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Exploring Administrative Challenges in the Implementation of Digital Learning in Public Primary Schools Rongo Sub-County, Kenya

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Abstract

Digital Literacy is one of the core competencies in the new Competency Based Curriculum (CBC), it enhances quality and standard of education and therefore intends to help learners achieve their potential both in school and in life. Despite the Kenyan government efforts to achieve one child one laptop (1:1) by 2030, its implementation process in public primary schools in Rongo Sub-County has been met with managerial challenges which has widened the digital and knowledge divides between Kenya and other developed countries in the world. The study primarily explored administrative challenges in the implementation of digital learning in public primary schools in Rongo Sub-County, Kenya. The study was guided by the Technology, Organization and Environment (TOE) model theory. The study employed descriptive survey design with a target population of 199 public primary schools. The study was carried out among 60 sampled public primary schools using a simple random sampling procedure. The study used questionnaires and interview schedules to get information from the respondents. The input of the supervisors was vital in developing and ascertaining the validity of the research instruments. A pilot study was carried out in three randomly selected schools with three headteachers, three deputy headteachers and three grade one class teachers in neighboring sub counties with the same characteristics as the sampled schools. Test-retest technique was used to get a reliability of 0.78, 0.70 and 0.72 for headteachers, deputy headteachers and grade one class teachers respectively. The questionnaires were distributed to headteachers, deputy headteachers and grade one class teachers. The collected data was analyzed using Statistical Package for Social Sciences (SPSS Version 21.0) Windows. The findings were presented using frequency tables, mean, percentages, pie charts and bar graphs. The findings of the study showed that 63.6% (61) of headteachers and deputy head teachers agreed that the government did not allocate enough resources to schools towards the implementation of digital literacy while 67.7% (65) of them said that the available primary curriculum did not support digital literacy in schools. The study concluded that managerial challenges such as administrative challenges, were still major challenges affecting the implementation of digital learning in public primary schools in Rongo Sub- County. The study recommended that the government should uniformly provide ICT resources to all public primary schools. The results of this study are useful in the current implementation of CBC and digital learning in Kenya and beyond. The researcher adhered to research ethical considerations.

Keywords: Exploring Administrative Challenges Implementation Digital Learning Schools Kenya.

INTRODUCTION

Information Communication and Technology (ICT) transforms societies by improving access to services, enhancing connectivity and creating employment opportunities though entrepreneurship and new business models. Investing in information communication and technology has improved the quality of formal and informal education and made it more accessible to most learners in the world. Information communication and technology gives learners an edge in the dynamic global labor market (Becta, 2009). However, its success and rejection depend majorly on the environment where the technology is introduced as well as the purpose and timing of the introduction (Omulama & Yambo 2023). In addition, inadequate teachers' training on Information Communication and Technology (ICT), their perceptions on ICT, incompetence and inefficiency have led to its low adoption in various organizations such as government organizations and non-government organizations. In educational sectors, managerial challenges such as lack of proper planning

and unpreparedness in terms of human and physical resources are among major hindrances to the success of technological implementation in primary schools. In addition, Fullan (2007) agreed that adequately planned and structured technological adoption and use accelerates its structural integration in the classrooms. Its successful integration in education system improves the standard of basic education in a country.

Information communication and technology is regarded as a driver and enabler of economic development in developed countries. Therefore, its positive effects in the developed world have continually been noted. For the positive effects of ICT in developed countries, as noted by Heeks, (2010) is consequently critically important for the developing countries to embrace technology by making information communication and technology as a mandatory tool in the entire education system. Minishi-Majanja (2007) added that the role of technology in national development is significant. ICT has a direct role to play in national economic development through changing business processes, the way people live, shaping new business models and enhancing creativity in various sectors.

