



ISSN NO. 2320-5407

Journal homepage: <http://www.journalijar.com>
Journal DOI: [10.21474/IJAR01](https://doi.org/10.21474/IJAR01)

INTERNATIONAL JOURNAL
OF ADVANCED RESEARCH

RESEARCH ARTICLE

A Better Understanding of the Access to Education through Online Learning in the Case of Zimbabwe.

Erasmus Chirume¹ and Kwabena D. Ofori-Attah².

1. Ed. D. Central State University, Wilberforce, OH.
2. Ph. D. Central State University, Wilberforce, OH.

Manuscript Info

Manuscript History:

Received: 15 May 2016
Final Accepted: 13 June 2016
Published Online: July 2016

Key words:

*Corresponding Author

Erasmus Chirume.

Abstract

The worldwide proliferation of electronic information and communication technologies (ICT) is linked to the unprecedented opportunities for synchronous and asynchronous teaching and learning. In Zimbabwe, universities and colleges have turned to the use of ICT, typically known as eLearning, to complement teacher led instruction on campus. For that reason, colleges and universities in this country have become *traditional* users of ICT in teaching and learning. In the context of Zimbabwe, by January 2014, about 40 % (5.2 million) of the country's population became Internet users. This compares with 15.7 % (1.95 million) in 2011, and 0.4 % (.052 million) in the year 2000. In spite of the rapid increase in the population of Internet users in Zimbabwe, research shows that online learning adoption has not reached its full potential. To shed light on the question on how far Zimbabwe as a country has come towards a position of optimizing the use of ICT in the provision of education in the *nontraditional areas*, this study utilized technology and social change as a theoretical approach within which qualitative data were collected through interviews, a focus group, and content analyses of existing documents to explain, clarify and summarize the positive forces and limitations to the use of online education. The study aimed at gaining a better understanding of the role ICT plays in improving access to quality education in the primary and secondary schools, and for professional development, and human capacity building in a developing country such as Zimbabwe. Data from the study showed that even in a declining economic climate in Zimbabwe, professional development continues to take place through the use of ICT. Effort from the private sector and government is being made to harness the power of technology in teaching and learning in primary and secondary schools too. The government of Zimbabwe, believing in the promise of education, that education contributes towards social and national economic development, has adopted an aggressive policy in support of the use of online learning. However, sufficient capital outlays are not being invested in creating an enabling environment and infrastructure needed for a real national take off in the use of ICT in teaching and learning in Zimbabwe.

Copy Right, IJAR, 2013., All rights reserved.

Introduction:-

The global proliferation of electronic information and communication technologies (ICT) is associated with the "unprecedented opportunities for synchronous and asynchronous teaching and learning" (Nnazor 2009, p1). Some researchers have claimed that effective integration of (ICT) into educational curricula has been found to have positive effects on student learning (Asunka, 2008; Ofori-Attah). At the turn of the century, the UNESCO's guidelines for the policy paper for change and development in Higher Education encouraged institutions of higher learning to seize opportunities generated through the use of ICT to improve the provision and quality of their

education. In Zimbabwe, universities and colleges turned to the use of ICT, typically known as eLearning, to complement teacher led instruction on campus long before the primary and secondary schools integrated these new technologies into their curriculum Konyana & Konyana (2013). The flexibility that accompanies the use of technology in open and distance learning, which can be combined with a full-time employment (UNESCO, 2001) have made it particularly suitable to the often widely distributed work force of teachers and school administrators throughout the length and breadth of Zimbabwe, to pursue qualifications in higher education. ICT therefore, presents fresh responsiveness to open and distance teaching and learning in primary and secondary schools, as well as in other professions. While studies have been conducted concerning universities and colleges as traditional users of ICT there is a need for studies that attempt to develop a systematic understanding of how people in other sectors other than universities get access to ICT for quality learning in Zimbabwe. This study focuses on how people gain access to the use of ICT in primary and secondary schools for teaching and learning, and professional institutions for human capacity building and development.

Background of Study:-

Zimbabwe, is a developing country, which attained its independence in 1980 from Britain. At independence, Zimbabwean authorities realized that they needed to expand access to opportunities to people who were in desperate need for higher education. Universities and colleges, accelerated the use of (ICT) in order to meet the increased demand for higher education and enhance collaborative learning. Universities and colleges in Zimbabwe have therefore become *traditional* areas in which ICT is used extensively in teaching and learning (Chitanana, Makaza, & Madzima, 2008). Nevertheless, Information and Communication Technology has presented a fresh appeal and responsiveness to open and distance teaching and learning in other social sectors of the modern society. This means that successful use of ICT in higher institutions proposes additional possibilities of collaboration in teaching and learning in nontraditional sectors of Zimbabwe. Professions, other than teaching, constitute nontraditional areas of the population in which open and distance learning proposes additional possibilities of collaborative teaching and learning.

