

University of Nebraska - Lincoln
DigitalCommons@University of Nebraska - Lincoln

Library Philosophy and Practice (e-journal)

Libraries at University of Nebraska-Lincoln

Summer 8-14-2019

Information Literacy Skills as determinant of ICT Utilisation by Secondary School Teachers in Private Secondary Schools in Ibadan North Local Government Area, Oyo State, Nigeria.

Oluwadamilola Funmi Akingbade Miss
University of Ibadan, Nigeria, akingbadedamilolaadunni@yahoo.com

Stephen Olufemi Olaopa Mr
University of Ibadan, Nigeria, stepholak@gmail.com

Follow this and additional works at: <https://digitalcommons.unl.edu/libphilprac>

 Part of the [Library and Information Science Commons](#)

Akingbade, Oluwadamilola Funmi Miss and Olaopa, Stephen Olufemi Mr, "Information Literacy Skills as determinant of ICT Utilisation by Secondary School Teachers in Private Secondary Schools in Ibadan North Local Government Area, Oyo State, Nigeria." (2019). *Library Philosophy and Practice (e-journal)*. 2668.
<https://digitalcommons.unl.edu/libphilprac/2668>

Information Literacy Skills as determinant of ICT Utilisation by Secondary School Teachers in Private Secondary Schools in Ibadan North Local Government Area, Oyo State, Nigeria.

By

AKINGBADE, Oluwadamilola Funmi

Department of Library Archival and Information Studies,
University of Ibadan, Ibadan, Nigeria
akingbadedamilolaadunni@yahoo.com

&

OLAOPA, Stephen Olufemi

Department of Library Archival and Information Studies,
University of Ibadan, Ibadan, Nigeria
stepholak@gmail.com

ABSTRACT

Information Communication and Technology (ICT) resources use has capacity to positively affect the field of education including the teaching/learning process. It was observed that information literacy skills can influence the use of ICT resources for teaching by private secondary school teachers. It was established that some secondary school teachers do not make adequate use of ICT resources for teaching. The study therefore, examined the influence of information literacy skills on utilization of ICT resources by private secondary school teachers in Ibadan North Local Government, Oyo State, Nigeria. Descriptive survey design was adopted and the study population consisted of 836 teachers from 34 private secondary schools in Ibadan North. The purposive sampling technique was used to select a sample of 220 respondents. Questionnaire was the instrument used for data collection. There was a positive significant relationship between teachers' information literacy skills and utilization of ICT resources for effective teaching by private secondary school teachers ($r = .263^{**}$; $n = 205$; $df = 204$; $p < 0.01$). The use of ICT resources has enabled secondary school teachers to have access to information materials in different format most especially Electronic Information Resources (EIRs) for teaching. In order for them to enjoy maximum benefit of ICT resources, there is a need for them to be continually trained on the acquisition of information literacy skills, how they can make use of their ICT resources to access different sources of information most especially EIRs, teachers should also be educated/enlightened on using ICT resources for lesson presentation/delivery.

Keywords: Information Literacy Skills, ICT resources, Secondary School Teachers

Word count: 247

Introduction

Education could be regarded as a crucial tool in the development of any nation of the world, be it social, economic, political and technological development. It is the brick for advancement and any country that refuses to commit better percentage of its resources to its educational system will continually lag behind. The success of every other sector of the economy relies heavily on the educational sector such that any failure recorded in the sector will have adverse effect on other sectors. In order to have a vibrant and top notch education that will bring about development, there is a need to have highly motivated teachers and world class teaching environment where there is adequate human, material and financial resources. The educational system in Nigeria is divided into three main parts; primary, secondary and tertiary education, Secondary education is provided for children after primary education, that is, before tertiary education. It is aimed at developing a child better than the primary level, because it is obvious that primary education is insufficient for children to acquire literacy, numeracy, and communication skills (Yusuf, 2009; Ige, 2011) Such education is provided in secondary school, which can be owned by government (state or federal), individuals or community (Ige, 2013). The secondary level occupies a critical position in the educational system.

According to Ayeni & Ogunbameru (2013), teaching and learning is an organized instructional process that is consciously geared towards transforming and developing learners' intellectual ability, skills, ethics and values; to enable them function effectively, become self-reliant, and contribute positively to societal development. Ede (2009) views teaching as a means of learning where learning is active, intentional, and motivational and a social process of knowledge construction and meaning making. Learning process entails the initiation, modification and change of perceptual order through active engagement of learners in the learning activities (Nurmi & Jaakkola, 2006). The art of teaching involves the use of both creative and demonstrating skills in enhancing the delivery of instruction. Teaching in the context of this study is a process of creating technology-based learning environment that will engage students in learner-centred activities that enable them to think, collaborate, construct meaning, and acquire knowledge, skills and attitude to foster learning. Teaching-learning process cannot be carried out in a vacuum without the involvement of people that have been specially trained to impart knowledge in the classroom settings, these professionals which serves as the link between students and acquisition of knowledge in the teaching-learning process are referred to as teachers (Ayeni and Ogunbameru 2013)

A teacher according to Ogwo (2005) is essentially a facilitator of learning. A good teacher can use various learning technologies (ICTs such as computer, internet and multimedia resources) to enhance the process of instruction preparation and delivery in schools (Olelewe and Amaka, 2011). Information and Communication Technology in its widest sense is technological tools and resources used to communicate, create, organize, disseminate, store, retrieve, and manage information (Obi, 2002; Chaka, 2008). ICT does not only mean computers. It has to do with technological tools which according to Chaka (2008) include computers, the Internet, broadcasting technologies (radio and television), and telephone. This implies that ICT is a combination of computer and telecommunication application. Information and Communication Technology is one of the important innovations for modern development. The term ICT springs up from the convergence of telecommunication, computing and broadcasting through the use of digital information. It covers any product that will store, retrieve, manipulate, transmit and receive information electronically in a digital form. ICT encompasses the broad fields of information and communications by means of computer and telecommunication tools that are being increasingly used for organisational or personal information processing in all sectors of economy and the society as a whole.

