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The contribution of ICT in improving the quality of education. A case of Higherlife Foundation, Masvingo.

By

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Approval form

The undersigned certify that they read and recommend to the Midlands State University for acceptance, of a dissertation entitled: The contribution of ICT in improving the quality of education. A case of Higherlife Foundation, Masvingo. Submitted by Nyasha D Muzhingi, in partial fulfilment of the requirements of the Bachelor of Arts in Development Studies Honours Degree.

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I, Nyasha D Muzhingi declare that this project is my own work and has not been copied or

lifted from any source without acknowledgement.

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Dedication

I dedicate this work to the Almighty God, my late mother, my grandmother and my family. I

really appreciate their contribution in making this document a success.

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I would like to thank the Almighty God for giving me the strength and intelligence to write this dissertation. The Muzhingi family is greatly appreciated for its support through the course of my research. My supervisor who worked with me through the project, l greatly appreciates the love. To all my lectures in the Development Studies Department, thank you for the knowledge impacted in me through your passion for quality.

Abstract

The research investigates if the project of Higherlife Foundation that it rolled out is benefiting and helping in transforming the quality of education that has been in shambles ever since the beginning of the economic meltdown. It focuses on the primary and secondary education in the province of Masvingo, in the rural parts of the province were the learning hubs have been placed. I investigated the role of ICT in the education sector and brought out the indicators of quality education that are being positively and negatively affected by the introduction of this global phenomenon of ICT in schools. The first chapter brings out how the education sector was before the introduction of ICT and seeks to bring out how transformation was greatly needed in the industry of education. Second chapter of the study investigated the role being played by ICT in improving the quality of education in the rural areas were HLF introduced learning hubs. In this chapter indicators of quality of education were highlighted in detail, showing that ICT is bringing a good change in the education sector as pass rates are changing, pedagogy is improving among other indicators of quality education. Chapter three is were the recommendations on how to improve the ICT projects and also what can be done to make ICT the ultimate solution for quality of education in Zimbabwe as a whole. Statistics in the research were taken from online sources and most of them were provided from the Higherlife Foundation group in Masvingo and also interviews and questionnaires were administered during the course of the research.

List of appendices

Acronyms

HLF   **:** Higherlife Foundation

UNESCO **:** United Nations Educational, Scientific And Cultural Organisation

UNICEF **:** United Nations Children's Fund

MoPSEC **:** Ministry Of Primary And Secondary Education

DEO   **:** District Education Officer

ICT   **:** Information Communication And Technology

SACMEQ **:** Southern And Eastern Africa Consortium For Monitoring Educational Quality

SDG   **:** Sustainable Development Goals

UNDP   **:** United Nations Development Programme

NGO   **:** Non-Governmental Organisation

ESAP   **:** Economic Structural Adjustment Programme

OECD   **:** Organisation For Economic Co-Operation And Development

EFA   **:** Education For All

ZIMSEC **:** Zimbabwe Schools Examination Council

DVD   **:** Digital Video Disc

STEM   **:** Science, Technology, Engineering And Mathematics

ZETDC **:** Zimbabwe Electricity Transmission And Distribution

REA   **:** Rural Electrification Agency.

Table of Contents

INTRODUCTION

Higherlife Foundation has introduced a project of ICT to both secondary and primary schools in Masvingo. The study focused on this initiative that was introduced as a way of improving the quality of education in Zimbabwe generally. In recent years educational pass rates in the country have deteriorated and this has prompted the government and local organisations to come together to improve the quality of education in the country. Zimbabwe has been rated as one of the African countries literacy rates above 94% (UNICEF 2011).

The study also identified the groups that are benefiting from the introduction of ICT in their schools and whether the project is meeting its initial goals or is, rather, being abused. These project initiatives being rolled out by Higherlife Foundation are: Ruzivo Learning Platform and Learning Hubs. These ICT facilities are being put to use because the of the recent poor passing rates which are being caused by the country's poor economic performance and lack of resources such as textbooks and teachers. The main focus of the study was to assess if the use of ICT in the education sector can improve performance in the education system.

BACKGROUND

The quality of education is one the critical factors affecting the learning outcomes of young people. While education quality is difficult to define, it is shaped by factors such as class size , availability of textbooks, access to basic services including potable water , sanitation and electricity (UNESCO 2014).

The future development of Africa and its participation in the knowledge society will be greatly influenced by how Africa manages to deliver quality education to its citizens. Education forms the basis for innovation, science and technology, in order to harness our resources, industrialise and participate in the global knowledge economy and for Africa to take its rightful place in the global community (Second Decade of Education for

Africa 2006–2015 Plan of Action). In Africa, education has been deteriorating , pass rates have decreased and also the enrolment levels are falling because of the economic situation on the continent.

Education participation rates in many African countries are low. Schools often lack many basic facilities, face overcrowding and staff being lured away to regional and overseas "greener pastures" by higher pay and better conditions, leading to further deterioration in pass rates and enrolment. Another reason for the low education rates in Africa is unequal opportunity for education across countries. Mostly the quality of education is indicated by the ratio of teachers and students and also the 1:1 textbook ratio among students. Recently in Africa the rate of unequal opportunity has increased greatly in rural areas as they attain the worst results in standardised tests written across states (www.higherlifefoundation.org). Those in rural areas score much lower grades which reflects the lack of equal educational opportunities for children in different countries in Africa (SACMEQ).

In the bid to try and meet the SDG 4 which emphasizes on education for all universally, Africa has tried many strategies to improve the quality of education. Transparency International (2010) gathered that, from 8500 educators and parents in Ghana, Madagascar, Morocco, Niger, Senegal, Sierra Leone and Uganda , education is being denied to African children in incredibly large numbers. This has made African governments to draw up new strategies to improve the quality of education that had taken the "downstream" road.

Zimbabwe has invested considerably in education because it perceives education as critical to national and economic development. The government has, since independence, made great efforts to increase participation at all levels of education. Since independence in 1980, new policies have been put in place to address the past and the outcome was the unprecedented increase in student enrolment. The Williams' Commission (1989) observes that quality

should not be compromised by rapid expansion despite the need for widening access and reported that, "Our first main concern is that the necessary expansion should not be at the expense of quality, and that the new institutions and programmes which we suggest Zimbabwe should now establish should be of a high standard, but we also regard it as crucial to ensure that in a proper enthusiasm for creating new structures and institutions, the authorities do not overlook the current needs of existing institutions or neglect to strengthen and consolidate what is already in place (Williams' Commission Report, p. 29). The Commission received evidence suggesting that expansion might erode the existing gains and its anxiety was that the resources would be spread too thinly to cover more institutions. In a later report, the Nziramasanga Commission (1999) reported that the government policies to have free education were not sustainable.

