

Availability of Information and Communication Technology (ICT) Tools Used for Managing Students' Academic Records in Tanzania: The Case of Secondary Schools in Arusha City Council

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Abstract: *This study aim was to find out the availability of ICT tools used for managing students' academic records with an experience of secondary schools in Arusha City Council. The study was conducted in 10 secondary schools whereby 120 respondents were involved. The research approaches used were quantitative and qualitative, with dominance of quantitative approach. Survey design was adopted and data were collected through interviews, questionnaires, observation and documentary review. Stratified and purposive techniques were used to get the sample. Analysis of quantitative data was assisted by SPSS (Version 22.0) utilizing descriptive statistics for frequencies, mean, and standard deviation, and presented in form of tables. Qualitative data were thematically analyzed and presented in form of tables and paraphrasing. The study found that a diverse of ICT tools and facilities are available and accessible by teachers in the surveyed secondary schools. These tools are mainly used for academic and non-academic activities. Keeping students' records using ICT helps to improve managerial capacity of schools and students' academic performance by providing easy access to students' examination records, tracking progress, serves time in processing reports and assist in making informed decisions. The study recommendations include a need to supply ICT tools and facilities in secondary schools and empowering teachers on using them to manage students' records. There should be clear standard of records keeping practices which can accelerate decision making and improving information sharing through the use of ICT in secondary schools.*

Keywords: Information and communication technology, Students Academic Records, Management

1. Introduction

School records may include books, documents, diskettes and files in which are embodied information on what goes on in school (e.g. social, academic and non-academic activities, important events etc.), the school as well as other relevant information focusing on the growth and development of the school (Olagboye, 2004, p. 65). With respect to managing records at school, the presence of Information and Communication Technology (ICT) has caused a major paradigm shift in how we approach the gathering, storage, retrieval, and analysis of information in every industry including education (Jankowski, 2012, p. 57). ICTs can be divided into two components, Information and Communication Infrastructure (ICI) which refers to physical telecommunication systems and networks (cellular, broadcast, cable, satellite, postal) as well as the services that utilize them (Internet, voice, mail, radio, and television) and Information Technology (IT) that refers to the hardware and software collection of information, storage, processing, and presentation. (UNESCO, 2012, p. 107). Also it consist of the hardware, software, networks, and media for collection, storage, processing, transmission and presentation of information (voice, data, text, images), as well as related services (Katundu, 2000, p. 27).

Management refers to the processes that involve planning, organizing, leading and controlling school members using available human, physical, financial and information resources to achieve certain objectives (Webber, 2018, p. 2). With respect to management, managers are responsible for managing these resources in such a way that the task is completed within defined scope, quality, time and cost

constraints (Mugenyi, 2013, p. 106). Records management in education institutions is the area of administrative management that is concerned with achieving economy and efficiency in the creation, maintenance, use, sharing and disposal of records of the schools throughout its life cycle (Webber, 2018, p. 2).

ICT integration in secondary education needs to address management problems such as delays in decision making, communication barriers, time wasting and delay to complete tasks in the required time (Al-Oteawi, 2002). Studies conducted in developed countries such as United States of America, the United Kingdom, France and Canada indicated that, ICT has the potential of improving the efficiency and effectiveness of management in secondary schools particularly SAR (Da Graca, Peano, & Saito, 2005; Bozeman & Raucher, 2000). In their study on need for computer technology in education institutions, findings show that ICT holds the power for effective transformation of schools' management and consequently for the improvement of schools.

The use of ICT within schools is an infusing aspects of school practices that benefit all staff and school activities at large (Harry, 1990). In East African countries for example, managers in secondary schools are reported to take increasing interest in the scope of ICT in schools, where considerable investments were devoted on the purchase of ICT equipment and tools even before the establishment of ICT policies within these countries (Kavagi, 2011). ICT tools in secondary schools in developing countries such as computers and the Internet are used in providing communication and teaching of students in the

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classroom(Passey , Forsyth, Hutchison, Williams, & Scott, 2002; Miller & Miller, 2001; Webber, 2018).

