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# Challenges Facing Integration of Information Communication Technology (ICT) in Public Technical and Vocational Colleges: A case Study of Moiben Technical and Vocational College

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#### Abstract

The study focused on the influence of integration of Information Communication Technology in learning in public Technical and Vocational College .A case study of Moiben Technical and Vocational College. The objectives of the study are; effects behind ICT integration, barriers to the successful integration of ICT and means of integrating ICT Successful in learning activities. The use of ICT in the classroom is very important for providing opportunities for students to learn and operate .Studying the obstacles to the use of ICT in education may assist trainers to overcome these barriers and become successful technology adopters in the future. This paper provides analysis of the relevant literature aims to present the perceived barriers to technology integration in education. This study adopts a descriptive survey design. "The targeted populations in the area of study consist of 2 departments" Business and Technical. "The sample population was chosen from 4 classes within the institution" the classes include; Information communication technology, Secretarial studies, Building and construction technology and automotive engineering. In each class the researcher picked 3 trainers and 5 trainees per class to form the sample population. Analysis of data from survey, questionnaires, sample of individuals complemented the qualitative data from the interviews and observations as well as document analysis. The findings indicates that teachers had a strong desire to integrate ICT into education ,but they encountered many barriers .The major barriers were lack of access to resources, lack of competence, lack of confidence. Since confidence, competence and accessibility have been found to be the critical components of technology integration in schools. ICT resources including software and hardware, effective professional development, sufficient time and technical support needs to be provided to teachers. No one component in itself is sufficient to provide good teaching .However, the presence of all components increases the possibility of excellent integration of ICT in learning and teaching opportunities. Generally this paper provides information and recommendation to those responsible for the integration of new technologies into education.

Key words: Integration, information communication technology, teaching, trainers

#### **INTRODUCTION**

Technology is perhaps the strongest factor shaping the educational landscape today. Many institutions are showing support for increased levels of technology in the classroom by providing hardware such as computers, enhancing internet connectivity, and implementing programs designed to improve computer literacy for both trainers and the trainees. Although trainers generally appreciate the benefits of educational technologies, they often find smooth and effective integration of new educational technologies challenging. From acquisition of new technology equipment to adaptation of curriculum and teaching techniques to incorporate new educational tools, technology integration presents significant challenges to educators at each level of institution systems.

## **Background of the Study**

In recent years, Kenya's transformation as a develop society range from individual gaps to the gaps in the institution system. This has resulted in a number of issues in terms of quality education offered in Kenya institutions. During the past decade a great deal of literature has been produced on the use of Information and Communication Technology in technical colleges (Summak & Samancioglu, 2011; Goyal, Purohit & Bhaga, 2011). The ICT refers to the hardware, software, networks and media for the collection, storage, processing, transmission and presentation of information (voice, data, text, images), as well as related services (Evoh, 2007:1). Describe the extent of the uses of ICTs in the following terms: "Information and communication technologies (ICTs) are broadly defined as technologies used to convey, manipulate and store data by electronic means. The existence of a wide variety of ICTs suggests that ICTs go far beyond computers and the internet or even telephony (Perron, et. al. 2010). However, owing to the fact that this research be conducted in Moiben technical and vocational training college in a developing country Kenya, where technical colleges, especially those in rural areas are still struggling to get even the basic infrastructure, the types of equipment that are the focus of this research are: computers (desktops, laptops), photocopy machines, data projectors, interactive whiteboards, Word Processing, Internet, digital cameras, television (TVs), CD/DVD Players, radios and tape recorders.

Most technical colleges in Kenya have only adopted computers as technical subject and integrated its use of information communication technology in learning and teaching. The use of Information Communication Technology in educational management is greatly emphasized. Studies (Becta, 2014) indicate that Information Communication Technology (ICT) in Europe, through central administration websites and in some cases through direct access to central databases by institution personnel. As such, this paper examines the challenges facing introduction of information communication (ICT) in education management in technical colleges in Kenya. The general public ICT literacy is still very low. What is of concern most is that information communication technology among institution managers is also very low, especially those that live in the rural areas part of Kenya.

