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Assessment of the Role of Information and Communication Technologies for Record Keeping in School Management and Administration in tertiary institutions

By

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Abstract

The study investigated role of information and communication technologies (ICTs) for record keeping in school management and administration for effective teaching and Learning. Based on the purpose of the study one research question guided the study. The study adopted descriptive research design. The population of the study comprised 63 Heads of Department and 68 teacher educators. A sample size of 25n heads teacher educators was used for the study. The instrument for data collection was ICT Record Keeping School Management and Administration for Effective Teaching scale Questionnaire (ICTSMAETLSQ) was used to collect data for this study. The reliability co-efficient(r) of 0.76 obtained using Cronbach alpha method. Data collected were analyzed using mean, standard deviation for the research question. The results showed that ICTs plays effective role in record keeping and there are challenges hindering the effective utilization of ICTs in school record keeping. It was recommended that training and re-training of personal is highly recommended, so as to ensure effective use of the ICTs facilities in record keeping for effective teaching and learning, and proper management and administration of schools.

Key Words: Information and Communication Technologies (ICTs), Record Keeping, Teaching, School Management and Administration.

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Introduction

The advent of computers and information and communication technologies (ICTs) has brought about significant revolution in our basic education schools (Primary and Junior secondary schools) including traditional methods of keeping records. This is more evident in schools located where there is computers and availability of light, and other ICTs facilities such as internet, compact disc,flash drive and utilized them in record keeping for effective teaching and learning, proper school administration and management. Record keeping in schools is one of the major aspects of school administration in ensuring effective teaching and learning. Sunday et al., (2020) indicated in their work finding that effective school administration can only be achieved via appropriate record keeping. Therefore, ICTs are defined by UNESCO as the range of technologies that are applied in the process of collecting, storing, editing, retrieving and transfer of information in various forms (UNESCO, 2002). In other words, ICTs can be defined as a universal network where ideas or information and knowledge are shared among people, through using communication technologies such as computers, internet and cell phones. Computer as one of the ICTs is very essential storage media for keeping records in schools and other organizations for effective teaching and learning, and proper school management and administration. In a related development UNESCO (2007) pointed out that ICTs use can improve efficiency of the school administrators in discharging their duties and enable them to access information worldwide through internet. Haruna (2010) revealed that teaching and learning material can be produced and distributed through appropriate ICTs such as telephone, storage media for recording information and keeping records, community radio to air some educational programme among others, which in turn facilitate school management.

Traditionally, records are kept in schools inside files, files cabinet and/or on the desk for teaching, learning and administration of school. Usually, files are labeled to indicate and differentiate type of files. However, this posed many challenges in the effective teaching and learning, and proper school administration and management. These challenges include lack of security, tendency of unauthorized access, poor record keeping, human handling that damage the files by constant use, delay in access and fire outbreak among others. Lateef and Muniru (2020) citing Sheyin and Aderibigbe (2019) stated that record keeping in some schools is ill done, whereas manual record keeping is inclined to errors and mistakes more especially in accounting data. Hence, many basic education schools in developed and some developing countries have automated their methods of keeping records and other administrative activities. The use of Computer and other ICTs in school record keeping is very vital in school management by enhancing the teaching and learning. Adebowale and Osuji (2008) stated that modern record keeping has made information and its management simple and well organized with respect to generation, organization, storage, utilization, retrieval and even destruction.

Computer and other ICTs plays a vital role in the development of any society such as in education, banking industries, commercial sectors, government and other non-governmental organization.For example, in the area of education, computer is used in teaching and learning, keeping staff and students records for effective teaching and learning (Haruna, 2014). In addition, it is also vital for keeping teaching and learning records, dissemination of information with the aid of Internet to parents through SMS and E-mail, generating report cards, uploading result, admission, registration and other day to day activities. However, there are many challenges facing the use of ICTs in basic schools for record keeping such as inadequate ICTs facilities, inadequate trained personnel, attitude of some staff toward ICTs use among others. Further, most of the public primary and junior

secondary schools do not have such privileges of possessing and utilizing computer(s), and other ICTs for keeping teaching and learning records and other records for feature reference and day to day activities. Although, there are numerous private schools that are using computer and other ICTs in performing aforementioned tasks in primary and secondary schools.

