Computer Literacy Skills as a Determinant of Electronic Reference Sources Utilization among Selected Secondary School Students in Ado-Odo Ota Local Government, Ogun State, Nigeria

Elizabeth Bukunola Lateef*, Opene Sunday Ozonuwe**,
Adesanmi Mathew Farukuoye***

ARTICLE INFO

ABSTRACT

The study investigated computer literacy skills as a determinant of electronic reference sources utilization among selected secondary school students in Ado-Odo Ota Local Government, Ogun State, Nigeria. Four specific objectives with conforming research questions guided the study. Descriptive survey research design was adopted for the study. The population of the study comprises of SSS3 students of the three selected Community Secondary Schools in Ado Odo Ota. A sample size of 150 was used for the study. The instrument for data collection was a self-developed structured questionnaire. Data collected was analyzed using frequency and percentages. Findings of the study revealed that majority of secondary school students were not aware of the availability of electronic reference sources. It also revealed that the level of their computer literacy skills was below average. Majority of them have never used computer before and the few of them that have used computer before used it in their homes, their friend's homes or in the cyber café. It was found that lack of formal training on the use of electronic reference sources, lack of access to computer, lack of awareness of availability of electronic reference sources, lack of funds for internet subscriptions, over dependency on printed reference sources and lack of motivation to use electronic reference sources were the major hindrances to the use of electronic reference sources among secondary school students. It was recommended that the school librarians and teachers should play a role in creating awareness among secondary school students about the availability of online/ electronic reference sources among others.

* University Librarian, Crawford University, Igbesa, Ogun State, Nigeria (bukkylateef@crawforduniversity.edu.ng) (First Author)
** Librarian, Crawford University Library, Igbesa, Ogun State, Nigeria (opozonuwe@gmail.com) (Co-Author) (Corresponding Author)
*** Ekiti State College of Health Science and Technology, Ijero-Ekiti, Ekiti State, Nigeria (Farukson2000@gmail.com) (Co-Author)

1. Introduction

The use of electronic reference materials in learning by secondary school students has become inevitable in this 21st century where globalization of education is made possible through Information Communication Technology (ICT). Presently, as a result of access to information through ICT, especially through the internet, there is the emergence of virtual learning, learning at a distance and globalization of education. Increasingly, libraries are migrating from print-based to electronic based reference collections. Publishers are offering more electronic information materials than before. Libraries are realizing the benefits of remote access and the possibilities of multiple simultaneous uses. Obviously, library users are demanding convenient online reference tools.

The emergence of electronic reference sources has greatly transformed reference services management in our libraries. Electronic reference sources or digital reference materials are reference sources stored in electronic format, in computer or computer related facilities such as CD ROM, internet, internet enabled phones, online/offline databases, or digital libraries. Using electronic reference sources have potential benefits over the print format especially in an electronic information environment. They are used to get quick specific facts or information or an overview of a subject. Examples of reference materials that have electronic/online versions are dictionaries, encyclopedia, biographies, directories, handbooks, almanacs, etc. They are used to support classroom teaching, personal studies and learning in secondary schools. Electronic reference materials enable secondary school students have access to a wide range of reference materials for their school work.

Electronic reference sources have many advantages over print version because they can be accessed anytime and anywhere and they do not occupy unnecessary space like their print versions. The availability of reference materials in electronic format has created opportunity for larger access to reference materials, enhanced the speed of service and increased the number of user served. Also, students are able to access up-to-date reference materials as soon as it is published on the internet either via the library, school cybercafé or their homes. Therefore, it is pertinent that secondary school students are equipped with necessary skills to access electronic reference materials.

Computer literacy skills are high determinants of electronic reference materials utilizations especially among secondary school students. Computer Literacy skill is the ability to operate a computer system for performing personal and job-related tasks like using web browsers and search engines on the Internet to retrieve needed information and communicate with others (Safahieh & Asemi, 2010) It is simply the technical skills needed to use the computer proficiently and it is a necessity in this 21st century.

There are critical issues that need to be addressed before electronic reference sources can be well utilized by secondary school students. Quite a large number of secondary school students in developing countries like Nigeria have poor computer literacy competency. This correlates with their inability to exploit and utilize electronic reference sources.

1.1 Objectives

The main objective of the study is to examine the influence of computer literacy skill on the use of electronic reference sources by secondary school students in Ogun state, Nigeria. The specific objectives are to:

(ⅰ) ascertain if secondary school students in Ado-Odo Ota Local Government, Ogun State, Nigeria are aware of the availability of electronic reference sources.

(ⅱ) find out the influence of computer literacy skill on the use of electronic reference sources by secondary school students in Ado-Odo Ota Local Government, Ogun state, Nigeria.

(ⅲ) find out the frequency of use of electronic reference sources by secondary school students in Ado-Odo Ota Ogun state, Nigeria.

(ⅳ) Find out the constraints to effective use of electronic reference sources by secondary school students in Ado-Odo Ota, Ogun state, Nigeria.