#### Statement of the problem

The most commonly cited reason for lack of technology integration in the colleges is inadequate professional development and training. The National Education Association (NEA) includes expanding professional development in technology as one of their policy recommendations (NEA, 2008). Despite the importance of ICT as a school subject in college education, there is a lack of an integrated ICT pedagogy that is elucidated within a broad framework of educational practice. Trainers change their teaching methods due to technological advancements such as computer usage, reading and writing can be improved along with the changes to suit learners' educational needs. Even though ICT is considered to be one tool that enhances teaching and learning, it is accompanied by challenges which teachers have to deal with as they integrate it into their subjects

## **Purpose of the study**

The purpose of this study is to analyze challenges associated with the integration of ICT in Moiben technical and vocational college.

# **Objectives of the Study**

The general objective of this study is to investigate challenges facing ICT integration in Moiben technical and vocational training college.

The specific objectives are:

- i. To find out challenges behind ICT integration in Moiben technical and vocational college into education.
- ii. To suggest ways and means of integrating ICT successfully in learning activities.

## **Research Questions**

The study base on the following research questions:-

- i. What are the challenges facing ICT integration in teaching and learning in Moiben technical and vocational college?
- ii. What are the effects of integrating ICT in teaching?

### Significance of the Study

The outcome of this study is beneficial to different stakeholders in education sector. Variations in technology usage reflect important differences in teachers' beliefs about the utility of technology in the educational process. It is of importance that institutions should embrace ICT use by both teachers and learners in order to improve the quality of teaching and learning. It also helps to cope with the worldwide use of ICT to address increasing human needs.

## Limitation of the Study

Some of the departments' heads ignored the questionnaire hence the researcher not get the feedback from them. Some trainers were not willing to participate due to suspicion and counseling information in self-defense, basing the argument on political background therefore the researcher may be forced to prepare a new sample.

Some of the institutions administrators may not allow their students to be interviewed making the researcher limited to the trainer's information. The shortcoming among others in research lies on the scarcity of resources in the form of financial constraints, time constraints and materials needed for the research work.

#### LITERATURE REVIEW

#### **Review of related studies**

## Effects of integrating ICT into teaching and learning

Hitchcock, (2010) note that the integration of ICT in technical institutions would greatly enhance the achievement of institutional objectives in Kenya, which are: To promote an allround growth of the whole person by developing the mental, bodily and emotive abilities and attitudes; to pass on literacy and numeracy and cultivate scientific and social skills; promote social equity and prepare learner for higher education. The integration of ICT to enhance and extend teaching and learning across a wide range of subject areas has proved challenges to many institutions, and understanding the issues regarding encouragement, support and infrastructures required to achieved this has proved to be complex.

The use of online systems to support active learning through providing forums for feedback and reflection have been shown to promote greater depth of explanations by trainees of varying ability (Committee on Developments in the Science of Learning, 2000).

Provide Tools to Increase trainees Productivity: In the past trainees have spent a lot of time doing repetitive, low-level tasks particularly involving writing, drawing and computation. While it may be necessary for trainees to develop these skills at some time on most occasions they are pre-requisite to some higher level task. Many computer applications provide the tools to support trainees in quickly completing these lower-level tasks so that they can focus on the main purpose of the activity. Word processors, graphics packages, database packages, spreadsheets and other software support the performance of trainees. The use of scaffolds and tools can help trainees to solve problems that may have previously been considered to be too difficult for them (Committee on Developments in the Science of Learning, 2000). Studies have shown that students often learn more in less time that is their productivity increases, when they use computer support appropriately (Schacter, 1999).

Increasing Learner Independence: Computer systems are increasingly being used to provide learning experiences when and where they are needed. This provides students with greater independence not only in terms of when and where they learn but also what they teach (Cradler & Bridgforth, 2002). It is not necessary for all trainees to do the same thing at the same time. Trainers may provide students with access to software allowing students to select different learning experiences.

Many studies have found that using computer-based instruction can increase achievement scores by at least one standard deviation although this is neither uniform nor consistent across all areas of study (Schacter, 1999). The ideal is that the software allows the student and/or teacher to tailor the learning experiences to suit the individual student (Cradler & Bridgforth, 2002). Each involved in the same learning activities as other students. For some students computers provide the only environment which they can manipulate and the only tools that reduce their level of disability. Modified keyboards and mouse-drivers may be used to allow extremely handicapped students to use regular software packages

