International Journal for Multidisciplinary Research (IJFMR)
E-ISSN: 2582-2160 ● Website: www.ijfmr.com ● Email: editor@ijfmr.com

Information Technology and Communication Between School Heads and District Education Officer: A Case of Kagadi District, Uganda

Zziwa Jude Thaddous Atty[1], Namara Asiimwe[2]

[1,2]Department of Education Management and Planning, School of Education, Nkumba University P.O. Box-237, Uganda

Abstract

This study investigated "the role of Information Technology and Communication between School Heads and District Education Officer: A Case of Kagadi District, Uganda". It explored the accessibility of ICT infrastructure in communication among school heads and education Officers; examined the role of ICT infrastructure in communication among school heads and Education Officers; and assessed the challenges facing the communication processes among Heads of Schools and Education Officers. The study adopted a mixed research approach and descriptive research design. The sample comprised 82 school Heads and Education Officers. The findings revealed that there is accessibility of ICT infrastructure such as ICT tools, network and power supply. It was also revealed that ICT plays a significant role in enhancing communication among Heads of Schools and Education Officers. It was also revealed that there are challenges related to ICT literacy in using ICT tools and services, high costs of buying and maintaining ICT tools and high cost of ICT services. Apart from that, findings unveiled that communication through ICT provides a feedback mechanism, which is very important in the communication process. The use of ICT in communication among heads of schools and education Officer is a crucial process towards improving the communication process in the education sector. The study concluded that, ICT enhances communication between school heads and education officers by providing a reliable channel for timely information exchange, facilitating effective decision-making. However, challenges include high costs of ICT tools and low literacy levels among some users. Despite these challenges, ICT improves the communication process, making it more effective and efficient. The study recommends that there should be frequent trainings and seminars to improve the usage levels of ICT services among educational managers.

Keywords: Information Technology, Communication, School Heads

Introduction to the Study:

Information Technology IT has recently become crucial in theeducation sector. The use of technological tools such as mobile phones, computers and internet has enhanced communication and co-ordination of activities in the education sector. The use of these technological tools has not only enhanced the learning process, but also smoothened the communication process in the education sector (Jolly, 2019). Thus, this current study investigates the important role of ICT in enhancing effective communication between the heads of schools and education Officer. Chapter one of this dissertation highlights the

background of the study, defines the problem, and states the objective of the study, study questions, significance of the study and scope of the study.

Information technology is the study or use of computers, telecommunication systems, and other devices for storing, retrieving, and transmitting information (Oxford Advanced Learner's Dictionary 2021). According to this study information technology is the use of computers to store, retrieve, transmit, and manipulate data or information. According to Acikgoz F. Elwalda A. De Oliveira M. J. (2023). Information technology is a broad term that involves the use of technology to communicate, transfer data and process information. The different trends within information technology include, but aren't limited to: Analytics, Automation, Artificial intelligence.

Communication is essential in daily life, occurring both in person and via social media. However, effective communication is the key for business success. While we interact with many people daily, the effectiveness of our communication and its impact on the target audience is often unclear. Effective communication, in essence, is the process of exchanging information and ideas so that the sender's message is clearly understood and received with the desired outcome by the receiver, Ajmani J. (2012).

The study was guided by UTAUT. The unified theory of acceptance and use of technology (UTAUT) is a technology acceptance model formulated by Venkatesh user acceptance of information technology: The UTAUT aims to explain user intentions to use an information system and subsequent usage behavior. The theory holds that there are four key constructs: 1) performance expectancy, 2) effort expectancy, 3) social influence, and 4) facilitating conditions. This study preferred the Unified Theory of Acceptance and Use of Technology (UTAUT) model because it consolidates previous TAM related studies. UTAUT aims to explain user intentions to use an IS and subsequent usage behaviour. UTAUT suggests four core constructs to explain and predict user acceptance of technology adoption, which are: performance expectancy (equivalent to perceived usefulness), effort expectancy (equivalent to perceived ease of use), facilitating conditions and social influence. These constructs explain up to 70% of the variance in usage intention.

