, Olawumi, Oladele and Noiba (2018) on Assessment of the utilization of ICT technology in literacy centres in Ibadan North Oyo state and Haliso (2011) on factors affecting the ICT use by academic librarians in South western Nigeria. However, no effort was made to unravel Assessment of ICT resources provision in secondary school libraries in Gwagwalada Area Council. Based on the above revelation, this topic was chosen to unravel the assessment of ICT resources provision in secondary school libraries in Gwagwalada Area Council of FCT.

Statement of Problem

With the technology revolution of the 21st century, secondary school libraries in Gwagwalada Area council should be ICT driven in order to deliver effective school library services. However, the situation in our secondary school libraries seems to be different from the expectations of the users who are yearning for electronic service delivery. Efforts such as workshop/seminars to enlighten school library authorities, training of school librarians and other library staff have been made to solve the problem. Despite all efforts, the problem has persisted without any identifiable solution. Based on the persistence, school librarians have failed to deliver library service appropriately using ICT. This research is embarked upon to find a lasting solution to the problem. It is on this

premise that this study was designed to assess ICT resources provision in secondary school libraries in Gwagwalada Area Council.

Objectives of the Study

The specific objectives of the study are to:

1. establish the type of ICT resources provision in secondary school libraries of Gwagwalada Area Council
2. determine the level of ICT resource provision in secondary school libraries of Gwagwalada Area Council
3. find out the sources of ICT provision in secondary school libraries of Gwagwalada Area Council
4. identify the barriers to ICT resources provision in secondary schools of Gwagwalada Area Council

Research Questions

1. What are the different types of ICT resources provided in secondary school libraries of Gwagwalada Area Council?
2. What is the level of ICT provision in secondary school libraries of Gwagwalada Area Council?
3. What are the various sources of ICT provision in secondary school libraries of Gwagwalada Area Council?
4. What are the barriers to ICT resource provision in secondary school libraries of Gwagwalada Area Council?

Literature Review

In the views of Mba (2017) school libraries are media resource centres and libraries devoted to the support of educational programs of primary and secondary schools in countries throughout the world. They are seen as centre of the school learning program and the foundation stone of any modern educational structure. School libraries are moving from warehouses to multi-functional learning spaces designed to support multiple learning activities, goals and interest at once. The school library is supposed to be a place where children can achieve pleasure, succour, entertainment, skills acquisition as well as dedicated study time in order to broaden their horizon. Moruf (2015) described the school library as the heart of the school system. It is the school learning resource centre, the laboratories and serve as vital tools for measuring and enhancing the standard of education.

According to Ogbemor (2011) school libraries serve elementary schools, middle schools, junior high schools and high schools. Their main function is to support various educational programmes and to develop student's skills in locating and using information. School libraries usually maintain

collections in a variety of media in addition to books, magazines and newspapers. They may contain photographs, films, sound and video recordings, computers, CD-ROM, games and maps, realia, computer lab with workstations, soft ware and internet connections. Most school libraries further enhance their collections by becoming members of school library networks which allows them to share resources with other libraries in other schools.

Moruf (2015) investigated the utilization of secondary school libraries by students in Akinyele local Government Area of Oyo state using four selected secondary schools and colleges with a total population of seven hundred and sixty students and ten librarians using random sampling method. The study revealed that school libraries were not utilize effectively by students due to inadequate resources, poor funding and lack of adequate provision for school library development.

Abraham and Aminu (2017) assessed school library resources for development of basic education in Zamfara state, Nigeria using survey research design. 24 public secondary schools were used as the accessible population while purposive sample procedure was used to select librarians. Modified likert scale was used to collect the data. Findings indicated that not all local Government Area of the state have library and some that have are not functioning. For school libraries to function effectively in the 21st century, there should be adequate provision of ICT in their various operations.

Information Communication Technology refers to technologies that provide access to information through telecommunications Olawumi, Oladele and Noibi (2018). Adedoyin, Akinuwesi and Adegoke (2008) opined that they have become a key tool in acquiring, processing and disseminating knowledge. For measuring development of a nation in the 21st century, it has become an imperative tool and the revolutionary impact on all spheres of the society has not spared school libraries as computer Aided Instruction (CAI) software are widely available to compliment classroom work. These software sometimes have limited capabilities, but very useful in presentation of graphics that aid learning. Haliso (2011) opined that there is need for all developed and developing nations of the world to take ICT as tools that aid the enhancement of job performance of the library personnel through the application of ICTs by libraries. He went further to say that ICT enhance service provision to library clientele and librarians use the technology to perform functions such as cataloguing and classification, serials management, collection development, budgeting , circulation management , referencing, indexing and abstracting in order to improve information service to users.