The literacy rate in Zimbabwe is high, at 91.4% (UNESCO 2009). For instance, the literacy levels of 15–24 year olds rose from 95 to 98% between 1992 and 1999 (UNDP 2003). Nevertheless , policy development in Zimbabwe has been very complex in terms of education being improved. Chapman and Austin (2002) alluded this, "there is a general tension and sometimes a direct trade-off between the political necessity to expand enrolments, the moral imperative to increase equity, the desire for quality and overwhelming need to control costs." The Transitional National Development Plan (1983) noted that government policies in education focussed on both quantity and quality. As the national development plan states, education is a basic need and it is important that the government focuses on that as it is a source of human capital that is meant to develop the nation in the future and bring about new innovations.

With the complex policies in the education sector of Zimbabwe , the government has introduced the use of technology in trying to improve the quality of education in the country , (National ICT Policy of 2015). This came as a result of failed strategies that included the use

of temporary teachers, removing them from the system permanently if they did not have a teaching diploma and introduction of incentives for teachers.

As the national ICT policy encourages the use of ICT in schools , synergies that had been created by the government years back have started to produce results as NGOs have started to distribute ICT knowledge and equipment to schools. These NGOs include the one under study , Higherlife Foundation. Higherlife Foundation , once Capernaum Trust was founded in 1996 by Dr S and Dr T Masiyiwa. The organisation works in line with the SDGs, specifically SDG 4. The organisation was originally created so that it would help OVCs get educated but they have now widened their mandate to providing materials that benefit the general public through the Learning Hubs and Ruzivo Learning Platforms.

Masvingo province's education sector is also being affected because of its geographical proximity to the South African border. As the economic meltdown continued , students and teachers started opting to go to South Africa for jobs and a better life which adversely affected the education system in the province.

STATEMENT OF THE PROBLEM
The government abandoned its socialist ideology in the period 1991-1995, in favour of the Economic Structural Adjustment Programmes (ESAP) in order to access funds from the World Bank (Government of Zimbabwe, 1991b).The education sector has been experiencing set-backs in terms of producing quality grades in the past years since the implementation of the ESAPs. The study evaluates the contribution of ICT in schools. The quality of education in Zimbabwe deteriorated and this led to increased school drop-outs and low pass rates because there were no qualified teachers and there was a shortage of textbooks in schools.

The study points out the merits and demerits of using ICT in primary and secondary schools. According to Fletcher (2016) , connectivity in schools allows pupils to have access to

unlimited and up to date information. While textbooks still play a role, they have outdated information. Students have the opportunity to harness benefits of being digital learners as the world and the nation are focusing on globalising everything.

THEORATICAL FRAMEWORK

The study was guided by the modernisation theory of Rostow (1996). The modernisation theory means the appearance of modes of social life or organisation which emerged in Europe from about the seventeenth century onwards and which subsequently became more or less worldwide in their influence (Giddens 1991). He believed that science and technology can be used to advance industry and stimulate economic growth. Development is achieved when a country attains high industrial outputs and exports goods to the world economy. Development is viewed, in this approach, as catching up with the advanced countries (Rostow 1990).

For a country to be seen as modern, modernisation theorists say it has to undergo an evolutionary advance in science and technology which in turn would lead to an increased standard of living for all, (S Moore).New technology is a major source of social change. Since modernisation entails the social transformation from agrarian societies to industrial ones, it is important to look at development from the technological viewpoint; however, new technologies do not change societies by themselves. Rather, it is the response to technology that causes change. Frequently, technology is recognized but not put to use for a very long time such as the ability to extract metal from rock. Although that initially went unused, it later had profound implications for the developmental course of societies. Technology makes it possible for a more innovated society ready for broad social change. That dramatic change through the centuries that has evolved socially, industrially and economically can be summed up by the term modernisation. Cell phones, for example, have changed the lives of millions

throughout the world. That is especially true in Africa and other parts of the Middle East, where there is a low-cost communication infrastructure. With mobile technology, widely dispersed populations are connected, which facilitates business-to-business communication and provides internet access to remote areas, with a consequential rise in literacy.

The modernisation theory sells the idea that not merely economic progress is possible, but that economic progress is a necessary condition for some other purpose, judged to be good, be it national dignity, private profit, the general welfare or a better life for the children. Education, for some at least , broadens and changes to suit the needs of modern economic activity (Rostow 1990). The adoption of the modernisation theory in the education sector through the use of advanced technology to deliver quality education in Africa and Zimbabwe , is going to be viewed critically in this study . As to what are the benefits of using Rostow's theory to change social lives of the general populace and also the economy. This model has its weaknesses in that developmental paths for countries are not the same, they are cultural and contextual.

CONCEPTUAL FRAMEWORK
Quality of education- It is therefore important that nations invest heavily in education to ensure that the young, whether in rural or urban communities, are equipped with knowledge, skills and competencies to enable them to contribute meaningfully to national development (Adedeji and Olaniyan, 2011).

ICT - ICT (information and communication technology) is used as an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems, as well as the various services and applications associated with them, such as videoconferencing and

distance learning. It has been argued that ICT is a principal driver of economic development and social change worldwide (Kozma, 2005; Leech, 2008).

Sustainable developmental goals - The Sustainable Development Goals, otherwise known as the Global Goals, build on the Millennium Development Goals (MDGs), eight anti-poverty targets that the world committed to achieving by 2015. The MDGs, adopted in 2000, aimed at an array of issues that included slashing poverty, hunger, disease, gender inequality, and access to water and sanitation. Enormous progress has been made on the MDGs, showing the value of a unifying agenda underpinned by goals and targets. Despite this success, the indignity of poverty has not been ended for all. The new SDGs, and the broader sustainability agenda, go much further than the MDGs, addressing the root causes of poverty and the universal need for development that works for all people. Achieving inclusive and quality education for all reaffirms the belief that education is one of the most powerful and proven vehicles for sustainable development (UNDP 2016)

Learning hubs- learning hubs have been launched for public use in schools by the Higherlife foundation team in the bid of globalising the country and also improve and return the once high rates of literacy in Zimbabwe by improving the quality of education. These learning hubs have been placed at Chikombedzi Primary school in Chiredzi district , Gwindingwi High school and also at Danhamombe High school. All of these schools are under Masvingo province.

Ruzivo learning platform – this is a platform that has been created as a way of changing the educational system of the schools , bringing the education system up to speed with the rest of the world. This is a platform that offers 'dustless' learning , where everything is done digitally. There are subject notes and tests that have been formulated in a manner that is in-line with the national curriculum by the Ministry of education.

National ICT policy of 2015 – the Zimbabwean government adopted a National ICT policy in 2005 that was informed both by a Harvard University-guided e-readiness survey, which suggested the country was not uniformly e-ready and by a host of the preceding general sectorial policies. This was rectified in 2015 by the Legislature of Zimbabwe.

RESEARCH AIMS AND OBJECTIVES

Aims of the study

The study aimed at determining if the introduction of ICT in schools in the rural areas of Masvingo is bringing any change to the education sector in terms of good grades.

Objectives

➢ To assess the contributions of ICT in schools in Masvingo province.