In order to attain quality education school heads and education Officer aim at establishing a co-operative team administration philosophy through effective communication and paying attention to utilizing human, physical, and financial resources competently to achieve the objectives of school development, student accomplishment, staffdevelopment, and resources management. They also set up quality assurance and responsibility systems in their school communities that provide feedback to students, teachers, and others through channels of effective communication with a view to securing school improvement. Similarly they extend communication channels between the schooland the surrounding and global communities to enable their school communities to contribute to the wider society and its development (Walker et al., 2000).

Statement of the Problem

According to Anderson et al. (2014), the use of ICT for learning is vital for enhancingeffective learning in schools. There has also been an increasing concern on the use of ICT for communication between school administrators, which includes heads of schools and education managers. Communication through ICT devices involves the use of different technological tools such as mobile phones and personal computers through the internet. School heads normally use the mentioned tools for communication among themselves and with the education Officer. Similarly, theeducation officers use mobile phones and computers to foster communication with the heads of schools through calls, text

messages as well as emails. Thus, the use of ICT is inevitably important for modern school management (Syiem & Raj, 2015). Despite the importance of ICT in schools and the strategies developed by the government and other stakeholders, as formulated in secondary education ICT policy of 2007, research has revealed that several schools were not efficiently implementing ICT to support teaching, learning and management in school. Swati and Wachira (2010) observed that despite the benefits of ICT, the school management had not fully implemented thepolicies developed by the Ministry of Education. This current study investigated the important role of ICT in enhancing communication between school heads and the education officer in Kagadi district.

General Objective of the Study

The purpose of this study was to investigate in selected secondary schools the role of information technology on effective communication between school heads and the District Education officer in Kagadi District, Uganda.

Specific Objectives of the Study

1. To assess accessibility of ICT infrastructure in communication among heads of schools and the education officer in Kagadi District.
2. To examine the role of ICT infrastructure in communication among heads of schools and the Education officer in Kagadi District.
3. To assess the challenges facing the communication processes among head of schools and the education officer in Kagadi District.

Literature Review:

Accessibility of Information Technology in Uganda

In assessing the accessibility of ICT, Senteza - Kajubi (2011) discovered that in the Ugandan context, the accessibility of ICT tools such as computers is still low. The study also argued that access to ICT depends on their use of ICT as well as the cost of owning computer and network connectivity. Large numbers of people in developing countries, Tanzania in particular, have less access to internet due to factors such as ICT illiteracy, computer viruses and insufficiency of internet cafes. Masereka (2018) conducted a study to establish current status of ICTs in terms of access, use and challenges of ICTs in selected secondary schools in Mbarara Municipality. The study was a cross section survey and used self-administered questionnaires that were given to teachers and students in selected schools. This was supplemented by observations and secondary data review. 20 teachers and 60 students were involved in the study. The findings indicated that the status of ICTs is not good in secondary schools. Though students and teachers seem to be aware of ICTs, the schools have no enough facilities for ICTs and the facilities available are not adequately utilized. It was also reported that low band width (resulting in poor internet connectivity or slow speed), lack of standby power, and lack of a policy and training schedule hindered the utilization of ICTs in the selected schools.

Communication among Education Managers in Uganda

Ndibalema (2014) assessed and reported low usage of ICTs among secondary school teachers for communication purposes in Tanzania that were attributed to the ease of USE teachers, background in formal training and teachers' attitudes towards technology. In most cases, the use of ICTs among

teachers and heads of schools in secondary schools in Tanzania has been perceived as general practices. In teacher training practices, ICTS have often been assumed to mean only internet and computers, while there are many teacher training needs that ICTs could offer as a solution to deliver e-learning models to pre-service teachers (Baker et al., 2013). Also, the ICT Policy for Basic Education recognized the use of ICT devices in education (such as personal computers, digital cameras, scanners, projectors, telecommunications equipment, Internet resources, radio and TV) as a potential for improving quality and effectiveness of teaching and learning. However, few teachers use ICTs in classrooms irrespective of the investments made in the ICT supportive infrastructure in teacher training colleges and few secondary schools (Andersson et al., 2014).