The various ICT facilities that could be used in the teaching learning process in schools according to Babajide and Bolaji (2003); Bryers (2004); Bandele (2006); and Ofodu (2007) include; radio, television, computers, overhead projectors, optical fibers, fax machines, CD-Rom, Internet, electronic notice board, slides, digital multimedia, video/ VCD machine and so on. According to Warlick (2005), the need for continuous access to information and knowledge makes learning lifelong and the traditionally neat distinction between learning and work unreal. Education thus becomes a continuum, with no marked beginning and end, which provides opportunities for lifelong learning to help individuals, families, workplaces, and communities to adapt to economic and societal changes, and to keep the door open to those who have dropped out along the way. Lifelong learning and training for the workplace cannot be confined to the traditional classroom. It is unrealistic and unaffordable to continue to ask learners to come to a designated place every time they have to engage in learning. To cope with the diversity, complexity, and changing demands for education services, delivery must extend beyond the face-to-face institutional modality to include distance education, enrichment mass media, and non-formal settings.

A study by Simonson (2008) revealed that teachers' skills, perception and attitudes were related to their use of ICT in teaching and learning. The more skilled teachers were in ICT,

the more likely they were to use it in classroom. A survey by EU School net in 2010 (cited by Andoh, 2012) involving teachers' use of Acer notebooks in six European Union countries, revealed that a large number of participants perceived use of notebook had positive impact on their learning, elicited interest, promoted individualized learning and helped to lengthen study beyond school day.

However, a study by Korte & Husing, (2007) suggested that small number of teachers perceived benefits of ICT in schools were not clearly identified. Some teachers viewed ICT as waste of time and expensive. A report by Becta, 2008 on a survey of UK teachers (cited in Andoh, 2012) revealed that teachers' positivity about possible contributions of ICT in schools, was moderated as they became rather unsure and sometimes doubtful about specific and current advantages of it. Further study by Teo (2012) on teachers' attitudes towards computer use in Singapore, found that teachers were more positive about their attitude towards computers and intention to use them, than the helpfulness of computer towards teaching and learning. These studies reveal that teacher's skills, perceptions, and attitudes influence adoption and use of ICT in schools. Teacher preparedness and professional development is not only desirable but also necessary for the success of learners, School and educational systems. It is obvious that teachers cannot be prepared at one go. Teacher-educators need to be effective teachers and good role models for teaching practices because it is not possible to prepare a new generation of teachers who can effectively use new tools for learning unless teacher-educators themselves are models for effective use of technology in their own classes (UNESCO, 2007; Steketee, 2005).

Adam and Wood (2006) opined that retrieving information from any sources required an understanding of how information was organized accompanied by skills to retrieve and using it effectively. The uncertain quality and expanding quantity of information pose large challenges for secondary school teachers. The sheer abundance of information would not in itself create a more informed citizenry without a complementary cluster of abilities necessary to use information effectively. Information literacy has formed the basis of learning processes which could be practiced in all disciplines, in all learning environments and in all levels of education that enabled learners to master content and extend their investigations, become more self-directed and assume greater control over their own learning. Adam and Wood further more stressed that lack of information literacy was partly the cause of underutilization of existing ICT and information resources. Teachers were ill-equipped with requisite information literacy skills such as the ability to identify, locate, review, select and apply

information needed for their teaching and had difficulties in using relevant tools to locate information and knowledge.

Okiki and Mabawonku (2013) opined that as the volume of information is constantly increasing, search skills are required not only in order to gain access to the available information but to sift from the large quantity and use the most appropriate information resources. Pezesheki-Rad and Zamani (2005) assert that the real challenge of our time is not producing information or storing information, but getting people to gain access to and use information resources. To gain access and use these vast resources effectively, Information users must learn to overcome information anxiety in order to explore available information resources to enable them interpret and utilize information for rational decision making. Analysing, interpreting and presenting information for use in any environment is an essential skill users of information resources should possess if they are to be relevant (Aurora de la Vega & Puente 2010), hence being information literate is fundamental to the use of information/ICT resources in the knowledge society (Braaksma 2004).

Traditionally, literacy means the ability to read and write. There seems to be various types of literacy; such as audiovisual literacy, print literacy, computer literacy, media literacy, web literacy, technical literacy, functional literacy, library literacy and information literacy etc. Nominal and active literacy too focuses on making people aware to read and write in their day to day activities. Information literacy is quite different from the above. It goes beyond the combination of these concepts. According to the American Library Association, information literacy is the ability to "recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information" (ACRL, 2000, p. 1). Information Literacy is the set of skills needed to find, retrieve, analyze, and use information.

Information literacy elements were defined by Bundy (2004) under three main elements; 1. Generic skills: a. Problem solving b. Collaboration c. Team work d. Communication e. Critical thinking. 2. Information skills; a. Information seeking b. Information use c. Information technology fluency. 3. Values and beliefs a. Using information wisely and ethically b. Social responsibility & community participation. According to Californian University Information literacy fact sheet, (2000); an information literate individual is able to: Determine the extent of information needed, Access the needed information effectively and efficiently, Evaluate information and its sources critically, Incorporate selected information into one's knowledge base, Use information effectively to accomplish a specific

purpose, Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.

Okiki and Mabawonku (2013) asserted that the concept of information literacy presupposes that an individual recognizes the need for information, and knows how to find, evaluate and subsequently communicate information effectively to solve particular problems or to make decisions. More importantly whether information comes from the internet, or the World Wide Web, Online databases, books or document, and other possible sources, inherent in the concept of information literacy is the ability to understand and critically evaluate and make use of information to solve specific problems or tasks at hand.

