

Administrative Support on Integration of ICT in Teaching and Learning Kiswahili Fasihi Simulizi in Public Secondary Schools in Kenya

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Abstract

The study sought to analyze Administrative support on integration of ICT in teaching and learning Kiswahili Fasihi simulizi in public secondary schools in Kenya. The qualitative study adopted the Siemens' Connectivism learning Theory and used exploratory research design. Data was collected from public secondary school principals and teachers of Kiswahili. Krejcie & Morgan sampling table was used to arrive at sample size of 113 schools which were randomly sampled from a population of 172 public secondary schools in Baringo County. The total participants were 276 principals and teachers. Instruments for data generation were Questionnaires, interview schedules. The data collected was qualitative and was presented in themes and percentages. The study found out that schools' administration supported ICT integration in. The study recommends that the School administrators should set aside funds for purchase of ICT resources to promote ICT integration in teaching and learning Kiswahili fasihi simulizi in public secondary schools.

Key words: Information, communication, technology, administration

1. Introduction

Presently in the world, there is a global realization of the benefits of developing technology in different area of life. Information and communication technology (ICT) is therefore widely viewed as a need and a foundational element of contemporary civilization. When referring to information and communication technology from the perspective of education, terms like computers, communication tools, and features that support teaching, learning and a variety of support activities in education are referred to as ICT. Administrative support is therefore a determining factor for ICT integration in teaching and learning in any education system. ICT integration in education and learning is supported by numerous governments throughout the world through efforts and policies.

In addition to administrative support, teachers need to have computer skills to be able

to integrate ICT in teaching and learning. Lack of computer skills may be hindrance to integration of ICT. However, technology and computers are not seen as a replacement for good teachers but rather as a supplement to them that is required for improved learning and teaching (¹).

The administration of the school sets direction and provides support for school policies that specify objectives and the tools required for instruction and learning. Effective management is essential for the adoption of ICT and transformation in schools. There is need for strong and coherent administration in initiating and maintaining the drive to promote quality ICT integration. The principal of the school is the primary change agent. He or she has a clear action plan for ICT with the main components being staff development with a focus on curriculum customization and pedagogical innovation.

2. Literature Review

Principals play a significant role in facilitating educational change as well. Principals who exhibit an initiator approach are more likely to succeed in their schools at a period when information and communication technologies are being incorporated into the classroom as learning tools and when teachers are being expected to incorporate technology into their teaching practices. Nevertheless, these educational leaders must possess pedagogical knowledge and technical proficiency.

Principals offer assistance by emphasizing the use of technology in the classroom during staff meetings, setting up staff training, making sure there is enough time, and making resources available for instruction. Through the designated heads of departments, they analyze lesson plans and other written communications to assess each teacher's progress.

Kenya published a National ICT policy in January 2006 with the goal of enhancing livelihood by assuring the availability of services that are easily accessible, effective, dependable, and inexpensive. Information technology, broadcasting, telecommunications, and postal services are only a few of the various components that make up the national strategy. However, the part on information technology is where the goals and plans for ICT and education are laid out. According to the relevant purpose in this part, the government promotes the utilization of ICT in the nation's schools, colleges, and universities in order to raise the standard of instruction and learning.

As a result, in order to incorporate ICT into the teaching and learning process, the Ministry of Education created the Kenya Education Sector Support Program (KESSP) in 2005. One of the program's major areas is ICT. The Ministry's sector strategy on ICT in Education was inspired by the National ICT policy, which incorporated this intention as a national goal. The National ICT strategy for training and education was unveiled by the

Ministry in 2006. However, ICT integration in the classroom is not about technology but teaching. It is the teachers' innovativeness that makes lesson delivery meaningful.

