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Application Of Information Communication Technology (Ict) And Records Keeping In Schools

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Abstract:

Records are written documents that we used in our schools, homes, hospitals, markets and in all our daily activities. The varieties of records we keep form the necessary part of life. Imagine what life will look like if you have no wrist watch to help you programme yourself, no mobile phone on which you have recorded the numbers of people you want to contact, records of financial transaction with your bank, and record of your service in which important aspects dealing with your promotion or retirement, and many others are kept. A record is “simply any information that is written or stored on paper, film or computer so that it can be used in future” FME/UBE 2002:139. This paper explores the trend and development of ICT and observes that given method of record keeping in our school, there is the need for schools to utilize the various information systems available to their own advantage. Challenges in doing so were analyses and possible solutions to minimize these challenges were offered.

1.Introduction

Trends in the development of ICT has revolutionalized the manner and volume of record keeping which enable us store substantial amount of data which can be easily retrieved, shared and copied. The ICT has provided us a wonderful opportunity to keep large volume of data at a little or less cost.

Another important dimension that has to do with importance of ICT in record keeping is in the area of sharing the record at national and international perspectives, depending on the connectivity of the ICT facility. Yet is more important aspect of ICT facility is that data, information or records can be downloaded by the user without going through the pains of referring to source. For example there is no need for mails asking for the data, permission to release the data and replying or mailing the information requested by the individuals, organizations or parents.

As a result of the above development, management of educational institutions is simplified due to changes in the administration of educational system. For example, online application for admission, registration, enrolment and processing examination results. Also, releases of examinations are now being done using ICT facilities; the same applies to payment of school fees.

The ICT facilities in our schools are being used to record, store information and facilitate learning by giving to students, staff and the general public access to the wonderful and unlimited information that the ICT provides. In fact, it is now possible for interested persons to register and earn degrees online by registering with Universities that provide such opportunities.

2.Information Technology And Record Keeping In Schools

Saminu (2009) defined computer as a device that manipulates data according to a list of instructions. Earlier electronic computers were large, consuming as much power as several hundred modern PCs. Modern computers are based on tiny integrated circuits and are millions to billions times more capable, while occupying a fraction of the space. Simple computers are now made so small to fit into a wristwatch and be powered from its battery. Personal computers, in various forms are what most people think of as “a computer”. However, the most common form of computer in use today is the so called embedded computer. These are small, simple devices that are used to control other devices – for example, in machines ranging from fighter aircraft to industrial robots, digital cameras, and children’s toys.

Saminu (2009) further explained that; the term information technology has ballooned to encompass aspects of computing and technology, and the term is more recognizable than ever before. The information technology umbrella can be quite large, covering many fields. IT professionals perform a variety of duties that range from installing applications to designing complex computer networks and information databases. A few of the duties that IT professionals perform may include data management, networking, engineering computer hardware, database and software design, as well as the management and administration of the entire systems. When computer and communications technologies are combined, the result is information technology, or “InfoTech”. Information Technology (IT) is a general term that describes any technology that helps to produce, manipulate, store, communicate, and/or disseminate information. Presumably, when speaking of Information Technology (IT) as a whole, it is noted that the use of computers and information are associated but not limited to it.

Another useful working definition more simplified, defines IT as hardware, software and telecommunications used interchangeably. These technologies provide the means to transmit, store and retrieve data, voice and video to any place in the world in real time. Asnafi (2005) defines ICT as the technologies that help us record, store, process, retrieve information. IT and ICT are dependent on each other. IT may refer to the machine and ICT to its products (Asnafi 2005). It has also been defined as the scientific study of products, services and information systems (Zins 2007).

3.Information Systems

Information Systems is the collection of hardware, software data, people and procedures that are designed to generate information that supports the day-to-day operations.

Information systems are generally classified into the following categories:

- Office Information Systems (OIS)
- Transaction Processing Systems (TPS)
- Management Information System (MIS)
- Decision Support Systems (DSS)
- Executive Information Systems (ESS)
- Expert System (ES)

4. Office Information Systems (OIS)

OIS is an information system that uses computer based systems to enhance and support work flow and facilitate day-to-day operations among employees. Example: The registration process of a school. It is now possible for students to register their courses online. This may start from the application to processing e.g. UTME

5. Transaction Processing Systems (TPS)

TPS is an information system that captures and processes data generated during day-to-day transactions of an organization. Example: Deposits, payments, orders or reservations. This is popularly and extensively being used by banks and other commercial concerns. Other instances include alerts and merely transfers.