1.2 Research Questions

The following research questions will guide the study:

1. Are secondary school students in Ado-Odo Ota Local Government, Ogun State aware of the availability of electronic reference sources?

2. What is the influence of computer literacy skilsl on the use of electronic reference sources by secondary school students in Ado-Odo Ota Local Government, Ogun state, Nigeria?

3. What is the frequency of use of electronic reference sources by secondary school students in Ado-Odo Ota Local Government, Ogun state, Nigeria?

4. What are the constraints to effective use of electronic reference sources by secondary school students in Ado-Odo Ota Local Government, Ogun State, Nigeria?

2. Literature review

According to Tofi, Agada, and Okafor (2020), significant advances in information and communication technologies (ICTs) are transforming the library's reference environment, as collections and information in general become increasingly available electronically. Electronic reference services, also known as web-based reference services and digital reference services are services provided by professional library personnel using electronic media. According to the authors, the services can be delivered across a network, such as the Internet. Digital reference, as defined by Kadir, Dollar and Singh (2008), is an Internet-based question and answer service that connects users with persons who have specialized subject or skill expertise. A network of expertise, intermediation, and resources put at the disposal of a user seeking answers in an online/networked environment are referred to as electronic reference services (Bertot, McClure, & Ryan, 2010). The authors added that electronic reference services arise when a question is received electronically and answered electronically. These services among others include email, AskA services, online chat reference, video conferencing, digital robots, and collaborative digital reference. Hence, the main element of any digital referencing sources (DRS) is the answering of users' queries.

Webster (2003) detailed that the ease with which electronic reference materials can be used is increasing, as development moves beyond a static representation of the print edition and begins exploiting the capabilities of the electronic environment. He added that technology has progressed to a point where electronic information is at less of a disadvantage and more materials are becoming available online and users' preference seems to be for electronic information whenever they can get it. In addition, Chowdhury and Margariti (2004) emphasized that the introduction and development of the Internet and its associated Web technologies in the past decade have significantly influenced both the way libraries provide reference information resources and services to their users and the way users choose to access information.

According to Okoro (2008) digital information resources include library items generated in digital formats, such as e-journals, e-books, online and CD-ROM reference works, bibliographic databases, and other web-based resources. Shariful (2012) contributed to this viewpoint by defining digital information resources as those that deal with both born electronic and digitized items that can be accessed through library databases or the world-wide web. The born electronic materials includes: e-books, ejournals, e-magazine, e-projects, e-thesis, e-dissertations, e-reports, websites, www-resources and other related materials which can be converting the materials formats into digital format.

Akpojotor (2016) affirmed that these digital information resources can be seen as the most recent development in information technology and that they are available in various forms like e-library, digital libraries, online journal magazine, e-learning tutors and online test. According to Urhiewhu, Okeke, and Nwafor (2015), digital information resources (DIRs) and services, have become the backbones of many academic institutions. They serve as a link between library resources and users when it comes to services. They provide pupils with the option to transfer, acquire, download, process, and share information on any subject of interest, which serves as a motivational factor. Ukachi (2011) detailed that the utilization of digital information resources and services assists users in staying current with current advances in their particular subject fields, as opposed to print media, which are not updated as frequently as electronic media. According to a study conducted by Chowdhury (2013) on digital reference services in Scottish libraries, libraries respond to queries via email or telephone, recommend useful material and instruct patrons on how to obtain additional information by using appropriate links or suggesting items available at the library. Ali (2005) found in his study of online search of scientific information in science and technology libraries of Delhi that about 60% of users face problems while browsing electronic information due to little knowledge of the resources, lack trained staff and inadequate terminals.

Dincer (2016) defined computer literacy as the level of knowledge and skill in using computer technology effectively to achieve one's goals. Similarly, Basel (2017) defined computer literacy as an individual's ability to use computer programmes effectively and quickly. He went on to say that computer programmes range from simple word processing and spreadsheet programs like Microsoft Word and Excel to more complicated engineering programmes like Auto Desk CAD. Paraskevaa, Boutaa and Papagiannib (2017) affirmed that having prior experience in computer use can affect students' computer literacy skills. Prior experience could be interpreted as the amount of time an individual spent working with computers and the different applications. This submission corroborates the Sandbox theory of computer literacy by Pierce (2001) which states

that an individual has to be regularly in contact with computers in order to acquire adequate computer literacy skills. On this premise, the theory recommended that individuals should spend at least ten to fifteen minutes of every hour exploring computer in order to be proficient in the use of computer applications.

Odede (2015) asserted that students computer literacy skills are insufficient, emphasizing the need for computer literacy skills for academic and general life success. Akpovire, Olawoyin, Adebayo, and Esse (2019) stated that students must be computer literate in order to perform well in a technologically infused environment. As a result, it is critical for students to develop basic computer literacy skills that will enable them to operate efficiently in their information search. Detlor, Booker, Serenko and Julien (2012) the phrase "computer literacy" has been replaced with "information literacy" as a result of technological advancements. Information literacy, according to Detlor et al. (2012), is the ability to recognize when information is needed as well as the ability to successfully access, assess and apply that information. This includes knowing how to use various ICTs and various sorts of online information retrieval tools. These skills are essential for success in today's commercial and academic environments, as data has become one of the most important intangible assets (Detlor et al., 2012).