Information Technology and Communication Challenges in East Africa

Yonaz (2012) studied the challenges facing ICT in Tanzania. Findings of the study revealed that, in the Tanzanian context, issues that facilitate ICT usage include but not limited to affordability, availability of technologies, supportive infrastructure and government commitment to ICT initiatives. The study also revealed several challenges on the use of ICT; the challenges were such as inadequate connectivity, inadequate content quality, unsupportive organizational issues and people-related issues. Ngimi (2013) studied "Opportunities and Challenges of Integrating ICTs in Education Delivery in the Institute of Continuing Education at the Open University of Tanzania. The study came up with findings that unsuccessful integration of ICT was due to factors such as lack of pedagogical competencies by majority of lecturers, lack of ICT technical support at the institute level and access to ICTs due to inadequate infrastructure in the institute. Siddiquah and Salim (2017) also assessed the ICT facilities, skills, usage, and the challenges encountered by the students of higher education. Findings of the study unveiled the slow speed of computers, signal problems in Internet, virus threat, poor working condition of computers, load shedding, and lack of access of Internet as the problems faced by the majority of the students.

Methodology:

The study used two approaches, that is qualitative and quantitative research approaches. The two mixed approach (Quantitative and Qualitative) was used to collect data and useful information from the selected heads of schools and education Officer (Gray, 2000). The quantitative approach was used because it explains the relationship of variables in terms of numbers; the extent to which, how one variable relates to the other is expressed in numbers. In this study the extent to which each independent variable relates to the dependent variable was established through the quantitative approach. The qualitative approach was used to obtain qualitative data for triangulation purposes. The qualitative approach was employed because it explains the phenomenon with a mere analytical approach. The adoption of a mixed research approach is derived from Miles & Huberman (1994) who noted that the use of a mixed research approach expands the coverage and improves the value of the study as both qualitative and quantitative information is involved to address the specific objectives of the study. Thus, through a mixed approach, a mixture of techniques was employed to gather all the available information on the study interest.

This study adopted a descriptive research design; the design focuses on analysing and telling the features and characteristics of a certain element of the population which could be a group of elements or individual elements. The descriptive research design was chosen because it aims at describing a population, situation or phenomenon. In the case of this study the design was used to describe the role of ICT in communication between school heads and the district education officer.

Therefore, the population of this study involved two groups where the first one comprised of all heads of schools from the 14 government secondary schools in Kagadi district. This group was useful in providing useful information on the adoption of ICT, the available ICT infrastructure, and the ICT challenges as far as effective communication is concerned. Since the school heads are working closely and helped by their assistants and academic teachers, this group of population also included the school heads assistants and academic teachers. Therefore, this population group had 102 members. The second population group involved the district education officer. These were useful in triangulating the information provided by the school heads and their assistants regarding the role of ICT in enhancing effective communication between heads of schools and the district education officer.

The population of this study involved two groups where the first one comprised of all heads of schools from the 14 government secondary schools in Kagadi district. This group was useful in providing useful information on the adoption of ICT, the available ICT infrastructure, and the ICT challenges as far as effective communication is concerned. Since the school heads are working closely and helped by their assistants and academic teachers, this group of population also included the school heads assistants and academic teachers. Therefore, this population group had 102 members. The second population group involved the district education officer. These were useful in triangulating the information provided by the school heads and their assistants regarding the role of ICT in enhancing effective communication between heads of schools and the district education officer.