➢ To identify what makes this strategy different from other strategies that have been used in the past

➢ To assess if the project is practically helping the students to improve their grades.

➢ To investigate if the project is not discriminating against some groups.

RESEARCH QUESTIONS

➢ Is the project meeting its intended goals?

➢ What strategies have been used to improve the quality of education?

➢ How did the Higherlife Foundation select the schools that have benefited from the ICT project?

➢ To what extent are the students adapting to the new global way of doing things?

➢ What materials are students are exposed to and how is this helping them to improve their grades?

SIGNIFICANCE OF THE STUDY

The study intends to help the government of Zimbabwe to measure the success of introducing ICT in both primary and secondary schools. This research was done so that the Higherlife Foundation will also see results that are being obtained through the project they initiated. The study will act as an analytical tool to measure the success of the project and will help to replicate the initiative in other areas of the country beyond its current limited coverage

In Masvingo the project covers only three schools and this will help in taking the project to other schools or even help in finding alternative ways of improving project delivery from lessons learned . The students will also benefit from this research as it will act as a motivating factor as they will get to witness the project's successes, given that Zimbabweans have the fear of trying new things unless they have been tried by someone else to validate the initiative's effectiveness.

LITERATURE REVIEW

Education has been identified as one of the public sectors most influenced by technological developments (Kozma 2005). The improvement of educational systems and increased educational attainment are primary to countries' preparation for global, technology-based changes in all sectors (OECD 1999). According to Yero (2002), education means developing the knowledge, skills and character of students. On the other hand Rosado (2000) defines true education as the harmonious development of the physical, mental, moral (spiritual) and social faculties - the four dimensions of life and a life of dedicated service. Rosado further points out that education is the door to economic, social, and personal advancement. These two scholars, however, leave out the issue of institutionalization and formalization of education. With regard to the study being carried out education is not only limited to the development of knowledge and the four dimensions of life as pointed out by Yero and Rosado. It considers the formality of the service and institutions that are offering it. Thus education can be defined

as the development of knowledge, skill, mental and or moral faculties under a legally recognized government or private institutions and is being offered at a fee.

Concern for the quality has remained vague and poorly anchored in social theory. The processes and imperatives associated with the global competitiveness in the face of rapid technological change and financial uncertainty have taken toll on children's right to grow up and be educated in a protective ethos. The problems are not entirely new, but seem greatly compounded by the use of the market as the sole reference point for judging the worth of an idea or policy. Since knowledge and training are so critical as factors in the current political economy, education at every level is being called upon to be market-oriented and market-worthy. This situation has created the apprehension that the concept of education itself may be in a state of crisis. Basil Bernstein, one of the most influential sociologists of education in the 20th century, explained the crisis by referring to the lengthening shadow of marketing managers (Bernstein 1996). The current concern for quality has its immediate origins in the idea of globalisation, particularly in the uncertainties associated with it.

Barret's (2009) review of the international experience of using ICT to improve the learning environment in schools has been demonstrative in identifying the conditions in which ICT can be effectively used to enhance the quality of learning and create social payoffs which would be conducive to sustainable growth and equitable development. It is largely agreed in the literature that infrastructure, trained teachers, e-literacy or stand-alone computer lessons though necessary are not sufficient. Integrating ICT tools into the curriculum and tailoring pedagogy according to the social environment are necessary for achieving qualitative improvements in learning (Kremer and Holla 2008; Sreekumar and Sanchez 2008; Barret (2009); Gurumurthy 2009). Kremer and Holla argue that pedagogical innovations that work around the distortions in educational systems can

improve student achievement at low cost. Technology-assisted learning or standardized lessons can mitigate weaknesses in teaching and substantially improve test scores.

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research (Yusuf, 2005). A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). ICTs have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).As Jhurree (2005) states, much has been said and reported about the impact of technology, especially computers, in education. Initially computers were used to teach computer programming but the development of the microprocessor in the early 1970s saw the introduction of affordable microcomputers into schools at a rapid rate. Computers and applications of technology became more pervasive in society which led to a concern about the need for computing skills in everyday life.

Hepp, Hinostroza, Laval and Rehbein (2004) claim in their paper "Technology in Schools: Education, ICT and the Knowledge Society" that ICTs have been utilized in education ever since their inception, but they have not always been massively present. Although at that time computers have not been fully integrated in the learning of traditional subject matter, the commonly accepted rhetoric that education systems would need to prepare citizens for lifelong learning in an information society boosted interest in ICTs (Pelgrum, W.J., Law, N., 2003).

Textbooks have been used in the past years and are still being used. Contemporary ICTs are able to provide strong support for all these requirements and there are now many

outstanding examples of world class settings for competency and performance-based curricula that make sound use of the affordances of these technologies (Oliver, 2000). According to Zhao and Cziko (2001) three conditions are necessary for teachers to introduce ICT into their classrooms: teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that they have control over technology. However, research studies show that most teachers do not make use of the potential of ICT to contribute to the quality of learning environments, although they value this potential quite significantly (Smeets, 2005).

Harris (2002) conducted case studies in three primary and three secondary schools, which focused on innovative pedagogical practices involving ICT. Harris (2002) concludes that the benefits of ICT will be gained "...when confident teachers are willing to explore new opportunities for changing their classroom practices by using ICT. As a consequence, the use of ICT will not only enhance learning environments but also prepare next generation for future lives and careers (Wheeler, 2001). Changed pool of teachers will come changed responsibilities and skill sets for future teaching involving high levels of ICT and the need for more facilitative than didactic teaching roles (Littlejohn et al., 2002).

As observed by other authors , ICT has benefits that will change the education sector if implemented correctly. In this research , the focus is going to be on the benefits of ICT in rural areas and also the study will analyse the synergy between the government of Zimbabwe and Higherlife Foundation which is an indigenous non-governmental organisation , sponsored by Econet Wireless. Also the research will focus on the availability of materials in schools to effectively befit from the initiative of ICT in schools.

RESEARCH METHODOLOGY

Introduction

In general, research methodology refers to the tools and techniques used in the research process. This chapter presents key methodological issues to be covered. Research methodology includes research design, target population, data collection tools, sample techniques and data analysis.

Research design

According to Burns and Grove (2001:223), research design is a blue print of how the research is going to be conducted. The researcher used both qualitative and quantitative research designs. Survey which is a method employed in sociology research informs of interviews or questionnaires will be employed by the researcher. Questionnaires are well suited for gaining information on a topic the researcher knows little (Denscombe 2009). Surveys and case studies will be the main research methods that the researcher will employ. This was useful to the researcher because they avoid situations in which the evidence does not address the initial research questions. Case study will be used in form of in-depth interviews by the researcher so as to understand how are the people benefiting from the ICT project of Higherlife.