#### Challenges associated with integration of ICT in classroom

Trainees may encounter different experiences when using the same piece of software. Overcome Physical Disabilities: Lack of effective training: Pelgrum (2001) found that there are not enough training opportunities for teachers in the use of ICT in classroom environments. I too believe, there has been a large development in this area as pre-service teachers are undertaking units about ICT programs. Public polytechnics in Kenya have complained of the lack of government employed teachers. They are forced to hire thus draining the scarce resources which could have been used for upgrading the ICT facilities. In addition, parents are not willing to pay any extra fees because of subsidy bursary fee. They feel it is the responsibility of the government to provide learning facilities (Commonwealth Secretariat, 2006)

Leedy, (2005) on his study noted that the availability of computers hardware and software should be accompanied with training of the users and constant technical support. Without this, even though high quality hardware and software are available, they could be wasted or remain underutilized by the users. This could suggest the minimal ICT integration on technical colleges. A crucial factor contributing to the promotion of the innovation is the availability of infrastructure resources: hardware, in terms of the number of computers in the institutions available for students and teachers for educational purposes, and the quality and functioning of equipment as well as available software. However, availability of ICT alone is insufficient and must be accompanied by technical as well as pedagogical support. Lack of Trainer Competence: This is referring to the capability of the Teachers. A number of teachers those are not aware of all the beneficial ICT programs available to them.

Grace (2012) carried out a study factor affecting implementation of ICT integrations in education: a case of technical institutions in Nairobi County, Kenya. The study found out the government has provided a process of facilitating availability of ICT equipment and their accessibility to teachers on demand. However, still the infrastructure support is not sustainable. Therefore, inadequate infrastructure affects the integration of ICT either positively or negatively depending on their availability or lack of availability. Stakeholders needed to be sensitized on the need to apply them to ensure successful ICT integration.

Administrative support in the context of ICT refers to the presences of encouraging ICT: using role models, such as the principals and the presences of incentives for trainers to use technology (Priscilla et al, 2008). In this study, administrative support refers to the helping and guidelines given out by administrators in basic education institutions to aid in computer training and integration of ICT into teaching and learning process.

Jorgensen, (2011) reported that institution administrators offer very little structural support and incentives to trainers to effectively use ICT in the classroom. Though teachers enthusiastically engage in collaborative projects and constructive pedagogy administrative support given in reference to ICT is not adequate. Teachers use computers more often for their teaching-learning process if they perceived an adequate support from institution administration. Teachers who receive adequate ICT support from the administrators are more likely to use ICTs in their teaching practices while those who do not get ICT support from those above them in institution are less passionate in using computer or do not incorporate technology in any way.

#### Summary

Based on the review literature from various scholars and past researchers collected from secondary sources i.e. textbooks, magazines, internet and journals, it can be noted that there are numbers of factors that affects ICT integrations in technical institutions. High costs for acquisition and maintenance of ICT infrastructure is a challenge that had continued to hamper adoption and integration of ICT in institutions. Infrastructure is one of the greatest challenges in integration of ICT in institutions is balancing educational goals with economic realities. For the case of skills development in ICT and administrative support, most scholars and past studies suggested that to a large extend these two variables positively affected ICT. Therefore, there is need to examine the factor affecting ICT integration in Moiben technical and vocational college.

### METHODOLOGY

#### **Research design**

This study adopts a descriptive survey design. Descriptive survey is a method of collecting information by interviewing or administering a questionnaire for a sample of individuals. The descriptive survey is considered appropriate because it narrate facts and characteristics concerning factors affecting ICT integration. According to Best and Khan (2009), descriptive survey design is concerned with conditions or relationships that exists, opinions that are held, processes that are going on, effects that are evident, or trends that are developing (Ker linger, 2013).

The choice of the survey as the descriptive research for the report is necessitate by the nature of the study. This research was a survey research that gathers data from students of

Moiben technical and vocational college with the aid of questionnaire in order to determine the current status of the issue under study from the school

## **Population and Sample**

"The targeted populations of the study in the area of study consist of 2 departments" Business department and Technical department, the sample population was chosen from 4 classes within the institution. The classes are as follows; ICT ,Secretarial studies, Building and construction technology and automotive engineering .Simple random and sampling techniques employed in collecting the sample to ensure that each member of the target population have an equal and independent chance of being included in the sample. In each class the researcher pick 5 trainers and 25 trainees per class to form the sample population. 16% of 600 are used to come up with 30 respondents to represent the entire population in the county. The researcher use 16% of the total population to get total population100/600X100=16

## POPULATION AND SAMPLE TABLE

CLASSES	TRAINEES	TRAINERS
ICT	25	5
SECRETARIAL STUDIES	25	5
<b>BUILDING TECHNOLOGY</b>	25	5
AUTOMOTIVE	25	5
ENGINEERING	100	20
TOTAL		

The researcher selects 50 participants to respondents to questionnaire. Data be collected through questionnaire, interviews and observations then compiled and analyzed.