After numerous failed attempts in the years before, the Kenya National ICT strategy was finally established in January 2006. Facilities, improvement, development of human resources stakeholder participation, and a proper regulatory and policy structure serve as the foundation for this policy. In terms of human resource development, the policy emphasizes the necessity to enhance and simplify ICT training by: promoting ICT in education at the primary, secondary, tertiary, and local level by developing ICT curricula and making sure teacher trainers have the necessary skills.

The policy also aims to create a system for assessing and approving ICT training courses. It also establishes the foundation for e-learning, which is important for its growth and use. Another key responsibility is to support the creation of content that will meet the educational demands of primary, secondary, and postsecondary institutions by providing an accessible infrastructure that will enable the distribution of information and abilities through e-learning platforms ⁽²⁾. The government promotes the use of ICT in the nation's schools, colleges, and institutions in order to raise the standard of instruction and learning, according to the pertinent information technology objectives.

Kenya's education ministry's mission is to influence proper utilization of ICT's to enhance and make administration and learning accessible in delivering education programs and services. The principle goal is to integrate ICT's in the provision of training and education as indicated in curricular Sessional paper No.2 of 2015.

However, there are challenges facing ICT integration into teaching and in Kenya which include: access to ICT facilities. A significant obstacle to the integration of ICT in education in Africa in general and Kenya in particular continues to be the limited and uncoordinated

approach to providing teachers with the necessary ICT skills and competencies. ICT teachers are also inadequate and gender disparity is still witnessed.

ICT adoption continues to be hampered throughout most of Africa by relatively high component costs, poor electrical access, and other issues, especially in the education sector and overcrowded classrooms as indicated in (3). Further, there is high pupil/ teacher ratio (PTR's) specifically in area with a dense population and those that are semi arid. ICT can contribute considerably as (6) opines that Information and Communication Technology support equitable access to education, high-quality learning and instruction, teachers' professional development, and more effective management, governance, and administration of education.

There are difficulties with implementing e-devices, including issues with attitude in use, difficulties teachers have while using them in courses, and the techniques to be selected for their efficient uses (4). The current educational policy is outlined in Sessional Paper No. 1 of 2005. It includes stakeholder proposals on how education should change to meet the needs of training and education in the twenty-first century. UNESCO also promotes ICT in education in a comprehensive and all-encompassing manner. The key issues they may address include access, inclusiveness and quality. The institution's transversal framework for ICT in education unites three of its sectors as; communication, information, education, and science. ICT breakthrough has revolutionized our civilization and fundamentally altered how people live, work and think (5). In order to educate students for life in the "knowledge society," schools and other educational institutions must take into account integrating ICT into their curricula.

In Rwanda, the political will is strong enough to plan and carry out programs that mainstream ICTs into the educational system. The education ministry has largely been in charge of expanding the ICT infrastructure in elementary and secondary schools. The ministry

also coordinated several ICT projects and activities in the educational field through its ICT Unit. The Ministry of Education collaborated with World Links, an American NGO program that sent old computers to primary schools in the early 2000s, among other things.

The goal of the Rwandan Ministry of Education to provide ten computers for every secondary school, both public and private, was accomplished. The New Partnership for Africa's Development (NEPAD) e-schools program, this project entailed outfitting six secondary schools in Rwanda with ICTs, and by the end of 2006, 400 out of around 500 secondary schools in Rwanda had got these computers.

The Rwandan government is also committed to providing a laptop to each elementary school student. This was one of its goals, which included guiding the nation toward a knowledge-based economy by the year 2020. The goal of the project was to improve the standard of primary education, which is free and required for all children. Higher student enrolment in primary schools was the outcome (9) & (6).

Because of the universal connectivity provided by information technology, digital multi-media are now available for all uses, everywhere and at any time (7). Information technology facilitated the development of the global society and is required at educational institutions to assist activities like the delivery of teaching and managerial decision-making through the use of learning management systems (LMS). In terms of education, we are able to deliver, monitor, manage, and train. Teachers can monitor student progress, attendance, time spent on tasks, publish announcements, take part in class discussions, and check course activities. Information and communication technology (ICT) is transformed into education technology.

