

The Evaluation of the eLearning Challenges and Opportunities in Rural Schools: The Case Study of Luano District of Central Province of Zambia.

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1. ABSTRACT

Information and Communication Technologies (ICTs) brought in tools and methods in the field of education that presented new models of teaching and learning. ELearning management system is one of the key tools used in educational establishments/schools (electronic learning) to expedite learning among learners. The remarkable development in (ICTs) has paved the way for e-learning. Use of computers and computer related gadgets in education sector can be traced back to the early 1980s when simple word processors were in use. ICT has become an important enabler to facilitate open education and distance learning at broader communities. eLearning ensures access to information about education, training and lifelong learning through the use of multimedia technologies. The recent growing trend of eLearning is mostly benefiting the developed countries due to some predominant facilities like infrastructure, technology, relevant content and responsive learner community. The beauty of eLearning is anyone can avail himself of the service of learning/teaching aid from anywhere, as there is no geographic barrier among the learners. The Internet brings learners great learning opportunities by having access to large amount of information with benefits in terms of time and cost savings. This could be face-to-face in a schoolroom, online, or combination of both. Imparting education in this way is termed as e-learning. eLearning facilitates distance learning and provides means to learners to access learning material any time and at any place. Despite the advantages of eLearning in education in the world, there is incredible digital divide among urban and rural areas in Zambia and many other developing countries. This is due to the existing reverse economic and social conditions of developing countries, countries in Africa like Zambia could not yet establish a reliable eLearning system or institution in rural settings. The acceptance of such learning facilities is not yet accredited or even accepted by the local authorities in most of the times. Schools and the learners of the rural institutions have financial constraints to participate in the eLearning program.

Traditional learning that involves setting up infrastructure of school/college and hiring of faculty and staff is still the order of the day in most rural schools in Zambia and many developing countries in Africa and the world. Students attend school/college to learn traditional way. Consequently, the school going population of rural areas is deprived of eLearning education model that employs latest educational technologies that can improve the education standard and will provide means to introduce educational technology to learners even at early age. With e-learning, learners will have a chance to get familiar with latest technologies which will give them deep understanding and effectiveness in using it in learning. In this paper, I presented advantages and disadvantages of eLearning services in remote/rural areas/schools of a rural districts, outline possible ways that can be used in order to promote and facilitate modern eLearning in our education systems in rural schools in Rural Luano district of central province in Zambia.

2. Keywords

Educational Technology, E-learning, digital divide, Information Communication Technology (ICT), Rural Development, Learning Management System

1. INTRODUCTION

The noteworthy advancement in Information and Communication Technologies (ICTs) has smoothed the way for e-learning. Use of computers in education sector in developing countries can be traced back to the early 1980s when simple word processors were in use in selected advanced schools. The Internet has revolutionized the computer and communications world like nothing before. But for Luano district of central province in Zambia, the situation seems not entered for the eLearning development in any tangible form.

Luano district is a rural to remote district in central province of Zambia. It is located in the eastern direction of the central province headquarters, Kabwe, town about 120 kilometres. The district borders with Mkushi district on the north, Nyimba district on the east, Chongwe district and Lusaka district on the south and Kapiri Mposhi district on the western direction. Luano district is partly rural semi-plateaux and part of the larger portion is the valley area.

Largely, eLearning brings us great learning opportunities among teachers and learners by having access to large amount of information with benefits in terms of time and cost savings. The modern educational technology (eLearning) facilitates design, delivery and management of educational activities for learners. This could be face-to-face in a classroom, lecture hall, online, or amalgamation of both methodologies. Imparting education in this way is termed as eLearning (electronic learning), meaning, learning through information and communication technologies. eLearning facilitates distance learning and provides means to learners to access learning material any time and at any place.

A learning management system (LMS) is needed for eLearning. An LMS is the software application that facilitates e-learning. Various commercial as well as open-source LMSs are available today in most countries and places. These are being used in educational institutions worldwide. Traditional learning that involves setting up infrastructure of school/college or universities and hiring of faculty and staff is being substituted by eLearning systems slowly but surely in the globe. In traditional learning system, students have to attend school/college or university in order to learn.

In most rural areas, especially in developing countries, expansion of such institute and hiring of full-time faculty requires a lot of resources that is mainly underprovided. Professionally trained educators mostly prefer to working and residing in urban and peri-

urban areas. Consequently, the population of rural areas is deprived of quality educators and thus quality education like eLearning is unheard of.

