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16 FACILITATING SECONDARY SCHOOL TEACHERS RECORDS KEEPING CAPACITY THROUGH ICT RESOURCES UTILIZATION IN OGUN STATE, NIGERIA

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Abstract

The problem of records management and retrieval has become a challenge in Nigerian schools which might not be unconnected with methods used. Traditional methods have proved to be problematic with important documents as certificates, testimonials and others usually missing. In these digital times, important documents are often either misplaced or cannot be traced giving educational administrators and stakeholders tough decision making processes. The study adopted the survey research design with a population of 1,845 teachers and a sample of 218 teachers selected through simple random sampling technique. The instrument for the study is ICT resources utilization and records keeping questionnaire (ICTURKQ) developed by the researcher, face and content validated by experts in the Faculty of Education of the University of Ibadan. ICTURKQ reliability coefficient is r=0.84 using the Cronbach alpha statistic. ICTURKQ is a 25 item questionnaire whose findings were analysed with frequency counts, percentages, independent t-tests and multiple regression analysis. Findings revealed that the level of ICT utilization for record keeping in schools in the Shagamu LGA is low. A significant difference existed in the method of records keeping between private and public secondary schools in the LGA (t=0.002;p<0.05). Finally, ICT resources allocation and utilization was found to have a significant joint influence on records keeping with (R=0.579, R²=0.335, Adjusted R =0.332 and r=0.000;p<0.05). It was recommended that government should take more concrete steps in funding public schools to make ICT facilities and teacher training in ICT more effective and efficient to facilitate records keeping in Ogun state schools.

Word Count: 250
Key Words: ICT Resources, School Records Keeping, ICT Utilization Capacity

Introduction

Teachers have variously been described by authors in several ways, but from the perspective of this study, teachers form the asset base of any nation hence the FRN (2004) succinctly explained that no nation can grow beyond the capacity of its teachers. In essence, undermining the teaching profession is directly undermining the level of development of any nation. The expansion of educational opportunities to accommodate all has been the desire of most educators and educational planners (Fafunwa, 1971; Akangbou, 1985). The expansion of educational facilities has led to the introduction of electronic education (e-learning), education without boundaries as well as distance education while the advocates of these methods of educational provision, further identified challenges associated with them in Africa and particularly, Nigeria (Babalola, 2010; Isah, 2012; Kanwar, 2017 & Jegede, 2017).

Several of the fore mentioned scholars advocated for the Open Distance Learning (ODL) system as well as Open Educational Resources (OER). These researchers could also be described as advocates of the use of Information and Communication Technologies (ICT) in education. In FRN (1999) and Nnebe (2009), The Federal Government of Nigeria (FGN) explained its IT vision, mission and goals for Nigeria. The document boldly envisioned to facilitate Nigeria into an IT nation. Its goals included that all civil servants in Nigeria be ICT literate by the year 2005. The extent of such visionary compliance has yet to be seen or imagined from reports even in the year 2020. Most researches still show that ICT is either not available or accessible in schools to both teachers and students and in some other cases, reports indicate inadequacy of ICT facilities.

The position of classroom teachers in ensuring compliance to ICT from the perspective of the Federal Government of Nigeria (FGN) remains a vision till date as much appear not to have been done. However, to take the case to a higher pedestal, the FGN has made ICT an examinable trade subject at the Senior Secondary School Certificate Examination (SSCE) level. It is also that most teacher training institutions in Nigeria do not have ICT in their school curriculums. Should the dearth of teachers in ICT continue, the effect can be imagined (Isah, 2013 & Isah, 2016). Professional teachers trained through the ODL are often exposed to ICT training as ICT serves as the foundation on which the ODL programme is driven (Okunade, 2016). Teachers trained through ODL can utilise computer applications as; word processing, spread sheets, graphics, power point, internet, search engines, visit online libraries and electronic

record keeping which is the focus of this study. Adopting ODL for teacher training could help the FGN in a beneficial manner to provide enough teachers, acquaint teachers with vast knowledge of ICT thereby helping to disseminate the concept through the system from primary to secondary schools.