With improved computer power, faster data transfer rates, and attendant lowering of costs, even developing countries such as Zimbabwe have witnessed a surge in the use of the Internet. In Zimbabwe, by January 2014, about 40 % (5.2 million) of the country's population became Internet users. This compares with 15.7 percent in 2011, and 0.4 % in the year 2000 (Kabweza, 2014). In spite of the rapid increase in the population of Internet users in the country, research shows that e-Learning adoption in other areas such as primary and secondary schools has not reached its full potential in Zimbabwe (Chitanana, Makaza, & Madzima, 2008). There appears to be an uneven distribution of use of ICT for teaching and learning in secondary and primary, and among workforce in the country as whole. For instance, the general pattern is that students in the rural areas tend to have limited access to computers and the Internet. Although this observation is not unique to Zimbabwe, the situation is very much against the government policy on access to quality education through the use of ICT for all. Moreover, the digital divide in the country does not help Zimbabwe meet its commitment to *The Education for All* (EFA, 2000) movement which is a global commitment by countries to provide quality basic education for all children, youth and adults (EFA Global Monitoring Report, 2013/14).

The Theoretical Approach:-

Changes in technology have brought about changes in the way human beings learn and teach (). The change usually is in the material environment, and the adjustment learners and teachers make in response to the changes often modifies customs and social institutions (Ogburn, 1947). As observed by Ofori-Attah (2008) "These changes have affected the way people exchange information, do business, learn, teach, shop, or travel. As a matter of fact, it will not be too much to argue that technology has permeated every aspect of our life" (p. 31). The changes are so massive that perhaps no institution in the developed world is untouched by new technology. In the developing world, these technological changes have affected many aspects of teaching and learning or the school curriculum. As observed by Ogburn (1947), technological changes take time to permeate a whole society. Moore and Kearsley, (2012) have forcefully argued about technology and social change. Moore and Kearsley contend that "We have arrived at a new point in history where these technological developments as well as economic, demographic, and pedagogical trends converge and reinforce each other to provide momentum for an accelerated rate of change in the years ahead." (p.273).

The best approach to embrace these changes is through education that prepares us to master the skills required to make a meaning of these technological changes. The general argument is that the benefits of technological changes favor a few people first before the rest of the society (Ogburn, 1947). These initial beneficiaries are the rich, powerful, and the affluent in the society. It is often argued that the expansion of the use of ICT for teaching and learning does not eliminate inequality of access to quality education. Research indicates that access to innovative teaching and learning with technology is a major problem in many countries. The digital divide between the affluent students and the poor students is getting wider and wider (EFA Global Report, 2013/14). Furthermore, the gap between rural and urban students, and gender. It is within this framework that the study was carried out.

Purpose of the study:-

Based on the qualitative design, the purpose of this study is not the generalizability of its findings, but gaining useful insights into access to quality education through online learning in the primary and secondary schools, and the development of human capacity building through the use of ICT in the non-formal sector in Zimbabwe.

Statement of the Research Problem:-

Data from multiple sources show how the integration of ICT into the curriculum of higher learning institutions in Zimbabwe is replete with information on innovative educational practices. In spite of the rapid increase in the population of Internet users in Zimbabwe, research shows that e-Learning adoption has not reached its full potential (Chitanana, Makaza, & Madzima, 2008). To shed light on the question on how far Zimbabwe as a country has come to a position of optimizing the use of ICT in the provision of education, this study utilized technology and social change theoretical framework and equity theory to explain, clarify the positive forces and limitations to the utilization of ICT for teaching and learning in Zimbabwe. At the same time, not much is available in the study of how people get access to quality education through online learning for professional development and human capacity building. From the survey of existing literature, it also appears that little has been done to study the use of ICT in nontraditional areas such as primary and secondary schools to help students and teachers transform learning through the use of computers, the Internet, and other social networks such as Facebook or Twitter.

The Research Questions:-

The overarching question that guides this study is: *How do people get access to quality education through online learning, and the use of ICT for professional development and human capacity building in Zimbabwe?* The study explored this question by providing answers to the following sub-questions:

1. What policies are in place to promote access to quality education in Zimbabwe?
2. How is technology used to promote professional and human capacity development in Zimbabwe?
3. How are the urban and rural primary and secondary schools in Zimbabwe integrating ICT into their curriculum?
4. How are male and female students in Zimbabwe utilizing ICT for professional and social development?
5. What are the current limitations to access of ICT in education in Zimbabwe?