The current world proposes development of eLearning centres based on ICT to provide good quality education with up-to-date learning material in rural areas. The ICT advocated model employs latest educational technologies that will improve the education standard and will, where successful provide means, to introduce educational technology to learners.

The learners will have a chance to get familiar with latest technologies when ICT is introduced which will give them deep understanding and effectiveness in using it in learning in and outside school. The study was to evaluate the eLearning challenges and opportunities in rural schools considering the Luano district of central province of Zambia.

Electronic learning (e-learning) which is one of the by-products of Information and Communication Technology has changed many aspects of life and opened a wide vista of opportunities for people. This paper discusses the challenges facing eLearning in teaching in education courses in rural districts. The need for eLearning in education is also discussed. Kapanga, (2017) stated that there were challenges that faced the teaching profession and practice of eLearning education and indeed the whole rural community despite the progress and innovation offered by technological developments since mid-1990s.

The emergence of information and communication technology (ICT) has brought with it changes in the process of imparting and acquiring knowledge. When education is integrated with information communication technology the understanding is that learners will possess relevant skills and competencies necessary for effective performance in class and outside in the world' labour market. Indispensable skills basic to the need of the society is provided to its recipients who can avail themselves of the opportunity of setting up their own ICT related business and earn a living.

Electronic learning (e-learning) technology is one of the bi-products of information and communication technology. It is all about pupils learning with the use of computers, which is simply an online way of acquiring knowledge through the internet or through the offline CD – ROM. According to Hedge & Hayward (2004) eLearning is an innovative approach for delivery electronically mediated, well-designed, learner-cantered and interactive learning environment to anyone, at anyplace, anytime by utilizing the internet and digital

technologies in concert with instructional design principles. Salawudeen (2006) defined eLearning as the convergence of the internet and learning or internet-enabled learning.

It is also the delivery of individualized, comprehensive, dynamic learning content in real time, aiding the development of communities of knowledge, linking learners and practitioners with experts in the globe. From the above-mentioned, it is understandable, that the world is moving at an inconceivable promptness in the area of information use and dissemination. For education to meet up to the challenges of the present time and the near future, there is need for a reform of the eLearning programme-content that will incorporate new and interesting courses such as Information Communication Technology (ICT). ICT will equip the programme beneficiaries better to meet the challenge of our time.

With the understanding that education is skill-oriented and employment-motivated. Also that education is a type of training that is concerned with the achievement of all aims of education at any level of learning with the primary objective of preparing the subject to enter into a world career, to render efficient services therein and to improve their standard of living, eLearning becomes paramountcy important (Kanu, 1987). It holds the key to developed and developing countries to becoming technologically relevant, economically prosperous and internationally competitive, if properly packaged and adequately delivered to learners.

In spite of the bright future of eLearning in Zambia, there are some factors hindering the effective use of the eLearning technology in teaching in education in most rural schools, such as poor ICT infrastructure and other socio-economic reasons. This paper therefore, sought to expose these challenges facing the use of eLearning in teaching in education courses in rural areas and to suggest strategies for improvement. This paper considered in education and its contents, the need for eLearning in education, Challenges facing eLearning in teaching in education courses and the strategies for improving the use of eLearning in teaching in education courses.

A critical look at the above objectives reveals that they are in agreement with two of the National educational aims and objectives, as contained in the New National Educational Policy on Education curriculum (2009) in Zambia. These are:

1. Inculcation of the right types of values and attitudes for the survival of the individual and the Zambian society and

2. The acquisition of appropriate computer skills, abilities and competencies, both mental and physical, as equipment for the individual learners to live in and contribute to the development of the society.

This therefore mean that a good understanding of the content of eLearning education will help the teacher to know how to design and effectively use eLearning in teaching. The peculiarities of the courses pose a challenge to teaching with e-learning. For example, designing an eLearning material for a course will require that the teacher presents information in a logical, easy-to-understand manner.

Need for eLearning in education

E-learning has the potential to enhance teaching and learning. In education programmes at every level must blend with technological skills, and this concerns both the students and the educators (Agomuo, 2007). For education programme to meet the global standard and its recipients to be made competitive, they must acquire the competencies and skills for today and tomorrow and this can be made possible through e-learning.