Proper record keeping in school is one of the bases for effective school administration. Record keeping is a germane factor in determining the effectiveness and efficiency of the school system. In fact, it is central in the administration of institution of learning because it documents the planning and implementation of appropriate course of service allowing proper monitoring. In conventional paper-based organizations, paper continues to be viewed as the material for records in administrative documentations (Igwoku, 2008). Whichever method is adopted whether paper based or electronic based, the centerpiece is to ensure that efficiency is achieved in the areas of time, cost and resources management. This is evident in the fact that record keeping ensures information can be accessed easily, destroyed routinely when no longer needed, and it enables organizations not only to function on a day-to-day basis, but also to fulfil legal and financial requirements. School records occupy strategic position in the effective and efficient organization and administration of the school. This is particularly explained in the assertion of Durosaro (2008) who stated that records are important tools for effective planning and administration of a school. Records are important because they serve as major information tools that sustain the school and aid achievement of educational goals and objectives. Records restore teaching competence and maintain the trend in the history of teaching and learning processes. Also, not all information can be considered as records until they satisfy such characteristics, genuineness and authenticity; that is the information that records give must be true, correct and original (Egwunyenga 2005). Records must be comprehensive, available, accessible and secured. This implies that records must contain adequate information which is needed for the smooth running of school's activities. School records are grouped into statutory and non-statutory. Statutory records include admission/withdrawal register, attendance register, scheme of work, time-table, logbook, visitors' book (educational policy book), time/movement books, school diary, lesson plan/note for teachers, examination record book, etc. Non-statutory records are cash book, stock book, punishment book, school calendar, inventory book, staff minutes book, school magazine, inspection/supervision report file, confidential report forms and requisition book.

Record management is the application of systematic and scientific control of recorded information that is required for the operation of the school. Such control is exercised over the distribution, utilization, retention, storage, retrieval, protection, preservation and final disposition of all types of records within the school. The aim of record management is to achieve the best retrieval and management of school records in the school system and also to improve the efficiency of record making and keeping processes. Record management helps to control the quality and quantity of information that is created in a manner that effectively serves the need of the school (Fasasi, 2004). Without records there can be no accountability this is in tune with the view of Ibara (2010). He further maintains that quality performance, task accomplishment, and measurable outcomes are increasingly important responsibilities, all of which depend on the accessibility of usable records. Without access to records, it is virtually impossible to determine responsibility for actions and to hold individuals accountable for their actions.

School record management according to Fasasi (2004) is meant to enhance the performance of school administrators. Adequate record management program co-ordinates

and protects an institutions' records, sharpens the effectiveness of records as a management memory which controls the times, equipment and space allocated to records and helps to simplify intra-organizational and communication problems. The management of records in the schools like in any other organization is a cyclic process involving the management, teachers, students, messengers and cleaners. The bulk of records are handled by heads which are kept manually thus the attendant effect of difficulty in processing, retrieval and utilization of records. Iwhiwhu (2005) stressed the insufficient quality and quantity of manpower in record management in the school system. He emphasized that manpower is employed without prejudice to qualitative records management. Though this business of record keeping and effective management in the school system has not attained good success due to insufficient provision of facilities, fund and management components however, adequate security, storage facilities and funds are generally recommended for good record keeping and management. The overwhelming importance of school records, it has been observed that they are poorly kept and managed this is in tandem with the view of Asogwa (2004) which states that records and data generated in the course of execution of legitimate function of an organization or school should be kept and managed properly. School records whether statutory or non-statutory, physical or electronic should be properly kept and managed for utilization and future retrieval. The effective management of school records depends on certain management procedures and functions such as effective supervision, effective leadership, monitoring, provision and training of adequate personnel, records storage and retrieval, discipline and effective communication, delegation of duty, developing record keeping skills and motivation. Babalola, (2007) noted that information and data generated from an effective and efficient records management program aids the school to plan and make useful decisions, preserve facts and figures for future reference, thereby enhancing the efficiency and effectiveness of the organization and administration of the school. The adequate provision of quality manpower, funds and equipment would ensure optimum management of school records. However, inadequate or non-availability of these resources bring about problems and challenges in the efficient and effective management of records.