The acquisition, storage and utilization of ICT resources has become the trend in every organization globally as the potentials of ICT cannot be over emphasized. Nwankwo (1985), described ICT as providing, processing and disseminating data in a fast, accurate, reliable and dependable manner comparable to the speed of light. The importance of information as an organizational resource in decision making has been a very solid position held by almost all scholars in the field, hence all professions have resorted to the use and adoption of ICT and its resources that include the internet and several other devices in their operations (Isah, 2014).

In the count down to the use of ICT, the education sector has not been left out as it has become a strong tool in the hands of advocates of education without boundaries. The use of e-learning, open distance learning (ODL) has vindicated the agitation for mass education and cost effective educational provision (Kanwar, 2017). The adoption of ODL has brought in its trail the use of Open Education Resources (OER) which is gaining access to scarce education materials online hence the traditional library is fast giving way to the e-library where people access information from anywhere.

FRN (2002) and Nnebe (2009), explained that the objective of the Federal Government of Nigeria (FGN) is to make Nigeria a key member and collaborator among ICT nations and to this end, proposed that every civil servant in Nigeria should be computer literate by the year 2005. It is clear that as at today, that objective has not been met. Again, to buttress the goal of the Federal Government of Nigeria as well as boost its plan to include Nigeria as an ICT nation, the Federal Ministry of Education (FME) included ICT as a trade subject in the final Senior Secondary School Certificate Examination (SSCE). In this regard the school system was keyed into the FGN objective with the teacher being the focus of the execution of that objective and as already stated, no nation can grow beyond the capacity of its teachers (FRN, 2004).

Though there have been researches on the inclusion of ICT in the training of pre-service teachers, such researches found that most institutions lacked basic requirements to either teach ICT practically or lacked the required manpower. Absence of core infrastructure had been identified as one of the major limitations to train regular pre-service teachers on the adoption of ICT (Babalola, 2010). However, in another study, Isah, Fabunmi and Emunemu (2012) found that most pre-service teachers who passed through the University of Ibadan ODL were well skilled in the use and deployment of ICT-ODL which included the use of computers, smartphones, scanners, I-pads and others. The reason was and still is that such students were trained using such equipment. Deploying those equipment will not be a problem as they had to acquire them to continue in their studies.

There are several operations that teachers who passed through the ODL programme can effectively put into practice in their places of employment without necessarily creating additional burdens to their organizations and one of such is records management which has been a major challenge to institutions and organizations in Nigeria. Institutions in Nigeria have been particularly addicted to the traditional method of records keeping which includes the use of files, paper (hardcopy), cabinets and others with their attendant disadvantages. Adopting the new method has been particularly cumbersome as most organizations fear the cost of human and material resources involved in the project. There are traditional methods of records keeping and modern methods of records keeping. In recent times, the problem has been in records retrieval. Records keeping and retrieval are linked in the sense that a document that is not kept cannot be retrieved.

Traditional records keeping involves the use of documents such as hard copy paper, files, cabinets, shelves and personnel in records keeping trained for that purpose. In recent cases in Nigeria, document retrieval has been the problem of schools. Again, traditional methods of record keeping has been fraught with a lot of disadvantages. Traditional records keeping has the problem of space as in some cases, whole houses have been consumed by fire destroying generational documents. Again, the traditional method is expensive in the sense that quite a lot of organizational funds are spent in the preservation of such records. First built a house, buy file cabinet, then files. Thereafter, we get personnel to take care of those documents. In modern electronic records keeping, the number of computer systems and their storages inclusive of servers

might not be as expensive as the cost of constructing a house for such purposes. Natural disasters as fires and others ruin documents kept in the traditional method (Isah, 2014 & Isah, 2018).

Over the years, new methods of records keeping, storage and retrieval have come into play. In this age of digital information processing, the electronic method - Information and Communication Technology (ICT) is commonly referred to as the modern method of records keeping. ICT involves the use of computers, scanners, printers, storage equipment (internal and external), and use of V-sat communication equipment, the internet and a host of other devices (Emunemu, Isah and Isuku, 2014). With these devices, large amount of information in the form of processed data can be stored in small storage spaces. It is for these that it is considered that training of Teachers under the ODL mode could be very advantageous to schools.