According to Jimoh-Kadiri (2008), the need for effective eLearning in education includes the following:

- Increased retention by users and acquisition of new skills, ideas, knowledge and methodology in teaching and learning in education. New ideas and skills can be adopted from abroad and can be read and learned with the help of the internet in Zambia.
- teachers need to be exposed to new methods of subject delivery, quality of instructions are improved, and learners are repositioning to the challenges of globalization.
- teachers should be encouraged to carry out joint research work. eLearning encourages teachers and students to carry out team work where ideas, experiences and knowledge are shared.
- Learning time is reduced and more knowledge is acquired within a limited period.
- Students in distant areas can be trained through the use of internet, television, satellite, disc and so on. According to Aboho, Andural and Aboho, (2006) with the help of

ICT, in education courses can be taught and learned through distance learning programme to help participants update their educational qualifications.

- Boredom is removed as learning process is made more active.
- The teaching of a large class is less stressful and more efficient.

1.2. Statement of the Problem

In Zambia, there are three prominent internet providers namely Airtel, MTN and Zamtel. Despite the advantages of eLearning in education in the world, there seems to be an incredible digital divide among urban and rural areas in Zambia. This could be due to the existing reverse economic and social conditions of Zambia as developing country. Like other countries in Africa, Zambia seems not yet establish a reliable eLearning system or institution in rural settings. The researcher therefore sought to carry out a study on the evaluation of eLearning challenges and opportunities in a rural Luano Districts of central province in Zambia.

3.0. Related Literature

The eLearning applications and processes include computer-based, web-based, technology based learning and virtual education opportunities. Content delivery is with the help of Internet, intranet, extranet, audio or video tape, satellite TV, and CD-ROM and it includes media in the form of text, image, animation, streaming video and audio. It allows teachers and learners to learn at their own way; on their own time with a flexible, interactive and engaging online experience. In this process, educational activities can be accomplished by using networking and communications technology in online or offline, synchronous as well as asynchronous, networked or standalone teaching and learning.

As popularity of Internet is growing day by day, eLearning is also in growing interest. People have started using Internet for accessing information via Internet. The corporate sector which was providing distance education has also started using online learning as an added activity in their distance education because eLearning is a way of improving the accessibility of the study material, moreover, the cost of accessing information online is decreasing by the advancement in the field of information and communication technology. Students and teachers in developing and developed

countries are increasingly using accessing information online to support their learning and teaching. Nowadays, the trend is of “*blended learning*”, that is learning is a combination of traditional learning as well as E-Learning. Today single teaching learning method is not effective. As traditional method has an advantage of how to teach or learn though eLearning provides us the latest methods and statistics. Following are the features identified of E-Learning:

Learning is centered around the interests of the learner ... Learning is immersive— learning by doing—and takes place not in a school but in an appropriate environment... Therefore, “blended learning” provides us an interest and an appropriate environment to teaching learning process.

The main attribute of eLearning is the flexibility of accessing information and resources. It refers to the access the use of information and resources at any time, place or pace according to one’s convenience. Learner is not bound with the constraints of attending the lectures on fixed time or fixed location which may be far off from the residence. Another attribute is access of multimedia based resources; it means that different type of media like text, audio, video, animation, graphics, picture is supported by the network and communication technology, which makes possible the accessing of information by not only text or pictures but it also supports animations, videos, presentations, audio etc. which makes learning more interesting and effective.

Moreover, the information and communication technology provides us an opportunity to capture, store, and distribute information in the form of text, pictures and illustrations which includes multimedia-based simulations of simple and complex processes which are cheaply accessible. Shiva Kanaujia et al, discussed the benefits of eLearning and also suggested that E-education is not a new concept in India but has grown the importance with the growth of Internet. He also discussed the advantages of eLearning mainly, the best information can be accessed from the place where it was originally created.

The students can access the information across the world from their homes’ only, which was a main constraint for those who cannot afford the opportunities due to the lack of financial aids or assistance. The impact and new challenges of eLearning for the students and instructors are described by authors in. He summarised that in online or distance eLearning course, eLearning presents a host of new support requirements, and institutions must provide the appropriate resources to address them. Alyne Rothberg et. al suggested organizational

strategies for accessing eLearning opportunities with having the availability of the broadband connection.