ICT (information and communication technology) instruments are crucial in the educational process. ICT has the potential to strengthen teaching, support school reform, and accelerate, enrich, and deepen learner motivation

and engagement abilities, as well as provide economic viability for tomorrow's workers⁽⁸⁾.

Information and communication technology (ICT) integration in education is a teaching strategy that supports, enhances, and maximizes knowledge transfer. International study has demonstrated that ICT can increase student learning and teaching techniques. There is demand on every school system in the globe to utilize information and communication technology (ICT) in the teaching of various topics. However, Kenya has been left behind though the Ministry of Education introduced National ICT strategy of education and Training.

This document has outlined various domains on ICT which include: Utilizing developing technologies, digitalized content, technical assistance, training and development in research and ICT integration in education, maintenance, equality and access, digital equipment and infrastructure. ICT is designed to help the nation accomplish international objectives, such as education for all (EFA) and the Millennium Development Goals (MDGS), in accordance with the most recent strategic plan for the Vision 2030 program. In order to address societal demands, the government has committed to spending money on education, research, and development, as well as providing incentives.

ICT should be used as a universal tool for education and training, according to the ministry of education (MOE). If calls for recognition of the fact that ICT provides capabilities and skills needed for a knowledge-based economy, then every student, teacher, academic institution and other relevant community need to be provided with resources that include suitable policies, competencies and ICT structures for use and advancement. It also urges changing education to embrace modern pedagogies that are suited for the twenty-first century.

ICT is viewed as the key to releasing our students' abilities and knowledge⁽⁹⁾. ICT is similarly considered to be the gate way for learning of the 21st Century skills. Most education systems have embraced while others

are embracing ICT tools integration globally in teaching and learning process. ICT resources offer a proactive and dynamic environment for teaching and learning. In the digital age, teachers are therefore required to replace traditional teaching methods with ICT tools in order to improve the standards of pedagogy.

In addition to delivering lessons, ICT tools help the learning process itself. ICT tools include computer based technology, data storage devices, desktops, laptops, broadcasting technologies, that is, radio and television which are used as instructional tools at school.

Malaysian Ministry of Education notes the importance of ICT integration in primary and secondary curriculum and supports it. ICT components were listed in the Education Blueprint 2013–2025 as one of the future developments of the nation priorities under the ICT transform priority. The MOE in Malaysia is working to increase ICT capacity in various ways, one of which is a review of the current teacher-to-student ratio for the distribution of ICT equipment and ICT innovation for distant learning. In order to increase interaction throughout the teaching and learning process, the Malaysian MOE launched a few ICT education programs. The Malaysian government wanted to improve the level of ICT proficiency in schools in rural areas.⁽¹⁰⁾

One of the sub-plans of NICI (2010) is that in Rwanda, the education ministry in cooperation with some organizations strategized on training school teachers in both secondary and primary schools in use of ICT in pedagogy⁽¹¹⁾. The country has further developed e-learning content besides funding training at 3000 secondary school teachers on ICT basic skills.

Besides Malaysian and Rwanda efforts of integrating ICT in pedagogy, Kenya has also focused on the necessity of integrating ICT tools in pedagogical processes through Kenya Education sector support Program (KESSP) and has come up with Policy for ICT in Education. Kenya has increasingly embedded ICT in its

education policy documents. Among these is the Kenya National Education Sector Plan for 2013–2018, which places a strong emphasis on ICT and calls for its integration into instructional reform⁽¹²⁾. Kenya published a National ICT Policy in 2016 that applies to all industries in order to increase the availability of services that are easily accessible, effective, dependable, and inexpensive (Ibid¹³).

ICT use some academic institutions including universities, colleges and schools across the nation were encouraged as one of the policy's primary initiatives for improving the quality of instruction and learning (MoEST and Ministry of Information and communication, 2006). The strategy also aims to raise people' standard of living by providing them with dependable, inexpensive, and accessible ICT services. However, in order to enhance the quality of teaching and learning, the government is promoting the use of ICT throughout all educational institutions.