## **Data collection instrument**

Questionnaire be used to obtain two different types of information: First the background information on student, teachers, or other such, such as gender, about schooling. Secondly information about specific events, ways of behaving, quality of life, other persons etc. In the first case, the same information could also be gathered in other ways, e.g. from institutional records, a questionnaire is simply a convenient way of obtaining the information.

The use of questionnaire in this research is based on one basic underlying assumption: that the respondents are both willing and able to give truthful answers. The three kind of items which be generally used in the constructions of questionnaires be, closed items, open ended items and scale items. The close items be allow the respondents to choose from two or more fixed alternatives, for example, the dichotomous items which provides two alternatives only: Yes or No. The open-ended items simply supplied a free reference for respondents' answer, couple with a minimum of restraint or command on their expression. Thus, in open-ended items, respondents provide the answers in their own words.

## **Data Collection Procedures**

The researcher administers the research instruments after prior visit that assist in refining timing and distribution of questionnaire. The researcher agrees with the respondents when the research instruments are administered and specifically the date of collecting the questionnaires when all the respondents have a humble time to make response.

A letter of research for facilitation is obtained from Moiben Technical and vocational College. It is used to secure permission to carry out the research from respondents, questionnaire as an instrument have been designed and used to collect relevant data for the research. The researcher distributes the questions randomly. The questionnaire shall be collected on an agreed date to ensure that there is high return rate and most of the respondents had tackled easily.

## **Data Analysis Plan**

The data collected is edited, coded and analyzed using descriptive statistics. The data collected from open-ended questions and interviews are analyzed using descriptive statistics. The quantitative data from the close-ended questions is analyzed using descriptive statistics to meaningfully describe the distribution of measurements of the phenomena under study. This involve use of measurers of distribution frequencies and percentage

#### RESULTS

The findings of this study generated enough information which can effectively answer the research questions. The survey focused on assessing the challenges associated with ICT integration in Moiben technical and vocational college, Trainees and trainers attitudes towards ICT, availability of ICT facilities for teaching.

Variable	Frequency	%
Gender of trainees		
Female	10	50
Male	10	50
Gender of trainers		
Female	4	57.1
Male	3	43.9
<b>Ceaching experience(trainers)</b>		
0-2	1	14.3
3-5	2	28.6
6-10	2	28.6
11-15	1	14.3
16-20	1	14.3

#### Data analysis and interpretation Characteristics of the respondents

# **4.2.1 Descriptive characteristics of the respondents**

The female population was higher among the respondents; 50% among trainees, 57.1% among trainers. The trainers between 3-10 years teaching experience were 28.6% of all trainers.











# 4.2.2 Attitudes towards ICT use by trainers and trainees

Attitudes were measured by analyzing how teacher and students are motivated on training and using ICT. Teachers were found to be training in ICT, a positive attitude towards ICT integration. They perceived that training on ICT would help to improve research, teaching and learning. However, lack of ICT usage in teaching was not due to negative attitudes but due to inadequate ICT infrastructure in college.

# 4.2.3 Frequency of computer usage among trainers

Among the 7 trainers interviewed, 28.6% were involved in professional development activities with 60% spending 0-5 hours per week on the activities. The activities included after school computer classes/sessions, in-service training courses and online training courses. However, majority of the teachers (28.6%) did not use computers for teaching.

Variable	Frequency	%
Training hours per week		
0-5	3	60
6-10	1	20
More than 15	1	20
Hours spent using computer for		
teaching	4	57.1
1-5	1	14.3
6-10		
11-15	1	14.3
More than 15	2	28.6
None		

Table 4.2: Training and use of computers among trainers



Figure 4.4: Training hours per week



**Figure 4.5: Hours spent using computer** 

According to this study, as shown in the table 4.3 below, use of computers by the trainers was common. Most trainers use computers for personal development (85.7%) and to create and save teaching documents (85.7%). Other common tasks performed by the teachers is sourcing for teaching and learning materials from internet (57.1%) and using PowerPoint slides in teaching (42.9%). The challenges mentioned by some of the teachers that hinder utilization of ICT in teaching included too much lessons per week and restrictions by the administration on the use of computers. This is illustrated in table 4.3 below.