Ranasinghe, Wickramasinghe, Pieris, Karunathilake and Constantine (2012) noted that acquisition of computer literacy skills should be initiated during the underlying or initial stages of the students' educational modules. Oladunjoye and Benwari (2014) also lamented the discrepancies in computing skills among undergraduate student; where some students possess basic knowledge of computers before entering the university, while others may be touching the computer for the first time in the university. Nonetheless, Pantic, Pentland, Nijholt, and Huang (2007) pointed out that, over time, individuals have grown more confident and comfortable with smartphone technology, while desktop computers have taken on a secondary role, a trend that is compatible with digital future views. According to earlier surveys, approximately 80% of university students use smartphones (Akyina, Manu, & Dzamesi, 2019). In comparison to smartphone ownership, the percentage of students who own personal computers is far lower than expected. Without doubt, the smartphone is a miniature computer that can perform many of the same tasks as a desktop computer. A number of studies have looked into people's attitudes toward desktop computer and found that they are moving away from it (Alothman, Robertson, & Michaelson, 2017; Napoli & Obar, 2015; Tsetsi & Rains, 2017). In their study, Tsetsi and Rains (2017) found that marginalized populations, such as minorities, the less educated and the younger, were more prone to smartphone reliance. On the other hand, they added that this reliance acted as a barrier to digital integration for these groups, reducing their chances of empowerment.

According to Alothman, Robertson, and Michaelson (2017), students are increasingly not forced to use computers, although some higher institutions have arbitrarily offered computing facilities in some cases and have increasingly discouraged computer use. It's also important to note at this time that desktop PCs come with productivity software that's essential in the workplace. Software for electronic mail, presentations, word processing, web design, and spreadsheets are just a few examples. Smartphones and other mobile computing devices, on the other hand, have limitations in terms of content, speed, memory capability, and user interface (Napoli & Obar, 2015).

Mungai (2011) outlined that schools face various challenges in integrating ICT into teaching and learning due to a lack of school facilities to house ICT equipment, a lack of funds to purchase computers, laptops, and other ICT gadgets, a lack of qualified human resources, inconsistent in-service ICT training, and poor planning. Integrating ICT into education in Africa, according to Hennessy, Harrison, and Wamakote (2010), poses a variety of issues in the long run. They see this as a range of physical and cultural elements. Intermittent power supply, insufficient technical infrastructure in terms of bandwidth, internet connectivity, apps, and hardware are among these concerns. In addition to the aforementioned obstacles, teacher criteria such as their level of education and literacy rate, their lack of participation in professional development, and their fear of technology (technophobia) all play a role in incorporating ICT into classrooms. Aside from such reasons, there are concerns with a lack of ICT resources, learning materials, and curricula.

Uma and Arulchelvan (2012) surveyed 48 teachers and it was discovered that the following variables hampered the smooth integration of ICT into the classroom. Lack of time (78 percent), infrastructure (82 percent), and skills (82 percent) are among these factors (65 percent). The challenges of integrating ICT into education include not only the procurement of ICT resources, but also the availability of trained human resources and enough time allocation for practical courses and ICT instruction.

2.1 Methodology

The study adopted the descriptive survey research design. This design was chosen because variables were not manipulated and data were systematically collected with the use of questionnaire. The population of the study was senior secondary school three (SSS3) students of three secondary schools in Ado-Odo Ota Local Government in Ogun State, Nigeria and eight electronic reference sources which are Dictionary, encyclopedia, atlas and map, almanac, index, database, directory and thesaurus were selected to limit the scope of the study. The secondary schools are: Community Secondary School, Ketu, Adie-Owe; Community Secondary School, Alapoti and Community Secondary School, Edu. The total sample size used was 150 and that constitutes the sample size of the study. Total enumeration was adopted for the study to cover the sample size. This was in agreement with Bryman (2006) who stated that the use of total enumeration occurs when the respondents for the study are not many. Questionnaire was the instrument of data collection while the data collected was analyzed using SPSS. Frequency count and percentages was used for easier interpretation of the research questions while figures and tables were used for presentation of findings.

2.2 Analysis and presentation of results

2.2.1 Questionnaire administration and return rate

A total number of 150 copies of questionnaire were administered to the senior secondary school (SSS3) students in 3 selected community secondary/high schools in Ado-Odo Ota Local Government, Ogun State, Nigeria. 146 were returned and found useful for the analysis.

Table 1. Questionnaire distribution and return rate

S/N	Name of School	Questionnaire Distribution	Return Rate	Percent
1.	Community HIgh School, Ketu Adie Owe	50	49	33.6
2.	Igbesa High School	50	49	33.6
3.	Community Secondary School, Edu	50	48	32.9
	Total	150	146	100.0

The above table shows the response rate from the selected community schools. 49 (33.6%) were from Community Secondary School, Ketu Adie Owe, 49 (33.6%) were from Igbesa High School while 48 (32.9%) were from Community Secondary School, Edu.