Among the many changes that have been implemented by Kenya Institute of Education (KIE) is integration of ICT in learning and teaching of Kiswahili⁽¹⁴⁾. The primary goal is to improve Kiswahili instruction and learning in secondary schools. The use of information and communication technology in education and training enables students to interact with computer-based resources instead of the teacher, who serves as the teacher at all times. With the use of digital resources, students are more likely to connect with their instructors about the content of the curriculum further discuss their assignments, and provide quick feedback.

This is demonstrated by the implementation of a national ICT education and training strategy, which enables the nation to realize international objectives like education for all (EFA). In an effort to improve the standard of instruction and learning, the Kenyan government has continued to promote and implement the approach. Primary and secondary level students

in Kenya's educational system are required to take Kiswahili language⁽¹⁵⁾.

Study carried out by Gichimu on school management indicated that school management was very vital in their effort to integrate ICT in teaching and learning⁽¹⁶⁾. The schools' management had the willingness to sponsor teachers for training in ICT as average and the level of support from the school management on ICT integration as below average. Teachers indicated that they had computer laboratories but they were not functional in their schools. This study further indicated that ICT infrastructure influenced integration of ICT in teaching and learning.

Integration of ICT in pedagogy allows the children to engage with resources that are computer based and even enable teachers achieve their objective and improve the quality of education. For instance, by using power point presentation, web down loads of audio and video, recording and replaying, digital video Disks (DVDs) and integrating them in teaching and learning Kiswahili fasihi simulizi would help bring reality to the abstract fasihi simulizi. It is the only way the Kiswahili fasihi simulizi teacher can bridge the gap between teacher cantered approaches of teaching being exhibited today to child/learner centred by introducing computer related materials as a medium of instruction in classroom.

One benefit of incorporating ICT in language teaching and learning is that it inspires students and teachers to make the learning process more engaging and pleasurable. It also allows multi-sensory learning because multi-media computers combine text, sound and colourful moving images⁽¹⁷⁾. In this case, teachers and learners will not have solely relied on printed books for their educational needs but they can access some learning materials from the internet in order to enhance their content and knowledge.

In order to integrate ICT in teaching and learning process, there has to be proper planning at the school level⁽¹⁸⁾. The school is expected to

provide the necessary ICT tools for the teachers and learners to use ⁽¹⁹⁾. Unrestricted access to training would amount to effective use of computers if teachers are expected to use ICT tools in a meaningful way. In this regard, the researchers suggested that strong leadership is critical to ICT integration and implementation in teaching and learning process.

Incorporating ICT into classroom instruction might increase students' engagement in learning and boost their overall performance while teaching Kiswahili using diverse methods that encourage student participation ⁽²⁰⁾. Haggins & Moseley contend in their study that it is never easy to get the essential infrastructure from administrators, who make decisions for every educational institution ⁽²¹⁾. The administration's assistance is essential for improving the use of ICT in the teaching and learning process.

Teachers need support in good practice and leadership from the administration so that they may become more effective in their teaching work. Study carried out by Ngavana, Mutua & Koech regarding school management support in ICT tools, revealed that ICT integration in teaching and learning Kiswahili language, majority of Kiswahili teachers noted that school management supports the use of ICT in teaching and learning Kiswahili language and encourages teachers to acquire ICT skills through training ⁽²²⁾. Moreover, the schools' management motivates teachers to use ICT in teaching and learning Kiswahili language. The school management further provides the school with ICT tools; and has procured some ICT tools such as, computers, TVs radio and projectors among others.

Similar findings were established by Maithya that the school management supports the use of ICT in teaching and learning and encourage teachers to acquire ICT skills. Similarly, Mingaine Opines that school leaders support implementation of the technology in their schools through acquiring needed infrastructure. He adds that all principals interviewed noted that

they do support Kiswahili language teachers with support to acquire further ICT skills.