ICT in education initiatives in Tanzania started in 2002 when a stakeholders' workshop was called by the ministry with support from the International Institute for Communications Development (IICD), a Dutch NGO (Mbwette, 2009, p. 17). The round table identified areas of ICT interventions and project proposals were generated. These projects helped to raise awareness of the benefits and potential gains in adopting ICT in education sector which in turn elevated ICT to a priority area in education planning (ibid, p. 18). In recognizing the potential of ICTs as significant tool for improving education system, the Government of Tanzania developed its national ICT policy in 2003 (URT, 2003, p. 3). Four years later, the Ministry of Education and Vocational Training (MoEVT), developed an ICT Policy for Basic Education in 2007. The ICT policy of 2007 addresses issues related to infrastructure and technical issues; curriculum and content; training and capacity building; planning, procurement and administration; management and support; and monitoring and evaluation.

According to the policy, priority levels include teacher's education, secondary education and primary education. In a nutshell, the main objectives of the policy, are to integrate the use of ICT to achieve educational policy objectives, facilitate and promote the use of ICT resources in schools, colleges, and libraries (URT, 2007, p. 2). The integration of ICT in basic education subsector, is expected to yield several outcomes including the improved efficiency and effectiveness of the management and administration of education at all levels (URT, 2007, p. 4).

Tanzania education sector has made several efforts to implement and achieve the benefit of the ICT Policy for Basic Education. The Government through MoEVT has implemented several programmes and initiatives that aim at implementing the policy since it was developed in 2007. The goal was to integrate ICT in the teaching and learning process as well as in management and administration of schools. Such initiatives include National Programme on ICT for Secondary School Teachers; the e-Schools Project and the introduction of ICT Curriculum in secondary schools. These initiatives have contributed to the use of ICT in teaching and learning process, and in performing school administrative tasks. Despite the success registered in education sector on the use of ICT and the possession of ICT tools and facilities, secondary schools have lagged in integrating ICT for schools' management purpose, and have not fully utilized such tools to manage students' records(Ngeze, 2017). It is with background that this study is undertaken.

2. Statement of the Problem

Studies conducted by Mazoya, Ismail & Manyilizu(2015), and Ngeze, (2017) about ICT integration in teaching and learning in secondary schools in Tanzania revealed that, the

Government has invested heavily in ICT in education initiatives, including provision of ICT training to teachers and supply of ICT tools and facilities in secondary school. Ngeze(2017, p. 425)added that, programmes and initiatives have been put in place to help integrating ICT in the teaching and learning process as well as management of student affairs. Such initiatives include National Programme on ICT for secondary school teachers, the e-Schools Project, Tanzania beyond Tomorrow and the introduction of ICT Curriculum in secondary schools. These initiatives have contributed to the use of ICT in teaching and learning and in performing school administrative tasks. More efforts are being made by the Government through the Ministry of Education, Science, and Technology to equip schools with ICT tools, infrastructure and training(Ngeze, 2017, p. 426).

Apart from all these Government initiatives to equip schools with ICT tools, students' academic records in most secondary schools in Tanzania are still stored and processed manually(Mbwette, 2009; Mazoya, Ismail, & Manyilizu, 2015; Ngeze, 2017). This results in the production of reports, printout and dissemination of students' academic information being slow, poor and prone to errors (Mazoya, etll, 2015). This means management in secondary schools has not realized the role of ICT in the management functions especially on students' academic records. Problems of not using ICT in managing SAR are such as loss of students' records, examination malpractices, statistical problems where by the cumulative grade averages of students are wrongly calculated, late decision making, delayed registration as well as delays in the process of compiling students results and giving reports to the parents and administrators (Ngeze, 2017). This implies also, access to students' records becomes limited because majority of records are manually processed and kept, thus, not easy to be shared among decision makers. This paper specifically aimed to find out the availability of ICT tools and facilities used for managing students' academic records in secondary schools in Arusha City Council.