Expectedly, as the volume of information is constantly increasing, search skills are required not only in order to gain access to the available information resources, but also to sift from the large quantity and utilize the most appropriate information resources. Pezeshki-Rad and Zamani (2005) assert that the real challenge of our time is not producing information or storing information, but getting people to gain and use information resources. To gain access and use these vast resources effectively, information users must learn to overcome information anxiety in order to explore the available information to enable them interpret and utilize information for rational decision-making. Analyzing, interpreting and presenting information for use in any environment is an essential skill users of information resources should possess if there to be relevant. Hence, being information literate is fundamental to the use of information resources in the knowledge society (Braaksma, 2004).

Fundamentally, to retrieve information in the open web, not only formal information skills are needed but substantial information skills (Gui, 2007) who observed that sophisticated computer skills do not automatically translate into skills in search and retrieving of information (Thomas, 2004). However, (Gui, 2007) found out that available information is not necessarily accessed and used by users. The study shows that the availability of information does not necessarily mean actual use because the users may not be aware of the availability of such resources, they do not know how to access these resources, or do not know what the resources offer. Majid and Abazova (1999) conducted a study on the relationship between computer literacy of academic staff and their use of electronic information sources. The study revealed that a statistically significant relationship was found between computer literacy and the use of electronic information sources and services. The study further revealed that computer literate academics use electronic information sources more frequently.

Basically information literate persons are those who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information and how to use information in an appropriate manner. Information literacy enables people to interpret and make informed judgment (Okiki 2013). In spite of the potential benefit of information literacy skills, many teachers in Nigerian secondary schools are unable to adequately utilize, the vast information fostered by access to global information network for enhanced teaching and learning purposes (Ughebu, 2001). Information skills provide impetus for growth at all levels of human endeavour.

Usman (2005) argued that, because knowledge matters, understanding how people and societies acquire and use knowledge and why they sometimes fail to do so is essential to improving people's lives. Thus, important perhaps even more critical, is the skill for acquiring and using information. It is regrettable to note that most teachers cannot locate or identify the needed information sources in the library. Equally, they cannot access the internet when searching for information. This is attributed to poor literacy skills. It explains reasons for mutilation, stealing and vandalism of the library materials in spite of the fact that human and financial resources have been committed to build a sound library collection in the university system to support research and learning.

In Nigeria, studies by the Federal Ministry of Education (2010) revealed that most teachers still lack the knowledge and skills to use ICT facilities for curriculum instruction; this has been attributed to reasons such as: inadequacy of ICT facilities for the teeming population of teachers and students who need them, other reasons are poor and inadequate infrastructural support such as erratic electricity power supply, poor internet services, low bandwidth and poor maintenance of ICT facilities among others. The resultant effect of these inadequacies is low capacity of teachers to deliver the curriculum which has been largely responsible for low learning achievement and production of poor quality outputs from secondary schools.

The teacher is one of the important components of the learning process and he/she needs to be able to access and utilise information resources in order to effectively carry out the role of impacting knowledge in the classroom settings. If teachers are not using available Information and Communication Technology (ICT) maximally, resources will not only be wasted but the students will be affected in the long run as they might be short of knowledge and information. The ability of the teacher to effectively utilise available resources is one of the factors that determine the learning outcome, one of the skills required for this is information literacy skills which has to do with ability to determine information that is

needed, ability to search for it and utilise it in the most effective and efficient manner. It is to this end that this study sets out to investigate influence of information literacy skills on utilisation of ICT by secondary school teachers in private secondary schools in Ibadan North Local Government Area, Oyo state, Nigeria.

Statement of the Problem

ICT usage in secondary schools has made positive impact and developments in learning by students. When ICTs are deployed in education system under the right condition, they can accelerate, enrich, and deepen basic skills in reading, writing, mathematics and the sciences, and they can motivate and engage students to learn as they become more independent and responsible for their learning. Information and communication technologies have been found to encourage active learning, support innovative teaching, reduce the isolation of teachers, and encourage teachers and students to become active researchers and learners. However, studies on ICT use for teaching in secondary schools have shown that lack of necessary skills on the part of teachers is one of the challenges faced in the implementation/integration of ICT for teaching in Nigerian secondary schools; this situation is worrisome and portends serious danger to the much desired technological breakthrough for socio-economic development of the country. Previous studies were carried out in different locality and were majorly focused on availability, accessibility, adoption and integration of ICT for teaching.

In addition, availability and accessibility of ICT resources without utilisation will not bring about tangible progress in the field of education rather, Information Literacy skill one of the skills required to make good use of ICT resources available for teaching. Information literate individual (teachers) finds it easy to take advantage of available ICT resources for teaching and learning process because he/she is able to recognize and define information required, determine where to look for it, evaluate and use the information without breaking any of the ethical laws surrounding use of information and this will bring about increase in productivity in his/her work. Thus, the purpose of this study is to examine the influence of information literacy skills on teacher's utilisation of ICT facilities for effective teaching and better learning outcome in secondary schools particularly in Ibadan North local government area of Oyo State.

Objectives of the Study

The main objective of the study is to find out the influence of information literacy skills on teacher's utilisation of ICT resources for teaching and learning in secondary schools and to

investigate the level of use of ICT resources and facilities for teaching and learning by private secondary school teachers in Ibadan North local government. The specific objectives are to:

- i. determine the level of information literacy skills of secondary school teachers of selected secondary schools in Ibadan North local government;
- ii. Find out the types of teaching activities for which ICT resources are deployed by private secondary school teachers;
- iii. examine the types of ICT tools and devices used for teaching by private secondary school teachers;
- iv. determine the frequency of use of ICT for teaching by private secondary school teachers and
- v. ascertain the challenges associated with the utilisation of ICT resources by secondary schools teachers of selected secondary schools in Ibadan North local government.