Njoroge & Kibaru support this by indicating that while classroom teachers are the primary disseminators of new ideas and skills at the school level, the significance of the head teachers in the implementation of ICT programs cannot be understated ⁽²³⁾.

According to the KNEC Report, (2019), because some instructors continue to employ approaches that are centered on the teacher in the activities of teaching and fail to incorporate ICT, which is more learner-centered, Kiswahili scores keep becoming worse. This study thus aims at examining the integration of ICT in teaching and learning of Kiswahili fasihi and public secondary schools in Kenya ⁽²⁴⁾. Mingaine, opines that school leaders support implementation of the technology in schools by getting the required infrastructure. Nevertheless, the cost of infrastructure is still too high thus you find few schools adopting ICT tools for their teaching and learning.

3. Methodology

The qualitative study adopted the Siemens' Connectivism learning Theory and used exploratory research design. Data was collected from public secondary school principals and teachers of Kiswahili. Krejcie & Morgan sampling table was used to arrive at sample size of 113 schools which were randomly sampled from a population of 172 public secondary schools in Baringo County. The total participants were 276 principals and teachers. Instruments for data generation were Questionnaires, interview schedules. The data collected was qualitative and was presented in themes and percentages.

4. Results and discussion

The second objective of the study sought to examine the administrative support on ICT resources for integration in teaching and learning Kiswahili fasihi simulizi. Principals were asked

to fill a questionnaire on their support on ICT integration in teaching and learning in public secondary schools in Kenya. They were given five statements and asked to tick where

appropriate ranging from SA-strongly agree, A-agree, UD- undecided D- Disagree and SD-Strongly Disagree. The responses are presented in Table 1.1

Table 1.1: School administration support in ICT resources integration N=105

	SD	D	UD	A	SA	Chi-Square	Asymp. Sig.
	%	%	%	%	%		
The school administration provides the school with ICT resources	7.8	15.7	3.9	27.5	45	28.314 ^a	.000
The school administration supports use of ICT in teaching and learning Kiswahili fasihi simulizi	9.8	11.8	0	17.6	60.8	35.510 ^b	.000
The school administration motivates teachers to use ICT in teaching and learning of Kiswahili fasihi simulizi	9.8	15.7	3.9	41.2	21.6	18.706 ^a	.001
The school administration encourages teachers to acquire ICT skills through training	52.9	21.6	1.9	15.7	7.8	40.275 ^a	.000
The school administration has procured some ICT resources such as computers TVs, radio, projectors among others for integration in teaching and learning Kiswahili fasihi simulizi	7.8	13.7	3.9	43.1	31.4	14.196 ^a	.007

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 10.2.

b. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 12.8. df=4

The study sought to find out whether the school administration provided the school with ICT resources. Out of 105 principals, 7.8% strongly disagreed, 15.7% disagreed 3.9% were undecided while 27.5% agreed and 45% strongly agreed. The study further required principals to respond on whether the school administration supported use of ICT in teaching and learning Kiswahili fasihi simulizi. 9.8% strongly disagreed, 11.8% disagreed, 17.6% agreed while 60.8% strongly agreed.

On whether the school administration motivated teachers to use ICT in teaching and learning of Kiswahili fasihi simulizi, 9.8% strongly disagreed, 15.7% disagreed, 3.9% were undecided while 41.2% agreed and 21.6% strongly agreed. On whether the school administration encouraged teachers to acquire ICT skills through training, 52.9% strongly disagreed, 21.6% disagreed, 1.9% undecided while 15.7% agreed and 7.8% strongly agreed.