Table 2. Gender

SN	Distribution	Frequency	Percent
1.	Male	67	45.9
2.	Female	79	54.1
	Total	146	100.0

The above table shows that 67 (45.9%) of the respondents were male while 79 (54.1) were females.

Table 3. Subject combination

SN	Distribution	Frequency	Percent
1.	Sciences	55	37.7
2.	Commercial	60	41.1
3.	Arts	31	21.2
	Total	146	100.0

The above table shows the subject combination of the respondents, 55 (37.7%) were from science combination, 60 (41.1%) were from commercial while 31 (21.2%) were from act combination.

Table 4. Age Distribution

Age		Frequency	Percent
1.	10-12years	29	19.9
2.	13-15 years	66	45.2
3.	16-18years	45	30.8
4.	19-21 years	6	4.1
	Total	146	100.0

The above table shows the age range of the respondents, 29 (19.9%) were between the ages of 10-12 years old, 66 (45.2%) were between the age range of 13-15 years, 45 (30.8%) were

between the ages 16-18 while 6 (4.1%) were between 19-21 years old respectively.

Table 5. Awareness of the existence of online/ electronic reference sources

SN	Items	Frequency	Percent
1.	Dictionary	34	23.3
2.	Encyclopedia	16	11.0
3.	Atlas and map	33	22.6
4.	Almanac	21	14.4
5.	Index	3	2.1
6.	Database	1	.7
7.	Directory	13	8.9
8.	Thesaurus	25	15.8
	Total	146	100.0

The above table shows that 34 (23.3%) of the respondents were aware of the existence of online dictionary, 16 (11.0%) were aware of online encyclopedia, 28 (19.2%) were aware of online atlas and map, 21 (14.4%) were aware of almanac, 3 (2.1%) were aware of online index, 1 (.7%) were aware of online database, 13 (8.9%) were aware of online directory, while 25 (17.2%) were aware of online thesaurus. This implies that majority of the students are aware of the availability online dictionary.

Table 6. Level of computer literacy skills of the respondents

SN	Items	Frequency	Percent
1.	Expert	8	5.5
2.	Above Average	10	6.8
3.	Average	46	31.5
4.	Below Average	48	32.9
5.	Beginners	34	23.3
	Total	146	100.0

The above table shows the level of computer literacy skills of the respondents, 8 (5.5%) were expert, 10 (6.8%) were above average, 46 (31.5%) were average, 48 32.9 were below average while 34 (23.3%) were beginners. This implies that level of computer literacy skills of majority of the students was below average.

Table 7. Use of computer

SN	Items	Frequency	Percent
1.	Yes	43	29.5
2.	No	103	70.5
	Total	146	100.0

The above table shows that 43 (29.5%) of the respondents used computer while 103 (70.5%)

do not. This implies that majority of the students have never used computer system before.

Table 8. Locations for the use of computer system

SN		Frequency	Percent
1.	Home	32	21.9
2.	School Library	9	6.2
3.	Cyber Café	37	25.3
4.	Class Room	14	9.6
5.	Neighbors' Home	38	26.0
6.	Friends Home	16	11.0
	Total	146	100.0

The above table shows the locations for the use of computers system, 32 (21.9%) of the respondents use computer system in their homes, 9 (6.2%) use computer system in the school library, 37 (25.3%) use computer system in the cyber café, 14 (9.6%) use computer system in their class rooms, 38 (26.0%) use computer system in their neighbour's home while 16 (11.0%) use computer system in their friends home. This shows that majority of the respondents have access to and use computers system in their homes.

Table 9. Indicates if the computer system have access to internet or not

SN		Frequency	Percent
1.	Home	28	19.2
2.	School Library	3	2.1
3.	Cyber Café	70	47.9
4.	Neighbour's Home	13	8.9
5.	Friends Home	32	21.9
	Total	146	100.0

The above table indicates if the computer system have access to internet or not, 28 (19.2%) of the respondents indicated that the computers they use in their homes have access to internet, 3 (2.1%) indicated that the computer they use in school have access to internet, 70 (47.9%) indicated that the computers they use in cyber café have access to internet while 32 (21.9%) indicated that the computers they use in their friends' homes have access to the internet and none was reported for the class room. This implies that majority of the students go to cyber café to use computer that have access to internet since there were no computers with internet access in their schools The above table shows the frequency of the use of online references sources. `23 (18.8%) of the respondents use online dictionary daily, 1 (.7%) use online dictionary weekly, 35 (24.0%) use online dictionary monthly, 38 (26.0%) use online dictionary occasionally while 49 (33.6%) have never used online dictionary. This implies that the majority of the student have never used online dictionary. Also, 0 (0%) use online encyclopedia daily, 1 (.7%) use online encyclopedia weekly, 2 (.1.4%) use online encyclopedia monthly, 1 (.7%) use online encyclopedia occasionally while 142 (97.3%) have never used online encyclopedia. This implies that the majority of the students have never

used online encyclopedia. In the same vain, 3 (2.1%) use online atlas and map daily, 5 (3.4%) use atlas and map weekly, 48 (32.9%) use online atlas and map monthly, 34 (23.3%) use online atlas and map occasionally while 56 (38.4%) have never use online atlas and map. This implies that majority of the students have never used online atlas and map. Similarly, 1 (.7%) use online almanac daily, 16 (11.0%) use online almanac weekly, 44 (30.0%) use online almanac monthly, 52 (35.6%) use online almanac occasionally while 33(22.6%) have never used online almanac. This implies that the majority of the students use online almanac occasionally.