With the advent of ICT, most organisations since the turn of the century have digitalized or are in the process of becoming digital and the school system is not out of this (Isah, 2018). Most higher education institutions as Universities have Management Information Systems (MIS) units involved in the preparation, storage, retrieval and networking of activities within the universities. The same is ongoing for secondary schools especially in Nigeria where secondary education falls within the concurrent legislative list provided by government and the private sector.

Information is every organization's most basic and essential asset (Haag, Dawkings and Cummings, 2000). Recorded information requires effective management as the quantum of information grows over time. Records management ensures that information can be accessed easily, destroyed routinely when no longer needed enabling organizations not only to function on a day to day basis, but also to fulfill legal and financial requirements (NAS, 2013). Commenting on the importance of data in the educational system, Nwagwu (1995), argued that effective record keeping is vital to educational development. In addition, it emphasized that, it will be an impossible task to plan and administer any institution in which records are not kept or are carelessly and fraudulently kept. Consequently, educational planners and administrators need to have adequate and accurate data on students' enrolment, school personnel and school records for effective planning and management of schools. On regular basis, information on school personnel (pupils, teachers and non-

teachers), facilities, funds and school activities, are collected and preserved.

The preservation of records of government for example, ensures that government officials can be held accountable for their actions and that society can trace the evolution of policy in historical terms allowing access to important resources for future decision making. All the foregoing are applicable to the school system. Management of secondary schools refers to a process of making use of available resources towards the achievement of the education goals at secondary school level. The head of school (school administrators) and their subordinates have the administrative responsibilities of directing available resources towards actualization of school goals. Heads of schools and teachers plan classrooms and out-of-classroom activities for teachers and students. They also coordinate school activities in order to ensure that many programmes go on at the same time without one conflicting with others. In all spheres, macroeconomic variations in terms of school populations and complexities has brought about tremendous growth in students' enrolment as a result of Universal Basic Education (UBE) thereby, creating challenges ranging from management of students and staff, community relations, supervision of instruction to the management of school finance (Okebukola, 1996).

Ghaemian (2000) agreed with Okebukola (1996) view which explained that the administrative functions in schools have become increasingly complex in terms of enrolments, population mobility and social problems. This complexity requires the use of powerful administrative tools resulting in a better communication, efficient operations and better personnel services. One of such tools is the use of ICT for records keeping.

From the foregoing, it is evident that school principals (administrators) need to be well informed in ICT application for effective management of secondary schools. This is necessary in the areas of budgeting, collection of students' data recording of results and effective keeping of school records. In situations where records are not traceable, cannot be retrieved, it becomes a source of challenge. Most schools have lost documents through harsh weather challenges on hardcopy documents that are not renewable while others lost theirs to insects or rodent attacks in libraries or cabinets. These reasons add justification why the modern method is advocated for all types of organisations including the school system for effective records keeping.

The advantages of the modern system cannot be quantified as new storages and retrieval devices have been put in place outside such organizations. For example, the use of computer applications as drop box and the clouds have helped organizations including schools. Important documents as certificates could be scanned and left in the clouds only to be retrieved as and when due. Absence of personnel with requisite knowledge for such operations has consistently left school administrators and teaching personnel at the mercy of hardcopy documents without duplicates in modern times, hence it is of essence to find out, the extent that the secondary school system has gone in preparation for events of this nature in Ogun state, Nigeria.

With the advent of the Open Distance Learning (ODL) whose major tool is ICT, the problem of personnel for ICT could be literally solved if the training of modern day teachers could be centred on the ODL mode. Doing that will result in teachers and administrators who passed through the ODL study mode being conversant with the use of ICT resources. ODL as known is a new access and outreach method of providing education to a large number of people who ordinarily would not have been able to attend schools but for the use of technology. The foregoing is not applicable to teacher training under the regular mode that is, the none ODL mode.

Mbiti (1974), summarised school records as all books and files containing information on what goes on in school, who is in school and type of properties owned by the school. School records include and are not limited to; admission and withdrawal registers, attendance register, school log-book, cash book, visitor's book, a copy of education law, scheme of work, teacher's record of work, school time-table, corporal punishment book, counterfoils of transfer and leaving certificates and Minutes book of the Board of Governors (Olagboye, 2004).