6. Decision Support Systems (DSS)

DSS is an information system designed to help the user reach a decision when a decision making situation arises. DSS uses data from internal/external sources. Internal sources include but not limited to sales, manufacturing, inventory, or financial records for an organizations database. External sources are made up of – interest rates, population trends, cost of new housing construction/raw material pricing. This application is being utilized by academic, governments, companies and non-governmental organizations to help them make decisions.

7. Management Information Systems (MIS)

Is an information system that generates accurate, timely and organized information so that managers can make decisions, solve problems, supervise activities and track progress. However, employees are into the systems and technology is pushed downwards and becomes widely accessible.

8. Executive Information Systems (EIS)

EIS is designed to support the information needs of executive managers. Information in an EIS are presented in charts and tables that show trends, ratios and other managerial statistics and is stored in data warehouses.

9. Expert Systems (ES)

ES is an information system that captures and stores the knowledge of human experts and then imitates human reasoning and decision making processes for those who have less expertise. Example: Artificial Intelligence (AI) the application of human intelligence to computers. MYCIN - a classical example of early ES.

10. School Records

Records are the documents that schools produce, keep and submit to parents, pupils, Educational Authorities and other stakeholders because, formal organizations must account for whatever they do to justify their existence. School records therefore:

- Provide accurate and proper records of the students' achievement and growth from the point of entry to graduation
- To ensure an up-to-date information on any school matter or students is made available on request
- To facilitate collection of data or information which may be required for the purpose of planning, financing and reform for the educational and other sectors of the economy.
- Provide information for guidance counselors and Inspectors
- To provide referral information to employers of labour and other security agencies.

11. Types of School Records

The following records must be kept in every school by law and must be produced on request by any supervisor, Inspector and Ministry of Education officials:

- Admission Register
- Log Book
- National Policy on Education
- Attendance Register
- School time-table
- Diary of work (weekly)
- Visitors book
- Examination record book (C. A. Booklet)

- Time/movement Register
- Syllabus

Non-statutory records include among others the following:

- Staff files
- Lesson notes
- Individual pupil's files
- Discipline enforcement book
- Examination result record (JSS/WAEC/NECO, ETC)
- Advisory Board meeting
- Parents Teachers Association (PTA)
- Correspondence file
- Finance file
- Receipts
- Cash Book
- Public service rules
- Financial Instruction
- Stores regulations
- Store Receive Voucher (SRV)
- Store Issue Voucher (SIV)
- Annual Performance Evaluation Reports (APER)
- Health Records/Facilities
- Hostel issues/Reports

12. Qualities Of Good Records

School records are kept for a purpose as earlier explained. Achante (2005) has stressed that good records should have qualities/characteristics, some of which are itemized as follows:

- Records must be regularly kept and should be complete
- Records must be honestly kept and reliable
- Records must be easily recalled/accessible to enable them serve the purpose for which they are being requested

- Records must be original and should be backed with supporting documents such as receipts, medical reports and affidavits as the case may be
- Good records should be free from distortions, alterations and cancellations.

The use of computer in storing and generation of records would help schools to store, transmit and retrieve information about all aspects of the school within a very short time. Also, as the usage improves, this application will not only store but send whatever information to a desired stakeholder(s) on time, and with a high degree of accuracy, but will generally transactions.

13.Challenges Associated With Record Keeping In Our Schools

Challenges associated with record keeping in schools and colleges that impede effective school administration can be grouped into three, namely:

- Poor statistical data and records
- Quality of teaching personnel
- Challenges posed by ICT

13.1.Poor Statistical Data and Records

Agbaje (1982) has rightly observed that Nigeria as a nation has been muddling through its development plans without proper facts and figures since 1911 at the time the first population census was taken. This trend has been with us to date. The fact is that states, Local Councils and schools have not been willing to provide accurate data that would allow for meaningful planning. However, reliable data would lead to a reliable and realistic policy. As we know, it is such policies and plans that could be implemented with little or no unintended outcomes, these include under-estimation of needs for classes, teachers, etc.

At school level response to request for data on staff and students has been a reflection of the nature of request and the person or organization soliciting for such information. For example, a request on teachers may provide different figures for the same request coming from the Zonal Office and Universal Basic Education Commission, respectively. The reasons for such variation are associated with politics, allocation of grants meant for staff training or request for funds to pay teachers salaries. The same cases may apply to request for information on student population, number of classrooms, laboratories, teaching equipment and materials.

Other serious challenges are to do with the students records. The vital documents about admission, examination, medical reports and disciplinary records are hardly ever accurately kept. For example, attendance registers which are basic documents do not give, in most cases, accurate picture of attendance of pupils, i.e. they are rarely marked on time, recorded and checked as promptly as they should be. In some cases, the teachers come to school later than the students. The above examples imply wrong, inaccurate and false records in some schools, which ought not to be the case, anyway.

