

Role of Information and Communication Technologies (ICTs) for Record Keeping in School Management and Administration for Effective Teaching and Learning

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Abstract: The Advancement of information and communication technologies (ICTs) has brought about significant improvement in the efficiency of teaching and learning, administration and management of basic education schools. One of the areas that have been immensely revolutionized in developed nations and some developing nations in school is record keeping, where teaching and learning, and administrative records are kept through the use of computers and other ICTs. However, despite advancement in ICTs and their use in teaching and learning, records keeping and other school activities, the records keeping still faced many challenges in basic education schools more especially in developing countries, some of the challenges are poor record keeping, inadequate or absent of ICTs facilities, inadequate trained personal, attitude of some staff towards using ICTs for record keeping and other school activities, and inadequate supply of electricity among others. In addition, there are few studies on the role of ICTs in record keeping. Hence, this paper presents the methods of record keeping, categories of school records, benefit of record keeping, the role plays by ICTs in record keeping, challenges hindering the effective utilization of ICTs in school record keeping and proffered solution were also provided.

Key words: Information and Communication Technologies (ICTs), Record keeping, Basic education Schools, Computer, Teaching and Learning, School management and administration

I. 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 CD, Flash drive and utilized them in record keeping for effective teaching and learning, and 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 (where necessary). 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.

Besides, there are only few studies on the role of computer and other ICTs more especially in primary and secondary schools compared to universities in Nigeria based on online available literatures. Although, there are many studies in other countries of the world more especially in developed countries. Hence, the need on the study of the role of ICTs for records keeping in basic schools for effective teaching and learning, and proper school management and administration in Nigeria.

The remaining part of the paper is structured as follows; section 2 discusses the record keeping in schools, section 3 presents the role of ICTs in school record keeping, section 4 provides conclusion and recommendation.

II. RECORD KEEPING IN SCHOOLS

Proper record keeping in school is one of the bases for effective school administration. Records are initially kept inside files, file cabinet or on the desk in school for effective teaching and learning, and proper school management and administration. Although, still in existence in many schools more especially in rural schools. Whereas in many developed and some developing countries, school records are kept through the use of computer and other ICTs facilities. The first one is term as traditional method of record keeping while the latter is termed as modern method of record keeping.

Categories of School Record

School records are categorized based on legal requirement as statutory and non- statutory records. They are also categorized based on record keeping as administrative and instructional.

School records based on legal requirement

School records can be categorized based on legal requirement as statutory and non-statutory. Usman (2008) in Haruna (2011) stated that statutory records are records which by law every school is obliged to keep them. The intention is to guarantee accountability, effective and smooth administration, they are also very important as future reference point as either by school administration, supervisors/inspectors, PTA or any interest group. Inability to keep them amount to an offence and may lead to sanction. The records include admission register, classroom attendance register, log book, syllabus, National policy on education, lesson note, scheme of work, weekly diary, CA record, movement book, Time book, visitors' book, time table, cash account book, staff record book, terminal annual report among others.

While non-statutory records are not compulsory or required by law and therefore not fix or specified. School can decide on which to keep depending on the peculiar circumstances such as school size, ownership and activities. The records are school health record, minute book, school farm record, staff seniority list, teacher's class attendance register, boarding school records, duty roaster, records of ex-students, supervision/inspection report book, announcement records, examination conduct record to mention a few.

School records based on record keeping

These records can be categorized into administrative records and instructional records (Dare, 2002) in (Janguza, 2007). The administrative records are records or material that gives information about learner and their activities in the school to the concerned of relevant authorities. Examples are admission register, log book, national policy on Education, staff record book, school inventory record,

While instructional records are records that lead the teacher and inform public on what should be taught to the pupils/students in each subject and for each year within a period of schooling. Some of the instructional records are prepared by the government, national or state depending on where the teacher works. Others are prepared by the teacher (Janguza,2007). Some of the instructional records are time table, syllabus, scheme of work, weekly diary/record of work, lesson notes. In most cases the head teacher or / and any designated administrator such as game master, store keeper among others, are responsible for keeping administrative records while class room teachers are responsible for keeping instructional records (Janguza,2007).

Qualities of a good record

A good record must possess the following qualities: easy storage and retrieval, easy to understand and interprets, easy to locate and readily available for reference at any time, ability to give detail/complete information about events, ability to generate further information, ability to utilize to take appropriate action on what is collected for, must be found hard and soft for free access without physical barriers.

Benefits of Record keeping in School

The benefit of record keeping in lower and middle schools to the school management, teachers, pupils, parents, supervisors and government cannot be over emphasize. Sunday et al. (2020) citing Olagboye (2020), Achuonye and Nwiyi (n.d) outlined the following as some of the benefits of record keeping.