Significance of the Study:-

This study is significant for educational planners in Zimbabwe and others in developing countries and individuals or organizations that are interested in finding effective means of closing or minimizing the digital divide in their country. The study is also significant in the sense that countries that are still debating how to provide access to quality education through online learning will find this study as a worthy addition to the literature on how technological changes have transformed the way teachers teach and how students learn.

Data Collection and Methodology appropriateness:-

The researchers used three qualitative approaches to collect data for this study. First, six Zimbabweans, three males and three females, who had their whole or part of their education in Zimbabwe were purposefully identified for individual interviews. An interview method permits researchers to pay attention to the needs and demands of those who experience little or no societal voice on matters of importance (Maxwell, 2013). This method allows researchers to unearth aspects of understanding that often remain hidden in the more conventional in-depth interviewing method. The strengths of the interview methodology include providing the researchers with an inordinate opportunity to appreciate the ways participants see their own reality and hence 'to get closer to the data' (Ivanoff & Hultberg 2006). The method permits the intended participants to be more involved in the discussion of the research issues. In the process their needs may also be met.

Second, the study involved 8 participants 4 females and 4males who were purposefully selected to participate in a focus group study. They shared a similar background of having had an experience of furthering their professional qualifications through programs in which the use of ICT was involved while they were in Zimbabwe in the last 9 years. Prior to the focus group discussion all the participants signed a letter of consent to participate in a recorded one and a half hour discussion following the five research questions. The sixth item of discussion was the overarching study question that was meant as prompt to get the participants to express any strong feelings and ideas they had. The focus group was conducted in a permissivenon-threatening environment of a comfortable room within a school building. Prior to the discussion, the participants agreed to the rule of engagement that each and every one of the group should feel comfortable to discuss their opinions and experiences without fear that they would be ridiculed or judged or by others in the group or the moderator.

Third, document analysis is used as a qualitative method that continuously enables the researchers to review data from the interviews in light of the extant literature in order to provide interpretation and answers to the research questions. (Marshall & Rossman, 2016).

Three data collection methods were used to enhance trustworthiness, and credibility of data, through triangulation, and pattern matching (Marshall & Rossman, 2016; Yin, 2014). Beginning with careful reading of individual and group interview transcripts, data were triangulated and analysis was completed through the reduction method of coding, and reduced to categories from which two themes ultimately were derived. These with that from the focus group interview. Each category was carefully analyzed and isolated two central themes, namely (1) possibilities of access to and use ITC in teaching and learning, and (2) challenges and limitations to access to the use of TC.

Data Presentation and Analysis Procedures:-

Codes:-

Categories

Community Libraries, School Libraries, Public Libraries, Resent Computer PCs, lap tops, I Pad, Mondo Pad, Monitor, Processor, Mobile device, smart phone (Smartphone, iTouch, iPad, MP3 player), Microphone, Printer/Scanner Operating system Windows XP, For Mac users--System 8.1 or higher, e-mail account through Gmail, Yahoo, Hotmail, set up a school-based e-mail account, Microsoft Office, Adobe Acrobat (Professional) Plugins, Graphics Editing, Diploma in Project Management, Diploma in Operations Management, Diploma in Human Resources, Diploma in Legal Studies, Diploma in Workplace Safety and Health, Diploma in Customer Service, Customer Service Training, Cost of equipment, Internet costs, USD180 per month, bottle necks, Power outages, Limited Access to Power in Rural Areas, Wealth Gap Between Male and Female, IT Support, Government Policy, Eminent Participation of Private Sector. Inadequate infrastructure in Rural Areas, Lowering of Cost Education, ITC Extends Student Learning through Increased Creativity and Exploration

Themes

- ❖ *Government Policy on the Integration of Technology into the Curriculum*
- ❖ *Technology, Human Capacity Building, and Professional Development in Zimbabwe*
- ❖ *Integrating of ICT in the Curriculum and of Primary and Secondary Schools in Zimbabwe*
- ❖ *How male and female students in Zimbabwe utilize ICT for professional and social development*

Themes

- ❖ Possibilities of Access to and Use of ITC in Teaching and Learning
- ❖ Challenges and Limitations on Access to the Use of TC

Key Findings and Discussions:-

Although the economy of Zimbabwe is not strong at this time to support the integration of technology into teaching and learning, the government of Zimbabwe has evolved a policy to promote the integration of technology into the curriculum with the sole of aim improving conditions of learning and human capacity building. As clearly pointed out by Kundishora, (n.d), and Isaacs (2007), several entities, including the business community, development partners and educational institutions have collaborated with the government of Zimbabwe to promote the use of ICT in education and human capacity development in Zimbabwe (UNDP, 2014a). The data from this study reveal several key findings, presented in categories that are classified under each of the two aforementioned themes. The categories that fall into the first theme will be discussed first.