Targeted population

Castillo (2009) defined the target population as a set of people to which statistical inferences are to be drawn. Target population therefore refers to the entire group of individuals to whom the researcher is interested in drawing the conclusions and usually has varying characteristics, hence also known as the theoretical population. The targeted group of this research was students in both primary schools and also secondary schools. The reason why these two groups were the main core of the research is that they are the ones that are benefiting from the ICT projects being implemented in their schools. Also , among the students there were

divided into two groups which are the Capernaum scholars and also the non-beneficiaries of the Higherlife Foundation scholarship programme.

Sample design

Sampling is a method of selecting a few items to study, in place of using the whole number of units. It is important to sample in this research to select the individuals with relevant information for the research. Therefore sampling made it possible for the researcher to select respondents who had the relevant information.

The sampling technique that was used in this research is going to be random sampling on the students and also purposive sampling which will be used to interview the HLF manager in Masvingo and also the heads of the schools.

Data analysis and presentation

The researcher used tables and charts to present data obtained from in-depth interviews and questionnaires. Data analysis and presentation is important because it highlights unique data gathered from specific cases by the researcher.

LIMITATIONS TO THE STUDY

The researcher faced financial constraints which limited the area coverage in Masvingo. Also, there is language barriers in the Chiredzi District as the area uses Tshangani which is not a widely-spoken common language.

ETHICAL CONSIDERATIONS

These are norms which distinguish between acceptable and unacceptable actions and behaviour in research. The research observed all protocols, including respect for local leadership, culture, values and other factors.

Confidentiality is another ethic which will be used significantly in this research to ensure comfort in sharing of information by participants without fear, achieved through upholding of anonymity whereby the identity of participants was not be used. Neither the participants' names nor phone numbers nor addresses were be taken down, they prefered to remain anonymous and the questionnaires are numbered for the sake of data analysis.

More so, the researcher also made sure that she acknowledged all sources of information including primary and secondary sources to safeguard against plagiarism which is an academic offence. The researcher also ensured the use of information for study and academic purposes only.

CHAPTER ONE : STRATEGIES INTRODUCED AND QUALITY OF EDUCATION BEFORE ICT

1.1 Overview

ICT being a strategy that is being tried out by the government and the schools. In this chapter the researcher is going to take a look back at the other strategies that have been in use and some are still being used to change the quality of education in the country by the Ministry of Education. Since independence the country has seen a lot of policies that have been put in place to change and update the education system of the nation.

1.2 Background of the education system

Soon after independence, most governments of developing countries reformed their educational systems to align them with new national goals. Zimbabwe is one such country that embarked on massive reforms of its education system in 1980 (Kanyongo 2000). These reforms came into play because during the colonial rule , demand for more education among Africans was increasing, the colonial government stepped in to control the provision of education and ensure that missionaries would not 'overeducate' them (Nherera, 2000). The colonial administrators were critical of the type of education that the missionaries provided the Africans. They felt the Africans had to be given education which was practical in nature; that is, related to agriculture and industry to prepare them as labourers, but not to the extent where they could compete with Europeans (Atkinson, 1972; Dorsey, 1975). According to O'Callaghan and Austin (1977), Africans were to be given education but not equal to that given to whites. Industrial training in African schools was limited to elementary knowledge of agriculture, carpentry and building.

At independence in1980, Zimbabwe inherited an education system that favoured mainly white Zimbabwean students like European, Asian and coloured people (Kanyongo 2000).

Before 1980, a few black children had access to education , those few students found themselves in poorly- funded schools without enough resources , Kanyongo also states this. The schools that received black children as students during this era where funded by missionaries and not the government. Also , in the today schools ,discrimination that is still being seen in Masvingo provincial schools.

1.3 Quality Education Without ICT

The researcher divided the quality of education into three different categories. For one to notice the quality of education there are certain aspects that are to be recognised and these are the students, teachers and the available resources in the schools.

1.3.1 Student Related

Quality of education in the Province of Masvingo before the introduction of ICT in schools was low. The country by 1990 it had met the original EFA of universal primary access and was able to report among the highest adult literacy rates in Africa. The country attained universal access to education while simultaneously maintaining high levels of quality and equity. This is the reason why education system of today is in crisis, as alluded by Coltart in his 2012 paper. The quality of education in Masvingo was relatively low because of the curriculum that was irrelevant to the world outside. The Ministry of Primary and Secondary Education was advised by the Nziramasanga Commission in 1999 to change the way the syllabus looked but they ignored and continued to do what they had been doing. the commission recommended that the Ministry of Education focus on skill building rather than on examinations. As noted in the Zimbabwean Independent newspaper, "Guchu said ZANU PF adopted the Nziramasanga report last year, while problems identified in it persisted unabated." This meant that the quality of education did not improve because of the

Commission's findings but a generation was lost- 2 693 898 , which was a sign of humanity broken. The quality of education worsened because of the reluctance of the government.

The education industry did not crash because there were no solutions but they were too ignorant to implement the solutions and the reason also being that they are afraid of change. Education in Zimbabwe was reduced because the subjects being taught were not relevant to the world of today, so immediate change was needed for the quality of education to be restored.

Also, quality of education in Zimbabwe and mostly in Masvingo decreased because of the national examination board. Despite the fact that pass rates in some of the years were high did not define quality of education in the country. In Masvingo to HLF 2015 yearbook, this stated that the average pass rate for grade 7 was 56% for HLF beneficiaries and 29% to the whole of the nation. In an interview with the Zimbabwean Independent newspaper, Senator Coltart said that the ZIMSEC board of examinations was becoming biased as they were now lowering the pass rates so that higher rates are to recorded. The board should maintain the standards that had been set long back. High pass rates that undeserved do not define high quality of education but it reduces the quality for quantity in terms of marks that the students are incapable of reaching.

Quality of education in Masvingo can be noticed through the ratio of textbooks and the pupils which is suppose to be 1:1 but in Masvingo students were sharing textbooks in huge numbers since there is the shortage of textbooks. In the past the government was the one that was sponsoring the schools with textbooks but ever since the economic meltdown the country and schools introduced school fees and levies to be paid. This had become the source of income which was now being used to buy books but the resources were still low. UNICEF estimated that there are 15 students at each book, while in secondary schools a recent survey showed

that at least 12% of the schools have mathematics books in 2009. This is a reflection and an indicator that shows that quality of education was not improving and the schools in Masvingo needed assistance to reduce this gap.

Quality of education is also indicated by the welfare of the students, HLF in trying to cope with the reduced levels of quality education the group introduced the feeding scheme in the schools ,primary and secondary, in the bid to try and improve the quality. The project of feeding students was discriminatory in nature as only those that scholarship holders are given food. This is a way motivation that has been taken into account by most NGOs in the country such as Higherlife Foundation . the organisation gives its beneficiaries food packs so as to reduce excuses of food shortages when attending school. School feeding scheme has been introduced mostly in the drought prone areas of the country such as Masvingo, Matebeleland North and South , where school drop outs have increased due to food shortages. In trying to promote the quality of education the Higherlife Foundation has this feeding scheme. As alluded by Pamela Baxter :-

School feeding scheme alone does not address the issue of quality of education. It is sound educational psychology to provide extrinsic motivation where the educational structure in itself does not provide sufficient intrinsic motivation to bring and keep children in schools. This risks creating a generation expecting to be rewarded even for things that are done for their benefit.