When dealing with Artificial Intelligence (AI) in teaching and learning the work of Yambo (2025) alluded that ICT in teaching and learning in primary schools have got great benefits. ICT facilitates children's cognitive, physical and social-emotional development, and as well as sustaining children's interest in learning. In addition, Laaria (2013) stated that ICT in young learners provides a context for collaboration, co-operation and positive learning experiences between children or children and adults. Crittenden (2009) cited the benefits of ICT in young learners such as increasing self-esteem and confidence. He further stated that ICT among young learners' support independence and persistence in the face of initial difficulties. Ordinarily, motivation is an administrative tool in doing any implementation. According to Arende, Yambo and Nyakundi (2024) staff motivation helps the integration of ICT among young learners and promote pleasure in learning. This is done by enhancing engagement, motivation and desire to learn more.

The development noticed in developed countries was achieved because Information communication and technology was made compulsory in early education as early as the 1980s due to its benefits in broadening access to education and improving learning outcomes as noted by (UNESCO, 2008). Developed countries made the implementation of ICT in basic education possible by eliminating challenges such as administrative challenges, infrastructural challenges, and skills challenges and attitudinal challenges affecting its implementation in basic education. According to the report on world data on education UNESCO (2006), Denmark succeeded in ICT implementation in schools through discovering the roles of ICT as the center of educational reforms. It embedded ICT into its educational systems through its use in coordination with changes in teachers' training curriculum and improving the learning environment through financial and technical support to schools.

Developed countries have handled their managerial challenges on the implementation of ICT in schools by channeling enough resources to schools, equipping teachers with relevant ICT skills, providing adequate technical support and finally providing clear guideline policies on roles of ICT in schools. Plomp, Anderson, Law and Quale (2009) argued that the government commitment to deliver quality education to the citizens has led to a large number of schools in developed countries such as Canada and Denmark with approximately 85 percent internet connectivity and computer access with pupil computer ratio stands at 1:1. In addition, these countries always update the tutors' skills by sending their tutors to refresher courses, workshops and seminars on emerging issues in ICT which are fully funded by the government and various educational stakeholders.

The Kenyan government through Sessional Paper no. 1 of 2005 cited the roles of ICT in schools such as the technology will provide new opportunities for teaching and learning, opportunity to reach more learners, greater opportunity for communication and collaboration, creating enthusiasm for learning amongst students, and offering access to a wider range of courses (Yambo, 2023). Dynamics of Teachingi. The findings were supported by MOEST (2015) which stated that ICT has a direct role to play in education and if appropriately used, ICT can bring many benefits to the classroom as well as education and training processes in general. Its use will provide new opportunities for teaching and learning, including, offering opportunity for more student-centered teaching, opportunity to reach more learners, greater opportunity for teacher-to-teacher, and student-to-student communication and collaboration, greater opportunities for multiple technologies delivered by teachers, creating greater enthusiasm for learning amongst students, and offering access to a wider range of courses. In 2013 Kenyan government announced that all 1.2 million class one pupils would get laptops through the digital program initiative. The one-laptop-per-child idea of the government's Digital Learning Program was meant to entrench ICT in the teaching and learning process in primary schools. However, the policy shifted from laptops to tablets due to cost implications. The project has become rather moot since its inception. This was attributed to challenges such administrative, lack of teachers' ICT skills, infrastructural, teachers' attitudes towards ICT and country' political dynamics.

Challenges such as failure on ICT policies formulation and implementations processes on education by various stakeholders, mismanagement of funds meant

for the project, knowledge gaps on ICT by teachers, high enrolment in lower primary classes, high cost of computer hardware and software for educational institutions have immensely affected the implementation of ICT in government sponsored primary schools. Other challenges that hinder the implementation of ICT in primary schools as reported by MOEST (2015) includes frequent power disruptions, limited access to electricity and high cost of electricity, high costs of Internet provision, costs associated with ICT equipment, inadequate infrastructure and support has also contributed enormously in slow uptake of digital learning in primary schools. Okoth (2016) further added that customers in rural areas which include primary schools tend not to be able to afford the connectivity fees in full, and they are thus required to pay monthly installments until the connectivity fee is paid off, which is not what lowest income residents are willing to do.