Possibilities of Access to and Use of ITC in Teaching and Learning:-

Government Policy on the Integration of Technology into the Curriculum:-

It emerged from the data that the government of Zimbabwe has a well-defined and elaborated policy on the integration of ICT into the curriculum. The policy emphasizes equal access to quality education for all through the use of computers and the Internet. The policy makes it clear that the government of Zimbabwe promotes the awareness and advocates the utilization of ICT in urban as well as rural areas. It also makes provision for access to quality education for men, women, people with disabilities and the aged (Isaacs, 2007; Limb, 2005).

Zimbabwe after several years of wait and see attitude in 2005 came with an official policy on e-learning in Zimbabwe (Limb, 2005). In 1999, The Nziramasanga Education Commission in a national report recommended the promotion of the educational use of computers for teaching and learning in educational institutions in the country. However, it was not until 2005 that the government came out with a national policy on the use e-learning in the country. The policy was adopted after considerations and recommendations from the 1999 The Nziramasanga Education Commission in a national report recommended the survey report from Harvard University, Vision 2020, The Science Education Policy of 2002, and Public Private Partnerships (PPPs) (Isaacs, 2007). The policy focuses on the following areas:

- ❖ ICT in education
- ❖ Human capacity development
- ❖ Infrastructure, equipment and content
- ❖ Economic development
- ❖ Social development
- ❖ E-government and e-governance
- ❖ Private sector development
- ❖ Rural and community access
- ❖ Legal, regulatory, and institutional provisions and standards
- ❖ National security, law and order (Farrell, & Isaacs, 2007).

These clearly demonstrate a clear government and some civil society organizations have demonstrated enthusiasm and positive attitude toward the development of technology for education and social development in general (Isaacs, 2007).

In 2014, the government reaffirmed these policies and boldly incorporated them into the National Strategic Plan, 2014-2020. The strategic plan included utilizing ICT among other things, in order to:

- ❖ Promote awareness and advocacy for ICT literacy and utilization paying particular attention to rural areas, people living with disabilities, women, children and the aged.
- ❖ Develop and nurture sustainable human capital development in ICT skills
- ❖ Ensure inclusion of ICT curricula at all levels of education
- ❖ Provide ICT technical assistance to all ministries and departments.
(Zimbabwe Ministry of Information, 2010).

Government and private companies promoting the integration of information technology into the curriculum in Zimbabwe include the following:

- ❖ Net One
- ❖ POTRAZ
- ❖ Powertel
- ❖ Tel One
- ❖ Transmedia
- ❖ ZARNet
- ❖ ZimPost

Technology, Human Capacity Building, and Professional Development in Zimbabwe:-

Many students in developing countries now have access to quality education through online learning with universities and colleges outside their country. The most of these outstanding higher education institutions include Walden University, University of Phoenix, all based in the United States, and Alison, an online educational institution based in Ireland. Alison is an institution based in Ireland but offers online courses to thousands of students worldwide. Alison is recognized by many as the first Massive Open Online Courseware (MOOC). Massive Online Courseware is a form of part time distance learning accessible to everyone from professionals to students. (Harare

News, 2014). Through MOOCs over 20,000 students in Zimbabwe have completed various professional courses. Some of the courses completed include the following:

- ❖ Diploma in Project Management
- ❖ Diploma in Operations Management
- ❖ Diploma in Human Resources
- ❖ Diploma in Legal Studies
- ❖ Diploma in Workplace Safety and Health
- ❖ Diploma in Customer Service
- ❖ Customer Service Training

(ALISON, 2014)

ALISON draws its inspiration from Article number 26 of the United Declaration on Human Rights which states that every person has “the right to education” and the vision that someday “Education shall be free...” ALISON involves new technologies and innovative business models to make this vision reality. Leading a group of highly talented and socially aware technologists and professionals from countries around the world, ALISON leads the way to enable people to educate and up-skill themselves at a relatively low input cost, helping to build a fairer, more sustainable global community.

The success and promise of ALISON are inspiring many learners and leaders to spread the message and hope of ALISON worldwide. The message from ALISON is that, all, are needed, as learners and supporters, to help provide a better service every day, and to encourage the adoption of ALISON in local communities. As Nelson Mandela once said, "education is the most powerful weapon you can use to change the world.