Students also had to travel long distances so that they can attend lessons and there was no alternative to that. The distance travelled by students indicates the quality of education in the province. With this students sometimes would fail to attend lessons when it is mostly times of the rains and also the province is regarded as one of the most hot areas were temperatures are high.

1.3.2 Teacher Related

Before the innovation of ICT had graced the province, pedagogy in the schools was more traditional as there was the use of chalk boards, textbooks to teach the students. The ministry saw the continuation of the pedagogy that was there during the colonial period whereby students will be taught what is in the textbooks that were written long back and also the knowledge that is in the teacher which is totally different from that approach of ICT (Freire and Faundez 1989). Exposure to other ways of learning things was not an option in the education of no ICT and one can not that examples of other societies were not in question.

Teacher pupil ratio have not been equally yoked as this has been caused by the economic hardships in the country. The ministry introduced temporary teachers in schools to try and cope with the unequal distribution. In recent publications on the quality of education, teachers are identified as the most important factor influencing the quality of education in schools (Abbott 1988,Hattie 2003 , Barber and Mourshed 2007). For policy makers working on improving educational systems , it is therefore important to develop policies that support professional development of teachers. In Zimbabwe , the introduction of temporary has been mainly focused on relieving teachers on leave as of urban schools but the scenario is different when it comes to rural area schools . It is noted that in Zimbabwe there are more temporary teachers in schools than qualified teachers especially in Masvingo province , schools are flocked with "teachers" that do not have the right papers and knowledge of how to impact the knowledge they have to students.

Thus this is a reflection of low quality of education in the province, as these temporary teachers do not know how to administer their knowledge to the pupils in school. Compromised quality of education because of the economic crisis that is being faced in the country but all this is being done in a way to meet the appropriate ratio of teachers and pupils which is 1:52 in rural schools but different from the town schools that have students of about

1:30 which somehow reasonable. The ministry is failing to recognise that in trying to improve the quality of education by using temporary solutions they are compromising an important aspect of education which is the pass rates of the students.

Teacher welfare is also another factor that determines if there is quality education or not. Teachers are regarded as the pillar stone of education as they are the ones that are delivering the knowledge they have. Most the rural teachers of Masvingo were the research was being conducted have been declared sick due to the conditions that are unfavourable to human health. Also, the welfare of teachers also includes the way they live outside the working space, urban teachers have been given incentives so that they cope with their expenses but rural teachers have been deprived of that privilege. The moment teachers start having equal opportunities, the quality of education will definitely improve but at this moment quality education in rural schools was depleting.

1.3.3 Resource Related

There is still and a shortage of infrastructure in schools of Masvingo due to the economic decline and also schools in the rural areas have been neglected from the development of the whole school. The availability of classrooms, books, is a way that shows that quality of education is improving and increasing also but in Masvingo before the contributions of ICT had been introduced in the system. Classrooms used to be under tree shades which would make the students to lose focus as compared to being in an enclosed building were outside distractions are limited.

Because of the lack of facilities the quality of education in Masvingo was also being indicated by the extra-curricular activities that were taking place in schools. These activities included playing in the fields and also being part of clubs such as Marimba which are not

efficient in our day to day lives. All the activities and the lessons that were being given to the students did not compliment quality education.

1.4 Chapter Summary

This chapter was an overview of how the quality of education was in Masvingo province before the introduction of ICT in the education system of the province. Indicators of quality education were assessed to see if they were actually bringing out quality education. It was noted that the implementations done by the government in trying to cope with the declining quality of education such as the introduction of temporary teachers in trying to meet another indicator of teacher to pupil ratio, they worsened other aspects of quality education which was the pass rates. Thus the chapter was a view mirror of why it was so important to accept the new innovations of ICT and learning hubs by HLF in the day to day running of the schools so that the development of more matured human capital that is competitive in the world economy is generated.

CHAPTER TWO : ICT PROGRAMMING AND THE QUALITY OF EDUCATION IN MASVINGO

2.1 Overview

The chapter will assess the contribution of ICT in the education system of both primary and secondary students. The research of this chapter will focus on the case study of Higherlife Foundation in Masvingo, as the organisation has introduced the use of ICT in the day to day educational activities that take place in the schools. In this chapter the contribution of technology will be viewed using the indicators of quality education to see if any improvements are being noted as a result of ICT project roll-out in terms of learning hubs and Ruzivo.

2.2 Significance of ICT in education in Masvingo through HLF

Information and communication technologies (ICT) have become commonplace entities in all aspects of life. Across the past twenty years the use of ICT has fundamentally changed the practices and procedures of nearly all forms of endeavour within business and governance. Education is a very socially oriented activity and quality education has traditionally been associated with strong teachers having high degrees of personal contact with learners. The use of ICT in education lends itself to more student-centred learning settings. But with the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century ,this was stated by Noor-Ul-Amin in a research paper.

The Government of Zimbabwe embarked on a vigorous introduction of computer education in schools. The whole programme is spearheaded by His Excellency, the President of the Republic of Zimbabwe, who has so far donated over 5000 computers to schools in all provinces as alluded in the National Report On The Status Of Education By Zimbabwe

(2008). Inspired by the initiative of His Excellence, the President, the Ministry and the parent communities through their School Development Committees have also bought computers for schools. The Ministry has also used "Schooling-in a Van" mobile service as an outreach programme to introduce ICT to remote areas.

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research (Yusuf, 2005). A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). ICTs have the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).As Jhurree (2005) states, much has been said and reported about the impact of technology, especially computers, in education. Initially computers were used to teach computer programming but the development of the microprocessor in the early 1970s saw the introduction of affordable microcomputers into schools at a rapid rate. Computers and applications of technology became more pervasive in society which led to a concern about the need for computing skills in everyday life. Hepp, Hinostroza, Laval and Rehbein (2004) claim in their paper "Technology in Schools: Education, ICT and the Knowledge Society" that ICTs have been utilized in education ever since their inception, but they have not always been massively present. Although at that time computers have not been fully integrated in the learning of traditional subject matter, the commonly accepted rhetoric that education systems would need to prepare citizens for lifelong learning in an information society boosted interest in ICTs (Pelgrum, W.J., Law, N., 2003).

As a developing nation, Zimbabwe needs to be part of this new dispensation which entails integrating new ICT processes into the education system. There is little doubt that Zimbabwe's education sector is missing out on the benefits of ICTs. As the country lags

behind in the adoption, use and innovation in ICT, many pupils are losing out on better education and well- paying ICT jobs (Kachembere, 2011). It is because of this that has the third party sector to be interested in the development of the education system of Zimbabwe as it is regarded to be lagging behind as compared to other countries in the region.

