



Effective Knowledge Development in Secondary Schools Educational Level in Contemporary Information Age: Assessment of Availability of Electronic Information Resources in Nigerian School Libraries

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Abstract

Relevant electronic information resources in contemporary information age are necessity to buttress teaching and learning for effective knowledge development in educational institutions. The purpose of the study is to know the state of availability of electronic information resources in government owned secondary school libraries in Ijumu Local Government Area of Kogi State, Nigeria. Descriptive survey design was adopted for the study. Questionnaire, observation and interview are instruments of data collection. Sixteen (16) secondary schools were randomly selected from 22 and their libraries were studied. Simple percentage was used for data analysis where below 50% was considered disagreed and above 50% was considered agreed. Hence, out of nine (9) itemized electronic information resources in the questionnaire 3(33.3%) are available; while 6(66.7%) are not available (Table 1). Identify challenges associated with availability of electronic information resources is 10(90.9%), (Table 2). More to these, data gathered through observation and interview were used to buttress the discussion of the study. Recommendations are provided to know the precise types of electronic information resources to acquire into secondary school libraries and services those resources can rendered (Table 3). Also, how to curb the identify challenges are proffered in Table 4.

Keywords: Education, Secondary school, School library, Electronic information resources, Knowledge, Development, Ijumu local government area, Kogi state, Nigeria.



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1. Introduction

Knowledge is synonymous to awareness, learning, education and cognizance. Knowledge as to do with understanding; and understanding is based on the quality of information acquire at a time on a precise subject matter. Knowledge is the information, skills, and understanding one gained through learning or experience (Longman Dictionary of Contemporary English, 2005). That is to say knowledge of individual is a significant product that needs to be effectively developed. Development according to Nkoku and Ilechukwu (2012) is an eclectic paradigm of social change aimed at improving the condition and quality of life of people. Precisely, learners at pre-higher educational level need it. This because, secondary schools are important educational level of which their students need strong understanding on all subjects offered and thought. At that level ambition need to be conceived, developed, and also determination can be established about a profession and specialization for nearest future when they reach higher institution.

It is very imperative to note that, well equipped school library in contemporary information age can rendered a supportive and advance teaching, learning and training services to quicken the knowledge development of the students at secondary schools with the use of precise electronic information resources. Okoli and Ezenduka (2012) noted that learners of contemporary age acquire effective knowledge faster with the use of electronic information resources.

2. Brief Literature Review

2.1. Education and School Library

Level of development in all boughs can be determined by how effective education is acquired. Education is essential at every stage of human endeavor. Education is fundamental to the broader notion to expand human capabilities that is the fulcrum of development (Nkoku and Ilechukwu, 2012). One cannot but agreed that education help one to acquired knowledge and developed different strategies to overcome circumstances. Education is all round building exercise. It could be formal, semi, and informal.

Precisely, education acquired at secondary school level is formal education. It helps students to prepare for their present and future ambition. Secondary schools students must be well taught in order to achieve the underlying educational philosophy. Hence, the standard of the philosophy, the national aims and objectives of Nigerian education run thus:

- Inculcation of the national consciousness and national unity;
- Inculcation of the right type of values and attitude for the survival of the individual and the Nigeria society.
- Training of the mind in the understanding of the world around; and
- Acquisition of the appropriate skill, abilities and competencies both mental and physical as equipment for the individual to live in and contribute to the development of the society with all these, the planning of Nigerian education to accelerate national development had began in the 70s (Aghenta, 2001).

However, for effective achievement of these secondary school libraries can play significant supportive roles. Library is an indispensable aspect of education. Library is not just a building but reservoir of knowledge where information resources are kept and consulted (Bello, 2009). Library is an establishment that can instigate; and promote knowledge, wisdom, creativity and advancement (Bello *et al.*, 2015). This is because they make information resources available which is can be use to buttress or and even to advance knowledge acquire in the course of study. Library can add more value to education. Opinion of Nkoku and Ilechukwu (2012) on education as a process that embrace teaching, learning, and training activities meant to impact information, knowledge, skills, and competences for individual and societal improvement and development. Thus, importance of library can never be overemphasized. Relatively, Abubarkar (2002) noted that, library is a building stocked with information resources to be access by library users for educational exploitation. It is worth to note that, no institution can triumphantly succeed in all ramifications of their services without library. Based on this, types of library are formed.