1.4 Research Questions

The following research questions guided the study:

1. What is the level of information literacy skills of private secondary school teachers in Ibadan North local government?
2. What are the types of teaching activities for which ICT resources are deployed by private secondary school teachers?
3. What are the types of ICT tools and devices used for teaching by private secondary school teachers?
4. What is the frequency of use of ICT for teaching by private secondary school teachers?
5. What are the challenges associated with the utilisation of ICT resources for teaching by private secondary school teachers?

Research Hypothesis

HO₁: there is no significant relationship between teachers' information literacy skills and utilization of ICT resources for effective teaching by private secondary school teachers.

Methodology

Descriptive survey design was used for the study. The target population of study consisted of private secondary school teacher in Ibadan North local government area of Oyo State. The sampling technique used in selecting sample for the study was purposive sampling technique which according to Popoola (2011) is a sampling procedure that is characterized by the use of

judgment and a deliberate effort to obtain representative samples from a study population, seven private secondary schools were purposely selected based on deliberate effort to obtain representative sample from the study population and they are; Oritamefa Baptist Model School (80), All Souls High School (35), Walbrook College (20), Ripples College (15), Francis M. College (25), City of Faith Comprehensive College (25) and Agbowo Baptist High School (20), the total of which is 220 teachers .

The Instrument for collecting data for the study was a questionnaire named “Teachers’ Utilisation of Information Resources for Teaching and Learning Questionnaire” (TUIRTLQ). The questionnaire was divided into 6 sections (A, B, C, D E, and F) of 68 items, section A of the questionnaire catered for the demographic information about the respondents with a total number of ten questions (9). Section B was used to collect data on level of information literacy skills with a total number of fifteen (15) items. Section C on types of ICT tools and devices used for teaching for teaching with a total number of Ten (11) items. Section D on teaching activities for which ICT are deployed with a total number of six (8) items. Section E frequency of use of ICT for teaching/learning activities with a total number of Eleven (11) items and Section F on the challenges associated with the utilization of ICT resources for teaching with twelve (14) items. The scale used for the questionnaire was Lickert’s Summated Rating Scale (LSRC) with the following parameters (SA=Strongly Agree, A= Agree, D=Disagree and SD= Strongly Disagree). The questionnaire was closed ended questionnaire. 220 copies of the questionnaire was produced and distributed to the respondents.

In order to eliminate bias and to ensure that the instrument measures what it is suppose to measure, reliability test was carried out on teachers in Seventh Day Adventist Secondary School, Lagere, Ile-Ife, Osun State, Nigeria, who were not part of the study population. 25 copies of the questionnaire were administered. The Cronbach-alpha method was used to determine the reliability coefficient of the instrument. The co-efficient alpha of the scales for each of the section (B, C, D, E and F) on the questionnaire was measured. The details of the results obtained on the sections are as follows; ($\alpha=0.90$) for level of information literacy scale (section B); ($\alpha=.71$) for types of ICT tools and devices used for teaching (Section C); ($\alpha=0.93$) for teaching activities for which ICT are deployed (Section D); ($\alpha=0.89$) for frequency of utilization of ICT tools and devices for instruction preparation/delivery (Section E); ($\alpha=0.90$) and for challenges that hinder effective utilization of ICT for teaching (Section F); ($\alpha=0.90$). The alpha value for the 60 items in the five sections was ($\alpha=0.94$)

Data collected was analyzed with the use of tables. Descriptive statistic such as frequency and percentage was used for the analysis while Pearson Moment Correlation Coefficient was used for the hypothesis tested in the study at 0.05 level of significance.

Results and Discussion

Research Question 1: What is the level of information literacy skills of secondary school teachers of selected secondary schools in Ibadan North Local Government?

Table 1: Information Literacy Skills of Teachers

Information Literacy Skills	SA	A	D	SD
I am able to define specific information needs	76(37.1%)	119(58.0%)	7(3.4%)	3(1.5%)
I can define the nature and the extent of information that I need	82(40%)	110(53.7%)	11(5.4%)	2(1.0%)
I can decide where and how to find information that I need	91(44.4%)	102(49.8%)	11(5.4%)	2(1.0%)
I can access needed information effectively and efficiently	73(35.6%)	117(57.1%)	14(6.8%)	1(0.5%)
I am capable of using internet search tools (such as search engines, directories etc.)	97(47.3%)	75(36.6%)	30(14.6%)	3(1.5%)
I can determine the authoritativeness, currency and reliability of the information sources	34(16.6%)	124(60.5%)	40(19.5%)	7(3.4%)
I can evaluate information and its sources critically in order to determine if it is appropriate for my use	48(23.4%)	120(58.5%)	32(15.6%)	5(2.4%)
I can synthesize newly gathered information with previous information	54(26.3%)	105(51.2%)	44(21.5%)	2(1.0%)
I can use ICT to communicate, manage and process information	68(33.2%)	111(54.1%)	24(11.7%)	2(1.0%)
I understand many of the ethical, legal and socio-economic issues surrounding information and information technology	39(19.0%)	116(56.6%)	45(22%)	5(2.4%)
I can identify when information need has not been met	51(24.9%)	123(60%)	28(13.7%)	3(1.5%)
I can identify a variety of potential sources of information	59(28.8%)	109(53.2%)	32(15.6%)	5(2.4%)
I am unable to manage time effectively when using ICT resources	25(12.2%)	77(37.6%)	73(35.6%)	30(14.6%)
My understanding of issues of copyright and plagiarism is low	18(8.8%)	65(31.7%)	76(37.1%)	46(22.4%)
I have the ability to sift information resources obtained from the internet	49(23.9%)	118(57.6%)	30(14.6%)	8(3.9%)

Table 1 presented results on the level of information literacy skills of the secondary school teachers. Findings showed that most of the respondents 124 (60.5%) agreed that they had the capacity to determine the authoritativeness, currency and reliability of the information resources, 123 (60.0%) knew when their information needs have not been met, 120 (58.5%) had the ability to evaluate information and its sources critically in order to determine if it is

appropriate for their use and 119 (58.0%) had the capacity to define specific information needs. Additionally, majority of the respondents 46 (22.4%) strongly disagreed that their understanding of issues of copyright and plagiarism was low. The results clearly showed that most of the teachers have high information literacy skills.