A total of 82 questionnaires were distributed to 82 heads of school and their assistants with a list of questions for the respondents to provide information regarding the study objectives. The researcher administered the filling of questionnaires and collected them after they had been properly filled for data presentation and analysis procedures. This ensured that all the required quantitative information is obtained from the respondents. In this study, the interview guide was prepared based on all the objectives of thestudy. The essence is to supplement the quantitative data, which was collected through the survey method for triangulation purposes. Questions on each independent variable were asked to District Education Officers to seek their opinion and compare with what was found from the heads of schools and their assistants.

To ensure validity, 10 questionnaires were pre-tested by distributing them to respondents, statisticians and colleagues. Their opinions were positively considered and the instruments reviewed to see if they bring the intended results. The instruments brought the intended results and therefore the researcher was then confident to apply them in data collection. Internal reliability of the 20 items' scale was assessed and all the items had a cronbach`s alpha above to the required Cronbach's α of 0.70. This indicates that the research instrument and therefore the data collected were reliable.

The quantitative data was analyzed through the quantitative techniques. The responses from the questionnaires were cleaned and the useful data was then entered in the SPSS program where the frequency tables were produced, edited and presented. Therefore, descriptive statistics were employed to analyse the quantitative data obtained through questionnaires. The qualitative data collected through interviews were analyzed through thematic analysis where common themes were identified from the specific objectives of the study and results from the qualitative data were then analyzed and presented in accordance with the key themes of the study. Through thematic analysis technique, the exact words of some of the respondents were presented in some cases to validate the findings.

RESULTS AND DISCUSSION

Accessibility of ICT Infrastructure in Communication among Heads of Schools and the Education Officer

The first objective of the study was to assess the accessibility of ICT infrastructure in communication among heads of schools and education Officer. Respondents (the school heads (n= 41) and their assistants (n=41) were asked to respond to questionnaires as far as ICT infrastructure is concerned. Moreover, interview sessions were conducted with district educational officer (n=4) on all the specific objectives to establish the extent to which technology has influenced communication among school heads and the education officer.

Table 1: Responses on Accessibility of ICT Infrastructure

S/N	Statement	SD	D	N	A	SA	Mean	Std. Dev
1.	There are available ICT tools in my working environment	7 8.5%	3 3.7%	12 14.6 %	20 24.4 %	40 48.8%	4.01	1.252
2.	The network is available for useof ICT equipment	3 3.7%	9 11%	9 11%	16 19.5 %	45 54.9%	4.11	1.197
3.	There is reliable power for working with ICT tools	5 6.1%	9 11%	0 0.0%	17 20.7 %	51 62.2%	4.22	1.257
4.	The general ICT infrastructure is supportive for use of ICT	3 3.7%	4 4.9%	5 6.1%	26 31.7 %	44 53.7%	4.27	1.031
5.	The government continues to build ICT infrastructure in thecountry	2 2.4%	2 2.4%	3 3.7%	37 45.1 %	38 46.3%	4.30	0.856

Source: Field Data (2024)

When they were asked about the availability of ICT tools in their work environment, majority of the respondents (48.8%) strongly agreed followed by those who agreed (24.4%) that ICT tools for communication are available at their working environment. On the other hand, 3.7% disagreed and 8.5% strongly disagreed and the remaining 14.6% were neutral on the same proposition. The results also indicated a mean value of 4.01 and a standard deviation of 1.252 implying that there is a minimum deviation between the responses as majority lies on the agreeing side. Findings also discovered that there is availability of network around the study area for enhancing communication among school heads and the education officer. This was evidenced by majority of the respondents who strongly agreed (54.9%) followed by those who agreed (19.5%), while others disagreed, (11%) strongly disagreed (3.7%) and neutral (11%). The results revealed a low standard deviation of 1.197 indicating that majority of the data falls closer to the mean of 4.11. Additionally, the study assessed the availability and reliability of power supply at the study area for enhancing communication through ICT tools. It was discovered that there is reliable power supply in the area. Most of the respondents (62.2%) strongly agreed and 20.7% agreed on the fact while 11% disagreed and 6.1% strongly disagreed. This resulted in low standard deviation of