However, the application of ICT in school libraries is faced with some challenges. Some of these challenges according to Adedoyin, Akinuwesi and Adegoke (2008) include inadequate infrastructure, inadequate skilled manpower, resistance to change and funding. This was collaborated by Oghenetega, Umeji and Obue (2014) who listed the challenges associated with the use of ICT facilities to include Limited/restricted access to users, poor maintenance culture, poor network, lack of trained personnel, poverty, political, economic, cultural and technological factors.

Olawuni, Oladele and Noibi (2018) assessed the utilization of ICT in literacy centres in Ibadan North using adult learners in all mass literacy centres and advance learning centres as population. The respondents were randomly selected and data collected was analysed using frequencies, percentages and mean rating. Findings of the study revealed that the use of ICT facilities improved the teaching and learning in adult centre and helps adults to learn at their own pace, extends a wide range of experiences to pupils and helps to improve adult performance.

Nwabeze, Enwenfa and Kuyenum (2021) investigated the use of ICT in the teaching of physics in secondary schools in Delta state, Nigeria. Descriptive survey design was adopted for the study while questionnaire was used for data collection. Mean and standard deviation were used to answer the research questions while T-test was used to test the hypothesis. Findings revealed that physics teachers in Delta state do not integrate ICT in their physics instruction and that the level of availability of ICTs for effective use in teaching and learning physics in Delta state is low. Among the perceived barriers identified were: lack of knowledge about ways to integrate ICT in lesson and lack of training opportunities for ICT integration knowledge acquisition.

Abubakar, Gupiyem and Banwar (2017) examined the correlation of ICT accessibility and use of e-resources in Nigerian university libraries among postgraduate students using survey research design and multistage sampling technique to select 2726 students from 16 Nigerian conventional universities. Questionnaire and interview schedule for e-resources/ICT librarians were used for data collection while collected data was analysed using percentages and PPMC. Findings revealed that PG student level of ICT accessibility and frequency of use was low. The findings equally identified problems encountered in accessing e-resources to range from internet down time, password issues, inadequate skilled staff, awareness of e-resources and epileptic power supply.

The study is based on Technology Acceptance Theory propounded by Davies (1989). The theoretical model aim to predict and explain ICT usage behaviour, that is what causes potential adopters to accept or reject the use of information technology.

Research Methodology

Descriptive survey research design was adopted for the study. The population of the study consist of 82 school library personnel in public secondary schools of Gwagwalada Area Council, FCT while the sample size comprise 34 school library personnel randomly selected from 13 secondary schools in Gwagwalada Area Council of FCT, Abuja. The instrument used for data collection is a structured questionnaire titled: “Assessment of Information and Communication Technology resources provision in secondary school libraries (AICTRRSSL)”. The questionnaire consist two sections A and B. Section A solicit for personal data on the respondents such as age, educational qualifications etc while section B consist of items soliciting for information on ICT Resources Provision. The questionnaire was developed by the researchers and validated by two experts in school librarianship from University of Abuja and one measurement/ evaluation expert from Nigerian Educational Research and Development Council (NERDC) Sheda, Abuja. For reliability, the instrument was trial tested in four schools that were not part of the original study. For the collection of the required data for the study, the researchers administered the questionnaires through Education officers working with the Gwagwalada Area Council education Board and FCT secondary education Board. Data collected was analyzed using descriptive statistics of frequency counts and percentages to address the research questions

Presentation and Interpretation of Results

Research question 1: What are the different types of ICT resources provided in secondary school libraries of Gwagwalada Area Council?

The results on the different types of ICT resources provided in secondary school libraries of Gwagwalada Area Council of FCT revealed that 15 respondents translating to 44 % agreed with the existence of desktop computers while 7 respondents translating to 20% indicated the availability of interactive white board in their school library. On the provision of sound/video recordings and CD-ROM, 4 respondents and 5 respondents respectively indicated their provision while only 3 respondents indicated the provision of multimedia projector. The Internet provision which would facilitate the application of other ICT resources such as email, OPAC and other e-resources was not provided in any of the school libraries surveyed. In addition, there were no response on the provision of email, e-notice board and e-books. Findings revealed that few ICT resources such as desktop, interactive whiteboard, sound/video recordings and CD-ROMs were provided. However, other ICT resources such as Internet, E-books, email, among oth are not available in the school libraries surveyed. This is at variance with the opinion of Haliso (2011) that there is need for all developed and developing nations of the world to take ICT as a tool that aid

the enhancement of job performance of the library personnel through the application of ICT in libraries. This was collaborated by Ajobomogum and Salam (2011) that suggested the acquisition of ICT resources such as computers, email, internet, fax machines and books.