ICT has the potential to transform the way education is delivered by promoting good record keeping by enhancing scholarship and enquiries. This can only be attained when teachers, who are still the key to learning, have developed and utilized the necessary pedagogical competencies for instructional delivery through ICT resource utilization. Jones (2003) opined that effective record keeping is dependent on the will and competencies of the staff in instructional delivery to use ICT resources. This implies that teachers and administrative staff must undergo capacity

building in ICT resources at the NCE and University level of education to enable them utilize maximally its benefit in instructional delivery. The use of information technology cannot be ignored in any sphere of human endeavours. Olayemi (2007) expained that Information and Communication Technology (ICT) is not only a computer-related technology used to process, store and transit data but any other technology in that nature that assists storages, ensures efficient communication of data to end users and others. ICT is a generic term referring to a technology which is used for collecting, storing, editing and passing on of information in various forms. ICT has transformed the way in which organizations store and manage information (Iwhiwhu, 2005). Organizations today have adopted the use of ICT in order to cope with the ever increasing information generated within the organization (Lyman, 2014), these of course include the school system.

From the foregoing, it is quite clear that the absence of ICT in school records keeping will create challenges. In recent times, organisations in the educational sector are being questioned with issues as when certificates for aspiring politicians were issued that have become contentious today resulting in court actions. It is clear that such ambiguities ought to have been cleared saving resources with little or no time loss if effective records were kept. Document retrieval electronically saves time and situations. However, the mystery surrounding such occurrences indicate the manual records keeping is out dated. Government and educational institutions must move towards compliance with the digital age.

Purpose of the Study
This purpose of this study is to find out;

1. The level of ICT resource utilization for records keeping in Sagamu Local Government Secondary Schools
2. Types of record keeping practices adopted by school administrators in Sagamu Local Government Area of Ogun state.
3. The relationship that exists between ICT Resources Utilization and records keeping.

Statement of the Problem
Records management is a problem in Nigeria and its challenge has permeated into educational institutions. Modern office management requires digital applications in the use of ICT for which our educational

system is expected to key into. ICT being novel is not what can easily be adopted by the educational system as most teachers in the system were trained without ICT. However, Government can exploit the possibility that comes with teachers training through the ODL mode. Previous researches in this context were only interested in the availability accessibility among others of ICT in schools. However, this study looked at the possibilities of teachers trained under the ODL mode capacity for utilizing ICT. The study has become germane due to the fact that manual records management is not only out dated but has created untold challenges in the retrieval, storage and utilization of such documents when required. Some documents kept in the old mode have been burnt. Nigerian and our educational institutions managed to cope previously with them specially certificates and important documents consumed in infernos and eaten up by insects in libraries. Should this problem continue, the future of both Nigeria and the educational system cannot be easily predicted.

Research Questions
Based on the problems under investigation, the following research question and hypotheses guided the study:

1.   What is the level of ICT resource utilization for record keeping by school administrators in Sagamu Local Government Area of Ogun State, Nigeria?

Hypotheses
The following null hypotheses guided this research.

H_{01}: There is no significant difference in the method of school records keeping between private and public secondary schools in Sagamu Local Government Area of Ogun State, Nigeria.

H_{02}: ICT resources allocation and ICT resources utilization have no significant joint influence on record keeping in secondary schools in Sagamu Local government area of Ogun State.

Methodology
This study adopted the descriptive survey research design. The total population for the study was 1,845 administrators and teachers in public and private schools. Sagamu Local Government Area (LGA)was purposively selected for the study even though an urban area as much studies have been concentrated on the capital city (Abeokuta) to see the effectiveness of resources utilization outside the state capital. A sample

selection through the simple random technique gave 520 administrators and teachers with 381 teachers from public schools and 139 sampled from private schools. The study instrument for data collection was a researcher developed 25 item questionnaire titled "ICT resource utilization and record keeping questionnaire" (IRAURQ)that was sectioned A-C with section A eliciting respondent bio-data and section B on ICT resources utilization and section C on school records keeping. The instrument was scaled after the Likert type scale of Strongly Agree - SA (4) points, Agree - A (3) points, Disagree - D (2) points and Strongly Disagree - SD (1) point. The instrument was subjected to both face and content validity by experts in the Department of Educational Management and the Institute of Education of the University of Ibadan. The reliability of the instrument was established using Cronbach alpha statistical tool with a reliability co-efficient of r = 0.84. The data collected were analysed using frequency distribution and percentages, Independent Sample Test and Multiple Regression.