Research Question 2: What are the types of teaching activities for which ICT resources are deployed by private secondary school teachers in Ibadan North Local Government?

Table 2: Teaching activities for which ICT resources are deployed

Teaching activities and ICT tools deployed	SA	A	D	SD
I use ICT resources for preparation of lesson note (e.g. searching for information materials from the internet)	80(39.0%)	86 (42.0%)	21(10.2%)	18 (8.8%)
I deploy ICT resources during lesson delivery (e.g. using projector to present lesson, use of facebook and yahoo group to pass instruction)	24(11.7%)	44(21.5 %)	87 (42.4%)	49 (23.9 %)
I use ICT resources when preparing instructional materials (e.g. drawing and downloading graphics from the internet)	65(31.7%)	73(35.6 %)	45 (22.0%)	22 (10.7%)
I make use of ICT resources to organize and manage other teaching resources for effective teaching/learning outcome	59(28.8%)	85(41.5 %)	42 (20.5%)	19 (9.3%)
I utilize ICT resources when I'm conducting assessment (e.g. using computer to compute examination and test scores)	45(22.0%)	71(34.6 %)	56 (27.3%)	33 (16.1%)
I use ICT resources in preparation of assignments and homework (for example using computer to type questions)	60(29.3%)	66 (32.2%)	51 (24.9%)	28 (13.7%)
I use ICT to support the learning of students with special needs and different learning styles (use of video/CD drive to play audio-visual materials)	42(20.5%)	48 (23.4%)	29 (38.5%)	36 (17.6%)
I use ICT resources to collaborate with other teachers in different locations on issues concerning my work (using e-mail and phones)	55(26.8%)	85(41.5 %)	44 (21.5%)	21 (10.2%)

Table 2 indicated that most of the teachers 86 (42.0%) stated that they used ICT resources for preparation of lesson note (e.g. searching for information materials from the internet), 85 (41.5%) used ICT resources to collaborate with other teachers in different locations on issues concerning their work (using e-mail and phone) and similarly 85 (41.5%) made use of ICT resources to organize and manage other teaching resources for effective teaching/learning outcome. On the contrary, majority of the teachers 87 (42.4%) indicated that they did not deploy ICT resources during lesson delivery (e.g using projector to present lesson, use of facebook and yahoo group to pass instruction). Also 79 (38.5%) of the teachers expressed clearly that they did not use ICT to support the learning of students with special needs and different learning styles (use of Video/CD drive to play audio-visual materials). This implies that most of the teachers use ICT resources more in their teaching preparation activities rather than in their presentation to the students.

Research Question 3: What are the types of ICT tools and devices used for teaching by private secondary school teachers in Ibadan North Local Government?

Table 3: Types of ICT tools and devices used for teaching

ICT tools and devices	Used		Not used	
	Freq.	%	Freq.	%
Mobile phones	161	78.5	44	21.5
Ipads and tables	85	41.5	120	58.5
Projectors	82	40.0	123	60.0
Cameras	70	34.1	135	65.9
Scanners	62	30.2	143	69.8
Internet	154	75.1	51	24.9
Computers/laptops	170	82.9	35	17.1
Printers	135	65.9	70	34.1
Television/VCD/DVD player	107	52.2	98	47.8
Radio	95	46.3	110	53.7
Electronic board	61	29.8	144	70.2

Table 3 presented results on the types of ICT tools and devices used for teaching by the teachers. Findings showed that most of the respondents 170 (82.9%), 161 (78.5%), 154 (75.1%) and 135 (65.9%) ranked computers/laptops, mobile phones, internet and printers respectively as the most used ICT tools and devices in that order. On the other hand, the least used ICT tools and devices as indicated by the teachers included; electronic board, scanners, cameras and projectors as noted by 144 (70.2%), 143 (69.8%), 135 (65.9%) and 123 (60.0%). This result reveals the obvious, as computers/laptops have become affordable and common place presently. Some management of private schools even give their teachers free of charge. In like manner, mobile phones are also accessible to most individuals at cheap cost and the Internet can be accessed through these mobile devices for a token. Teachers as some point in time may want to print some documents that will be useful for the teaching and learning process, printers are used for these purposes.

As for the least used ICT devices, only a few private schools can boast of using the electronic board for teaching and learning, even in some universities these are installed but never used. Scanners may not be used as their use may be limited in the school context, the same goes for cameras. There may not be a need for the use of a projector, if the class is sizable, television can perform the same role.

Research Question 4: What is the frequency of use of ICT for teaching by secondary school teachers of selected secondary schools in Ibadan North Local Government Area of Oyo State?

Table 4: Frequency of use of ICT tools and devices for instruction preparation/delivery

ICT tools and devices	Daily		Weekly		Monthly		Quarterly		Never	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Mobile phones	133	64.9	31	15.1	7	3.4	4	2.0	30	14.6
Ipads and tables	79	19.0	45	22.0	8	3.9	15	7.3	98	47.8
Projectors	6	2.9	15	7.3	20	9.8	40	19.5	124	60.5
Cameras	17	8.3	29	14.1	13	6.3	30	14.6	116	56.6
Scanners	17	8.3	13	6.3	32	15.6	19	9.3	124	60.5
Internet	107	52.2	38	18.5	17	8.3	11	5.4	32	15.6
Computers/laptops	80	39.0	66	32.2	19	9.3	11	5.4	29	14.1
Printers	28	13.7	46	22.4	47	22.9	22	10.7	62	30.2
Television/VCD/DVD player	76	37.1	21	37.1	10	4.9	9	4.4	89	43.4
Radio	69	33.7	25	12.2	4	2.0	7	3.4	100	48.8
Electronic Board	18	8.8	12	5.9	11	5.4	8	3.9	156	76.1

Table 4 revealed that most of the respondents 133 (64.9%), 107 (52.2%) and 80 (39.0%) expressed that they used mobile phones, Internet and computers/laptops daily. While expectedly, 156 (76.1%), 124 (60.5%) and 89 (43.4%) stated that they never used electronic board, projectors, scanners and television/VCD/DVD player respectively. This gives credence to the earlier result on the types of ICT tools and devices used for teaching activities.