Table 10. Frequency of use of online/ electronic reference sources

1. Dictionary	freq.	%	2. Encyclopedia	freq.	%	3. Atlas & Map	Freq.	%	4. Almanac	freq.	%
Daily	23	18.8	Daily	-	-	Daily	3	2.1	Daily	1	.7
Weekly	1	.7	Weekly	1	.7	Weekly	5	3.4	Weekly	16	11.0
Monthly	35	24.0	Monthly	2	1.4	Monthly	48	32.9	Monthly	44	30.0
Occasionally	38	26.0	Occasionally	1	.7	Occasionally	34	23.3	Occasionally	52	35.6
Never	49	33.6	Never	142	97.3	Never	56	38.4	Never	33	22.6
Total	146	100.0	Total	146	100.0	Total	164	100.0	Total	146	100.0

5. Index	freq.	%	6. Database	freq.	%	7. Directory	freq.	%	8. Thesaurus	freq.	%
Daily	-	-	Daily	-	-	Daily	-	-	Daily	-	-
Weekly	6	4.1	Weekly	1	.7	Weekly	6	4.1	Weekly	8	5.5
Monthly	16	11.0	Monthly	4	2.7	Monthly	37	25.3	Monthly	31	21.2
Occasionally	14	9.6	Occasionally	9	6.2	Occasionally	35	24.0	Occasionally	62	42.5
Never	110	74.4	Never	132	90.4	Never	68	46.6	Never	45	30.8
Total	146	100.0	Total	146	100	Total	146	100.0	Total	146	100

2.2.2 Continuance of Table 10: frequency of use of online/ electronic reference source

0 (0%) of the respondents use online index daily, 6 (4.1%) use online index weekly, 16 (11.0%) use online index monthly, 14 (9.6%) use online index occasionally while 110 (74.4%) have never use online index. This implies that the majority of the students have never use online index. In the same way, 0 (0%) use online database daily, 1 (0.7%) use online database weekly, 4 (2.7%) use online database weekly, 9 (6.2%) use online database occasionally while 132 (90.4%) have never use online database. This implies that the majority of the students have not use online database. Also, 0 (0%) use online directory daily, 6 (4.1%) use online directory weekly, 37 (25.3%) use online directory monthly, 35 (24.0%) use online directory occasionally while 68 (46.6%) have never use online directory. This implies that majority of the students have never use online directory. Likewise, 0 (0%) use online thesaurus daily, 8 (5.5%) use online thesaurus weekly, 31 (21.2%) use online thesaurus monthly, 62 (42.5%) use online thesaurus occasionally while 45 (30.8%) have never use online thesaurus. This implies that majority of the students use online thesaurus occasionally. It can therefore be concluded that majority of the students generally have never use electronic

references sources before.

Table 11. Indicates the ability of the students to use the computer system to perform task

	Items	Yes	Percent	No
1.	I can confidently operate a computer system	39	26.7	107
2.	I know how to navigate the internet to get the electronic reference sources I need for school work	28	19.2	118
3.	I know how to browse the internet	135	92.5	11
4.	I was taught computer skills in my school	76	52.1	70
5.	I have internet enabled phone (android /iPhone)	52	35.6	94
6.	I can use my smart phone to search for electronic reference sources	53	36.3	93
7.	I know how to navigate a database	7	4.8	138

The above table shows the ability of the students to use the computer system to perform stated tasks, 39 (26.7%) agreed that they can confidently operate a computer system while 107 (73.3%) indicated that they can't confidently operate a computer system. On the other hand, 28 (19.2%) agreed that they know how to navigate the internet to get the electronic reference sources they need for their school work while 118 (80.8%) indicated that they don't know how to navigate the internet to get the electronic reference sources they need for their school work. Similarly, 135 (92.5%) agreed that they know how to browse the internet while 11 (7.5%) indicated they don't know how to browse the internet. Also 76 (52.1%) accepted that they were taught computer skills in their school while 70 (47.9%) indicated that they were not taught computer skills in their school. 52 (35.6%) agreed that they have internet enabled phone (android /iPhone) while 94 (64.4%) indicated that they don't have internet enabled phone (android /iPhone). 53 (36.3%) stated that they can use their smart phone to search for electronic reference sources while 93 (63.7%) indicated that they cannot use their smart phone to search for electronic reference sources. 7 (4.8%) indicated that they know how to navigate a database while 138 (95.2%) indicated that they don't know how to navigate a database. This implies that majority of the respondents knows how to browse the internet.