They also discussed the Government policies/assistance in expanding broadband. Rural areas and residents face a number of issues when it comes to access to and adoption of broadband. The issues include availability, cost, and lack of technical skill and knowledge. The largest discrepancy in the reasons between rural and urban residents not having home internet is lack of access. He further recommended that access to broadband and online learning is a key element to prepare students and employees for the future. A strong correlation exists between broadband access and educational attainment, employment opportunities, and individual and community-wide economic viability.

The Next Generation Internet, (NGI) in which usage of the Internet is growing tremendously but restricting the applications like Virtual Reality to be made available for distance learning purpose without higher bandwidth. Next Generation Internet is the area of Digital Libraries which requires improved quality of services such as continuous digital video and audio. Author also discusses that Natural Language Interface, is a way by which humans can communicate with the machine in a language that is natural to them. It is in nascent stage today but has tremendous potential for rural areas.

Rural based NGO's which are working for rural development could build such training applications directly without needing to wait for the IT industry to develop applications for them. Success of eLearning will only come with clear and well-defined instructional objectives, through preparation of content and an infrastructure, which offer support for both participation and instructions. Deepshikha Aggarwal suggested that use of eLearning in schools, vocational and informal training was very effective in developing countries where majority of population is illiterate and residing in rural areas.

The regions where schools' infrastructure is not available people can access information and educate themselves via Web which is a very cheap solution and moreover will raise the level of education, literacy and economic development. There was need for schools in developing countries to continue to acquire eLearning teaching methodology in order to meet its educational need and enhancing other opportunities.

4.0 Methodology

The data were collected by using Participant Observation method and in-depth interviews from a sample of 210 informants comprising 133 students and 77 teachers drawn from various primary and secondary schools in Luano district of central province. The teachers were chosen randomly.

Both qualitative and quantitative methods were applied. Qualitative method was used to collect information pertaining to opinions and views of the respondents and quantitative method was used to collect statistical data. Purposive sampling was applied on certain 'key' informants, the teacher because of the predetermined nature of information that was required. Relevant secondary pieces of information were also solicited from documentary sources to supplement the primary data.

5.0 Data Recording and Analysis

Content Analysis method was used in the recording and analysis of data. By way of content analysis, the data was systematically converted to numerical variables for quantifiable analysis. Coding was involved, where the analysed material was classified into various codes by assigning different numerical values for different types of answers from respondents. In coding, the main option to be considered was the *Inductive Approach* because of much qualitative information that was involved in the study. There was less calculation needed in this approach. The making of inferences was however vital and this was purely logical and entirely our task.

5.0 Research Findings

This section presents the findings of the research conducted in early January, 2017 on the Evaluation of eLearning challenges and opportunities in a rural Luano Districts of central province in Zambia

5.1. Challenges facing eLearning in teaching in Luano District

There is no doubt that the nature of the internet has changed people using it. These changes are sweeping across entire industries and are not unique to education. Indeed, in many ways education has lagged behind some of these trends and is just beginning to feel their wake. In spite of the bright prospect of eLearning in Luano district of central province of Zambia, there are major challenges facing its implementation in teaching using eLearning in this rural area of Central province of Zambia.

Some of these challenges as explained by the respondents in Luano include:

a) **Inequality of Access to the Technology**

Internet service providers that deliver internet gateway services to Luano district are limited. In most part of Zambia, especially in some rural areas like the Luano district of central province areas, internet facilities are as good as absent. Respondents stated that it was therefore almost impossible for schools and teachers in such areas to embrace e-learning. Luano district has 58 schools; 42 primary schools, 12 community schools and 4 secondary schools. There are 390 teachers that handle the learners from primary to secondary levels. Of these schools, only two schools are connected to the National Electricity Power Grid.

Mkushi Copper Mine Secondary and Mkushi Copper Mine Primary school. Mkushi Copper Mine Secondary School has 20 ancient desk top computers and Mkushi Copper Mine Primary School have 8 outdated desk top computers. These schools have no access to internet services installed in their schools. For Old Mkushi secondary school, only 9 desk top computers were present. Among the teachers, there are only 23 teachers that had smartphones that can be used for eLearning process and only 9 teachers had personal laptops that were not even adequately used for eLearning but for entertainment purpose mainly.