Research Question 5: What are the challenges associated with the utilization of ICT resources by secondary school teachers of selected secondary schools in Ibadan North Local Government?

Table 5: Challenges that hinder effective utilization of ICT for teaching

Challenges	SA		A		D		SD	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
My own low level of ICT skills	21	10.2	58	28.3	74	36.1	52	25.4
Insufficient access to ICT resources	43	21.0	122	59.5	25	12.2	15	7.3
Insufficient level of technical support	51	24.9	111	54.1	34	16.6	9	4.4
Unavailability of ICT facilities (internet projector etc)	55	26.8	77	47.3	34	16.6	19	9.3
Inadequate funding of the educational sector	74	36.1	99	48.3	25	12.2	7	3.4
Lack of necessary training in the use of ICT	55	26.8	107	52.2	32	15.6	11	5.4
Insufficient time for planning and preparation of lesson plan	42	20.5	84	41.0	55	26.8	24	11.7
Absence of reward system for encouraging technology usage	47	22.9	101	49.3	36	17.6	21	10.2
Inefficiency of guidance and support by administration	45	22.0	112	54.6	31	15.1	17	8.3
Deficiency in professional development opportunities for gaining knowledge and skill	41	20.0	118	57.6	34	16.6	12	5.9
Lack of interest of teachers in technology usage	21	10.2	87	42.4	65	31.7	32	15.6
Insufficiency of financial resources for technology integration	51	24.9	122	59.5	21	10.2	11	5.4
Difficulties of improper teaching methods for technology usage	33	16.1	107	52.2	50	24.4	15	7.3
Computer phobia (unwarranted fear of using computer)	20	9.8	44	21.5	71	34.6	70	34.1

Table 5 outlined the challenges faced by the teachers in the use of the ICT tools and devices. The most prominent challenge faced by most of the teachers 122 (59.5%) was insufficient financial resources for technology integration in the teaching activities. This was followed by insufficient access to ICT resources as noted by 122 (59.5%), deficiency in professional development opportunities for gaining knowledge and skill as expressed by 118 (57.6%) and inefficiency of guidance and support by the administration as noted by 112 (54.6%). On the other hand, most of the respondents 74 (36.1%) and 71 (34.6%) disagreed that they had low level of ICT skills, while 71 (34.6%) also disagreed that they had computer phobia (unwarranted fear of using computer). This shows that most of the challenges faced bother on money and lack of support from the management of the private secondary schools.

Testing of Hypothesis

HO₁: There is no significant relationship between teachers' information literacy skills and utilisation of ICT resources for effective teaching by private secondary school teachers.

Table 6 Relationship between information literacy skills and utilisation of ICT resources

Variables	Mean	Std. Deviation	N	R	Df	Sig. (p)	Remarks
Information Literacy Skills	45.49	6.195	205	.263**	204	.001	Sig.
Utilisation of ICT resources	30.20	10.633	205				

**P < 0.01

Table 4.8 showed that there was a positive significant relationship between teachers' information literacy skills and utilisation of ICT resources for effective teaching by private secondary school teachers ($r = .263^{**}$; $n = 205$; $df = 204$; $p < 0.01$). The null hypothesis was therefore rejected and the alternative hypothesis was accepted. The Pearson Correlation Coefficient of $.263^{**}$ showed that as information literacy skills of teachers increase, their utilisation of ICT resources for teaching also increases.

Discussion of Findings

Most of the respondents had high level of information literacy skills as they could determine the authoritativeness, currency and reliability of the information resources and can also identify when their information need had not been met. This is in line with the findings of Okiki and Mabawonku (2013) who established that the information literacy skill of academic staff (teachers) of Nigerian Federal Universities is high. Also supporting this claim is the findings of Kurbanoglu, Akkoyunlu and Umay (2006) who reported that in any human society, the attainment of high level of efficiency in one's profession is as important as possessing information literacy skills. Private secondary school teachers of Ibadan North local government met up with this requirement as reported in this study.

Findings showed that the teaching activities for which ICT was deployed included; preparation of lesson note, collaboration with other teachers in different locations on issues concerning their work and organization and management of teaching resources for effective teaching/learning outcome. This has been established by Hadded and Drexler (2002) who in

their study stated that ICTs are used by teachers for lesson presentation, demonstration, collaboration, drill and practice, interaction and tele-collaboration.

The most used ICT devices as indicated by most of the teachers were computers/laptops, mobile phones, internet and printers. While the least used included electronic board, scanners, cameras and projectors. This corresponds with the findings of (Bande, 2006); (Ofodu, 2007) that established that ICT facilities used in the teaching learning process in schools include; radio, television, computers, overhead projectors, optical fibres, fax machines, CD-ROM, Internet, electronic notice board, slides, digital multimedia, video/VCD machine. Corroborating this, Ofodu (2007)) asserted that even the cell phones that many now carry with them can be used to learn/teach.