Precisely, school library is designed and established for pre-higher education institution. School library is an important educational center itself. Agaga (2005) noted that school library is one of the most valuable infrastructures in the academic system. Core service of school libraries are provision of a learning environment, reference and access to information resources (Bundy, 2008).

2.2. School Library and Electronic Information Resources

Making electronic information resources available in school libraries is to enhance teaching and learning. Electronic information resources are special library resources adopted in the contemporary information age. They required electricity or power supply to put information into work. Bello *et al.* (2014) noted that electronic information resources were not initially designed for librarianship but, later adopted as a result of information overflow, overwhelm, overload and gluts; and libraries were considered as information control center. School library of which is designed for pre-higher institutions educational levels can improve their services if essential electronic information resources are made available. Electronic information resources made available in school libraries is expected to contain and display knowledge that cut across curriculum of secondary schools. School library might not quite differs by name but; vary by nature, structure and functions.

Among the electronic information resources are computer system, electronic games, compact disc, digital versatile disc, internet, audio players, projectors, interactive white boards, just among others. Some of the resources can be use alone while others are enhancement. Ayo (2002) considered the resources as information and communication technology materials. They can acquire process, store and disseminate of vocal, textual, pictorial and numerical information. Ohanu (2012) noted that the resources can equip students with current trends in technological

advancement and it is also be instrument for technological advancement and economic growth in the 21st century. It is evidenced that electronic information resources are fundamental devices that should made available in the school libraries so that it can support the teaching and learning of students to very great extent in all ramifications of knowledge acquire and self development for present and future needs. [Ohanu \(2012\)](#) includes that it will enhance interesting teaching and learning, interactive learning, promote individualized learning time and improve educational efficiency. The involve of the resources in Nigerian educational systems will accelerate, enrich and deepen skills, motivate and engage students in learning; helps to relate school experiences to work places, helps to create economic viability for tomorrow's workers, contribute to radical changes in school, strengthens teaching, and provides opportunities for connection between the school and the world ([Yusuf, 2005](#)) cited by [Baba and Odiba \(2015\)](#).

However, the use of the resources is saddled with such challenges as high cost of computer hardware and software, weak infrastructure, lack of human skills and knowledge and lack of software appropriate and culturally suitable to Nigeria ([Aduwa-Ogiegbaen and Iyamu, 2005](#)). [UNECOS \(2003\)](#) noted technology-enhanced education holds great promises; it wider spread implementation also poses some immediate challenges which are capital outlay in hardware and software, equal access to eliminate technology "havas" and hava-not", appropriate strategies for integrate technology across curricula, copyright issues, and availability of pedagogically found materials. More to these, lack of fund, constant power failure and incompetent staff in using electronic information resources in school libraries can constitute high challenges.

3. Objectives of the Study

The following objectives guide the study:

1. To identify available electronic information resources in the school libraries understudy
2. To identify the challenges with availability of electronic information resources in the school libraries understudy

4. Statement of the Problem

The important of electronic information resources in school libraries can never be overemphasized. School library can effectively play supportive roles in the area of teaching and learning for knowledge acquisition and development in this contemporary information age with the use appropriate electronic information resources. Availability of electronic information resources in the school library will enables the students to be more expose to the new development in the academic world as well helps them to learn faster. Obstinate, when there is no or poor availability of electronic information resources in the school library will affect the students by not helping them to update their knowledge, and also affect their choice of ambition for future precisely on the area of choosing courses for profession when they reach higher institution. And if these occur it will not edify their schools, local government as well not helps effective development of the nation. Because the "young of today are the leaders of tomorrow". This justifies the study and the question in view is: what is the state of availability of electronic information resources in government owned secondary schools libraries in Ijumu Local Government Area of Kogi State, Nigeria?