Econet Education, a private institution in Zimbabwe has responded to the call. The organization plays a key role in the professional and social development of thousands of male and female students in Zimbabwe. Econet Education subjects range from test preparation to how to start a business, with agriculture, engineering, medicine, languages and music theory (Online Learning Blossoms, 2015, para 3). Technological tools for teaching and learning in EcoSchools include a "textbook library, an educational chat platform allowing social interaction between students on study material, and an online education resource center so users can check for faculty-related" (para 6).

Other agencies or organizations include The British Council, which is working in partnership with the Education Technology Center (ETC) under the Ministry of Education which has the mandate to provide technical assistance and support to teachers in the teaching-learning process. The IT section is responsible for training teachers in various computer technologies that can be used to enhance pedagogy. It is in this regard that the British Council has partnered the Ministry in a pilot project to implement the ICT Professional Development program in 5 provinces, namely Matabeleland South, Mashonaland West, Bulawayo, Masvingo and Midlands (British Council, 2015).

Integrating of ICT in the Curriculum and of Primary and Secondary Schools in Zimbabwe:-

Data collected and analyzed indicated that there is strong demand for quality education at all levels of the educational ladder in Zimbabwe. However, the demand at the primary and secondary levels is greater than the demand at the tertiary levels. Less than a quarter of the 8,000 primary and secondary schools in Zimbabwe have access to the Internet and other ICT tools that promote and facilitate teaching and learning in the 21st century. The situation in the rural areas is as gloomy as one can imagine. As clearly and forcefully pointed out, "In Zimbabwe, ICT in education is not a very widespread phenomenon, particularly considering rural settings where most schools are not connected to electrical power supply and where some schools hardly have any buildings to house the computers" (Konyanga & Koyanga, 2013).

Although the higher education institutions have been the traditional beneficiaries of ICT in Zimbabwe, primary and secondary schools gradually, but steadily are integrating ICT into their curriculum. Urban as well as rural secondary and primary schools are all racing to embrace ICT into teaching and learning (Global Giving, 2015). In 2003, SchoolNetAfrica Online selected a number of countries to participate in the integration of ICT in the curriculum. Thirty 30 primary and secondary schools in Zimbabwe participated in this project. See Table 1.

Table 1:- Countries in Africa Participating in Technology Programs Organized by Schools Online by 2003

Country	Number of Primary and Secondary Schools
Egypt	11
Ghana	17
Kenya	1
Senegal	3
South Africa	4
Tanzania	3
Uganda	10
Zimbabwe	30

Source: Ofori-Attah (2004).

In 2012, ten years after the pilot studies by SchoolNet in Zimbabwe, the government of Zimbabwe launched the National e-Learning Program at Chogugudza Primary school in Goromonzi. One hundred primary and secondary schools were selected to participate in the integration of ICT into the curriculum. The pilot program included the training of 15 teachers selected from the schools concerned (The Herald, 2012).

Between 2005 and 2011, World Links Zimbabwe Trust supplied over 9,000 computers to several primary and secondary schools in Zimbabwe. The goal was to promote the application of ICT tool in teaching and learning in these schools (World Links Zimbabwe, 2015).

Apart from the universities and polytechnics in Zimbabwe, several organizations are involved in the provision of ICT facilities in primary and secondary schools both in Zimbabwe both in the rural and urban areas. These include Computers for Zimbabwean Schools (CZWS), Tekeshe Foundation, and Global Giving. The mission of these non-profit organizations is to transform IT education in Zimbabwe by providing schools with affordable computers and associated software, training support and connectivity. In 2010, in line with this mission, CZWS distributed over 3,000 computers to over 250 schools and also set up a computer training lab in Harare for teachers. (Global Giving, 2015). A nonprofit organization, The Tekeshe Foundation is a non-profit organization and provides educational support for both boys and girls in the rural areas of the Chipinge district in Zimbabwe has assisted some schools in the district with technological and other school needs. In 2014, the organization connected Rimbi High school to the Internet. This connection gave 1000 students and 50 teachers' access to the Internet. (Global Giving, 2015).

According to Konyanga and Koyanga, (2013) the government of Zimbabwe has demonstrated a great commitment to the promotion of ICT in rural schools in Zimbabwe by embarking on "a massive drive to turn around the education sector by donating state of the art computers to many schools around the country mainly in the rural areas" (p.2). The government often sends buses equipped with ICT tools to rural schools and communities to let them have little access to the Internet and other social media tools.