13.2. Quality Of Teaching Staff

Another challenge linked to proper record keeping has to do with the quality of the teaching personnel. Teachers are in most cases unqualified, uninterested and unwilling. It is a fact that about 50% of teachers at the UBE level are unqualified and the number may be higher at the secondary school level. Ahmed (2006) stressed that because a substantial number of these teachers are not qualified, the educational system is experiencing poor service delivery which manifests in the forms of poor teaching, poor examination and poor recording of the vital documents that are to ensure smooth administration of schools.

As a result of the above situation, there exists ill-informed, frustrated and inexperienced teachers whose attention is focused on searching for better employment opportunities elsewhere. This is because, they are conscious of the fact that, teaching is not their calling; in such situation, it may seem such teachers tend to put in the least they could, they do not take the pains of availing themselves with the training opportunities that could qualify them as teachers (Ahmed: 1998). To illustrate the extent of the effect of poor quality of teachers and how it is affecting the effective school administration, we may give example on the use of Continuous Assessment Booklet. Although it is a fact that aspects of cognitive, affective and psychomotor domains as important aspects of assessment are being subjectively recorded.

As school managers, we should answer these questions:

- Are the recordings in the area of affective domain which is supposed to give correct evaluation of attitude, values and feelings correct?
- Are the assessment in the area of psychomotor domain which are supposed to test skill acquisition and development accurate?

- Are the examinations, tests, and assignments true reflection of the performance of student in the cognitive domain?
- Do you remember the case of the former speaker of the House of Representatives, Hon. Salisu Buhari?
- Is there ever any case of examination malpractice in your school?

The information systems discussed will make the collection, recording, retrieving and transmission of the records faster and efficient. It will free the principal and clerks the burden of going through large volumes of dusty, missing and poorly recorded information.

13.3.Challenges Posed By ICT

Challenges in the use of ICT lie in the fact that some teachers are not willing to sit-up and learn to use them due to the following reasons:

- Conservatism: The feeling that change and use of ICT is not necessary and therefore, they may prefer the old ways of doing things.
- Availability: Access to the computers made available to schools is restricted to a few staff for fear of misuse, theft or vandalism. For this reason, teachers keep away.
- Training facilities, services and employment of qualified people to man these centres are not available due to dearth of people with necessary skills.
- Electricity, fuelling and maintenance of the equipment have continued to deny schools and colleges the opportunity to utilize these resources. As at now, a number of these computer centres are no longer functioning.
- The cost aspect has led to a situation that most of the schools located in rural and semi-urban areas are yet to be provided with ICT centres.
- Parent Teachers Associations, Old Boys/Girls Associations, NGOs and other donor agencies are yet to impact on the needs of schools in the area of ICT.

14.Conclusion

The roles that records play in school administration demand that they must be kept prompt, sincerely and safely. This would make them reliable as basic facts for making references in time of need, provide data to educational managers, policy makers and planners. They provide information that would enable all stakeholders such as banks,

industries and other employers of labour make informed investment decisions, project future needs for their products, plan for expansion, recruitment of staff, explore potential markets, design products and predict growth. However, it is observed that lack of proper record keeping, dishonesty, greed and attitudes towards falsification of records due to social, political and other considerations are negatively affecting the accuracy of whatever we do in the field of education and of course in other fields of our national endeavors.

It has also been observed that the manner in which schools records such as C.A. scores tend to affect the overall performance of our students. This is because, the grades they earn are not a true reflection of their performances. The ICT is a good means of recording and protecting the records we generate. However, issues such as security, usage, maintenance and lack of qualified personnel to man the ICT centres are hindering the effective utilization of such centres.

15.Recommendations

- There is the urgent need to train their teachers on the use and application of ICT in schools.
- All school activities must be carefully recorded using the statutory and non-statutory means by continuously updating them. Important records such as admission register, class register and daily records of work must be checked by senior and experienced teachers.
- Principals should make it a point of duty to check, verify and confirm that all records are correct weekly, monthly and termly.
- Continuous Assessment (C.A.) should be handled by trained, mature and dedicated teachers. This would justify the award of mark as a true reflection of the performance of students.
- Honesty, transparency and promptness are necessary qualities records must have and they should be reflected in whatever we record them.
- There is a need for continuous training, re-training and giving incentives to teachers and this will not only encourage teachers to do a good job, but will attract willing, young and intelligent persons to the teaching profession.

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