Most of the respondents used mobile phones, internet, and computers/laptops daily, while it was also noted that electronic board, projectors and scanners were never used, this is supported by the findings of Egomo, Enyi and Tah (2012) who studied ICT use in tertiary institutions in Cross Rivers State and reported that frequency of ICT use by academic staff (teachers) of the selected schools is relatively high, also in support of this is Tella et. al (2007) who in their study of ICT use in Nigerian secondary schools found that considerable number of teachers access ICT between 11- 15 hours per week. This is an indication that the use ICT by the Nigeria secondary school teachers is relatively high. This is at variance with the findings of Ayeni and Ogunbameru (2013) who stated that usage of ICT in teaching/learning process is low in Ondo state secondary schools.

The most prominent challenge identified by most of the respondents was insufficient financial resources to integrate technology into their teaching. This is in line with the findings of Ubogu and Evarista (2012) in their study of Challenges of Utilizing Information and Communication Technology (ICT) for Quality Education in Secondary Schools in Delta State, Nigeria in which they found out that lack of access to ICT prevents teachers under study from utilizing them. Corroborating this assertion is Fakeye (2010) who also found out in a study carried in Ibadan that most of schools covered in the study do not have computers, hence are not connected to the internet. He added those who have computers do not use them for teaching but solely for administrative purposes.

There was a positive significant relationship between teachers' information literacy skills and utilisation of ICT resources for effective teaching by private secondary school teachers in Ibadan North Local Government. This means that as their level of information literacy increases, their use of ICT resources for teaching activities also increases which will in turn

increase their productivity. This is in line with the findings of Okiki and Mabawonku (2013) who established in their study that information literacy skills affect the academic and research productivity of academic staff (teachers).

Conclusion

Information and Communication Technology resources use has positively affected the field of education including the teaching/learning process. It provide access to information materials in different formats most especially Electronic Information Resources (EIRs). Teachers who have taken advantages offered by ICT have been able to carry out their jobs in the most effective and efficient manner. ICT resources mostly utilized by private secondary school teachers in Ibadan North Local Government include; mobile phones, computers and internets. They make use of these resources mostly for instructional preparation and communication with colleagues for professional development.

However information literacy has been identified to influence private secondary school teachers' use of ICT for teaching. Therefore for professional excellence for secondary school teachers there is need for those that are not information literate to strive to become one and for those who are to increase their level of information literacy skill in order to improve their use of ICT resources for personal and professional development.

Recommendations

Consequent upon the findings of this study, the following recommendations are being made:

Stakeholders in secondary school education should organize training on information literacy skills acquisition for their teachers from time to time, at least once in a term.

Secondary school teachers should be oriented on the various ways through which they can make use of available ICT resources in their teaching/learning process and also on different sources of information in different formats of which they might not be aware.

Efforts should be made by secondary school administrators to provide access to ICT resources where available and in a situation where there are not enough ICT resources, more should be provided.

Teacher training and professional development oriented policies should support ICT-related teaching models that encourage teachers in the use of ICT resources in teaching/learning process.

Teacher training curriculum at all levels should be modified to include compulsory training on information literacy skills.

Secondary school teachers should be enlightened and encouraged on using ICT resources for lesson delivery/presentation with the use of projectors, electronic boards and different social media network such as Facebook, Yahoogroups, Whatsapp groups and to make use of ICT resources to support learning of students with special needs.

REFERENCES

- Adam L. and Wood F. 2006. "An Investigation of the Impact of Information and Communications Technologies in Sub-Saharan African," *Journal of Information Science*, 25. 4: 307-318.
- Andoh, B. 2012. An exploration of Teachers' skills, perceptions and practices of ICT in teaching and learning in the Ghanaian second-cycle schools, *Contemporary education technology* 3.1: 36-49
- Association of College & Research Libraries 2000. Information literacy competency standards for higher education Accessed 05. Dec. 2018 <<http://www.ala.org/acrl/ilintro.html>>
- Aurora de la Vega and Puente2010. Availability and use of printed, audio visual and electronic information by high school teachers of commercial and social sciences in public educational institutions in Peru. *Libri*.60:306-320
- Ayeni and Ogunbameru 2013. Effective Utilization and maintenance of ICT facilities for quality teaching and learning outcome in secondary schools in Ondo State, Nigeria. *International journal of research studies in educational technology*. 2.2: 127-140
- Babajide, O & Bolaji, O. A., 2003. Perception of lecturers and service teachers towards the use of communication media in teaching pure and applied science related disciplines. *Paper presented at the 44 Annual STAN Conference*.
- Bandele SO 2006. Development of modern ICT and internet system. In Agagu AA (ed). Information and communication technology and computer Applications. Abuja: Panof Press pp. 1 – 3.
- Bandele, S. O. 2006. Development of modern ICT and internet system. Eds.Abuja: *Panof Press*.
- Braaksma, B. 2004. "A million hits won't get you far": IL and the engaged citizen, *Regina Sask, Canadian Plains research centre*.151-160
- Bryers AP 2004. Psychological evaluation by means of an on-line computer. *Behaviour Research Method and Instruction* 13: 585 – 587.

- Bundy, A. 2004. Australian and New Zealand information literacy framework: Principles, standards, and practice, Retrieved June 7, 2007, from <http://www.anziil.org/resources/Info%20lit%20nd%20edition.pdf>.
- Chaka, J. G. 2008. Information and communication technology (ICT) as a vital tool in the education sector reform in Nigeria. *Nigerian Journal of Sociology in Education (NJSE)*, 2.2: 181-190.
- Ede, E.O. 2009. Hindrances to the implementation of information and communication technologies and learning of technical drawing in Nigerian universities; *Nigerian Vocational Journal*, 14.1:60-70.
- Egomo J.E. Enyi B.I .and Tah M.M.2012. Availability and utilization of ICT tools for effective instructional delivery in tertiary institutions in Cross River State, Nigeria. *Global Advanced Research Journal of Educational Research and Review* 1.8 190-195.
- Fakeye, D. O. 2010. Assessment of English language teachers' knowledge and use of information and communication technology (ICT) in Ibadan southwest local government of Oyo state. *American-Eurasian Journal of Scientific Research*.5.4: 56-59.
- FRN, 2010. National policy on education. Abuja: Federal Ministry of Education.
- Gui M. 2007. Formal and Substantial Internet Information Skills: The role of Socio-Demographic Differences on the Possession of Different Components of Digital Literacy. *Firstmonday*. 12:9-13
- Haddad, C. & Drexler, O 2002. Integrating technology for meaningful learning. <http://www.pacificrim.netmckenzie>. Retrieved 21th Sept. 2013.
- Ige A.M. 2013. Provision of secondary education in Nigeria: Challenges and way forward, *Journal of African Studies and Development* 5.1: 1-9
- Ige AM 2011. Myths and realities of falling standard of education in Nigeria: The way forward. *Niger. J. Prof. Teach.* 2:36-48.
- Korbanoglu, S.S., Akkoyunlu, B. and Umay, A. 2004. Developing the information literacy self efficacy scale. *Journal of documentation*. 62.6: 730