5. Significance of the Study

The outcome of the study will be of importance to group number of people. These are ministry of education, librarians, secondary schools teachers, secondary schools students, researchers and students of library and information science. To ministry of education the study will help them to know the available electronic information resources in the school libraries; and the challenges with availability. To secondary schools teachers, the study will help them to know appropriate electronic information resources that will support teaching in their school library. To secondary school students, it will help them to know different electronic information resources that are available to stimulate their learning capacity in school library. To researchers and students of library and information science, the outcome of the study will serve as reference point.

6. Scope of the Study

The study is limited to school libraries of government owned secondary schools in Ijumu Local Government Area of Kogi State, Nigeria. The school libraries studied are library of the following secondary schools: Community Secondary School, Ogidi; Government Day Secondary School, Ogidi; Community Secondary School, Ayere; Anglican Secondary School, Iyara; Muslim Secondary School, Iyara; Government Special Science Secondary School, Egbeda-Egga; Government Special Science Secondary School, Iyamoye; Universal Basic Education, Iyamoye; Universal Basic Education, Egbeda-Egga; Baptist High School, EkirinAdde; Comprehensive Commercial Community High School, Ekirin-Adde; Community High School, OkoroGbede; Ikoyi community High School; Ife Commercial Secondary School; Government Secondary School, Aiyegule-Gbede; and Amodia Secondary School, Aiyegule-Gbede.

7. Research Methodology

Descriptive survey research was adopted for the study. Questionnaire, observation and interview were used as instrument for data collection. Sixteen (16) secondary schools were randomly selected from 22 which is the total number of secondary schools in Ijumu Local Government Area of Kogi State, Nigeria ([Salami, 2013](#)). Sixteen (16) copies of questionnaire were produced, administered and returned accordingly by librarians in the school libraries understudy. The questionnaire consist of [Table 1](#) and [2](#). [Table 1](#) is availability of electronic information resources, while [Table 2](#) comprises of challenges with availability of electronic information resources in school libraries. Simple percentage were used to analyzed data collected in [Table 1](#) and [2](#) where above 50% were considered agree

and below 50% were considered disagree. Data obtained through observation and interviews were used to buttress the discussion of the findings.

8. Data Analyzes

Table-1. Availability of Electronic Information Resources

S/N	Electronic Information Resources	Yes	No
1	Electronic games		√
2	Internet / web base learning	√	
3.	Compact disc & Digital Versatile Disc	√	
4.	Computer system	√	
5.	Audio players		√
6.	Projector		√
7.	Interactive white board		√
8.	Electronic audio-visual display system		√
9.	Audio graphic device		√
	Percentage	33.3%	66.7%