From the research findings, it was therefore evident that, these teachers in Luano district schools generally still have inadequate understanding and exposure to correct usage of their smart phones in eLearning/education activities. There were few pupils with modern phones without knowledge on eLearning. There was no pupil throughout the Luano district had a desk top computer or laptop.

b) **Cost of implementing ICT is high.**

The poverty level of Zambians is so high in Luano district that many can still not acquire personal computers for themselves. Respondents indicated that there were few of the Luano district teachers that were privileged to have a personal computer/laptop and were not connected to the internet as this do attract extra cost which they cannot afford. The teachers and the pupils did not even have improved smart phones to enhance e-learning. Teachers and students made use of cyber café sometimes whose charge were exorbitant per hour despite their slow rate of their server and poor service. High cost of

hardware in Zambia, which are substantially higher than in the developed countries like the United States, also poses a threat to e-learning in rural districts like Luano. Mukayi (2017) while supporting this observed that, the price of computer hardware and software continued to drop in most developed countries, but in developing countries such as Zambia, computers are still very expensive and unaffordable for the Zambian majority especially the rural setting.

c) **Incessant Power supply**

Electricity unavailability has been a major setback for technological development in Luano district. Teachers and students residing in semi-rural Luano district are faced with the problem of epileptic electricity supply where it is present, while majority of them in this rural Luano area are not connected to the national grid. About 96.5% of the schools in Luano district are not connected to the National Electricity Power Grid. There are only 2 schools out of 58 that are connected to the National Electricity Power Grid. These schools and teachers depend on the unreliable domestic solar system of power to charge their smartphones, Electronic equipment such as radio, television, desk top computer and available few laptop computers. According to Jimoh-Kadiri (2008) it is difficult to keep high technology equipment such as the computer when electricity supply is not available, consistent and stable.

d) **Lack of ICT skills**

Lack of enough teachers with sufficient knowledge and understanding of computers and their usage is another factor militating against the effective use of eLearning (electronic technology in teaching) in Luano district. Respondents explained that there was acute shortage of trained personnel in the application of operating system, network communication, software and local technicians to repair and service computer facilities. During the research period, there were no teachers that were upright in the exhaustive use and computer troubleshooting of the computer or phone and for eLearning and teaching the entire Luano district. Almost all the respondents were beginners in ICT in the Luano district schools and other government offices.

According to Barret (2007) teachers need effective tools, techniques and assistance that can help them develop computer based projects and activities especially designed to

raise the level of teaching in required subjects and improve students learning. Companies and academic institutions are reluctant to invest in training of staff in the rural Luano district. Therefore, most teachers in Luano district at the time of the research were not adequately prepared and not having sufficient confidence, to make use of technology in and out of the classroom. Lack of competence together with inadequate training of teachers, was seen as a barrier to teachers' use of ICT.

e) **Maintenance and Technical Support**

Lack of maintenance and technical support was a problem to ICT. In Luano district schools, there was likelihood that the equipment if provided one day, may breakdown during lesson. Meanwhile, there were no or few technical staff to maintain and repair the system if this occurred. Ajadi, Salawu and Adeoye (2008) stated that Lack of maintenance and technical support in institutions makes it very expensive for few schools and teachers that have a personal computer to maintain when a technical problem is noticed.

f) **Resistance to Change**

People often resist change if they fail to see the additional benefits that it will bring. Some teachers and pupils interviewed in the rural Luano district schools declined to embracing the eLearning new technology because they were not computer knowledgeable. They preferred to continuing with their traditional chalk and board method to eLearning technology. Much as ICT encourages independent learning, most teachers and students were reluctant to taking responsibility for their own learning using eLearning, but preferred to being spoon-fed at all-times through the traditional chalk and board method.

g) **School curriculum**

Non-inclusion of ICT in the teacher education curricula for a long time in Zambia has affected the growth of ICT. It is only recently that computer education is been introduced at primary and junior secondary school level. At senior secondary school level, computer education is yet to be made a compulsory subject in most secondary schools. In the rural Luano district, there is no secondary school offering computer subject to learners at both

junior and senior secondary level. There were no signs of eLearning in all the schools that were under study.

h) Lack of commitment by the community and Government

The policy on ICT education has never been taken seriously by all levels of Government in Zambia. Some teachers explained that Zambia Information and Communications Authority (ZICTA) was trying to improve on the information technology infrastructure in schools by providing desk top computers but their distribution performance still seemed to be biased to urban and peri-urban schools. The respondents stated that their (ZICTA) involvement seemed to be slow, political and undefined. The respondents stated that the government of Zambia had written ICT and eLearning policies but implementation of the same seemed to have no concrete dimension. As for Luano district schools, there was no trace or visible idea that one day ZICTA would be involved in ICT infrastructure development and provision of computers to Luano district primary and secondary schools. As the situation stands, the researcher discovered that out of the 6 network towers installations in Luano, only 2 have inadequate internet service provision that could support eLearning.