Technological implementation and usage in developing countries are by nature problematic characterized by poor governance, political interference, fluctuating economy, cultural diversity and mediocre infrastructure that undermine these reforms. According to UNESCO (2006) report, only 0.1 percent of Sub-Saharan Africa populations are internet users. This percentage is very low as compared to the internet user in developed countries. Therefore, inaccessibility of the internet and other basic technological equipment in public primary schools have stagnated the implementation of ICT in primary schools. However, some little development from developing countries on technological reforms in education as noted by Minishi-Majanja (2007) was in progress.

Previously, most of the educational reforms implemented were focused on socio-economic and change of education systems since independence (Sifuna & Otiende, 2009). However, in 2006 the government of Kenya through the ministry of ICT developed the National ICT policy that encourages the use of technology in schools, colleges, universities and other educational institutions to improve the quality of teaching and learning and its accessibility (Republic of Kenya, 2006) as part of the reforms in the education system. However, the government failed to adequately fund the high demand of basic education which led to the collapse of the reform at its inception stages. In addition, there was no proper sensitization to the school administrators and community by the government on their roles in the implementation process.

A study on ICT in developing countries conducted by Heeks, (2010) found out that despite government continuous funding on ICT in third world countries, 35% are considered to have totally failed, 50% to have partially failed and only 15% to have succeeded. Moreover, no study has been carried out to determine whether administrative challenges could lead to its misfortunes in primary schools in Rongo Sub County. This study therefore, focuses on challenges affecting the implementation of ICT in primary schools in Rongo sub-county.

Table 1.1: ICT Indicators in selected Countries

ICT Indicators	Kenya	South Africa	Denmark
Electricity connectivity	76.5%	89.3%	100%
Radio set	68.5%	86%	99%
Television set	34.3%	73%	98%
Pupil computer ratio	1:24	1:5	1:2
Telephone	60.7%	75%	89%
Internet connectivity	42%	70%	92%
Others	31%	68%	95%

Source: UNESCO Institute of statistics Database 2021

Tables 1.1 shows the comparison of infrastructural distributions in developing and developed county schools. Electricity being the main source of power in government sponsored primary schools was 76.5%, 89.3% and 100% in Kenya, South Africa and Denmark respectively. Table 1.1 further revealed that the student computer ratio in Kenya is 1:24 while in South Africa and Denmark is 1:5 and 1:2 respective. In addition, internet connectivity in Kenyan primary schools stands at 42% while in South Africa and Denmark it is at 70% and 92% respectively. These indicators show that Kenya still lag behind in the implementation of ICT in primary schools in Africa content and in the world due to managerial challenges such as administrative, infrastructural, lack of ICT skills among the implementers and lack of computer's self-efficacy among users in schools such as teachers (Ogweno, Yambo & Nyatuka 2024).

Primary schools in Rongo sub county were still facing a myriad of challenges in implementing digital learning which made it lag behind the national pace. The challenges hindering the implementation of digital learning include but are not limited to high levels of poverty around the area, hinders access to ICT facilities, limited rural electrification and frequent power disruptions. Where there is availability of electricity to use for few primary schools, hindrances to application of ICT includes, high cost of internet provision, costs associated with digital equipment, inadequate infrastructure and support.

Statement of the Problem

Information and communication technologies are very essential in encouraging active learning, supporting innovative teaching, reducing isolation of teachers, and digitizing administrative roles in schools. Digital literacy intends to help learners achieve their potential both in school and in life through designing education to be relevant to the needs of society and the economy. The government of Kenya introduced one-laptop-per-child through the Digital Literacy program in 2013 pumping more than Kenya Shillings. 30 billion into the project but the idea has become rather abortive despite being a reality in many developed countries as shown in Table 1.1. This has widened the digital and knowledge divides between Kenya and other developed countries in the world. The lag could be attributed to managerial challenges, infrastructural challenges, headteachers' ICT knowledge gap and teachers' attitude towards digital learning. Therefore, this study focused on challenges affecting the implementation of digital learning in primary schools in Rongo Sub County.