How male and female students in Zimbabwe utilize ICT for professional and social development:-

As pointed by UNESCO(2002), "On the surface, there is no traditional, preconceived resistance to women using computers. Yet research indicates that many factors mitigate against equitable access to IDCT for women (p. 163). Like many countries in the developing world, the above observation by UNESCO appears to be the general pattern in Zimbabwe (Mapolisa & Chirimuuta 2012; Mbambo-Thata, Mlambo, Mwatsiya, 2010). In some cases, the gap appears to be as large as 45% in sub-Saharan Africa (Castellano, 2015). In a 2012 report on *Gender and Equal Development*, the World Bank observed that, "removing barriers that prevent women from having the same access as men to education, economic opportunities, and productive inputs can generate broad productivity gains...." (World Bank, 2012, p. 3).

Zimbabwe is very much aware of the observation made by the World Bank and so have introduced a number of measures to positively tap the energy and skills of women in national development. It is very interesting to note that both male and female compete to use ICT facilities to promote their educational achievement or for social networking. Bloomer (2000) noted that at the Bindura Internet Learning Center, nearly 70% of the students were women. Moreover, Zimbabwe's national policy includes a reference to gender and access to ICT (Isaacs, 2007). This makes it clear that women in Zimbabwe have the government, educational institutions, as well as other ICT groups

to make use of technology to enhance their professional or social activities (Mbambo-Thata, Mlambo, & Mwatsiya, 2010).

In 2014, female students from several institutions, including Chirodzo Primary School; Haig Park Primary School; St Peters Secondary Schools; Louis, Mt Batten School; Harare High School; Girls High School – Harare; Chisipite Senior School; and the University of Zimbabwe participated in a United Nations program, entitled *Bridging the Gender Digital Divide: Exploring Efforts to Scale Women Uptake of ICTs for Development* (UNDP, 2014b). The involvement of the female students in this United Nations Development Program in Zimbabwe is a perfect illustration of the government's attempt to bridge the gender digital divide in the country (UNESCO 2012).

Female students in Zimbabwe have other means to close the digital gender divide in the use of ICT for learning and social networking. In May 2015, 1000 students joined their fellow female students worldwide to participate in what is referred to as *Girls in IT*. *Girls in IT* is "a global effort to raise awareness on empowering and encouraging girls and young women to consider careers in ITs" (Rutsito, 2015, para 2). The event is held annually in different schools in the rural areas. The first was held in the Matabeleland in 2012 and the next one, Manicaland in 2013. According to Rutsito, these activities are gradually "elevating women to higher positions, but are also a more gender-balanced sector" (para 12).

Challenges and Limitations on Access to the Use of TC:-

Limitations to access of ICT in education in Zimbabwe:-

Although the government of Zimbabwe has made some significant progress in encouraging the integration of ICT into the education through its policy initiatives, especially in the primary and secondary levels, many schools have little or no access to ICT in online learning. According to Ndawi, Thomas, & Nyaruwata (2013), resources for utilizing ICT for teaching and learning in government schools appear to be worse in public schools than the private schools. This shortage in the public schools implies that thousands of students studying in public schools have little or no access to online learning. Ndawi, Thomas, & Nyaruwata (2013), concluded from their study that "private schools were ahead in using ICT in the classroom" (p. 214).

In many of the schools, especially those located in the rural areas, most of the teachers have little or no skills using computers or the Internet in teaching and learning. Even where these are available, the students are denied access to ICT because the teachers have no desire to engage them in learning activities that involve the use of ICT. The situation in the urban areas appears to be a little better because the teachers have access to universities and colleges to enhance their computing and Internet skills.

The cost of computers appears to be out of reach of many teachers, students and parents or even school districts. According to UNDP report issued in 2002, "the cost of a brand new personal computer vacillates between a low of \$5 million and a high of up to \$12 million, depending on the brand of the machine." The high cost of computers makes them available only to the rich and powerful in the society.

Unreliable power supply for thousands of schools, especially those in the rural areas, deny students in these schools access to the Internet for online learning. Erratic power supply appears to be a national problem like other African countries. As Mpofu, Chimhenga, & Mafa, (2013, p. 68) put it, "Several cities and rural areas in Zimbabwe are yet to have or have fluctuated in the supply of electricity. Most Zimbabweans do not have access to telephone and other telecommunication facilities, especially in rural areas". However, the problem affects the rural and students from less affluent families more than those from urban and affluent homes.

A report by United Nations Development Program (UNDP) in 2002 shows that Zimbabwe is one of the top 11 countries with substantial Internet usage with more than 35 000 dial-up Internet subscribers. The subscribers had accounts with the country's six major Internet service providers (ISPs) at the time. The ISP's included Africaonline, Telconet, Ecoweb, Zimbabwe Online, Zimweb and ComOne. The number of people who actually access the internet in Zimbabwe is now as high as 500 000. However the continued expansion of Internet cafes might be hampered by the inhibitive cost of computers.