The study further sought to find out whether administrators had procured some ICT resources such as computers, LCD projectors, televisions, DVDs and radio among others and 7.8% strongly disagreed, 13.7% disagreed, 3.9% were undecided while 34.1% agreed and 31.4% strongly agreed. The study showed that majority of the public secondary school administrators (76%) provided schools with ICT resources. Majority of the principals 78% supported use of ICT in teaching and learning while 52% motivated teachers to use ICT.

Chi square test was used to determine the significance of administrative support on ICT resources for integration in teaching and learning fasihi simulizi. The findings revealed that school administration provided the school with ICT resources and was significant (28.314, p =.000). School administration supported use of ICT in teaching and learning Kiswahili fasihi simulizi. (X² = 35.510, p =.000). School administration

motivated teachers to use ICT in teaching and learning of Kiswahili fasihi simulizi was significant ($X^2 = 18.706$, $p = .001$). Whether school administration had procured some ICT resources such as computers TVs, radio, projectors among others for integration in teaching and learning Kiswahili fasihi simulizi was significant (14.196, $p = .007$). From the findings most of the school administration encouraged teachers to acquire ICT skills through training as indicated by the Chi square test ($X^2 = 40.275$, $p = .000$).

These findings are similar to those of the study carried out by Mingaine in Kilungu Sub-county which revealed that school administrators supported the use of ICT in teaching Kiswahili language. The same view is held by Ngavana, Mutua & Koech who found out in their study that principals in public secondary schools supported ICT implementation in teaching and learning as one of their respondents stated that there was need to have standby generators to use in case of power failure in school. Another respondent in the study added that teachers needed capacity building workshops and ICT rooms needed to be equipped.

Nevertheless, the survey showed that majority of the school administrators did not encourage teachers to acquire ICT skills through training though 74% of school administrators had procured some ICT resources such as computers, televisions, radio, printers and projectors among others.

The results of this study are similar to a study carried out by Mingaine which revealed that school leaders support the implementation of ICT in their schools through acquisition of needed infrastructure. This affirmed that school managements support ICT integration.

A related study carried out by Gichimu on school management revealed that school management was very important in the effort to integrate ICT in teaching and learning. Nevertheless, teachers indicated that they had computer laboratories but they were not functional in their schools. Gichimu further notes

that ICT infrastructure influence ICT integration in teaching and learning.

5. Conclusion and Recommendations

The study sought to evaluate administrative support on integration of ICT in teaching and learning Kiswahili fasihi simulizi in public secondary schools in Kenya. Fifty-one principals of sampled schools were interviewed on their support on ICT resources. The study revealed that 51% of the principals did not have enough computers in their schools and they did not have any educational software for teaching Kiswahili fasihi simulizi. Further, the study revealed that 59% of the sampled schools had computers connected to internet.

The study also revealed that schools had television sets that could be used for teaching and learning. The study further revealed that 55% of the principals held that they had enough printers and photocopiers in their schools. The study also revealed that 76% of the schools did not have multi-media faculties for teaching and learning though few had projectors. Public schools also lacked virtual libraries for e-learning.

The study showed that majority of the public secondary school administrators (76%) provided schools with ICT resources. Majority of the principals 78% supported use of ICT in teaching and learning while 52% motivated teachers to use ICT. However, the study revealed that majority of the school administrators did not encourage teachers to acquire ICT skills through training.

6. Recommendation

School administrators are very important in curriculum implementations since they are the officers on the ground. Hence, all school activities are managed and overseen by either school administrators or institution managers. For teachers to implement the curriculum, they need support from the administrators thus their role cannot be underestimated. Therefore, the study recommends that school administrators and

managers should plan and set aside funds for purchasing ICT resources to promote ICT integration.

The administrators should also ensure that available resources are well stored and maintained to avoid damages. Since administrators are the supervisors on the ground in schools, they should also motivate teachers to integrate ICT in their teaching and learning. School administrators should also hire technical assistance in cases where teachers lack knowledge and skills in ICT.

Area for further study

The role of universities in preparing teachers in ICT knowledge and skills.

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