Administrative Challenges on Implementation of Digital Learning in Primary Schools

Education policy-makers realized the significance of dissemination knowledge and acquisition of ICT skills among pupils in primary schools. The use of IT in schools according to many studies has more benefits such as improving the efficiencies and reducing costs (Dzidonu 2010). The IT skills acquired enhance pupils' ability to learn, promotes lifelong learning and prepares them for a competitive workforce. The government of Kenya realized the importance of ICT as a viable way of responding to several challenges such lack of learning resources that face basic education. ICT will have a greater impact in education systems if the policies and programs designed to implement them are formulated and implemented in support of coordinated change of all the components of the basic education systems.

The government of Kenya through the ministry of education and ICT has formulated numerous ICT policies on education such as ICT in Education Toolkit (UNESCO, 2002) and the ICT Competency Standards for Teachers (UNESCO, 2008). Moreover, many policies such as National ICT education in line with vision 2030 promulgated in 2006 found in Kenya National Policy-Ministry of ICT 2006. The policy emphasizes the government roles in the use of ICT in schools, colleges, universities and other learning institutions in the country. The policy states that the government will encourage the use of ICT in the learning institutions to improve the quality of teaching and learning. Since then, the ministry of education has made several ICT policies on education on areas such as funding of ICT in schools, use, storage, training among others (MOE, 2006). However, it has been noted that the perceived challenges to effective administration in administering technological adoption in schools have been affected by frequent changes in education policies Otegbulu (2016). This has led to overlap and inefficiency in policy implementation.

A study carried out by Heek (2006) on ICT policy in developing countries revealed that there is lack of enthusiasm on the decision makers to embark on ICT projects. It is therefore notable that lack of clear government policies and strategies on ICT use in primary schools hinder the uptake and usage of the facilities in schools. In addition, the government should institute enabling policies and strategies that facilitate public-private partnership for resources mobilization.

Government through the ministry of education and ICT, NGOs, individual institutions and various agencies has come up with ICT policy frameworks on education. Despite these voluminous ICT policies on education, a close look revealed that not all have been implemented. This could be attributed to factors such financial constraints by schools and importantly lack of consultation with key stakeholders such as teachers and learners. Various studies conducted on school financing and policy formulation and implementation showed that nearly all the schools are insufficiently funded and lack proper consultation from various educational stakeholders in ICT in education policy formulation and implementation which could be attributed to slow uptake of ICT in schools. In addition, a study carried out by Otegbulu (2016) in Nigeria which is also applicable in Kenya revealed that frequent changes in educational policies among others were major challenges in school administration.

The usefulness of finances in ICT implementation in schools cannot be under rated since it is the player through which human and material resources could be harnessed in order to achieve the technological reforms in schools. Olowoselu and Bello (2015) observed that poor funding of schools is a major problem rendering the school administration ineffectiveness in its roles in IT implementation. In the school system, headteachers are often faced with paucity of funds since the funds received from the government are not enough to run the school activities. However, school administrators are not allowed to collect fees from the pupils irrespective of its purpose, and the meager sum of money given by the government as grants are not regularly released since the promulgation of free primary education in 2003. The finances sent to schools are insufficient to run the school daily activities and buy the ICT equipment. This leaves the implementation of digital learning in schools in limbo since it is not a priority at the moment.

The government has also embarked on funding the provision of technological infrastructure such as high-speed and reliable Internet service to schools. Among other areas of fundings include but not limited to digital literacy program and ICT integration in secondary

schools. However, the entire cost of acquisition of ICT tools including software, hardware, upgrading, maintenance and development remains high as noted by (Laaria, 2013). This is attributed by importation cost of the ICT equipment and the dollar fluctuation. Therefore, investing in ICT for schools might be perceived as an additional cost to various educational stakeholders. Hence several schools in developing countries do not meet the cost for implementing and support the ICT programs.

Other administrative challenges such lack of confidence by educational stakeholders on school administrators hinder the process of ICT implementation. Headteachers have portrayed characters such as embezzlement of school funds, flaunting procurement rules and exaggerating the prices of IT materials during tendering, delinquent behavior and lack of managerial skills among others which in a way take away the public confidence. Leadership traits such as honesty and integrity according to Olowoselu and Bello (2015) are significant predictors of ICT use and its success by teachers and pupils. Public confidences on the use of school resources by school administrators attract more players in supporting the IT implementation in primary schools.