Findings
Research Question 1

What is the level of ICT resource utilization for record keeping by school administrators in Sagamu Local Government Area of Ogun State, Nigeria?

Table 1: Level of ICT resource utilization for record keeping by school administrators in Sagamu Local Government Area of Ogun State, Nigeria

S/N	Statements	VH (%)	H (%)	L (%)	VL (%)	X	SD
1	Use of computer to store students result	35 (16.1)	51 (23.5)	65 (30.0)	66 (30.4)	2.25	1.06
2	Use of computer for recording Students' scores	31 (14.3)	66 (30.4)	54 (24.9)	66 (30.4)	2.28	1.05

S/N	Statements	VH (%)	H (%)	L (%)	VL (%)	X	SD
3	Use of search engine to download and store school curriculum current information	2 (1.0)	10 (4.5)	76 (35.0)	129 (59.4)	1.46	0.60
4	Use of computer to store record of visitors	4 (2.0)	8 (4.5)	76 (35.0)	129 (59.4)	1.46	0.60
5	Use of Spreadsheet in grading students scripts	2 (1.0)	10 (4.5)	116 (53.5)	89 (41.0)	1.64	0.58
6	Use of Audio and video disc to keep vital records of students' academic profile	11 (5.1)	12 (5.5)	105 (48.4)	89 (41.0)	1.74	0.77
7	Use of universal drives (USB) to store and retrieve school information when needed	52 (24.0)	23 (10.6)	65 (30.0)	77 (35.5)	2.23	1.17
8	Use of overhead projector for presentation/delivery lectures	4 (2.0)	19 (8.6)	116 (53.3)	78 (35.9)	1.74	0.63
9	Use of CD Rom to store students and staff records	29 (13.4)	35 (16.1)	75 (34.6)	78 (35.9)	2.06	1.02
10	use of magnetic cards for recording and recall of instructional information	4 (2.0)	8 (3.5)	82 (37.8)	132 (56.7)	1.48	0.60
11	Use of computer pen/pen recorder	2 (1.0)	9 (4.1)	107 (49.3)	99 (45.6)	1.59	0.58

S/N	Statements	VH (%)	H (%)	L (%)	VL (%)	X	S D
12	Use of computer to assess students response/performance	11 (5.0)	11 (5.0)	85 (39.2)	110 (50.7)	1.54	0.59
	Average weighted mean	1.79					

Table 1shows the level of ICT resource utilization for record keeping by school administrators and teachers in Sagamu Local Government Area of Ogun State. The level of ICT resource utilization indicates that the use of computer for recording Students' scores has a mean score of 2.28 and ranked highest by the mean score rating, followed by use of computer to storage of students result with mean score 2.25; use of universal drives (USB) to store and retrieve school information when needed 2.23, use of CD-Rom to store students and staff records 2.06,audio and video disc 1.74; overhead projector for presentation/delivery lectures is 1.74;spreadsheet in grading students scripts 1.64; computer pen/pen recorder is 1.59; computer to assess students response/performance is 1.54; magnetic cards for recording and recall of instructional information 1.48; search engines to download and store school curriculum current information is 1.46. The mean scores referred to here are weighted mean out of a maximum of 4.00 obtainable. It simply implies that the level of ICT resource utilization for record keeping by school administrators in Sagamu Local Government Area of Ogun State, Nigeria is low.

Hypothesis 1
There is no significant difference in the method of school records keeping among private and public secondary schools in Sagamu Local Government Area of Ogun State, Nigeria.