The rest of the installed towers were Zamtel network towers that only provided voice calling service and no internet services. Here, the rural teachers and the general community of Luano district seemed not to care about the lack of internet service provision by these network providers. They looked satisfied with those two in spite of their poor and intermittent or irregular internet service for they rarely use internet for any education or communication purposes. They only concerned themselves with voice calling and life was normal that way.

i) The Pace of Development

The pace of development in the field of ICT creates problems of rapid obsolescence. Some eLearning skills/competencies are changing so quickly that they are outdated within few months of their introduction. This phenomenon demands new approaches that required matching competencies which may constitute problem to most teachers. This seemed to have discouraged and disadvantaged the teachers in Luano district too.

j) Lack of Time

Most teachers are too busy to experiment with the technology, share their experiences with colleagues and attend technology conferences, seminars and in-service training programmes in Luano district. This was because of their engagement in other personal ventures. Many teachers therefore preferred to remaining with the use of the traditional classroom delivery methods than to use eLearning tools which will consume their time in the planning, organizing and integration stages.

Current Opportunities, Capabilities and Applications of eLearning Subject

Subject	E-Learning advantages/opportunities
Place	It is both done in lecture in classroom or internet labs and learning anywhere, anytime using a cell/smart phone
Pedagogical Change	More text- and graphics based instructions using computers and More voice, graphics and animation based instructions on smart phones
lecture in classroom or in internet labs	Also, when using smart phones, learning occurs in the field or a learner is mobile
Instructor to Student Communication	When a computer is used, there is passive communication Time-delayed (students need to check e-mails or web sites, Asynchronous too while when a smart phone is in use for eLearning, Instant communication and Instant delivery of e-mail or SMS occurs and Synchronous too
Scheduled	
Student to Student Communication	It is Face-to-Face in classroom and flexible with smart phone usage for learners and teachers. Audio- teleconference common, Audio- and video-teleconference possible, e-mail-to-e-mail ^{27/4} in eLearning is possible. instantaneous messaging has no geographic boundaries, no travel time for learners with wireless internet connectivity.

	Flexible timings on 24/7 basis with Rich communication due to one-to-one communication with reduced inhibitions
Feedback to students	It is Both asynchronous and synchronous and Asynchronous and at times delayed when using a computer as compared to phone

Mobile devices (smart phones) in eLearning, and their technologies and systems, are eroding established notions of time as a common structure that had previously underpinned social organization and the consensual understanding of the world. Time-keeping is being replaced by the ‘approx.-meeting’ and the ‘multi-meeting’ (Plant, 2000), ‘socially negotiated time’ (Sørensen *etal*, 2002), the ‘micro coordination of everyday life’ alongside the ‘softening of schedules’ (Ling, 2004) afforded by mobile devices and Nyiri (2006:301) says, with the mobile phone in eLearning, time has become personalized. Whereas previously our eLearning and business relations had to be organized and synchronized by absolute clock time, now mobile technologies allow us to learn online, renegotiate meetings and events on-the-fly. However, Basic mobile phone features in eLearning are:

- Making and receiving calls;
- Sending and receiving text messages;
- and Basic office tools e.g. calculator.

Advanced eLearning mobile phone features that teachers and learners are supposed to have include:

- Bluetooth;
- Camera capable of taking stills and more commonly now video;
- e-book readers,
- games;
- Recording audio;
- GPS / location aware;

- and Web browser to connect to the internet.

eLearning therefore with the use of Mobile phones can happen anywhere: in a classroom, at the dining room table, on a bus, in front of a science exhibit, and anywhere. Portability is not as important as the ability of the learner to connect, communicate, collaborate, and create using tools that are readily at hand outside class. We have got them working as part of the eLearning project. Teachers and learners are using the seductive power of these new technologies to re-inspire more learners who are dropping out of traditional learning.

6.0 THE VALUE OF E-LEARNING

(Savill, 2010): Tutors who have used eLearning programs and techniques have made the following value statements in favour of eLearning.