The Government of Kenya has invested much on digital learning by supplying technology hardware and software in primary schools even though they are still insufficient as compared to pupils' numbers in schools. Studies conducted in these various schools which had received the device showed that in many schools found out that desktop computers, laptops and other computer accessories are available in schools but at times they are not being fully used for teaching and learning purposes. Koro (2012) concluded by saying that some administrators and teachers may be reluctant to make extensive use of ICT because of techno-phobia. The fear of failing by teachers and school administrators when using IT has made teachers shy away from using them in classrooms and other administrative duties.

The syllabus run in primary education lacked digital literacy, computer as a subject is not taught either in primary schools but used as a teaching and learning tool. The body mandated to come up with curriculum in primary schools failed to develop syllabus for digital literacy. Learners come across the technological skills in high schools which Kenya Institute for curriculum development (KICD) stated that require heavy spending to equip teachers and schools with the necessary skills and tools (Koro, 2012). The absence of computer studies as a subject in primary schools has left it with only an option of being learned as a leisure or co curriculum activity hence, teachers do not give it a priority. The available subjects taught in primary schools neither supports the use of ICT. This is due to the fact that most books are in hard copies and their contents have no elements of ICT. A study conducted by the government of Bangladesh Directorate of Primary Education also affirmed the state in Kenya. Integration of ICT in education can take several forms such as information and computer networks, digital content, internet sites, multimedia and others.

RESEARCH METHODOLOGY

This study used descriptive survey design which Saunders, Lewis and Thornhill (2012), said is appropriate since the overall objective was to establish whether significant relationships among variables exist at some point in time. Descriptive surveys collect data in both qualitative and quantitative. It also gives a holistic understanding of a research topic. Since descriptive surveys are conducted in the natural environment of the respondent, it ensures that high-quality and honest data is collected.

The study was conducted in Rongo Sub County which is found within Migori County in Kenya. The sub county lies within latitude of $00^0\,46^1 00^{11}$ S and longitude $34^0\ 36^1\ 00^{11}$ E. According KNBS (2009), Rongo Sub County lies within 208.4 square kilometers with a total population of 100,547. It is subdivided into four county assembly wards. Farming and mining are the major economic activities in the area. Majority of the residents of Rongo Sub County are Christian with few religions such as Islam and Hinduism. The sub county is a metropolitan with various tribes. In this study, the target population included 199 public primary schools with a total of 199 headteachers, 199 deputy headteachers and 199 grade one teacher. The inception of digital literacy was primary focused on grade one pupils. Therefore, grade one teachers were the best in positions to understand the challenges affecting the implementation of digital literacy. Maxwell (2005) who said that 30 percent of the accessible population is statistically significant for the descriptive studies. Thirty percent was used to determine the sample size of headteachers, deputy headteachers and class one class teachers. This ensured easy access of the respondents, acquisition of unique information, ease selection of particular characteristics of interest to the study and ensuring that the groups were homogeneous in each stratum.

Table 2: Distribution of Sample Size

Respondents' strata	Population	Sampling Technique	Sample
Headteachers	199	30 Percent	60
Deputy Headteachers	199	30 Percent	60
Class Teachers (Grade one)	199	30 Percent	60
Total	**597**		**180**

Source: MOEST (2015) Statistics of Public Primary Schools in Kenya.

Tables 2 shows the distribution of sample size. The target population for headteachers, deputy headteachers and grade one class teachers was 199 each. A sample of 30% for headteachers, deputy headteachers and grade one class teachers was 60 each. The choice were supported by Saunders *et al*., (2012) who opined that 30 percent of a sample size was statistically significant and adequate for social research. The study used questionnaire and observation schedule in data collection since they were the most suitable in education and social sciences research (Orodho, 2009).