3. Literature Review

ICT in Education

The potential of each technology varies according to how it is used (Huang & Liaw, 2005, p. 735). The use of technology in education has provided students and teachers in many countries with unlimited number of options for classroom learning (ibid, p. 736). Huang & Liaw, (2005) also added that, when we consider the global history of technology in education, there are some very interesting facts that have led us to where we are today (p. 736). According these Authors (ibid, pp. 736-739), we observe four major phases in the history of using computers in education, which include: Late 1970's to early 1980's (programming, drill and practice); Late 1980's to early 1990's (computer-based training with multimedia); Early 1990's (Internet-based training); Late 1990's to early 2000 (e-Learning) and Late 2000 (Social software + free and open content).

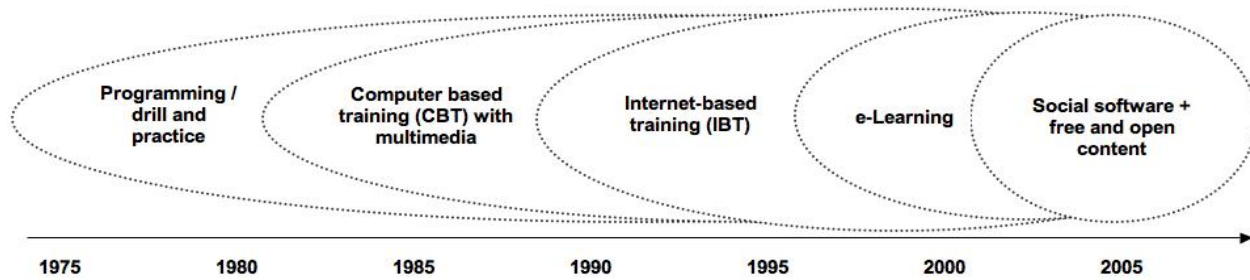


Figure 1: General Global History of ICT in education (Huang & Liaw, 2005, p. 738)

Today, most countries embrace ICT integration, either in the national policies or in the regulations pertaining to education sector (Ilonausi & Osuagwu, 2009, p. 35). For example, the study conducted by Baskin & Williams, (2006) in Australia, the government has set goals for schools in relation to ICT development and the government wants students to leave schools as confident, creative and productive users of new technologies on society (p. 458). Also, a study in Canada by Zhang and Martinovic(2008) revealed that, schools use desktop computers or laptops for educational purposes such as activities directed towards lesson preparation, execution or evaluation during the 2003/04 school year (p. 164). A survey in USA by the National Centre for Education Statistics in 2000 using the Fast Response Survey System revealed that 99% of full-time regular public-school teachers had access to computers or the internet somewhere in their schools (NCES, 2000, p. 62).

In Africa, a survey supported by World Bank Innovation and Entrepreneurship Group program as reported by Isaacs, Farrell, and Glen (2016, pp. 21 - 26) exposed that, within the education sector in Botswana, all junior and senior secondary schools have fully equipped computer laboratories. In Gambia, for example, the Ministry of Education in conjunction with the World Bank equipped half of the state secondary schools with networked computer laboratories, but without internet (Mangesi, 2007, p. 47). According to Wamakote, Hennessy, & Harrison(2010, p. 44), there are large number of wide-ranging and innovative ICT initiative program in Ghana, including “equipping schools with ICT, networking amongst schools, schemes awarding teachers who excel in using ICT, capacity building for teachers, and e-mail communication between students and teachers”. There is also a Computer Literacy Program for training school teachers and principals on keyboarding, word processing, basic troubleshooting and maintenance (Wamakote, et-al, 2010, p. 45).

In East African countries, the ICT in Education survey report reviewed by Glen(2007)exposed that, “Kenya recognizes the importance of ICT in education which is manifested through the promulgation of the national ICT strategy in education and training in 2006” (pp. 3-4). Rwanda is another East African country with strong government support for ICT development, whereby according to Wamakote, et.al (2010, p. 45) a number of other projects have been reported to improve ICT skills of teachers in Rwanda, and the government provides basic skills training to train two teachers per school with higher-level skills such as troubleshooting and fault finding who in turn are expected to train other teachers in their schools.