Source: Field survey, 2015

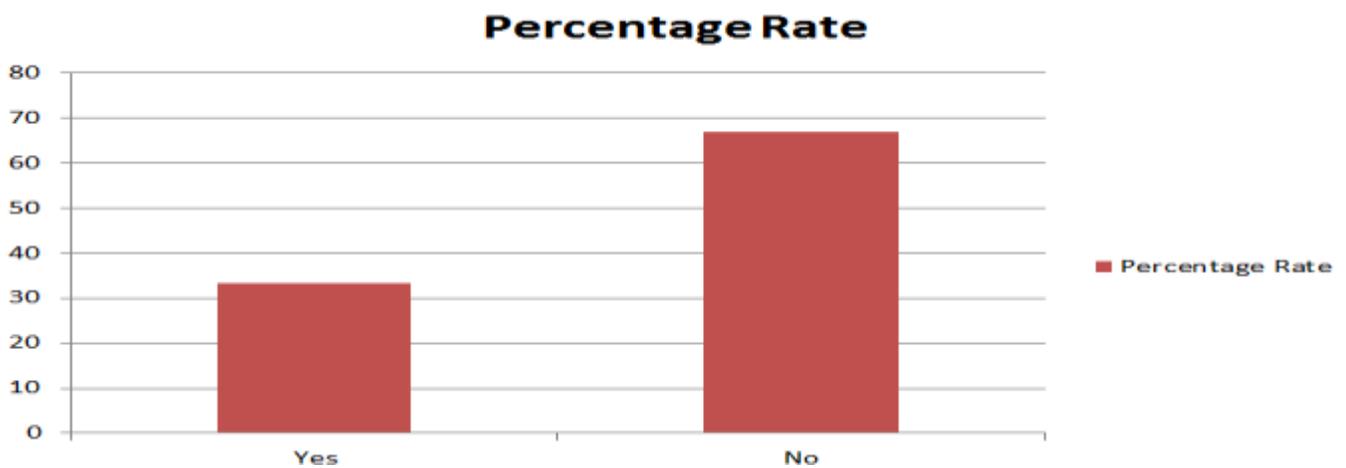


Fig-1. Bar chart showing the Percentage of Availability of Electronic Information Resources in the Secondary School Libraries Understudy

From table 1 and chart above, option “Yes” has 3(33.3%) while, option “No” has 6(66.7%). It can be concluded that electronic information resources are not available in good number.

Table-2. Challenges with Availability of Electronic Information Resources

S/N	Challenges	Yes	No
1	Lack of Information and Communication skills by librarians	√	
2.	Lack of Information and Communication skills by students	√	
3.	Constant power failure	√	
4.	High cost of maintenance	√	
5.	Lack of appropriate software to match school curriculum	√	
6.	High cost of purchase	√	
7.	Neglect on the side government	√	
8.	Insecurity	√	
9.	Poor space of library	√	
10.	Lack of motivation to school	√	
11.	Lack of interest on the side of student		√
	Percentage	90.9%	9.1%

Source: Field survey, 2015

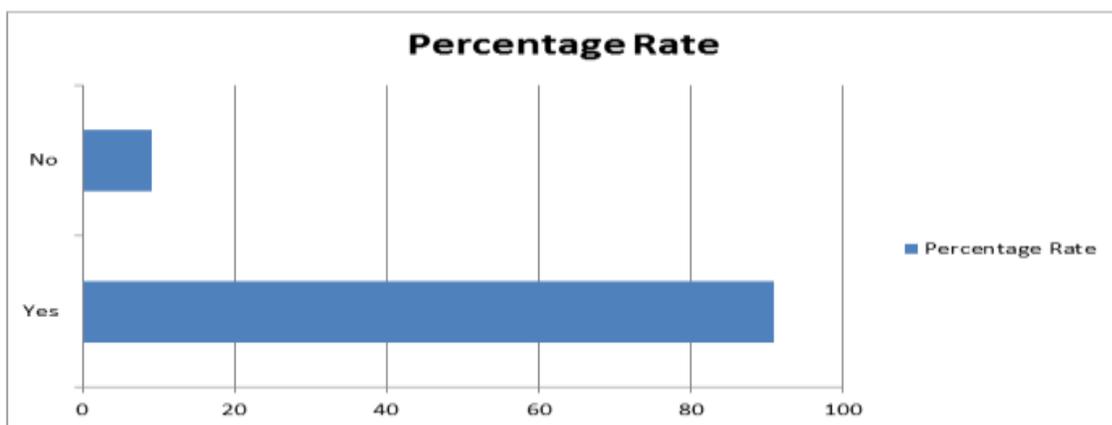


Fig-2. Bar Chart showing the Percentage Rate of Challenges with Availability of Electronic Information Resources in the Secondary School libraries Understudy

From table 2 and chat above, option “Yes” has 10(90.9%) while, option “No” has 1(9.1%). It can be deduced that there are lot of challenges with availability of electronic information resources.