Research Question 2: What is the level of ICT provision in secondary school libraries of Gwagwalada Area Council?

Table 2: Level of ICT provision in secondary school libraries of Gwagwalada Area Council

Variables	Very high	High	Low	Very Low	Total
Frequency		16	8	10	34
Percentage		47	24	29	100

Table 2 above indicate response rate on the level of ICT provision in secondary school libraries of Gwagwalada Area Council. The results reveal that 16 respondents translating to 47% indicated high level of ICT provision while 10 and 8 respondents translating to 29% and 24% respectively indicate low level of ICT provision in the schools surveyed. Findings from the study revealed low level of ICT resource provision in secondary school libraries of Gwagwalada Area Council. The same low level of ICT resource provision was revealed in the findings of Abubakar, Gupiyen and Banwar (2017) in their examination of the correlation of ICT accessibility and use of resources in Nigerian University library among Post graduate students. Unfortunately, from the findings, tertiary institutions in Nigeria encounter same problem. In addition, school libraries were not effectively utilized by students in the schools surveyed due to inadequate and low level of ICT resources. This was attributed to poor funding and lack of adequate provision for school library development.

Research question 3: What are the various sources of ICT provision in secondary school libraries of Gwagwalada Area Council?

The various sources of ICT provision in secondary school libraries of Gwagwalada Area Council was investigated. The results revealed that 25 respondents translating to 73% indicated acquisition as source of ICT provision while 4 respondents translating to 12% indicated sourcing ICT from FCT administration. Other sources such as Gwagwlada Area Council and FCT secondary education board had 2 respondents and 3 respondents each. None of the respondents indicated sourcing their ICT from Federal government. Findings from the study revealed that the school librarians do not benefit much from the various stakeholders such as FCT administration, Gwagwalada Area Council and FCT secondary education Board in sourcing

for their ICT resources except from acquisition. Unfortunately, there was no assistance from the federal government even when education is on the concurrent list. Little and none encouragement from other stakeholders aside acquisition implies that the critical stakeholders have not seen the need to support school libraries in this era of technology especially the federal government that have not lived up to expectation in fulfilling their role in the joint sponsorship of education in the Area council. The none benefit from other sources will affect the teaching and learning processes in the school libraries and may not assist student to learn at their own pace as reported by Olawuni, Oladele and Noibi (2018)

Research question 4: What are the barriers to ICT resource provision in secondary school libraries of Gwagwalada Area Council?

Results from the study reveals on the barriers to ICT resource provision in secondary school libraries of Gwagwalada Area Council shows that 15 respondents translating to 44% indicated funding as the major barrier while 7 respondents translating to 20% indicated lack of training. A total of 4 respondents indicated inadequate power supply as barrier to ICT resource provision while 3 respondents translating to 9% indicated lack of infrastructure. There was no response rate for resistance to change and lack of school management support. Findings revealed that so many barriers such as funding, internet instability, lack of training, inadequate power supply and inadequate technological infrastructure affects the application of ICT resource provision in the secondary school libraries surveyed. The findings are in agreement with that of Adedoyin, Akinwesi and Adegoke (2008) in which they listed challenges of ICT resource provision to include inadequate infrastructure, skilled manpower, resistance to change and funding. Also, Oghenetega, Umeji and Obue (2014) corroborated the above findings when they listed limited/restricted access to users, poor maintenance culture, poor network, lack of trained personnel, poverty, political, economic, cultural and technological factors as challenges to ICT resource application.

Conclusion

School libraries in Gwagwalada Area Council are far from functioning successfully in today's information and knowledge based society. This is evidenced in their inability to source and acquire various ICT in the provision of school library services. The level of provision of few ICT resources is low in addition to numerous barriers that were encountered such as funding, internet instability, inadequate training, lack of power and infrastructure, among others.

Recommendations

The following recommendations were proffered based on the findings of the study:

1. Awareness should be created for teachers, school administrators on the importance of ICT provision in our school libraries
2. There should be legislation and proper funding of school libraries to meet up with the 21st century information world.
3. School librarians should be trained and retrained in the use of ICT in delivering school library services
4. Stakeholders such as government, development partners/Non Governmental Organisations and other relevant bodies should donate ICT equipment to school libraries to reduce their dependence on acquisition
5. School libraries should explore the possibility of alternative power supply such as solar and stand by generating set.

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