The expansion of Internet cafes is attributed to the rapid increase in the number of colleges that are exposing students to computers at an early stage. The computer industry in Zimbabwe has been characterized by huge growth

in the past 10 years. There were only about 10 computer companies in 1990, and by the year 2000 the country had more than 200 fully-fledged ICT companies.

Some cafés like the Quick n' Easy Internet Cafe company, which has three well-run and popular outlets in Harare, have designed customer friendly packages that allow subscribers to become members. Members pay subscriptions of 10 hours or more in advance and they then enjoy special discount rates and more surfing time.

The UNDP report said there were over four million Internet subscribers in Africa, with the bulk of them, over 60 percent, found in Zimbabwe and South Africa alone while North Africa accounts for more than 250 000, and the remainder in the other 50 countries on the continent.

Conclusions:-

It is often argued that computers have the power to transform teaching and learning that result in better learning outcomes. Evidence from this study supported the claim that ICT has the power to improve the quality of learning, and can advance the desire of all students irrespective of their social background to accomplish higher levels of learning. The effort of the government to promote and support the integration of ICT in the curriculum of primary and secondary schools through the national ICT policy is laudable. The policy makes it clear that the government of Zimbabwe supports access to education through the use of ICT of all students in the country, irrespective of their geographical location, gender or age.

As the major themes emerged from the study, it became abundantly clear that the effort of the government of Zimbabwe to make online learning accessible to all students appears to be a thing of the imagination of most of the participants. Most of the people interviewed argued that the economy of Zimbabwe at this time is not in a strong position to support any meaningful integration of ICT into the curriculum of all, if not most of the schools in the country. This observation is similar to the findings of Mpofu, Chimhenga, & Mafa,(2013) who concluded from a similar study that the economy of Zimbabwe is not strong enough to attempt to put the schools in Zimbabwe in the orbit of online learning.

Interestingly, the effort of parents and the private sector to help equip public schools with ICT in teaching and learning, especially in the rural areas, is a clear indication of the commitment of these stakeholders to help their children acquire the skills of using technology for learning. Although the rapid pace of technological changes makes their effort a borderline case, nevertheless, these efforts have helped a few students from the rural areas acquire computer and Internet skills that have helped them earn jobs in the urban and rural areas as teachers or clerks Global Giving, (2015).

References:-

1. Alison, (2015). Zimbabwe country statistics. Retrived from <https://alison.com/free-online-courses/zimbabwe>
2. Asunka, S. (2008). Online learning in higher in higher education in Sub-Saharan Africa: Ghanain univeristy students' experience and perceptions. *International Review of Research in Open and Distance Learning*, 9(3), 1 - 23.
3. Bloome, A. (2000). Zimbabwe, the Bindura Internet Learning Center: Modest in size, but mighty in impact. Retrieved from <http://info.worldbank.org/>
4. British Council. (2015). Schools online. Retrieved from <https://schoolsonline.britishcouncil.org/>
5. Castellano, S. (2015). Africa's digital gender divide. Retrieved from <https://www.td.org>
6. Chitanana, L., Makaza, D., & Madzima, K. (2008). The current state of e-learning at Universities in Zimbabwe: Opportunities and challenges, *International Journal of Education and Development using Information and Communication Technology*, 4(2), 5- 15.
7. EFA Global Monitoring Report. (2013/14).Teaching and learning: Achieving quality for all. UNESCO Publishing. Retrieved from <http://unesdoc.unesco.org/images/0022/002256/225660e.pdf>
8. Farrell, G., & Isaacs, S. (2007). Survey of ICT and Education in Africa: A Summary Report, Based on 53 Country Surveys. Washington, DC: infoDev / World Bank. Available at <http://www.infodiv.org/en/Publication.353.html>
9. Global Giving, (2015).Bringing technology to rural schools in Zimbabwe. Retrieved from <https://www.globalgiving.org/projects/bringingtechnologytoruralschoolsinzimbabwe/>