The effective use of ICT in education also has the potential to enhance achievement among the pupil through greater collaboration, improved communication and opening of wider opportunities to share information (Victoria, 2011). From a broader perspective, the benefits from advances in ICTs could also mean an acceleration of economic and social development and greater inclusion of isolated, particularly rural populations, into the mainstream of society (Kabanda 2012). In Zimbabwe, ICT in education is not a very widespread phenomenon especially 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.

In Masvingo, the province that is considered to be one of the provinces that have the least pass rates due to the economic stance of the province . This is one of the provinces that are mostly affected by drought because of its geographical location that is associated with high temperatures and little rainfall which is a characteristic that causes drought. Because of the decreasing pass rates and also the backwardness of the province HLF decided to introduce the learning hubs and also Ruzivo in the province , but it is to be put in mind that the whole country of Zimbabwe is benefiting from this project. Due to the shortage of resources in the education sector the HLF education department resorted to learning hubs and RUZIVO.

Computer technology is central to the creation of a global „knowledge -based society‟. Many parents not only in Zimbabwe but throughout the developing world are therefore increasingly getting to realise the benefits of computer technology. According to the

Modernisation Theory adoption of technology is a building block to better quality of life (Moore,nd). The parents understand that not only does the possession of computer skills enhance their children's chances of getting a good job after leaving school but they also broaden their children's intellect horizon. Balanskat (2006) is of the opinion that students assume greater responsibility for their own learning and working more independently and effectively when they use ICT. Diverse learning situations equip students with a range of skills and work techniques thereby developing confidence in their own capacity to learn, this eventually enables them to perform better. Empirica (2006) states that pupils are more motivated and they participate more actively when ICT based teaching approaches are being used in the class. This motivating effect of ICT can be linked to a change in attitudes and a greater involvement in learning activities dialogue and collaboration among students. Use of computers can also promote enquiry and build up the students" interest in the subject leading to child centred and investigative learning. This is because a computer can execute numerous tasks ;it can be used as a science laboratory, a teaching machine, a workbook or a personal tutor. It also draws students into the world of critical thinking (Benzion, 1994, Vaugh ,1997).

Applications like logo and hyper studio are among the most popular and versatile computer programmes that teachers could utilise for teaching and learning. Through drill and practice, critical thinking is promoted and through computer simulation, independent mastery of skills, concept development and the skill of enquiry is enhanced. The word processor can improve pupils writing skills. Spread sheets can promote mathematical skills and playing computer games can assist students learn how to process facts and make logistical inferences while solving a problem that is interesting to them(Grabe and Grabe,2007). The internet is an information gold field and it is newest and most powerful in the world of educational computing (Varron,2011). What makes it so powerful is that it

makes the student freely search for educational material or useful information like online books, journals, periodicals, films and other educational materials making the whole world come to one's door step educationally. The study therefore is important in sensitising the Ministry of Education Sport Art and Culture, the Ministry of Information Technology and Communication and other stakeholders, parents included of the need to lend the necessary support to the education sector with regards to ICT for the benefit of the pupils.

2.3 Application of ICT in Zimbabwe

2.3.1 Teacher to pupil ratio

HLF in the bid to improve the quality of education in the country , mostly in Masvingo province which is the area under study introduced the ICT project in primary and secondary schools. Due to the economic hardships the country was facing the challenge in terms of the availability of teachers in schools as most teachers were opting for opportunities abroad to countries such as South Africa which is the nearest country from Masvingo. Teachers in the province were going to RSA to search for jobs that could curb the unequal rate that had developed between the teacher and students , it was alluded that teachers were now leaving classrooms at any given time to go and do other things that can support their livelihoods as the salaries were now not enough to support them in their day to day running of their lives. UNICEF Press Centre (2008) state that due to the economic crisis in the nation in Masvingo led to frequent teacher strikes over salaries and low school attendance of both students and pupils. For example with only one week to national primary, ordinary and advanced examinations in October 2008, 40% of the teachers did not report for duty (Ranga 2013).

In Masvingo the HLF group in-conjunction with the Econet Group set-up learning hubs at Danhamombe High school which has been regarded as the centre school to many zones in the

Chivi district. The introduction of the learning hub in the school saw the school receiving 12 computers , plasma television , DVD and a generator for the purposes of improving the quality of education in the school as well as to curb with the decreasing number of teachers so that the teacher pupil ratio will be replaced by the computer pupil ratio , that is estimated to be 1: 52 in the rural parts of Masvingo according to the HLF yearbook (2014).

It can be noted that in all the efforts of improving the quality of education HLF's project is not meeting the expected results as the computers are not properly rationalised among the available students in the school. Danhamombe is school that has an estimated number of students of about 1 000 and the teachers are 15 which means the students outweigh the teachers as one teacher has an estimated 66 students to teach. This has not changed by the introduction of the ICT project as the computers are still too few for the school as one computer will be used by 83 students. The efforts of HLF to improve the quality of education in Masvingo is not going as planned as the organisation is failing to provide adequate tools that are properly divided among the students in the schools .

On the Ruzivo learning platform teachers are still the necessity of education and the delivery of quality of education in the education sector. Abbott (1988) states that " teachers are the most influencing factor when it comes to quality of education in the country." Basing on the issue of Ruzivo the teachers are still needed but for the proper delivery of the concepts there is need for teachers that are more enthusiastic about ICT and who know and appreciate the evolving world of technology as alluded by the modernisation theory that supports the integration of education into the 21st century, which is a world of technological innovations. In Masvingo the ICT project that nursed the evolution of computers and internet in the rural parts of the province is not producing results as the teacher pupil ratio is still high and schools , even the ministry is failing to curb for . Students are still high as the school only caters for computer teacher and the rest of the remaining teachers are mostly computer illiterate

although HLF has introduced a facility were teachers can be taught on how to use and appreciate technology , there is still increased ignorance among the teachers as they are used to the traditional way of doing things in the classrooms.

Despite the fact that teachers are a scarce in the nation and mostly in Masvingo province at Danhamombe the need for teachers is slowly coming to an end as the ICT project provides a platform were students can learn for themselves without the need of a teacher to stand in-front of them and tell them what is it they want to teach them. But with the Ruzivo , students are now in control of what is it that they want to learn and also when they will learn the things they want to learn. But, not forgetting the teachers they still play an important role in the quality of education because even if the student has been empowered with knowledge for effective use of the things learnt teachers still have the role of giving explanations and this was a way of improving the quality of education on a debatable scale as it has positives and negatives at the same time.

2.3.2 Textbook pupil ratio

Connectivity in schools allows pupils to have access to the internet, which enables pupils to have unlimited access to information. This is vital in today's learning environment. While textbooks still play an important role in the school curriculum, they are somewhat out-dated as information changes from day to day and the internet always has the current information of what is happening in the world of today. Today's 21st century pupil has the opportunity to be a digital learner, enabling them not to be restricted to the information that has been written in a book or a black-board a long time ago. Because of the world today, where technology dominates the world , it is of great significance that the rural pupils in the remote parts of Masvingo to be given the chance to be a part of the fast growing world.