1.257 from a mean of 4.22. Moreover, it was discovered that the general ICT infrastructure is supportive of communication among school heads and the education officer. This was supported by 53.7% of the respondents who strongly agreed and 31.7% who agreed; however, the same fact was opposed by only 3.7% who strongly disagreed and 4.9% who disagreed while the rest were indifferent (6.1%). Despite having respondents who disagreed, still the results had a mean of 4.27 indicating that majority agreed and a standard deviationof 1.031 implying minimum deviations from the mean. On assessing the development of ICT infrastructure, findings of the study revealed that the government continues to develop different ICT infrastructure to support the use of ICT for communication purposes: (46.3% strongly agreed, 45.1% agreed). However, a few others strongly disagreed (2.4%), disagreed (2.4%) and undecided (3.7%). The mean value of 4.30 and a standard deviation of 0.856 were produced. Their responses on the accessibility of ICT infrastructure are as displayed in the Table 1 above.

The Role of ICT Infrastructure in Communication among Heads of Schools and the Education Officer

On the second specific objective, the study examined the role of ICT infrastructure in communication among heads of schools and the education officer in Kagadi District. Data was collected from 41 heads of schools and their 41 assistants with thorough questionnaires administered by the researcher. Also, interviews were conducted with the education officer to collect qualitative data on the same objective. As key respondents, school heads and their assistants revealed that the ICT tools enhance communication among heads of schools and the education officer. Most of the respondents strongly agreed (59.8%) and agreed (17.1%) that communication has been improved as a result of ICT. On contrary, a few respondents disagreed (9.8%) and strongly disagreed (6.1%) while 7.3% only were neutral. The responses were also not far from the mean (4.14) with a standard deviation of 1.1268.

Table 2: The Role of ICT Infrastructure in Communication

Statement	SD	D	N	A	SA	Mean	Std. Dev
The ICT tools enhance communication among heads of schools and the education officer.	5	8	6	14	49	4.15	1.268
	6.1%	9.8%	7.3%	17.1%	59.8%		
The use of mobile phones makes communication more convenient.	3	7	3	23	46	4.24	1.106
	3.7%	8.5%	3.7%	28%	56.1%		
The use of ICT tools has reduced frequent physical meetings.	5	7	2	19	49	4.22	1.217
	6.1%	8.5%	2.4%	23.2%	59.8%		
Communication is less distorted by the use of ICT tools.	1	11	5	12	53	4.28	1.136
	1.2%	13.4%	6.1%	14.6%	64.6%		
There is timely delivery of information when ICT tools are used.	0	0	0	37	45	4.55	0.501
	0%	0%	0%	45.1%	54.9%		

Source: Field Data (2024)

Apart from that, it was exposed that the use of mobile phones makes communication more convenient. This was evident from most of the respondents who strongly agreed (56.1%) and those who agreed (28%); others disagreed (8.5%), strongly disagreed (3.7%) and the rest (3.7%) were undecided. Thus,

majority of the respondents were in support of the argument to the extent that standard deviation was as minimum as 1.106 from the mean of 4.24.

The study also assessed the use of ICT in relation to the physical meetings and findings revealed that the use of ICT has to a large extent reduced the physical meetings as the findings were supported by 59.8% of the respondents who strongly agreed and 23.2% who agreed. Others were against the fact, 8.5% disagreed, 6.1% strongly disagreed and 2.4% were neutral. A standard deviation of 1.217 from a mean of 4.22 was also obtained.

Additionally, it was revealed that communication is less distorted by the use of ICT tools (64.6% strongly agreed and 14.6% agreed while 1.2% strongly disagreed and 13.4% disagreed while the remaining 6.1% were indifferent). The responses were close to each other with a small standard deviation of 1.136 and a mean value of 4.28. Furthermore, findings revealed that there is timely delivery of information when ICT tools are used. This was evidenced from the majority of respondents who strongly agreed (54.9%) and agreed (45.1%). A mean value of 4.55 and a standard deviation of 0.501 were also obtained. The responses are tabulated in the Table 2.