Variable	Frequency	%
Not using computer at all		
Use of computer for personal development	6	85.7
Learning new computer skills	3	42.9
Handling basic administration using at least 2 computer	4	57.1
programs		
Creating and saving teaching documents	6	85.7
Sourcing teaching and learning materials from internet	3	42.9
MS. word and spreadsheet in teaching and evaluation	1	14.3
Use PowerPoint slides in teaching	3	42.9
Using internet to search for learning	4	57.1
Rarely use computer due to too many lessons per week	2	28.6
The administration restrict the use of ICT equipment	2	28.6

Table 4.3: Utilization of ICT among trainers

# 4.2.4 ICT usage by trainees

Most students search information from internet (95%) and use face book website to network with friends (65%). Other common uses of computers by the students included reading tutorials for learning from CD-ROMs (80%) and mobile phone to seek help from peers (80%). The other less frequent activities performed by the students using computers included e-mailing other students or teachers about a current topic or using PowerPoint slides for presentation. Other activities mentioned by the students included using computers to do calculation and to store information. However, other students reported using computers also for fun that included communication to friends and family, making pen pals on internet, downloading and listening to music and searching for news on sports. The students not necessarily did all this in their schools but also in cyber cafes'.

Activities	Frequency	%
Accessing or searching information from internet	19	95
E-mailing other students or teachers about current topic	9	45
or question or homework		
Using PowerPoint slides when presenting project work	7	35
of society or club activity		
Using computer tutorial programs e.g. CD-ROM to learn	16	80
a topic		
Using Face book website to network with friends	13	65
Using mobile phone to seek help from peers from	16	80
schools or private tutors.		

Table 4.4: Utilization	of ICT	among	trainees
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Other activities mentioned by the students included using computers to do calculation and to store information. However, other students reported using computers also for fun that included communication to friends and family, making pen pals on internet, downloading and listening to music and searching for news on sports. The students not necessarily did all this in their schools but also in cyber cafes'.

# 4.2.5 Challenges associated to the use of ICT for learning

The most commonly mentioned challenge to the use of ICT for learning was the inadequate number of computers that cannot sufficiently match the high number of students in school. In relation to this, the students mentioned lack of funds to contribute to the insufficient provision of ICT equipment in schools.

Availability of computers was not the only positive factor encouraging to the use of ICT for learning but other factors come into play hindering the utilization of the available ICT resources. Such hindrances as mentioned by the students included the lack of teachers trained in ICT and the ICT subjects being less compulsory hence making the less interested students to avoid the lessons.

In cases where the students can access computers, learning can get hindered by interrupted power supply, limited time allocated to computer use or the computers installed in school may be old and cannot serve efficiently during learning. Also, lack of enough space in schools hinder establishment of computer.

The trainers also had their concerns. They mentioned that the most common hindrance to ICT usage was the shortage of computers in school and poor management of the limited one. They also lamented on limited access to the available computers and shortage of internet. In addition, use of ICT demanded a lot of time, for instance making slides for teaching, which they explained could slow down syllabus coverage. Some teachers however were not well versed with computer usage for teaching purposes, for instance preparing power point slides.

Lack of sufficient equipment's and facilities discouraged trainers because it forced them to share the same with students. This is contributed by lack of enough funds in school. Among the factors mentioned by trainers are: Interruptions of electric supply, inadequate digital teaching materials and that some computers are feared to cause health problems.

#### 4.2.6 Factors promoting ICT integration

According to the trainees better coordination in the use of computers in school would encourage increased access to the ICT facilities by trainees. This can be achieved by introducing a laboratory supervisor, employing more and qualified ICT trainers and reducing restrictions on the use of computers by trainees.

Besides, the trainees recommending the need to increase the number of computers in the school to enable all students to get a chance of using computers Also, the trainees suggested that school should encourage assignments that require trainees to use internet to search information and more importantly trainees to be taught computer as compulsory subject.

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

# **5.1 Introduction**

In this chapter the researcher indicates the findings from the research, that the ICT infrastructure in Moiben technical and vocational college is still inadequate. This therefore affects the overall usage of this technology in teaching and learning.