9. Summary of Major Findings

Based on the objectives of the study and data analyzed the following findings were derived.

- Electronic information resources that were available are internet/ web base learning, computer system, and compact disc and digital versatile disc. While, electronic games, audio players, projector, interactive white board, electronic audio-visual devices and audio graphics are not available in the school libraries studied.
- Considered challenges with availability of electronic information resources are lack of information and communication technology (ICT) skills on the sides of librarians, lack of information and communication technology (ICT) skills on the sides of students, constant power failure, high cost of maintenance, lack of appropriate software to match school curriculum, high cost of purchase, neglect on the side of government, insecurity, poor space in the library and lack of motivation to students. While, lack of interest on the side of students was not considered as challenge.

10. Discussion of the Findings

Electronic information resources are important in all ramifications to aid effective knowledge development in educational institutions. From data analyzed of questionnaire it was discovered that internet/web base learning, computer system, and compact disc and digital versatile disc are available in the secondary school libraries studied. Furthermore, with availability of such, information realized from observation shows that computer system are scanty as a matter of fact just one or two in libraries as well as the compact disc and digital versatile disc. The computer systems are primitive version with low specifications. Interview revealed that the internet service is absolutely poor. In fact, the availability of it, just to answer name because of the persistence poor connectivity. These are evidenced that electronic information resources are on a weak state of availability in the school libraries studied. With this, the school libraries will not able to play effective supportive roles as stated by Bundy (2008) and therefore, affect the educational standard of the students because they will not be able to learn many aspect of their subjects deep and fast which is against the Opinion of Ohanu (2012) neither would they be able to effectively contribute to the growth and development to their world which is against the opinion identify by Yusuf (2005) cited by Baba and Odiba (2015). Hence, proffered recommendations in Table 3 and 4 should be adopted.

11. Implications of the Study

Knowing precise electronic information resources available in school libraries is essential. It is unremarkable to note that most of the electronic information resources are not available in the secondary school libraries studied which could have help to promote the important Bundy (2008) attached to school library. The identify challenges are many. They can be referred to as enemies of academic success. The banes will not help effective teaching and learning which is against the Ohanu (2012) thought. More to these, it will affect the education standard which is against the opinion of Nkoku and Ilechukwu (2012) . Hence, it is imperative to note that, not having the necessary electronic information resources in the secondary school libraries understudy and emerge with identify challenges will lead to knock-out supportive roles of school library which will affect knowledge acquisition and can be devastating and dreadful.

12. Conclusion and Recommendations

Despite the roles school libraries can play in all ramifications of educational aspect of students, the essential electronic information resources to be use in contemporary information age in school libraries as support to enhance effective knowledge development are somewhat available. Even with that, a lot of challenges are associated. Hence, for secondary school libraries to play their supportive roles there must be provision of relevant electronic information resources. However, the proffered recommendations in Table 3 should be considered for types and services they can rendered while, Table 4 will curbed the challenges accordingly.

Table-3. Electronic Information Resources

S/N	Electronic Information Resources	Types/ Examples	Services/ Functions
1.	Electronic games	<p>a. Collaborative digital games *Mathematics (DimensionanU-Math, Science and Literacy Video; Mithril *Moon Simulation Survival (Moonbase Alpha) *Multiple Subject (26 Learning Games to Change the World, Food Force 2)</p> <p>b. Non-collaborative digital games design for *Reading (lead frog) *Geography (place-spotting) *Mathematics (calculation Notion, online Math learning) * Science (Cell craft) *Social Studies/History (Global conflicts) *Multiple Subjects (Quiz Hub)</p>	It make learning a fun, motivate student and helps them to pay attention as well stay focus on the subject