Challenges Facing the Communication Processes among Heads of Schools and the Education Officer

The third specific objective of the study was to assess the challenges ofcommunication encountered by the heads of schools and the education officer as far as ICT is concerned. In fulfilling this objective, data was collected from two groups, which are heads of schools (n=41) and their assistants (n=41) through a questionnaire survey and theeducation officer (n=4) through interviews.

Table 3: Challenges of Communication among Heads of Schools and the EducationOfficer

Statement	SD	D	N	A	SA	Mean	Std. Dev
The costs of ICT tools and services are high.	8	4	8	21	41	4.01	1.300
	9.8%	4.9%	9.8%	25.6%	50%		
There are frequent network problems around our area.	7	9	3	28	35	3.91	1.298
	8.5%	11%	3.7%	34.1%	42.7%		
The presence of the virus in the internet poses a threat to ICTusage.	2	14	6	15	45	4.06	1.241
	2.4%	17.1%	7.3%	18.3%	54.9%		
There is a poor working environment making it difficultusing ICT.	2	10	5	16	49	4.22	1.155
	2.4%	12.2%	6.1%	19.5%	59.8%		
The levels of ICT literacy are poor for some of the users.	0	0	2	26	54	4.64	0.464
	0%	0%	2.4%	31.7%	65.9%		

Source: Field Data (2024)

As far as this specific objective is concerned, the study revealed that the cost of ICT tools and services are high; when asked about this majority of the respondents supported by strongly agreeing (50%) and agreeing (25.6%), on the other hand few opposed by strongly disagreeing (9.8%) and disagreeing (4.9%) while the remaining group were indifferent (9.8%). The responses were close since the standard deviation was 1.3 from the mean value of 4.01.

Apart from that it was also revealed that there are frequent network problems around the study area; the

fact was supported by the majority of the respondents who strongly agreed (42.7%) and those who agreed (34.1%). However, a few strongly disagreed (8.5%) and disagreed (11%) while the rest were neutral (3.7%). A standard deviation of 1.241 from a mean value of 3.91 was also obtained.

As far as internet viruses are concerned, the study found out that the presence of the virus in the internet poses a threat to ICT usage. When asked about this, majority of the respondents strongly agreed (54.9%) and agreed (18.3%) while a few others strongly disagreed (2.4%), disagreed (17.1%) while the rest were undecided (7.3%). The findings resulted in a mean value of 4.06 and a standard deviation of 1.241. Furthermore, the study revealed that there is a poor working environment making it difficult using ICT. Most of the respondents strongly agreed (59.8%) followed by those who agreed (19.5%) while very few strongly disagreed (2.4%) and disagreed (12.4%) while the remaining were undecided (6.1%). The results gave a mean valueof 4.22 and a standard deviation of 1.155.

The study also assessed if the users of ICT tools and services have a good literacy level. Findings revealed that the levels of ICT literacy are poor for some of the users (65.9% strongly agreed, 31.7% agreed while 2.4% were neutral). The responses were close to each other to the extent of having a mean value of 4.64 and a low standard deviation of 0.464. The findings are as displayed in Table 3.

Discussion of Findings

Accessibility of ICT Infrastructure in Communication among Heads of Schools and the Education Officer

On this, the study assessed the accessibility of ICT infrastructure such as ICT tools and ICT services among school heads. The findings of the study revealed that the ICT infrastructures are available at the study area. It was revealed that there are ICT tools and services to support the communication process. Furthermore, the study revealed that there are available network services in support of the communication process among school heads and the education officer.

However, the results are different from those obtained by Nihuka (2011) who discovered that in the Ugandan context, the accessibility of ICT tools such as computers is still low. Nevertheless, this study argued that access to ICT depends on their use of ICT as well as the cost of owning computers and network connectivity.