To ascertain the validity of the instruments, the researcher discussed the contents of the questionnaires and interview schedule with the supervisors for their expert judgments and corrections upon which the tools were refined into the final use. The quantitative data emanating from the field were edited, coded and then numbered. They were then entered into a database prepared in SPSS version 17 that aided in analyzing the data. The qualitative data was analyzed thematically. For quantitative data, Cross tabulation, and frequencies were adopted and the findings were presented using graphs, tables, frequencies and percentages.

RESULTS AND DISCUSSIONS

The purpose of this study was to examine how administrative challenges influence the implementation of digital learning in public primary schools in Rongo sub-county. To examine the administrative challenges, headteachers and deputy headteachers were asked their opinion on the administrative challenges affecting digital learning in public primary schools in Rongo sub-county. The findings were presented in Table 3.

Table 3: Administrative Challenges on the implementation of digital learning

Statement	Headteachers and Deputy Headteachers				
	SA	A	D	SD	Total
Government allocate enough funds for ICT implementations in schools?	F (%)	F (%)	F (%)	F (%)	F (%)
	10 (10.4)	25 (26.)	31 (32.)	30 (31.)	96 (100.0)
There is always budget allocation for the ICT implementation at school level	20 (20.8)	60 (62.)	10 (10.)	06 (6.3)	96 (100.0)
Primary curriculum does not support ICT implementation	42 (43.7)	23 (24.)	20 (20.)	11 (11.)	96 (100.0)
The available program for ICT is not supportive for primary school curriculum in my school	38 (39.6)	34 (35.)	18 (18.)	06 (13.)	96 (100.0)
There are inadequate implemented government policies on the use of ICT in my school.	34 (35.4)	42 (43.)	08 (8.3)	12 (12.)	96 (100.0)
There are no procedures for monitoring and evaluating teachers' use of ICT in school	44 (45.8)	36 (37.)	08 (8.3)	08 (8.3)	96 (100.0)
Education stakeholders such as PTA, NGOs, MOE and community do support ICT implementation in my school.	46 (47.9)	32 (33.)	12 (12.)	06 (6.3)	96 (100.0)

The findings in the table 3 show that 36.4% (35) of the headteachers and deputy headteachers agreed that the government allocates enough funds for ICT to facilitate the implementations of digital literacy in primary schools while 63.6% (61) of the respondents said that government does not allocate enough resources. This implies that primary schools face financial constraints which translate to deficiency of ICT appliances. Schools need enough budget allocation to acquire ICT materials. The government report shows that in terms of financial resources, a total of Ksh. 63.4 billion has been spent on the program through purchasing instructional materials, as well as general-purpose expenses/recurrent expenditures through a capitation grant of Ksh 1,020 per child in 19,833 public primary schools (Republic of Kenya, 2012). This report does not show any allocation of finances to support ICT in school despite its necessity in education. Further scrutiny at the school level, the study further examined if there was budget allocation for the ICT implementation at school level. The findings showed that 87.8% (80) of the respondents agreed that there was always budget allocation for the ICT implementation at school level, contrary to the findings on the government funding. This implies that since schools are funded by the government, schools planned for ICT infrastructure but the government does not allocate finances on ICT vote head to schools. The lack of enough funds towards ICT infrastructural development was attributed to the high cost of ICT facilities. Many governments owned schools could not afford ICT tools due to their high prices and lack of proper fundings from the government. This is in agreement with the findings of Laaria (2013) who emphasized that the high cost of acquiring ICT tools has remained the greatest challenge facing the implementation of digital literacy in government owned schools in Africa. in addition, lack of budget allocation towards digital literacy in public primary schools has led to resistance to digital migration since teachers and

learners do not have enough ICT resources from the traditional methods of teaching and learning.