29

2.3.3 Pedagogy

The pedagogical rationale for promoting ICT in schools is concerned with the use of ICT in teaching and learning. It is intimately related, therefore, to the economic and social rationales, but ICT also has additional application in the teaching and learning process. It provides teachers with a range of new tools to facilitate traditional pedagogies; it also and perhaps more importantly, presents the teacher with the potential to develop new teaching methods. For the student growing up in a culture of all-pervasive technology, ICT provides new, and more exciting and relevant, learning opportunities as alluded by the Department of education and science (2008).

Pedagogy comprises what the teachers do in the classrooms but also their ideas, knowledge and attitude in relation to the learners, the teaching and learning process and the curriculum. There is an increased enthusiasm, knowledge and confidence among secondary teachers as a result of the effective intervention of ICT , the researcher discovered during an interview conducted at Danhamombe to one of the teacher at the school. Agyei and Voogt (2011) and Li and Walsh (2011) reported that more confidence in ICT skills was being recognised among teachers and the level of appreciation has also changed pedagogy . This is a revealing way on ICT that it is contributing more on the quality of education as grades are changing and also the students are more confident in their work , which is a sign of improved quality of education in the province. This is also a sign that ICT in Masvingo is being used to the best of its ability as teachers can now use projectors and teach using information on the internet through screening it on the television and also on the computers, rather than focusing on information that is out-dated and not applicable in the current globalised world.

Researchers' and academics' conceptualisation of pedagogy has changed in tandem with recent developments in our understanding of cognition and meta-cognition (Watkins and Mortimore 1997). HLF helping in advocating for a new pedagogy that integrates ICT in its

day to day running in the education system as tis pedagogy changes the role of teachers and also helps in the studies of the pupils. Masvingo HLF's provisioning of the learning hubs has made it easier for pupils in schools to understand concepts being taught to them by their teachers. Now the students are not only seeing experiments in textbooks but they get the chance to be a part of the experiments although they do not have physical conduct , they have been given the chance to have a visual aspect especially on the cases of Science and Geography. ICT learning hubs are providing a platform that is there to minimise the backwardness of the Masvingo provincial schools mostly those in the rural areas as the learning hubs have been placed in remote parts of the country , in the bid to try and fill out the gap in between urban schools and rural schools. Despite the scarcity of resources in schools , HLF learning hubs have facilitated a change in quality of education that has been in the rural areas of Masvingo. As Hawkridge (1990) alludes that ICT acts as the catalyst in transforming the learning and teaching processes.

But however, ICT's involvement in pedagogy has also contributed to a set of factors that are affecting the provision on the quality of education in the province of Masvingo. In an interview with the DEO of Masvingo province, he stated that the introduction of ICT in terms of pedagogy has been the result of low pass rates in schools. He alluded that ICT in the province has increased the reluctance of teachers as they are now limiting teaching time and they just send students to research on the internet by themselves and not delivering any explanations at the end of the day. This giving students 'half-baked' information , as most of the information on the internet needs someone , a teacher, to break it down for the students to fully understand the researched information. The reluctance and ignorance of the teachers is costing the ministry higher levels of quality education and this being as a result of higher levels of ignorance and also failure to appreciate the modern world, and also the teachers are

using this ICT in their pedagogy as it reduces their work load and gives them time to relax as students will be researching for themselves.

2.3.4 Curriculum development

Learning hubs in Masvingo are supporting the curricular of the nation that was reviewed in 2014 – 2015 by the Ministry Of Primary And Secondary Education (MoPSE) in Zimbabwe, in order to strengthen the country's education system, particularly the primary and secondary education. In Zimbabwe generally , ICT is in support of the STEM programme that was initiated by the MoPSE in the bid of trying to improve the Science produce of the nation. ICT plays a vital role in development as it paved way for long overdue changes in the education system of Zimbabwe. In accordance with the recommendations of the Presidential Commission which stated that the system had to shift to vocational and technical teachings as these are the necessities that were lacking in the education industry and also in the economy. The contribution of ICT in curricular development is of great significance as it helps in dispensation of the changes in a more faster way than the usual one. After the curricular changes had been made the HLF group in-conjunction with the Econet Group created Ruzivo learning platform that has the new curricular and can be used by any one that has access to internet.

For any curriculum to remain relevant to the people's expectations, it has to continue to serve the needs and interests of its beneficiaries (Fullan 1993). In the case of Computer Studies, rural secondary school students are the beneficiaries. The society of today is in a constant state of flux (Konyana and Konyana 2013). It is not static, but is ever changing in terms of value, belief, and knowledge systems, and a host of contemporary pressures that demand change in society. Fullan (1991, p. 3) supported the need for change when he said, "Everything must change at one time or another or else a static society will evolve." The

support for a static curriculum has long been dispensed with in all the progressive societies, though there still remain products of arguments in support of the traditional view of an absolutist stable curriculum as opposed to a relativist curriculum. Based on the on-going argument, implementation of Computer Studies as a subject in rural secondary schools as a curriculum reform or innovation is justified provided it is done in line with these principles of change. However, the tendency in post independence Zimbabwean curriculum reform is that it tends to be piece-meal and spontaneous (Nkomo 1995), resulting in what "pot hole sealing" or what curriculum experts identify as stop gap measures. Curriculum that comes out of such circumstances tends to be disjointed, poorly organised and often lacks proper rationalisation, leading to passive resistance or total "tissue rejection" by the user community.

This is in response to the post-independent Zimbabwean high unemployment rate which was attributed to the failure by the school curriculum to "…reward with opportunities those who went through it" (The Sunday Mail, 15 June 1997). The argument was that the school curriculum was too academic and insufficient to foster total human development. To this end, a philosophy purporting that education needs to stress more skills training in order to address manpower shortages in the technical categories of labour has emerged (UNESCO Monograph, 1994; Ndawi 1997). Thus the introduction of Computer Studies in rural secondary schools is relevant as it further buttresses the integration of vocational training in the secondary school curriculum.

2.3.5 Distance travelled to school

As an indicator of quality education, most schools in the province of Masvingo are far away from each other, which makes it difficult for students to attend school every day. In the district of Chivi under Masvingo province, the schools are approximately more than 10kms away from each other. In an interview with the Masvingo SBU manager ,Mr Shayi, he stated

that the reason why Masvingo was selected to benefit from the ICT project was because of the remoteness of the area and also the economic situation of the province as compared to other provinces such as Midlands. In Masvingo pass rates were dropping rapidly and also attendances were low due to the distances being travelled everyday by the students. Distance education in Ethiopia is used to expand access, adapt education to work conditions, increase teacher competency, improve student learning, reduce educational costs and strengthen human capacity (UNESCO 2004). ICT contributes more than expected in improving the quality of education in the rural areas of Masvingo. HLF Masvingo had the opportunity to pilot the Ruzivo learning platform in the country and it is noticed that during the roll out of the project students received tablets that they could use to connect to the internet and also the e-learning services that are offered in the learning hubs. As much as this project had good intensions, its application in the remote areas like Ngundu, Chiredzi, they do not have electricity and also the network to connect them to the internet. Thus making the contribution of ICT to help boost the quality of education a futile failure , students still need to travel the long distances to find connectivity.