Use of ICT in Managing Students Records

Poor (2008, p. 36)stated that, ICT provides several facilities and possibilities for educational administrators to do their tasks. He mentioned that communication and information systems have changed the very nature of education management practices. He had also noted that there is an increase in effectiveness and efficiency of management student records through the use of ICT. ICT and records management have been mentioned to have a strong degree of commonality and many complementary expertise because they both concerns with creation, storage, accessibility and security of information (Visscher, Wild, & Fung, 2001, p. 44). However, while ICT assists in engineering and maintaining systems to manage an institution’s information assets, the focus of records management is protecting, classifying and maintaining the authenticity of records (a subset of information) so that they remain accessible and function as evidence for as long as they are required to be kept (Visscher, et al, (2001, p. 45). According to Nakpodia (2011)the ultimate aim of records management and ICT in education institution is to support, protect and enable the institutions to manage students’ records in a cost-effective manner now and in the future (p. 47). ICT can draw on the expertise of the records managers to ensure the right information is being captured and records are classified in a way that promote their retrieval while protecting their sensitivities and are only kept to meet legal institution requirements and community expectations (Visscher, et al, 2001, p. 46). Consequently, Nakpodia(2011, p. 46) argued that, school managers need effective management of records and other activities with the use of computers and other Information Communication and Technology equipment.

A study conducted by Osakwe, (2012) in Nigeria Tertiary Institutions revealed that “ICT has the potentials for not only ensuring effectiveness and efficiency in teaching-learning process, but also easing the administrative duties of records keeping and management” (p. 39). Being aware of the significant role of information and communication technology especially in our educational activities, educational authorities should be wise enough to use ICT in supporting records keeping and management (ibid, p. 39).It has been said that, the introduction of computers into records management has offered speed, precision, diversity, flexibility, and rich comprehensive documentation processes (Osakwe, 2012, p. 40). Nevertheless, Nwaomah (2015, p. 118) think that, the application of ICT to the management of records therefore, will go a long way in making such records accessible and usable.

Juma, Raihan, & Clement (2016, p. 6)in their paper about, “Role of ICT on Education Management in Secondary

Schools in Uganda” concluded that, ICT increase effectiveness in management of students’ records because it help in organization of students’ Information, analyzing students’ data quickly and accurately, increased coordination as well as effective and quick decision making. Proper utilization and allocation of resources, access of students’ records to the stakeholders, Improvement in monitoring student performance, enhancement of effective communication and planning, were also mentioned by Juma, et al (2016) as among ICT contribution on effective management of records in secondary schools (p. 6).

Use of ICT in Secondary Education in Tanzania

According to Senzige & Sarukesi (2003, p. 373) the application of ICTs in Tanzania education systems is not a new impression. It can be traced back to late 1960s and early 1970s when schools were provided with radios to enable students to listen to educational programs broadcasted by Radio Tanzania Dar es Salaam (RTD). However, these authors added that, there were little efforts to integrate the television technology that spread from the mid 1990’s into education. Additionally, the initiatives to integrate ICTs in education rejuvenated in 2002 when a stakeholders’ workshop was called by the Ministry of Education and Culture with support from the International Institute for Communications Development (IICD), a Dutch NGO (Hare, 2007, pp. 193-194). According to Hare (2007) the workshop’s roundtables identified key areas of ICT interventions and project proposals were generated and helped to raise awareness of the benefits and the potential gains in adopting ICTs in the education sector, which in turn elevated ICTs to a priority area in education planning (p. 194).