# 5.2: Summary of findings

The objectives of the study were; to find out challenges associated with integration of ICT in Moiben technical and vocational college, to find out effects behind ICT integration in Moiben technical and vocational college into education and to suggest ways and means of integrating ICT successfully in learning activities. The data was collected by means of questionnaires administered to 20 trainees, 7 trainers and a principal. Interviews and observations were also done in the college. The findings of this research confirmed that the some of the trainers did not use computers for teaching. Trainers attributed this concern to work overload due to trainer's shortages in school. Also a few trainers used internet to obtain teaching resources in the school due lack of internet connection in the school. Other common tasks performed by the trainers were 42.9% use of PowerPoint slides in teaching. There is a need to shift from novice to expert trainers. The researcher successfully investigated and analyzed the challenges; Extent of ICT integration in learning, attitudes towards ICT use by students and teachers and utilization of ICT facilities for teaching/learning. The summary table below presents the research findings in brief according to the research objectives.

Objectives	Research findings
Extent of ICT	Some of the trainers (28.6%) as in table 4.2 above did not use
integration in	computers for teaching, majority (71.4 %) use computers as
school	instructional tools.
Attitudes towards	Most trainers exhibited high motivation to acquire and use
ICT use	computer skills. Over 85.7 % use computers for personal
	development and to learn new computer skills only 42.9% and
	above source for teaching and learning materials from internet
	and use PowerPoint slides in teaching.
	- Among the trainees, 35 % use PowerPoint slides when
	presenting project work of society or club activity, 80 % use
	computer tutorial programs e.g. CD-ROM to learn a topic while
	80 % use mobile phone to seek help from peers from schools or
	private tutors. Lack of ICT equipment's lead to this, all students
	had positive attitude towards ICT use.
Use of ICT facilities	- Some (28.6%) of the trainers did not use computers for teaching.
for teaching/learning	

 Table 5.1: Summary of findings

#### **5.3** Conclusion

The research considered issues and implications of ICT-supported learning with regard to the teaching and learning process. Given the fast development of ICT, it expected that ICT will bring changes in teaching and learning throughout the world. It is thus important for the policy makers, trainers and schools' administrations to understand the challenges associated with ICT use in schools and strategies that can be appropriately explored to make such changes viable to all.

Attitudes towards ICT use for teaching and learning are critical. Using technology makes learning closer to the way trainees solve problems outside the school. They seem to enjoy all the ICT options when they can communicate, collaborate and carry out projects for learning purposes. Concerning assessment, it is very important to apply both formative and summative assessment in order to evaluate teaching/learning processes and products and to adjust ICT-based teaching strategies to trainee's characteristics. In order to improve attitude, ICT use in schools should be promoted by all stakeholders; government, trainers, school administrators, parents and trainees

# **5.4 Recommendations**

After discussing the findings of the research, certain recommendations are put forward for future consideration. The educational integration of ICT in teaching is evolving hence this recommendations can be revised in future, with new research findings.

The research findings and interpretation reveal that there is need to revise rigid school ICT policies that restrict trainers and trainees from maximizing the use of ICT in teaching and learning.

It is also imperative to provide in-service training to all practicing trainers on ICT skills. This helps trainers, for instance to obtain the most recent and relevant instructional content and methodologies. Trainer professional development courses also promote attitudes change hence eases adoption of ICT-based learning approaches.

Trainer training needs should involve much more than the development of computer literacy skills. Trainers should be trained on how to design and adapt content materials to suit student needs, to search and manage information and to be aware of the ethics and dangers inherent in the use of ICT technologies. A well-designed trainer training program is essential to meet the demand of today's trainers who want to learn how to use ICT effectively for their teaching.

The government should also play a central role in promoting ICT use in pedagogy by employing more computer trainers, so as to meet trainees' demands for basic computers skills and also support fellow trainers who are not conversant with computer use to blend well with the technology.

Besides, school should recruit computer technician in order to meet the growing demand of trainees to use ICT for their learning. Computer technician help in repairs and maintenance of ICT equipment.

Trainees should be given proper guidance on how to observe good etiquette when using ICT. This helps them to curb time wasting in fun sites like face book and prohibited sites like pornographic sites.

Finally, the government should work on ICT in education policy to enhance the pedagogical integration of ICT in schools. It is pertinent for policy makers to incorporate and propagate ICT use in the curriculum and to emphasize the importance of ICT in schools.

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