Computer as one of the ICTs plays a vital role in the development of society, for example in the area of education, computer is used in teaching and learning, keeping staff and students records (Haruna, 2014). ICTs help in preparing staff payroll, dissemination of information to staff through emails, SMS and chart room. Ziraba (2009) identified the role of ICTs as it helps in examination management which includes setting of examinations, time tabling, positioning, and grading of students through for example MS excel, dissemination of information to parents through (SMS) and email regarding fees balance, fee's structure, holidays and any information relevant to school activities, which enhance communication and flow of information. Research conducted by Pierre and Andala (2020). shows that ICTs is a vital tool which influences record keeping in schools, syllabus coverage and content delivery. Lateef and Muniru (2020) citing Kazi (2012); Kawade (2012); Afzaal (2012) stated that using ICTs in record keeping in school help in keeping financial documents for example pay slip, balance sheet, salaries. In addition, most of the principals agreed that using computer has improved their record keeping as well as made records accurate and timely. The study also found that Use of ICTs improve the efficiency of teaching. This is contrary to the finding by Bush (2017) and Beaton (2018) in Lateef and Muniru (2020) the principals stated that record keeping does not improve their record taking and doesn't save time, because the teachers are not digitally inclined and not ready to change. Therefore, there is need for sensitization campaign on the benefits and used of ICTs in record keeping for effective teaching and learning. challenges facing ICTs in Schools record keeping. Inadequate ICTs facilities for record keeping, most of the school do not have ICTs facilities for record keeping and

dissemination of information. ii. Inadequate trained personal - there are no enough trained personal to handle the ICTs facilities in record keeping in most of the public school in Nigeria. iii. Inadequate supply of electricity: most of the public schools in rural areas of Nigeria are not connected to the National grid and even those connected do not have enough or regular supply of electricity.

Purpose of the Study

The main purpose of this study is to examine the role of Information and Communication Technologies (ICTs) for record keeping in school management and administration for effective teaching specifically it seeks;

i. to find out the role of information and communication technologies in school recordkeeping.
ii. to find out the benefits of using information and communication technologies for record keeping in school management and administration.

Research Questions

The following research questions guided the study

1. What is the role of information and communication technologies in school record keeping
2. What are the benefits of using information and communication technologies for record keeping in school management and administration.

Method

The descriptive research design of the survey type was used to investigate the problems of the study. The study population comprised of all the Heads of Department in Alvan Ikoku Federal university of Education Owerri numbering 36 departments and 68 teacher Educators in department Educational Administration and Foundations. Out of the population, a sample of 25 Heads of departments and 68 teacher educators respectively was selected through simple random sampling technique. The instrument used for the study was a questionnaire titled “Information and Communication Technology and Effective School Record Keeping and Administration Questionnaire” (ICTESRKAQ). The questionnaire was in two parts: A and B. Part A was to elicit information on personal data relating to the respondents while part B consisted the three objectives of the study. The instrument was submitted to two experts in Test and Measurement for face and content validity. Test re-test technique was employed to determine the reliability of the instrument; a pilot study was carried out by the researchers on two occasions on randomly selected 10 Heads of Department who were not part of the study sample. After a period of two weeks, the instrument was re-administered to the same respondents. The data collected on the two administrations were collated and analyzed using PPMC analysis, the result yielded a reliability coefficient of 0.71. This indicated a high reliability index. The instrument was administered by the use of research assistants. Returns were received from all respondents. The data collected were collated and analyzed using mean and standard deviation.