Kayombo & Mlyakado (2016, pp. 17-19) explained that, Tanzania’s Ministry of Education, Science and Technology (MoEST) - formally Ministry of Education and Vocational Training (MoEVT) has been working in cooperation with international bodies such as Swedish International Development Agency (SIDA), International Institute for Communication and Development (IICD) and UNESCO on the potentials of applying ICT in the education sector by deploying and developing a countrywide e-learning system. As part of the government policy for introducing ICT into basic education in Tanzania’s schools, the Commission for Science and Technology (COSTECH) and IICD implement rural ICT access initiatives which aim to bring to the secondary schools, affordable technologies for good governance and transparency and as part of assisting education institutions in establishing computer-mediated communication (ibid, p. 19). Furthermore, the project expects principals, teachers and students to be able to use ICT as a tool for teaching and learning as well as for management and administration Kayombo & Mlyakado, (2016, p. 20).

Ngeze (2017) stated that, after recognizing the role of ICT for socio-economic development, the government of Tanzania introduced various policies and plans such as the National ICT Policy (URT, 2003) and ICT Policy for Basic Education (URT, 2007) to guide the provision of ICT services in the country (p. 426). In the same line of thinking, the Tanzania Ministry of Education Science and Technology

(MoEST) declared that, “the use of ICT in teaching, learning, administration, and management presents a powerful tool to achieve educational and national development objectives” (URT, 2007, p. 13). Thus, the ministry of education decided to introduce the policy to guide the integration of ICT in basic education, and the declaration of the ICT policy for Basic Education in 2007 created the national framework for integrating ICT in pre-primary, primary, secondary and teacher education as well as non-formal and adult education sectors (Kayombo & Mlyakado, 2016, pp. 19)

Recently, the Tanzania Ministry of Education, Science and Technology (MoEST) has been providing training to secondary school teachers to equip them with knowledge and skills for integrating ICT in teaching, learning and administration processes (Ngeze, 2017, p. 424). According to Ngeze (2017, pp. 424 - 425), these training programmes were divided into three major cycles; cycle I consisted of topics such as Potentials of ICT, Computer Fundamentals, Operating Systems, MS Word, Spreadsheet, MS-Power Point and Computer Networks and Internet. Teachers are currently taught in cycles II which comprising of topics such as Multimedia, Hardware Installation, Software Installation and Configuration, Maintenance and Troubleshooting of ICT Devices, Safety of ICT Devices and Desktop Publishing. Cycle III consists of two important topics: Introduction to Databases, Database implementation Using MS Access and the Use of ICT in Teaching and Learning. The cascade mode of training according to Ngeze, (2017, p. 425) is being employed where the National Facilitators trained teachers - named Master Trainers (MTs) in fifty nucleus schools who met at one training center. After the training, the Master Trainers are assessed; those who qualified are certified to train other teachers at the secondary schools. All Master Trainers are responsible to disseminate ICT knowledge and skills through In-Service training to other secondary school teachers while National facilitator will continue to monitor the quality of training (ibid, p425).

4. Methodology and Design

The study was conducted in Arusha City Council located in the Arusha region involving ten (10) Secondary Schools from Arusha City Council; whereby, five (5) schools were private schools and five (5) schools were government owned schools. These selected schools were representative of schools that have the ICT facilities in Arusha City Council both private and government secondary schools. Data were obtained through constructed questionnaire, interviews and observations. Likewise, data were collected in accordance with the specified research objectives of the study which were; to find out the availability of ICT tools used for managing students’ academic records.

The population included students, teachers and heads of schools in targeted schools. From this population, a sample of 120 respondents was selected. Simple random sampling was used to get fifty (50) teachers, stratified technique was used to get fifty (50) students. Heads of schools were selected purposively to provide in-depth information about availability and use of ICT on managing students’ academic records.

5. Findings

Data were collected from selected secondary schools in Arusha City Council, and were obtained through self-constructed questionnaires, interviews and observations, based on the specified research objective of the study which was; to find out the availability of ICT tools used for managing students' academic records. It was revealed that a variety of ICT tools and facilities such as desktop computers, laptop computers, scanners, photocopier machine, printers, Internet, electricity and mobile phones are available in secondary schools in the Arusha City Council and can be used for keeping students' academic records.