Table 2: Difference in the method of school records keeping among private and public secondary schools in Sagamu Local Government Area of Ogun State, Nigeria

Variables	N	Mean	Std. Dev	df	t	Sig	Remark
Private secondary schools respondents	65	4.42	2.24	214	2.021	0.002	Significant
Public secondary schools respondents	151	4.23	3.43				

p<0.05

The independent sample t-test was used to examine difference in methods of school record keeping based on school ownership (private and public). The result reveals a significant different in mean (t(df=214)=2.021) which is an indication that mean record keeping of private secondary school(M=4.42, SD=2.24) was significantly higher that public secondary school (M= 4.23; SD=3.43). Hence, there is no statistical reason why null hypothesis should not be rejected, therefore null hypothesis was rejected.

Hypothesis 2

ICT resources allocation and ICT resources utilization will not have significant joint influence on record keeping in secondary schools in Sagamu Local government area of Ogun State

Table 3: ICT resources allocation and ICT resources utilization joint influence on record keeping

Model	Sum of squares	df	Mean Square	F	Sig	Remark
Regression	13.198	1	13.198	99.437	0.000	Significant
Residual	26.148	197	0.133			
Total	39.347	198				

R= 0.579
R square=0.335
Adjusted R square=0.332

Table 3 shows the joint influence of ICT resource allocation and utilization on record keeping in secondary schools in Sagamu Local Government Area. The result reveals a multiple correlation of 0.579 which is an indication that there is a moderate relationship among the variables in the study. R square of 0.335 shows that independent variables accounted for 33.5% of the variances that occur in record keeping in the sampled secondary schools. The result further revealed that the combination of the two independent variables allowed reliable prediction of the use of ICT for record keeping in the sampled secondary schools (F $(df_{1,198})$ = 99.437, p<0.05). Therefore, there was a significant joint influence of ICT resource utilization to record keeping in Shagamu LGA schools.

Discussion of Findings

The findings of this study agrees with previous studies specially as it relates to public and private funding of education. It has been argued by scholars that more funds are very necessary for public schools to assume their correct status. Private schools have more facilities for ICT than public schools as evident from the findings. Again, private schools have better funds to determine where their teachers will be trained and also involve their teachers in on the job training to be useful in the discharge of records keeping and ICT.

The level of ICT resource utilization for record keeping by school administrators in Sagamu Local Government Area of Ogun State, Nigeria is low. In the schools where ICT is available, they are not utilised because of absence of the right type of personnel. In public schools, some of these resources lie dormant without use. Some private schools use the resources to showcase and to gain customers but not for record keeping. ICT has increasingly become the most powerful tool for participating in virtually every global activity such as global market, promoting political accountability, improving the delivery of basic services and enhancing local development opportunities

There is a joint influence of ICT resources allocation and ICT resources utilization on record keeping in secondary schools in Sagamu Local government area of Ogun State. It should be stressed that the effective use of the various methods of ICT in record keeping depends on the allocation of these facilities and staff competences in using them. Organizations are finding it very necessary to train and retrain their employees to establish or increase their knowledge of computer and

other ICT facilities. Reason for utilization of ICT according to Eynon (2006) are that it aids school administration in the speed of doing things, improves level of accuracy due to the astronomical number of students enrolled in schools and the level of operations needed to be performed to achieve results. ICT works with the speed of light. The need for allocation and utilization of ICT resource in record keeping situations is on the increase. The government has made effort towards the building of ICT facilities and procurement of ICT resources for various schools and colleges.

Conclusion

The study adopted descriptive statistics, frequency counts and simple percentage score to answer the research question. Independent sample test was used to test for Hypothesis 1 and Multiple Regression was used to test for Hypothesis 2. Based on this approach, this study has been able to establish that there is a joint influence of ICT resources allocation and ICT resources utilization on record keeping in secondary schools in Sagamu Local government area of Ogun State. The level of ICT resource allocation to Sagamu Local government Area Secondary Schools by Ogun State Government is to an extent okay. There is significant relationship between ICT resources allocation on record keeping in secondary schools in Sagamu Local Government Area of Ogun State, Nigeria.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. The government and private owners of schools should endeavour to train teacher on how to use ICT facilities
2. Government should facilitate on the job training for its staff using the ODL method
3. Allocate ICT facilities to the schools in such a way that it will go round both urban and rural schools.
4. There should be constant supply of electricity or alternative supply of electricity in the schools in order to make use of the ICT facilities.

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