2.	Internet/ web base learning	a. Interpersonal exchange (keypals, electronic mentoring, virtual field trips, group product development, electronic publishing Information collection and analysis (webquests, individual and collaborative research/learning project, real life data analysis, scavenger Hunts) b. Problem solving (problem based parallel problem solving, simulated activities, social action projects)	*Internet-based learning allows students to learn at their own pace, access the information at a time that is convenience for them, in the library and provide education to remote students that otherwise would not be able to make it to classroom
3.	Compact disc & Digital versatile disc	*CD-ROM *CD-R *CD-R 74/80/90/99 *CD-RW *CD-RW *DVD-ROM *DVD-5 * DVD-R/DVD+R(DVD-5) *DVD-RW and DVD+RW(DVD-5)*DVD-RAM *DVD-DL (DVD-9) *DVD-10, DVD-11, DVD-14, DVD-18 *HDDVD *BD single layer/ BD Dual layer	*Information/ data storage for long time use
4	Computer System	*Personal computer: Desktop, Laptop, Notebook, Tablets PC, and Smart phones	*For Word processing *Calculation * Data base management *Information Networking
5	Audio players	a. Audio tape: phonograph; slide film b. Radio: *Music *Old time *All-news *Sport and *Weather radios	*Receive audio information from frequency of broadcast station and recorded teaching
6	Projector	*Slide *Motion picture * Desktop *Home theater *Overhead and *Installation projectors	*Information presentation for teaching large audience
7.	Interactive White board	Note: Examples of interactive white board are based on the technological follow-up to marker-boards and over head projection screen. Hence they include: *Resistive membrane *ElectroMagnetic *Laser scanners *Rear versus short-throw projection	*Enable learners to learn certain art of writing, drawing, graphs, charts and editing skills using editing marks *It is use with inspiration to organize information in any curriculum area.
8.	Electronic Visual Display Devices	LCD TV screen, LCD watch (reflective), digital microminor devices (DMD), etc	It performs video display for presentation of images for visual reception without producing permanent records.
9.	Audiographic devices	*Personal and conference audiographic devices	*With the use of telephone graphic technologies to facilitate dialogue, exchange messages between learner and instructors. *It is use to create, store, and send visual materials, such as handwriting, drawings and still pictures. But the exchange occur in real-time the learner and instructor are present at the same time and must coordinate their schedules

Source: Author's Experience and Literature Search

Table-4. Challenges and Ways Forward

S/N	Challenges	Ways forward
1	Lack of Information and Communication skills by librarians	*Attend computer training school *Attend conference and workshops that are related to use of electronic information resources or ICTs in contemporary information age *Constant interacting with electronic information resources when available
2.	Lack of Information and Communication skills by students	*Attend computer training school *Ready to learn by paying attention when in training *Regular practice with electronic information resources is important when available
3.	Constant power failure	*Provide solar energy power supply *Provision of automatic standby generator or plant *proper wiring of the room and use of appropriate electronic materials.
4.	High cost of maintenance	*Qualify and competent professionals in information technology or related field should be in charge*Purchase needed parts or resources from reputable vendors *Regular servicing
5.	Lack of appropriate software to match school curriculum	*Indigenous competent programmers should be employ to design appropriate software based on the school's curriculum *The design should give room for expansion to update of curriculum when needed
6.	High cost of purchase	*Precise electronic information resources in Table 1 should be purchase *Identify reputable seller *Purchase improvised resources if available in local markets *Buy directly from company *Solicit funds from philanthropy around *Make demand to Non-governmental organization (NGO)
7.	Neglect on the side government	*Proper orientation should be made to government agencies or ministry in charge *Always make resources quotation friendly *Invite government representative when having related meetings * Solicit funds from philanthropy around
8.	Insecurity	*Mount essential security sensors device such as fire detector, theft detector, storm detector *Good drainage system as against flood *Human security at the library is important *Good burglary system it wisdoms
9.	Poor space in the library	*Library extension should made * Electronic information resources room should be always considered when designing library building
10.	Lack of motivation to students	*Teachers should constantly give orientation on effective knowledge acquisition *Librarian should also encourage the use of appropriate electronic information resources by students at precise time.

Source: Author's Experiences

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