Data collected as shown in Table 1 indicate that of the ICT tools available to schools, 59 (98.3%) were desktop computers, 36 (60%) were laptops, 34 (56.7%) were scanners, 59 (98.3%) were photocopying machines, 53 (88.3%) were printers, while 30 (50%) had access to Internet, 53 (88.3%) has access to electricity and 47 (78.3%) has access to cellular phones. This implies that majority of schools, at least above 50% had availability of ICT tools, which are essential in records keeping and teaching and learning process. However, internet was the least ICT facility available in the surveyed secondary schools in this study.

Table 1: Responses on Availability of ICT Tools in secondary school

No.	ICT Tools	Available		Not Available		Mean	SD	Remark
1	Desktop computers	59	98.3%	1	1.7%	1.02	0.129	Available
2	Laptop computers	36	60.0%	24	40.0%	1.40	0.494	Available
3	Scanners	34	56.7%	26	43.3%	1.43	0.500	Available
4	Photocopier machine	59	98.3%	1	1.7%	1.02	0.129	Available
5	Printers	53	88.3%	7	11.7%	1.12	0.324	Available
6	Internet	30	50.0%	30	50.0%	1.50	0.504	Less Available
7	Electricity	53	88.3%	7	11.7%	1.12	0.324	Available
8	Mobile phones	47	78.3%	13	21.7%	1.22	0.415	Available

Source: Field Survey, 2018

The researcher conducted an observation using a structured observation checklist about the availability of ICT tools and facilities in the surveyed schools. As seen in Table 2, computers (Laptop/Desktop), printers, photocopier, internet, and Microsoft office applications are the ICT tools present in head of schools' office, academic office and in department offices. These tools are not available in Classrooms and in Matron/Patrons Offices. The common ICT facility available in almost all offices and department was electricity, while internet was least available. These findings implies that, printers, photocopier machines, internet, electricity and computers installed with Microsoft office applications are ICT tools and facilities available in secondary schools in the study area.

From the data presented the study reveals that, a variety of ICT tools and facilities such as desktop computers, laptop computers, scanners, photocopier machine, printers, Internet, electricity and mobile phones are available in secondary schools in the Arusha City Council and can be used for keeping students' academic records. These findings are supported by Ngeze (2017, p. 426) who conducted a study about ICT integration in teaching and learning in secondary schools in Tanzania and found that, computers, scanners, printers, Internet, electricity and mobile phones were available in secondary schools and were largely being used in the teaching and learning process, and in performing school administrative tasks.

Table 3: Researchers' observation checklist on Availability of ICT Tools and facilities in department / offices

Department/ Office	ICT Tools and Facilities	School Name									
		A	B	C	D	E	F	G	H	I	J
Heads' Office	Computers (Laptop/Desktop)	√	√	√	√	√	√	√	√	√	√
	Printers and Photocopier	√	√	√	X	√	√	√	X	√	√
	Internet	√	√	X	√	√	X	X	√	√	√
	Electricity	√	√	√	√	√	√	√	√	√	√
	Microsoft office Application	√	√	√	√	√	√	√	√	√	√
Academic Office	Computers (Laptop/Desktop)	√	√	√	√	√	√	√	√	X	√
	Printers and Photocopier	√	√	√	X	√	√	√	X	X	√
	Internet	√	√	X	√	√	X	X	√	X	√
	Electricity	√	√	√	√	√	√	√	√	√	√
Department Offices	Microsoft office Applications	√	√	√	√	√	√	√	√	X	√
	Computers (Laptop/Desktop)	X	√	√	X	√	X	√	X	X	X
	Printers and Photocopier	X	√	X	X	X	X	X	X	X	X
	Internet	X	√	X	√	√	X	X	X	X	X
	Electricity	X	√	√	√	√	√	√	√	√	√
Bursars' Office	Microsoft office Applications	X	√	√	√	√	X	√	X	X	X
	Computers (Laptop/Desktop)	√	√	√	√	√	√	√	√	X	√
	Printers and Photocopier	X	√	√	√	√	√	X	X	X	√
	Internet	√	√	X	√	√	X	X	√	X	√
	Electricity	√	√	√	√	√	√	√	√	√	√
Microsoft office Applications	√	√	√	√	√	√	√	√	X	√	