Also, Nihuka (2011) was supported by a study conducted by Mbwette (2009) who discovered that less developed countries, have problems of poor supply of power, lack of internet connectivity. The most affected places are the rural areas. Similarly, Chirwa (2018) in the study on access and use of internet in Uganda found that there is limited access to internet and ICT facilities in Uganda.

Apart from the heads of schools and the education managers also, a study by Masereka (2018) in Mbarara indicated that the status of ICT is not good in secondary schools. Also, Pima et al., (2016) assessed the available ICT infrastructure for collaborative web technologies in a blended learning environment in Uganda: Findings revealed that the accessibility of ICT infrastructure is still a challenge in the Ugandan education sector.

The Role of ICT Infrastructure in Communication among Heads of Schools and the Education Officer

The findings of the study revealed that ICT infrastructure plays a significant role in enhancing communication among heads of schools and the education officer. It was discovered that the presence of ICT tools and services has improved timely communication among heads of schools and the education officer. Also, it was discovered that communication is made more convenient when using ICT. Also,

the use of ICT reduces the distortions of messages during communication. The findings were parallel with those obtained by Massawe (2014) who argued that the use of ICT reduces communication fatigue as it smoothens the communication process. He also added that when ICT is incorporated in the communication process, the message travels faster and with less distortion. This was also the case with Ndibalema (2014) who had similar findings as far as the role of ICT in communication is concerned. The use of ICT in communication is a step up for the whole communication process.

The Challenges Facing the Communication Processes among Heads ofSchools and the Education Officer

Different challenges were observed when using ICT in the communication process. As far as this study is concerned, it was revealed that the cost of ICT tools is high to the extent that not all the users can afford. Apart from the tools, the services are also costly. Similarly, it was discovered that there are frequent network problems, which affect the communication channel. Moreover, it was unveiled that there are poor ICT tools as well as a low level of literacy among ICT users.

The obtained challenges were not new as Yonaz (2012) studied the challenges facing ICT in Uganda and found that in the Tanzanian context, ICT faces challenges such as inadequate connectivity, inadequate content quality, unsupportive organisational issues and people-related issues. Similarly, Ngimi (2013) studied "Opportunities and Challenges of Integrating ICT in Education Delivery in the Institute of Adult and Continuing Education at Makerere University. The study came up with findings that unsuccessful integration of ICT was due to factors such as lack of pedagogical competencies by majority of lecturers, lack of ICT technical support at the institute level and access to ICT due to inadequate infrastructure in the institute.

Moreover, Siddiquah and Salim (2017) assessed the ICT facilities, skills, usage, and the challenges encountered by the students of higher education. Findings of the study unveiled that slow speed of computers, signal problem in Internet, virus threat, poor working condition of computers, load shedding, and lack of access of Internet are the problems faced by the majority of the students. Also, Rumanyika and Galan (2015) assessed the challenges for teaching and learning information and communication technology courses in Higher Learning Institutions in Uganda. The findings show that limited access of ICT hardware and software, poor ICT infrastructure, lack of competent ICT staff, little government funding, lack of practical training and poor institutions' co-ordination are significant challenges hindering teaching and learning of ICT courses in HLIs in Uganda.

Conclusions

The use of ICT in communication among heads of schools and the education officer is a crucial process towards improving the communication process. Enhancing ICT improves the communication process through providing a reliable and important channel through which heads of schools and the education officer communicate. The use of ICT has seen communication becoming timely and useful for delivering timely information for timely decision making. However, ICT has been found to go through different challenges since the users find the ICT tools and services to be expensive. Apart from that, the literacy levels on using ICT are low for some of the users. Despite all these challenges, the use of ICT in communication makes the communication process effective.