- i. It helps for effective teaching and learning, and school administration.
- ii. Provide records of graduating students for admission or placement.
- iii. It allows the school head teacher/principal to collect information about pupils and staff for decision making by higher authorities' and court of law when need arises.
- iv. It provides pupils/students with their current academic achievement and growth.
- v. School record keeping helps parents to know the academic performance and behavior of their children.
- vi. Helps inspectors/supervisors to assess student's performance and give advice objectively, when need arise.
- vii. It provides data required for planning and decision making by School heads, ministries of education and relevant educational institutions.
- viii. School record keeping act as a source of school history.
- ix. It enables and augment in providing guidance and counselling to pupils.
- x. It provides information for school community, the general public employers and researchers for the progress of knowledge
- xi. Provide mechanism for the productive management of time and coordination of school work and activities.

In addition, it makes work easier, improve accountability, reduce labour cost.

III. ROLE OF ICTS IN SCHOOL RECORD KEEPING

ICTs is a general term that describes any technology that helps to produce, manipulate, store, communicate and /or disseminate information. 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 helps 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 improved 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

- i. 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.

IV. CONCLUSION AND RECOMMENDATIONS

The role of ICTs in basic school record keeping cannot be over emphasized, ICTs plays a vital role in easing the school administration and management for effective teaching and learning. In this paper, we categorized record keeping based on legal requirement as statutory and non-statutory and in another categorization based on record keeping as administrative and instructional in schools. Further, we investigated the benefits of record keeping, the role of ICTs in record keeping and challenges facing record keeping in schools. Basically, therefore, it has been observed that available and adequate ICTs facilities are needed in school for record keeping. In addition, proper use and records keeping is needed through the use of ICTs for effective teaching and learning as it ensures reliability, easy accessibility and security of the records. Further 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. Further, sensitization campaign on the benefits and used of ICTs in record keeping for effective teaching and learning is highly needed to head teachers and teachers. Uninterrupted and steady power supply is highly required so as to ensure effective use of ICTs facilities for record keeping in school.

REFERENCES

- [1] Achuonye and nwiyi (n.d) Information and Communication Technology and Record keeping in Secondary Schools, International Journal of Research Development.
- [2] Adebowale, O.F. and Osuji, S.N. (2008) Record keeping Practices of Primary School Teachers in Ondo State: Implication for Successful Implementation of the Universal Basic Education Programme in Nigeria.
- [3] Dare, M.O. (2002) Techniques for Effective Classroom Control and Management. Being a Paper Presented at a three days' Workshop for Primary School Teachers organized by (SUBEB) Kano from 30th April- 2nd May 2007.
- [4] Gilbert, O., Irene, D.J. and James, S. (2020) Relationship Between ICT Usage for Record Keeping and Principals Administrative Quality in Public Secondary Schools in Homabay County, International Journal of Innovative Research and Advanced Studies (IJIRAS).
- [5] Haruna, L. (2014) Computer Science in Universal Basic Education (UBE): Problems and Prospect, IISTE Information and Knowledge Management, Vol.4 (9).
- [6] Haruna, L. (2010) Application of Information and Communication Technologies (ICTs) for the Attainment of Millenium Development Goals (MDGs).
- [7] Haruna, L. (2011) Record Keeping and Computer in School Management for Effective Teaching and Learning
- [8] Janguza, S.A (2007) The Strategies for Designing a Model Record of work, Scheme of Work and Lesson Plan. Being a paper Presented at a three days' Workshop for Primary School Teachers organized by (SUBEB) Kano from 30th April- 2nd May 2007.
- [9] Lateef, O.A. and Muniru, A.A. (2020) The use of Information and Communication Technologies for School Administration and Management in Ogun State-Nigeria
- [10] Pierre, D.J. & Andala, H.O. (2020) Information and Communication Technology (ICT) Integration and Teachers' Classroom Pedagogy in Selected Secondary Schools in Nyanza District- Rwanda, Journal of Education, Vol. 3(3), 1-20.
- [11] Sunday, A.O., Balogun, Z.B., Ajao, R.L. Olawale, S.S. (2020) Record Keeping as a Measure of Effective Administration in Secondary Schools: Planning Strategies. Journal of Contemporary Issues in Educational Planning and Administration, Vol.5(2).
- [12] UNESCO (2002) Information and Communication Technology in Education- A Curriculum for Schools and Programme for Teacher Education Development. Paris: 14 UNESCO.
- [13] Usman, L.B. (2008) Organization and Management of Nigerian Education, Lecture handout to NCE Students, Federal College of Education, Kano.
- [14] Ziraba, A. (2009) The Role of Information and Communication Technology in the Management of Selected Secondary Schools in Central Uganda. M.Sc. Dissertation, Makerere University, Uganda.