- Korte, W. & Husing, T.2007. Benchmarking access and use of ICT in European schools 2006: Results from head teachers and a classroom surveys in 27 European countries. *E-learning papers 29 .10: 1-6*
- Majid, S & Abazova, A.(1999). Computer Literacy and Use of Electronic Information Sources by Academic Staff, *Asian Libraries*, 8(4): 100-111.
- Nurmi . S., & Jakkola, T. 2005. Problem underlying the learning object approach. *International Journal of Instructional Technology and Distance Learning*, 2.1: 61-66.
- Obi, C. 2002. Information technology skills needed by business education teachers for effective instruction in the secondary schools in Enugu State. *The Journal of World Council for Curriculum and Instruction*, Nigeria Chapter, 4.2: 99-106.
- Ofodu, G. O. 2007. Nigeria Literacy educators and their technological needs in a digital age. *Education Focus*, 1.1: 22-30.
- Ogwo, B. A. 2005. Modern Instructional Techniques and their applications in Technical Vocational Education (TVE) programmes of Polytechnics and Monotechnics. *A Commission paper presented at the Capacity Building workshop for lecturers of polytechnics and monotechnics in Nigeria by the Education Trust Fund (ETF) held at Mushood Abiola Polytechnic August 24, 2005, Akwa Ibom Polytechnic, Ikot Osurua, Sept. 21, 2005 and Federal Polytechnic Auchi Nov. 2, 2005.*
- Okiki O.C. 2013. ILS and availability of information resources as factors influencing research productivity of academic staff of Federal universities in Nigeria. PhD.Thesis. Department of Library Archival and Information Studies. University of Ibadan.
- Okiki O.C. and Mabawonku 2013. Information literacy skills of Academic staff in Nigerian Universities. *International Journal of Library science*.8.2: 9-22
- Olelewe, C.J. & Amaka, E.U. 2011. Effective utilization of Information and Communication Technology (ICT) for sustainable manpower development among Computer Educators in Colleges of Education in South-East Geo-political zone of Nigeria. *A paper presented at the 24th National Association of Technology Teachers (NATT) on Technical and Vocational Education Training (TVET) for Sustainable Industrial*

Development in Nigeria between 17th -21st October 2011 at Umunze Federal College of Education Anambra State.

- Pezeshki-Rad,G. and Zamani, N. 2005. Information seeking behaviours of Iranian extension managers and specialists. *Information research* 10.3:229. Retrieved Feb 18, 2008 from <http://information.net/./103/paper.html>
- Popoola, 2011. Research Methodologies in Library and Information Science. *A Paper presented at a training workshop on Building Research capacity for Library and Information science Professionals organized by the Nigerian Library Association, Ogun state Chapter at Covenant University, Otta, Nigeria* 18th-22nd September 2011
- Shaheen Majid & Alfia Abazova. (1999). Computer Literacy and Use of Electronic Information Sources by Academic Staff, *Asian Libraries*, 8(4): 100-111.
- Simonson, M. 2008. Technology use of Hispanic bilingual Teachers: A function of their beliefs, attitudes and perceptions on peer technology use in the classroom, *Journal of Instructional Technology* 3.3: 257-266
- Steketee, C. 2006. Modelling ICT integration in teacher education courses using distributed Cognition as a framework. *Australasian Journal of Educational Technology*, 22.1: 126- 144.
- Tella, Adeyinka, Tella, Adedeji, Toyobo O. M., Adika L. O., & Adeyinka, A. A. 2007. An assessment of secondary school teachers' uses of ICTs: Implications for further Development of ICT's use in Nigerian secondary school. *Turkish online Journal of Educational Technology*, 6.3: 5-16.
- Teo, T. 2012. Pre-service teachers' attitudes towards computer use: A Singapore survey. *Australasian Journal of Educational Technology* 24 .4: 413-424.
- Thomas, R. M. 1987. *Computer technology: An example of decision-making in technology transfer*. In R. M. Thomas & V. N. Kobayashi (Eds.), 2004. *Educational technology: its creation, development and cross-cultural transfer*, Oxford: Pergamon Press, 25-34.
- Ubogu, R. E. and Evarista, B. E. 2012. Challenges of Utilizing Information and Communication Technology (ICT) for Quality Education in Secondary Schools in Delta State, Nigeria. *Journal of Communication and Culture*, 3. 2, 19-25.

- Uhegbu, A. N. 2001. *The information User: issues and Theories*. Enugu: John Jacobs Classic Publishing Limited, pp. 95-98.
- UNESCO 2007. *Information and communication technology in Teacher education*. Case studies from the Asia pacific region. Bangkok: UNESCO.
- Usman, N. 2005. Information Literacy: The instrument for political and Economic Empowerment in Nigeria. *Nigeria international Journal of Research in Education*, 2 .192: 189.
- Yusuf H.O 2009. Strategies for improving the teaching of reading comprehension in primary Schools. *J. Educ. Res. Dev.* 4.3:63-68.