- It is important to bring new technology into the classroom.
- Devices used are more lightweight than books and PCs.
- eLearning incorporated with Mobile phone usage in learning can be used to diversify the types of learning activities students partake in (or a blended learning approach). Mobile phone in eLearning supports the learning process rather than being integral to it.
- It can be a useful add-on tool for students with special needs. However, for SMS and MMS this might be dependent on the students 'specific disabilities or difficulties involved.
- eLearning can be used as a 'hook' to re-engage disaffected youth back into school.
- Relatively inexpensive opportunities, as the cost of mobile devices (when incorporated in eLearning) are significantly less than Personal Computers (PCs) and laptops
- Multimedia content delivery and creation options are available
- Continuous and situated learning is supported
- It can Decrease in training costs when well established
- eLearning is potentially a more rewarding learning experience
- eLearning is capable of improving levels of literacy, numeracy and participation in education amongst learners.
- It facilitates using of the communication features of a mobile phone as part of a larger eLearning activity like, sending media or texts into a central portfolio, or exporting audio files from an eLearning platform to your phone.

7.0 Recommendations

The following recommendations were made:

1. The internet providers in Zambia, Zambian government and ZICTA and other accreditation agents should revise the curricula of the Zambian Polytechnics and Universities, and Colleges of Education to include virtual courses that will be internet based in the training curricula.
2. There must be opportunity for in-service training of rural teachers and these teachers should be engrained with enough in ICT skills enthusiastically so to translate it into the teaching using eLearning.
3. There is need for well-furnished computer laboratories with internet facilities and other ICT equipment in the rural schools also.
4. Government should as a matter of urgency remove and or reduce the tariff rate on information technology hardware. Also, Government should provide adequate info-tech facilities to academic institutions from primary to tertiary levels. Policy-makers should consider Localizing policies so that the local contexts of the country or region (Luano) when creating ICT policies or adapting existing ones, as strategies that work for locality may not be appropriate in another.
5. There should be early introduction of ICT to pupils in elementary schools. This will enable them have access to the computer early in life like their counterpart abroad and enhance eLearning.
6. Provision of infrastructure that supports ICT, like National Electricity Power connectivity should be made available in Luano district schools. If possible, generating sets (Genset) should be provided to power to use for eLearning in the rural district of Luano. Leveraging existing investments if there can help too. Policy-makers should take stock of existing ICT investments and approaches, and devise strategies to complement the current infrastructure distant located ones
7. Promote intersectional cooperation and multi-stakeholder partnerships can help. ICT Policy-makers should promote cooperation between different branches of government and encourage partnerships between stakeholders from a variety of sectors and levels. Establish policies at all levels by Policy-makers.
8. They should create or revise eLearning policies at both the national and local levels, regardless of whether education is decentralized. National ICT policies should provide all-

embracing structure and guidance, while local policies direct implementation in individual districts or institutions.

9. Policy-makers should review and revisit the existing ICT policies, particularly at the local level, that may be overly restrictive in regard to the use of eLearning technology at schools' levels. National policies may need to be clarified or revised to give ICT better guidance to districts and institutions.

10. Ensuring inclusive education that eLearning policies promote gender equality and accessibility for learners with disabilities. This effort is essential to meeting EFA goals of providing quality education to all learners worldwide. ICT is a powerful vehicle for enhancing learning, and computers plus mobile devices form an essential part of that vehicle. If current ICT strategies for education begin to include mobile devices along with digital learning materials, support for teachers and learners, and guidelines on best practices, eLearning can soon become an important part of education.

Conclusion

It is evident from the foregoing discussion that Information and Communication Technology (ICT) is a force that has changed many aspects of the way we live but it is a different situation in Luano district of central Zambia. It is also clear that a lot of challenges are facing eLearning in teaching in education in our rural academic institutions today. If well enhanced, eLearning is found to be highly emerging knowledge tool today. It has wide scope in developed as well as in developing countries. The areas which are undeveloped and not so educated get attraction of E-Learning. eLearning provides a method of delivering knowledgeable contents through CD, DVD, multimedia and other tools. Overall, providers found eLearning is beneficial to rural community and gentry for knowledge, better job opportunities, and promotions and to learn new developing technologies in education.

It is therefore, pertinent for all stakeholders in Zambia and the Zambian Government to work together with the Ministry of General Education and other related ministries to alleviate these challenges and enhance eLearning in Luano district schools. In order for the technology to be applied extensively in the Luano district and elsewhere in rural settings, a deliberate policy for the implementation of ICT- related issues will be required in the country Zambia.

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