Table 12. Hindrances against the use of online /electronic reference sources

	Items	Yes	Percent	No	Percent
1.	Lack of access to computer	131	89.7	15	10.3
2.	Lack of funds for internet subscriptions	114	78.1	32	21.9
3.	Lack of interest in electronic reference sources	69	47.3	77	52.7
4.	Lack of motivation to use electronic reference sources	105	71.9	41	28.1
5.	Lack of formal training on the of use of electronic reference sources	139	95.2	7	4.8
6.	Lack of awareness of availability of electronic reference sources	117	80.1	29	19.9
7.	Over dependency on printed reference sources	109	74.7	37	25.3
8.	Lack of electricity supply	59	40.0	87	59.6
9.	Lack of time to use electronic reference sources	15	10.3	131	89.7
10.	Slow internet due to poor network	75	51.4	71	48.6

The above table shows the challenges against the use of online /electronic reference sources, 131 (89.7%) of the respondents agreed that lack of access to computer was the major challenge against the use of online /electronic reference sources while 15 (10.3%) disagreed. 114 (78.1%) agreed that lack of funds for internet subscriptions was the major challenge against the use of online /electronic reference sources while 32 (21.9%) disagreed. Likewise, 69 (47.3%) agreed that lack of interest in electronic reference sources was the major challenge against the use of online /electronic reference sources while 77 (52.7%) disagreed. In the same vain 105 (71.9%) indicated that lack of motivation to use online/ electronic reference sources was the major challenge against the use of online /electronic reference sources while 41 (28.1%) disagreed. 139 (95.2%) indicated that lack of formal training on the of use of electronic reference sources was the major challenge against the use of online /electronic reference sources while 7 (4.8%) disagreed. 117 (80.1%) indicated that lack of awareness of the availability of electronic reference sources was the major challenge against the use of online /electronic reference sources while 29 (19.9%) disagreed. 109 (74.7%) agreed that over dependency on printed reference sources was the major challenge against the use of online /electronic reference sources while 37 (25.3%) disagreed. Similarly 15 (10.3%) agreed that lack of time to use electronic reference sources was the major challenge against the use of online /electronic reference sources while 131 (89.7%) disagreed. Also 75 (51.4%) indicated that slow internet due to poor network was the major challenge against the use of online /electronic reference sources while 71 (48.6%) disagreed.

3. Discussion of findings

The study revealed that the respondents possessed relatively low level of awareness of electronic reference sources with majority 34 (23.3%) aware of online dictionary. This finding was in agreement with the submission of Ali (2005) who found in his study of online search of scientific information in science and technology libraries of Delhi that about 60% of users face problems while browsing electronic information due to little knowledge of the resources, lack of trained staff and inadequate computer terminals. The study also found that the level of computer literacy skills of the majority of the students were below average. This findings was in consonance with Oladunjoye and Benwari (2014) report, who lamented the discrepancies in computing skills among undergraduate students; where some students possess basic knowledge of computers before entering the university, while others may be touching the computer for the first time in the university.

The study also found that the majority of the students do not have access to or use computer at their class rooms and schools libraries, this was in total agreement with the repot of Alothman, Robertson and Michaelson (2017) who stated that students are increasingly not forced to use computers. They also stated that although some higher institutions have arbitrarily offered computing facilities in some cases and have increasingly discouraged computer use. It was also found that majority of the secondary school students generally have never use electronic reference sources before. This collaborate the findings of Akpovire, Olawoyin, Adebayo, and Esse (2019) who stated that students

must be computer literate in order to perform well in a technologically infused environment. As a result, it is critical for students to develop basic computer literacy skills that will enable them to operate efficiently in their information search. Also, Odede (2015) found that students computer literacy skills are insufficient, emphasizing the need of computer literacy skills for academic and general life success.

The researchers discovered that majority of the students knows how to browse the internet. This was in agreement with the findings of Pantic, Pentland, Nijholt and Huang (2007) who pointed out that, over time, individuals have grown more confident and comfortable with smartphone technology, while desktop computers have taken on a secondary role, a trend that is compatible with digital future views. Without doubts the students use the smartphones of their parents and guidance to browse the internet on social network like Facebook whatsApp and so on. Tsetsi and Rains (2017) found that marginalized populations, such as minorities, the less educated and the younger ones were more prone to smartphone reliance. On the other hand, they added that this reliance acted as a barrier to digital integration for these groups, reducing their chances of empowerment.

Lastly, the researchers found that lack of formal training on the of use of electronic reference sources, lack of access to computer, lack of awareness of the availability of electronic reference sources, lack of funds for internet subscriptions, over dependency on printed reference sources and lack of motivation to use electronic reference sources were the major hindrances to the use electronic reference sources among the secondary school students. This was in accordance with the findings of Mungai (2011) who outlined that schools face various challenges in integrating ICT into teaching and learning due to a lack of school facilities to house ICT equipment, a lack of funds to purchase computers, laptops and other ICT gadgets, a lack of qualified human resources, inconsistent in-service ICT training, and poor planning.