Library	Computers (Laptop/Desktop)	√	√	X	√	√	√	X	X	X	X
	Printers and Photocopier	X	X	X	X	X	X	X	X	X	X
	Internet	√	√	X	√	√	X	X	X	X	X
	Electricity	√	√	X	√	√	√	X	√	√	X
	Microsoft office Applications	√	√	X	√	√	√	X	X	X	X
Matron / Patrons Office	Computers (Laptop/Desktop)	X	X	X	X	√	X	X	X	X	X
	Printers and Photocopier	X	X	X	X	X	X	X	X	X	X
	Internet	X	X	X	X	√	X	X	X	X	X
	Electricity	√	X	√	√	√	X	X	√	√	X
	Microsoft office Applications	X	X	X	X	√	X	X	X	X	X
Classrooms	Computers (Laptop/Desktop)	X	√	X	X	√	X	X	X	X	X
	Printers and Photocopier	X	X	X	X	X	X	X	X	X	X
	Internet	X	√	X	√	√	X	X	X	X	X
	Electricity	√	√	√	√	√	√	√	√	X	√
	Microsoft office Applications	X	√	X	X	√	X	X	X	X	X

Key: √ = Available, X= Not Available

Source: Field Survey, 2018

The study data also show that computers, printers and photocopiers are available mostly in heads of schools' offices, bursars' offices and in academic offices. These findings are supported by Bozeman & Raucher (2000, p. 226) who asserted that, operationally ICT should involve availability of computers and its accessories (printers, scanners, speakers), and associated software technologies in important offices of school that are applied for the process of collecting, storing, retrieving and transferring data and information in various forms. Findings resulting from ICT tools and facilities available in secondary schools in the Arusha City Council show that these ICT related equipment and facilities if are well utilized can improve teaching and learning process and, enabling increased performance among students and individual schools.

Interview conducted with Heads of schools (as summarized in Table 4) revealed that, electricity and computers (laptop/desktop) are available ICT tool and facilities in Secondary Schools of Arusha City, where by all (10) respondents agreed that their schools have electricity and Computers. However majority (9/10) of Secondary Schools have printers and their computers are installed with Microsoft office applications. Internet was the least ICT tool reported to be available in Secondary schools in the study area where by only 3 respondents out of 10, agreed that internet is available in their schools.

Table 1: Interview Responses on Availability of ICT Tools

S/N	ICT Tools and facilities	Respondents (HOS)	
		Available X/10	Not available X/10
1	Computers (Laptop/Desktop)	10	0
2	Printers and Photocopier	9	1
3	Internet	3	6
4	Electricity	10	0
5	Microsoft office Application	10	0

Source: Field interview, 2018

From the interview, one of the Head of School commented that; "In general, we have electricity here in school. We have enough computers in the ICT lab and in some classes, we have printers, photocopiers, but the school does not have internet. Teachers access the internet through their mobile phones and their laptop computers"

From this statement, it means that Secondary Schools have ICT tools and facilities such as computers, printers, photocopiers, electricity, as well as internet.

6. Summary, Implications and Recommendations

The objective of the study was to find out the availability of ICT tools used for managing students' academic records. The study found that diverse ICT tools were available and used to manage students' records in surveyed secondary schools, for the processing of academic and non-academic activities such as the running of day to day administrative issues.

Schools create records from time to time; for the control of students' registration, discipline, examinations, financial records among others, passing out of current and semi-current stages into archival care, of which it is not easy to manage all records in a single storage registry room. However through improved application of ICT tools, large amount of information and records can be stored over a long period of time with great flexibility in remote access, sharing, and dissemination.

The study recommended that, schools should ensure that secondary schools are well supplied with ICT tools and facilities in order to improve teaching-learning processes as well as record management. Further studies should be conducted on factors underlying ineffective application of ICT tools in records management in public secondary schools.

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