Recommendations

From the findings discussed above, the study came up with different recommendations for improving

the communication process among heads of schools and the educational officer. The recommendations are:

Since it has been found that majority of the people use their personal ICT tools such as mobile phones and personal computers for communication. It is recommended that the government provides ICT tools for enhancing communication among heads of schools and the education officer in order to improve the ICT structure.

The study has found that there are low literacy levels among the users of ICT tools and services, then it is recommended that there should be frequent training and seminars on the use of ICT tools and services. This will enhance the communication process and improve the productivity of heads of schools and the education officer.

REFERENCES

1. Acikgoz F. Elwalda A. De Oliveira M. J. (2023). Curiosity on cutting-edge technology via theory of planned behavior and diffusion of innovation theory. International Journal of Information Management Data Insights, 3(1), 2667–0968. 10.1016/j.jjimei.2022.100152
2. Ajmani J. (2012). Role of Information Communication Technologies in Education. Proceedings of the 4th National Conference. indiaCom; 2012.
3. Baker, E.T., Edmond G. (2013). Designing Effective Education Programs Using Information and Communication Technology (ICT), Compendium American Institutes for Research In partnership with Juarez and Associates and The Natoma Group; 2013: 2-41.
4. Mbwette, T. S. , Batte A. (2009). A decade of delivery of open and distance education by Open University of Tanzania in Africa and beyond. *Paper presented in an International Forum on 'A decade of distance Education in the commonwealth:* Achievements and challenges. Abuja-Nigeria.
5. Chirwa M. (2018) Information and Communication Technology as a Means of Enhancing Education in Schools in South Africa: Challenges, Benefits and Recommendations. Policy Brief, Africa Institute of South Africa.
6. Jolly D (2019). Learning with technology: Using computers as cognitive tools. In D. Jolly (Ed.), Handbook of Research Educational on Educational Communications and Technology, New York: Macmillan; 1996: 693-719.
7. Masereka B, (2018). Access to, use and challenges of ICTs in secondary schools in Tanzania: A study of selected secondary schools in Morogoro Municipality. *Journal of Information and Knowledge Management, 9(2)*, 44 – 57
8. Massawe, A. F. (2014). Head teachers' communication strategies and their effects on academic performance in public secondary schools in Nyando District, Kenya, University of Nairobi. Oxford Dictionary, (2021). English Dictionary, Oxford: Oxford dictionary Press.
9. Ndibalema S (2014). The Role of Information and Communication Technology (ICT) in Higher Education for the 21st Century. The Science Probe. 2012;1(1):30-40.
10. Ngimi, E. (2018). Use of the ICTs and the perception of e-learning among university students: a differential perspective according to gender and degree year group. Interactive Educational Multimedia. 2003;7:13-28.
11. Nihuka, K. A. (2011). Collaborative course design for implementation of e-learningby instructors. Doctoral thesis of the University of Twente, Enschede-The Netherlands.

12. Yonaz A. (2012). ICT Transforming Education. A Regional Guide. UNESCO Bangkok. Asia and Pacific Regional Bureau for Education; 2012.
13. Rumanyika, J. D., & Galan R. M. (2015). Challenges for teaching and learning information and communication technology courses in higher learning institutions in Tanzania: A Review. *Information and Knowledge Management.* 5(2).
14. Siddiquah, A., & Salim, Z. (2017). The ICT facilities, skills, usage, and the problems faced by the students of higher education. *EURASIA Journal of Mathematics Science and Technology Education* 13(8), 4987-4994.
15. Swati M, Samson O, Wachira M. (2010).Teachers' Perception about Integration of ICT in Teaching and Learning of Kiswahili Language in Secondary Schools in Kenya. Int J Arts Commerce. 2013;2(3):1929-7106.
16. Walker S, Razak A, Ghani MFA, Ran NY, Meixi Y, Tengyue Z. (2000). ICT Integration in Education: Incorporation for Teaching and Learning Improvement. Malaysian Online J Educational Technology. 2000;2(2):24-46.