4. Conclusion

The students of the selected community secondary schools were generally not aware of the availability electronic reference sources, this lack of awareness results in a very low level usage of the online reference resources by the students. In addition, the computer literacy skills of majority of the students are below average, due to lack of access to computer in their class rooms, school library and their homes etc.

Recommendations

The school librarians and teachers have a role to play in creating awareness among secondary school students about the availability of online/ electronic reference sources. This will encourage increased frequency in the use of those online /electronic sources. Students should be trained and re-trained on the use of online reference sources. Secondary school administrators should provide

computer and enabling environment that would enable students to acquire and sustain high level of computer literacy skills. Free internet Wi-Fi and electricity supply should be made available to students. Education policy makers should consider the inclusion of library studies skills and information, communication and technology use into the secondary school curriculum. Further studies should also be conducted to investigate the availability of school libraries and electronic references sources in the other local government areas across Ogun State and the nation (Nigeria) at large.

References

Akpojotor, L. O. (2016). Awareness and usage of electronic information resources among postgraduate students of library and information science in Southern Nigeria. Library Philosophy and Practice (E-Journal). https://digitalcommons.unl.edu/libphilprac/1408/

Akpovire, E., Olawoyin, O. R., Adebayo, O., & Esse, U. C. (2019). Role of information literacy skills on use of information resources by medical students in Lagos state. *Library Philosophy and Practice (e-journal)*, 1-19. http://repository.elizadeuniversity.edu.ng/bitstream/20.500.12398/774/1/Role_of_information _literacy_skills_on_use_of_info.pdf

Ali, N. (2005). The use of electronic resources at IIT Delhi Library: a study of search behaviours. *The Electronic Library, 23*(6), 691-700. https://doi.org/10.1108/02640470510635773

Alothman, M., Robertson, J., & Michaelson, G. J. (2017). Computer usage and attitudes among Saudi Arabian undergraduate students. *Comput. Educ., 110*, 127-142. https://www.pure.ed.ac.uk/ws/files/31774787/selection.pdf

Basel, D. (n.d). Importance of computer skills. Retrieved 10th March, 2022. From https://fundiconnect.co.za/importance-of-computer-skills/).

Bertot, J. C., McClure, C. R., & Ryan, J. (2010). *Statistics and performance measures for public library networked services, Chicago:* American Library Association, 360.

Chowdhury, G. & Margariti, S. (2004). Digital reference services: a snapshot of the current practices in Scottish Libraries. *Library Review, 53*(1), 5-60. https://strathprints.strath.ac.uk/2612/1/strathprints002612.pdf.

Chowdhury, G. (2013). Sustainability of digital information services. *Journal of Documentation, 69*(5), 602-622.

Detlor, B., Booker, L., Serenko, A., & Julien, H. (2012). Student perceptions of information literacy instruction: The importance of active learning. *Education for Information, 29*, 147-161.

Dinçer, S. (2016). Assessing the computer literacy of University Graduates: The Third International Conference on Open and Flexible Education (ICOFE), Hong Kong. Retrieved March 13, 2022. Available on https://www.researchgate.net/publication/308349331_Assessing_the_computer_literacy_of_u niversity_graduates

Hennessy, S., Harrison, D., & Wamakote, L. (2010). Teacher factors influencing classroom use of ICT in Sub-Saharan Africa. *Itupale Online Journal of African Studies, 2*, 39-54.

https://www.researchgate.net/publication/228399541_Teacher_factors_influencing_classroom _use_of_ICT_in_Sub-Saharan_Africa

Kadir, W., Dollar. W., & Singh, D. (n.d). Reference services in academic libraries. Retrieved 3rd June, 2022). Available at: https://www.researchgate.net/publication/250717961_digital_reference_services_in_academic _libraries.

Odede, I. (2015). Undergraduates' computer skills and the use of online information Resources: A Case study of library and information science students of Delta State Universit, Nigeria. *International Research: Journal of Library & Information Science, 5*(4), 770-782, http://irjlis.com/wp-content/uploads/2016/05/15-IR-333-54.pdf

Okoro, I. I. C. (2008). *Virtual library for student's research and study. In Achebe, N. (ed.): library information literacy for higher education.* Enugu: Nigeria library association, 7-12.

Oladunjoye, P. & Benwari, N. N. (2014). Computer literacy among undergraduate students in Nigeria Universities. *British Journal of Education, 2*(2), 1-8. http://www.eajournals.org/wp-content/uploads/Computer-Literacy-amongUndergraduate-Stud ents-in-Nigeria-Universities.pdf

Pantic, M., Pentland, A., Nijholt, A., & Huang, T. S. (2007). Human computing and machine understanding of human behavior: A survey. *Artificial Intelligence for Human Computing,* 47-71. https://ibug.doc.ic.ac.uk/media/uploads/documents/LNAI-PanticEtAl-CAMERA.pdf

Paraskevaa, F., Boutaa, I. H., & Papagiannib, A. (2008) Individual characteristics and computer self-efficacy in secondary education teachers to integrate technology in educational practice. *Computers & Education, 50,* 1084-1091. http://www.weizmann.ac.il/st/blonder/sites/st.blonder/files/uploads/integrate-technology-in-ed ucation.pdf

Pierce, B. (2021). Theory of computer literacy. Retrieved 20th February, 2022 from http://www.frigatezine.com/essay/view/evi02bil.html.