Results

Research Question One: What is the role of information and communication technologies in school record keeping?

Table 1: Mean and standard deviation on the role of information and communication technologies in school record keeping

S/N	Items	Mean	SD	Decision
1	Using ICTs in record keeping in school helps in keeping financial documents	3.0	1.4	Accepted
2	ICTs made records accurate and timely	3.1	1.2	Accepted
3	Improve the efficiency of record keeping processes by automating data entry, storage and retrieval.	3.0	1.4	Accepted
4	Reducing manual errors	3.5	1.1	Accepted
5	ICTs can enhance data security and confidentiality in record keeping system through encryption, access controls, regular backups.	3.3	1.2	Accepted

Results in table show that all the items scored above 2.50. This implies that using ICTs in record keeping in school helps in keeping financial documents, ICTs made records accurate and timely, improve the efficiency of record keeping processes by automating data entry, storage and retrieval, reducing manual errors and ICTs can enhance data security and confidentiality in record keeping system through encryption, access controls, regular backups are the role of information and communication technologies in school record keeping.

Research Question two: What are the benefits of using information and communication technologies for record keeping in school management and administration?

Table 2: Mean and standard deviation on the benefits of using information and communication technologies for record keeping n school management and administration.

S/N	Items	Mean	SD	Decision
10	ICTs help keeping staff and students' records	3.51	1.4	Accepted
11	ICTs help in preparing staff payroll, dissemination of information to staff through emails, SMS and chart room.	3.67	1.5	Accepted
12	It helps in examination management which includes setting of examinations, time tabling, positioning, and grading of students through for example MS excel,	3.67	1.5	Accepted
13	ICTs are a vital tool which influences record keeping in schools, syllabus coverage and content delivery.	3.50	1.4	Accepted
14	Use of ICTs improves the efficiency of teaching.	3.07	1.1	Accepted

Results in table 2 indicated that all the items scored above 2.50. this implies that ICTS help keeping staff and students' records, ICTs help in preparing staff payroll, dissemination of information to staff through emails, SMS and chat room, it helps in examination management which includes setting of examinations, time tabling, positioning, and grading of students through for example MS excel, ICTs are a vital tool which influences record keeping in schools, syllabus coverage and content delivery and Use of ICTs improves the efficiency of teaching.

Discussion

The result indicated that the role of information and communication technologies in school record keeping are using ICTs in record keeping in school help in keeping financial documents, ICTs made records accurate and timely, improve the efficiency of record keeping processes by automating data entry, storage and retrieval, reducing manual errors and ICTs can enhance data security and confidentiality in record keeping system through encryption, access controls, regular backups. The result is in accord with the findings of Bush (2017), Beaton (2018) in Lateef and Muniru (2020) revealed that ICTs in record keeping improve financial documents.

The results indicated that ICTS helps keeping staff and student's records, ICTs helps in preparing staff payroll, dissemination of information to staff through emails, SMS and chart room, it helps in examination management which includes setting of examinations, time tabling, positioning, and grading of students through for example MS excel, ICTs are a vital tool which influences record keeping in schools, syllabus coverage and content delivery and Use of ICTs improve the efficiency of teaching.

Conclusion

The study concluded that information and communication technologies help and improve students and teachers in record keeping in school management and administration in tertiary insutitions.

Recommendations

1. Further training and re-training of personnel is highly recommended, so as to ensure effective use of the ICTs facilities in record keeping for effective teaching and learning, proper management and administration of schools.
2. Further, sensitization campaign on the benefits and use of ICTs in record keeping for effective teaching and learning is highly needed to head teachers and teachers.
3. Uninterrupted and steady power supply is highly required so as to ensure effective use of ICTs facilities for record keeping in school.

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