Updates/ 2

10. Harare News. (2014). Harare's fiber network opens up MOOCs to residents. Retrieved from <http://www.hararenews.co.zw/2014/09/harares-fiber-network-opens-up-moocs-to-residents/>
11. The Herald. (2012) Every Zimbabwean child should be computer literate" says Zim President. Retrieved from <http://www.techzim.co.zw>
12. 4International Colleges and Universities, (2015). Universities in Zimbabwe, Retrieved from <http://www.4icu.org/zw/>
13. Isaacs, S. (2007). ICT in Education in Zimbabwe: Survey of ICT and Education in Africa, Zimbabwe country report. Retrieved from https://www.infodev.org/infodev-files/resource/InfodevDocuments_437.pdf
14. Ivanoff, S.D, &Hultberg, J. (2006). Understanding the multiple realities of everyday life: Basic assumptions in focus-group methodology, *Scandinavian Journal of Occupational Therapy*13 (2), 125 - 132. doi:10.1080/11038120600691082
15. Konyana, S., &Konyana, E.G. (2013). Computerization of rural schools in Zimbabwe: Challenges and opportunities for sustainable development, the case of Chipinge district, South-East Zimbabwe. *African Journal of Teacher Development*,3(2), 1 12.
16. Kundishora, S.M. (n.d). The Role of Information and Communication Technology ICT) in Enhancing Local Economic Development and Poverty Reduction. Retrieved from http://siteresources.worldbank.org/CMUDLP/Resources/Role_ICT_paper.pdf
17. Limb, P. (2005). The Digitization of Africa. *Africa Today*, 52,(52) 3-19. Retrieved from <http://www.jstor.org/stable/4187700>
18. Marshall, C., & Rossman, G.B. (2016). Designing qualitative research, (6th Ed.). Los Angeles, CA: Sage Publication
19. Mapolisa, T., & Chirimuuta, C. (2012). Open and distance learning: An alternative University education for women At The Zimbabwe Open University, *International Women Online Journal of Distance Education*, 1(1), 1-14.
20. Maxwell, J.A. (2013). *Qualitative research design: An interactive approach*. Los Angeles, CA: Sage Publication
21. Mbambo-Thata, B., Mlambo, E., & Mwatsiya, P. (2010). Women and online learning in Zimbabwe: A study of the University of Zimbabwe. Retrieved from http://issuu.com/gracenetwoc/docs/zimbabwe_final_version_april_2011
22. Ministry of Higher and Tertiary Education, Science and Technology, (2015). Universities. Retrieved from <http://www.mhtestd.gov.zw/>
23. Moore, M.G., & Kearsley, G. (2012). *Distance education: A system view of online learning*. Belmont, CA: Wadsworth/Cengage Learning.
24. Mpofo, J., Chimhenga, S., & Mafa, O. (2013).The impact of ICT in learning through distance education programmes at Zimbabwe Open University (ZOU): Roles of ICT in learning through distance education programmes. *Turkish Online Journal of Distance Education*, 14(1), 64 - 74.
25. Ndawi, V.E., Thomas, K.A., & Nyaruwata, T.L. (2013). Barriers to Effective Integration of Information and Communication Technology in Harare Secondary Schools, *International Journal of Science and Research (IJSR)*, 2(9), 211 - 216.
26. Nnazor, R. (2009).A Conceptual Framework for Understanding Use of Information and Communication Technology in Teaching in Universities. *International Journal of Instructional Technology and Distance Learning*, 2009.6(1), 47-57.
27. Ofori-Attah, K.D. (2004). Teaching with Technology across the Curriculum: Making the Case for Countries in Africa. *Chimera*, 2(3), 31 - 42.
28. Ogburn, W.F. (1947). How Technology Changes Society.*The Annals of the American Academy of Political and Social Science*, 249, 81-88.
29. Online Learning Blooms,(2015). Online learning blooms in Zimbabwe. Retrieved from <https://youngafricanleaders.state.gov/resources/blog/>
30. Rutsito, T. (2015). Zimbabwe commemorates girls in ICT. Retrieved from <http://www.herald.co.zw/zimbabwe-commemorates-girls-in-ict/SchoolsOnline>
31. UNDP. (2014 a). Promoting development in Zimbabwe through information communication Technology. Retrieved <http://www.zw.undp.org/content/zimbabwe/>
32. UNDP. (2014b). Bridging the Gender Digital Divide in Zimbabwe. Retrieved from <http://www.zw.undp.org/content/zimbabwe/>

33. UNESCO. (2012). World atlas of gender equality in education. Paris ,France, UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0021/002155/215522E.pdf>
34. UNESCO. (2002). Technologies for education: Potential, parameters, and prospects. Retrieved from <http://www.unesco.org/>
35. World Bank. (2012). World development report 2012: Gender and equality of development. Retrieved from <https://openknowledge.worldbank.org/handle/10986/4391>
36. World Links Zimbabwe. (2015). World Link's ICT plan. Retrieved from <http://worldlinkszim.blogspot.com/>
37. Yin, R.K. (2014). *Case study research: Design and methods*. Los Angeles, CA: Sage Publication.
38. Zimbabwe Ministry of Information, Communication, and Technology (MICT) (2014). Strategic plan 2010-2014. Retrieved from <http://www.techzim.co.zw/>