Ranasinghe, P., Wickramasinghe, S. A., Pieris, W. R., Karunathilake, I., & Constantine, G. R. (2012). Computer literacy among first year medical students in a developing country: A cross sectional study. *BMC Res Notes, 5*(1), 504. https://doi.org/10.1186/1756-0500-5-504

Safahieh, H. & Asemi, A. (2010). Computer literacy skills of librarians: a case study of Isfahan University libraries, Iran. *The Electronic Library, 28*(1), 89-99. https://doi.org/10.1108/02640471011023397.

Shariful, I. (2012). Definition of Digital Information Resources. Accessed 5th May, 2022 from http://univdhaka.academia.edu/sharifulislam/papers/203831/definitionofdigitalinformationreso urces.

Tsetsi, E. & Rains, S. A. (2017). Smartphone Internet access and use: Extending the digital divide and usage gap. *Mobile Media and Communication, 5*(3), 239-255. https://doi.org/10.1177/2050157917708329

Ukachi, N. B. (2011). Electronic information resources and undergraduate users' patronage in University of Lagos library: A survey. *Madonna Journal of Research in Library and Information Science, 1*(2), 21-34. https://ir.unilag.edu.ng/handle/123456789/4252

Uma, M. P. & Arulchelvan, S. (2012). Usage of ICT among the Students and Teachers and its impact on their communication behavior. *European Journal of Social Sciences, 36*(2), 160-170.

Urhiewhu, L. O., Okeke, I. E., & Nwafor, M. C. (2015). Extent of digital information resources usage by undergraduates of selected higher institutions in Delta And Edo States, Nigeria. *Research on Humanities and Social Sciences, 5*(14), 110-117. https://www.iiste.org/Journals/index.php/RHSS/article/view/24551

Webster, P. (2003). Implications of expanded library electronic reference collections. *Online, 27,* 24-27. https://www.proquest.com/docview/199910285

[About the authors]

Lateef, Elizabeth Bukunola is currently serving as the acting University Librarian of Crawford University, Igbesa, Ogun State, Nigeria. She is a certified librarian and a member of the Nigerian Library Association (NLA). She has written several articles (that are published in reputable journals) and book chapters. She has also participated in several workshops, seminars, and conferences. Over the years, she has organised the annual World Book Day celebration for secondary school students in her university community, which serves as a community service. This programme has helped stirred up the interest of secondary school students to books and reading. She holds both Bachelor and Master's degrees in Library, Archival, and Information Studies from the University of Ibadan, Ibadan, Nigeria, and she is presently a research student at the University of Ibadan, Ibadan

Ozonuwe, Opene Sunday is a librarian1 at Crawford University Library, Igbesa, Ogun State, Nigeria. In addition to belonging to the Nigerian Library Association, he is a chartered librarian. He founded SmarteAccess Global and serves as its chairman at the moment. Several of his articles have been published both locally and internationally in peer-reviewed journals. In addition, he has penned five book chapters. He has organised and taken part in several regional, national, and worldwide conferences, seminars, and workshops. In addition to his Bachelor's degree in library and information science, he has a Master's degree in Library Information and Archival Studies from the University of Ibadan, Ibadan, Nigeria. His research interests include Information Retrieval, Bibliometrics, Bioinformatics, Social Media, Cataloguing, Collection Development, Digital Libraries, Digitization, Electronic Resources, and Information Literacy

Farukuoye, Adesanmi Matthew (CLN) is a Principal Librarian in College of Health Sciences and Technology Ijero Ekiti. He was the librarian in charge of the college library from January to September2020. He holds a B.A Philosophy, MBA and MLIS from Obafemi Awolowo University. Ile-ife andUniversity of Ibadan, Nigeria respectively and currently a research student at UI. Also

he has attended conferences and workshops both locally and internationally where he presented various papers few of which are ICTeSSH Conference Universiti Pultra Malaysia Conference etc. Research interests are in Media Technology, Bilbliotherapy, Library and Personnel Management. To his credit are several publications and articles in reputable outlets across the globe. He is the current Vice Chairman Nigerian Library Association Ekiti State Chapter. Also the serving Publicity Secretary of the Medical Library Association of Nigeria. A member of a professional associations such as; Nigerian Library Association (NLA), Medical Library Association of Nigeria (MLA), School Library Association (NSLA) International Federation of Library Association (IFLA), AFLIA. Ambassador of Library and information Sensitization Vanguard of Nigeria. He renders services to community as WHO Independent Surveyor (RILQAS) and in the Road safety Marshall Club. (Cadet Marshal).