The study further investigated the role of stakeholders in ICT implementation in schools. The findings revealed that 47.9% (46) of the respondents strongly agreed that education stakeholders did support ICT implementation in my schools. NGOs in Rongo Sub County render voluntary services to the institution, amongst others (Republic of Kenya, 2013). Non-governmental organizations, IT firms and individuals donate computers to schools to promote digital learning. Finance was also a major contributor toward the success of digital learning in primary schools. Therefore, all the stakeholders needed to pull up the resources to make the noble project a success. However, lack of funds as indicated by Olowoselu and Bello (2015), dizzyingly affects the effectiveness of administration in schools including the implementation of digital learning.

Autocratic leadership style is generally in disfavor in modern institutions as reported by leadership theorists. Ottestad (2013) stated that autocratic leaders maintain most of the authority by issuing orders and telling group members what to do without consulting them. This type of leadership style does not necessarily require headteachers to lead by example by using ICT in their daily running of schools but issue orders to their juniors. Since IT is hands-on activity, autocratic leaders tend to shy off. On the other hand, transformational and transactional leadership styles were the least among leadership styles used in primary schools. According to Ottestad (2013), Transformational school leader delegates' responsibility, shares decision making, promotes staff professional development and maintains a clear vision in school while transformational leaders are capable of influencing others by aligning ICT vision with values of the school (Akiri, Yambo & Nyakan 2024). Hence, transformational leadership style stands out as the best leadership style head teachers should use in schools in this technological era as stated by Luft (2012). Transformational leaders influence how much teachers, students and other administrative staff collaborate, discuss and learn from each other in order to integrate ICT in teaching and learning in schools. Transformational leaders influence others to adopt ICT by planning, budgeting and dialoguing with other staff members.

This has lessened administrative activities giving teachers more time to focus on instruction which is in line with Persaud, (2006) who said that incorporating ICT in administrative duties improves the efficiency and effectiveness of the administrative work for teachers.

The researcher also held an interview session with the sub county directorate of basic education and sub county directorate of quality assurance and standards on the administrative challenges influencing the implementation of digital learning in public primary schools in Rongo sub county. It was found out that Significant challenges that need to be addressed include educational policy and planning, financing and monitoring and evaluation. they further agreed that the current syllabus that is 8-4-4 system did not support the use of ICT in teaching and learning. However, they said that with the introduction of Competency Based curriculum (CBC), digital is one of its pillars. This was in agreement with the findings from headteachers and deputy headteachers 67.7% (65) who also agreed that the current primary curriculum did not support the implementation of digital learning. The two findings were both supported by the findings of Karsenti et.al (2011) who said that though computer studies curriculum existed in secondary schools and tertiary levels, it is missing in primary curriculum. The interviewees also agreed that the government of Kenya has formulated numerous ICT policies on education. however, their implementation at the schools' levels had remained an illusion. This was due to lack of proper monitoring of the implementation process of the policies, insufficient funding and overlapping policies. The findings were in tandem with the findings of 83.4% (80) headteachers and deputy headteachers who said that schools did not have procedures for monitoring and evaluating teachers' use of ICT tools in teaching and learning. Moreover, the overlapping policies created confusion within the school fraternities which was also supported by Otegbulu (2016). The directors during the interview agreed that the government allocated funds every financial year to support ICT in schools. However, the ICT facilities which were bought and taken to various schools such as laptops, computers, notepads among others were bungled, stolen and never put in good use.

CONCLUSION

From the findings it was concluded that administrative challenges such as insufficient funding, overlapping and non-implementation of ICT policies, primary school curricula which did not support digital literacy, lack of digital literacy monitoring and evaluation tools in primary schools affected the implementation of digital learning primary schools in Rongo sub-county. Schools did not receive adequate and prompt funding to implement digital literacy in schools. It was also found out that there was lack of digital literacy monitoring and evaluation tools. Computer syllabus was lacking in most primary schools. Computer studies was not among the examinable subjects by KNEC during summative evaluation. Hence, computer was viewed as another additional tool for teaching other subjects. However, most educational stakeholders viewed ICT as gadgets for other usage which include entertainment and communication apart from a subject and teaching aids.

RECOMMENDATIONS

The study has established that to achieve one child one laptop (1:1) and technology compliance

according to vision 2030: The government should increase constituency development funds to improve school infrastructures.

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