With the good intensions of the HLF Group, ICT can reduce distance in urban settings only as they have the electricity and also the connectivity at their disposal. Using the E-learning facilities students can learn and write tests online and not miss anything because they failed to attend school. The HLF group failed to implement the project to its full capacity so that the contribution of ICT can be noticed in the long-run. Failure to other factors such as electricity not only at the schools but to the areas that have not received electricity. They were suppose to roll out the project in rural areas that had been electrified rather to go to remote areas.

2.3.6 Enrolment

Schools in Masvingo have seen an increased number of students as compared to 2008 when the country was facing challenges. The number of drop-outs in the province had risen too high as students were opting for employment so that they survive. ICT a as way trying to curb with rapidly decreasing number students has contributed more as parents are starting to send back their children to school. Bottino (2003) and Sharma (2003) mention that the use of ICT can improve performance, teaching, administration, and develop relevant skills in the disadvantaged communities. Most students had been removed from school because parents in the rural areas were facing economic hardships more as compared to those in urban settings, so the little they had was very much valuable to them. Using the little they had to send a child to school was not the best option at the moment as they argued that if they send a child to school yet they are starving and when the child finishes school there is no place were he/she would find a job. Many resorted to their up-keep than educating the child, but with introduction of ICT in the Masvingo community and the acceptance and continuous advocating, parents are now sending their children to school again. As alluded by Rostow in his theory that development can only be achieved through the use of technology to inter-link with other parties. ICT contributes more as this gives students the opportunity to share with other students from all-over the world.

Quality of education in the province is going to improve as this integration in the globalised world will mean that students are going to be sharing ideas. ICT contributes to quality education as it raised one of the indicator of quality education although this is can be debated if it is real indicator of quality of education because it has been tested and it failed before when the government had the plan of increasing the number of black students. It only increased the number of literate students but the pass rates were low.

2.3.7 Extra-Curricular Activities

In Masvingo extra-curricular activities have been acknowledged by schools as it acts as a way of relieving the mind from stress and also improving the quality of health. In the education system it is advised that students have to do extra-curricular activities so as to bring out the quality of education. These are activities that include :-

a) Sporting activities

b) Drama club

c) Choir

d) Debate club

These among others , these are groups that are done after lessons and the researcher noted that due to the introduction of the learning hubs in Masvingo, interests of students have shifted from the traditional extra-curricular activities to the more technical activities such as :-

a) Twitter

b) Facebook

c) Computer games such as chess

d) Researching for own personal interest

ICT is contributing more as it is helping the students to be more involved in the activities that are technical which is the country's goal to have a progressivism education system that focuses more on production rather than on activities that are done not to produce any economic gain to the country.

2.3.8 Philosophy Of Education

Progressive education is a pedagogical movement that began in the late nineteenth century. It is a type of education that finds its roots in present experience. Progressivism has the following qualities:-

a) It puts emphasis on learning by doing- experimental learning

b) Problem solving issues

c) Group work

d) Education for social responsibility and democracy

Learning hubs are contributing to quality of education as it promotes progressive education . ICT in the rural areas of Masvingo have seen the application progressive , which was the work of John Dewey who viewed education as a process that should focus on the whole child and he stressed that students must be given the chance to test their ideas by active experimentations. He saw books as the tools that should be used and not as the authority , they are suppose to just provide a guideline and predict the outcome. ICT is the way to go on progressivism education as students that want to become computer engineers are given the opportunity and also other that are in arts field get to know what is done in their respective areas because of the internet.

2.3.9 Infrastructural development

As a indicator of quality of education the ICT programme of learning hubs has not developed infrastructure in terms of classrooms but they occupy those classes that are meant for lessons of a certain subject like Mathematics. Learning hubs are full of furniture that has been donated by the HLF group , these include plasma television, DVD, water dispenser, tables, chairs and computers. These are indicators of quality education in the rise as they facilitate

for the development of the education system that is fully equipped with all the necessary tools for development.

2.3.10 Quality of teachers

Teachers are the basis of quality education in schools as they are the inter-mediator between the students and collected information and the introduction of ICT contributes more to the development of quality teachers in the country. As alluded by Eze and Olusola (2013) :-

> *"Technology has the potential to transform the professional environment for educators. Through the application of network technologies to research and collaborative planning, teachers can break loose from the isolating environments that the teaching profession had imposed on them in the past. Technology impacts not only on the teaching and learning process but also on the ways and opportunities educators learn. The developments in technology influence two important aspects of education. Teachers are members of learning communities; they learn from each other. Exchanging ideas with one another and solving common problems are powerful ways of learning among teachers."*

In Masvingo ICT has played a major on improving the quality of education through the teachers. Teachers at Danhamombe High and those at Gwindigwi High interact through e-learning services provided by the learning hub facility and also they get the chance to interact with teachers and lectures through Facebook utilising the resources available to them for better outcome. During the researcher , it was discovered that teachers are sharing topics that are difficult for them with others and they get hear the views of other teachers and impact those views to the students increasing the pass rates.

2.3.11 Pass rates

Zimbabwe as a nation has introduced ICT in the education system as it is a way that has been tried and tested in the world especially in the western countries. According to ZIMSEC analysis of the 2015 November examinations there was an increase in the pass rates from 82.61% to 87.6% in the A' level examinations and in Masvingo the province recorded 93.1% females pass rate and a 90.4% male pass rate during the November examinations that were written during the year-end. As the schools in Masvingo district recorded higher pass rates as compared to the past years , headmasters in an interview acknowledged the presence of ICT in their schools. Mr Sithole, a headmaster at Danhamombe High alluded that without the contributions of learning hubs the pass rates were going remain low an most probably deteriorate if there had not been made such a project. The school recorded a fall in the O' level examinations of about -1.4% from its previous rate due to the reluctance in the students but in the A' level results they boosted with +4.9% during the 2015 examinations. Thus the contribution of ICT on the quality of education is being seen as pass rates that are indicators of quality of education are being realised.

2.3.12 Free disaster zone environment

As similar to the welfare of teachers , the quality of education can also be noted as there are reduced that are caused by the pedagogy that is being used. In the past, schools have been using chalks and also dusters but this has been replaced by whiteboards and markers and in some schools like in Masvingo , Danhamombe High uses a projector when conducting lessons. This has reduced the number of students that are affected by diseases in their learning environment. Because of the contribution of ICT , class sizes were reduced in Masvingo , Danhamombe from 1:54 to 1:25. The teacher no longer used a lot of energy to teach because of the e-learning material on the internet so class sizes reduce.

2.3.13 Teacher welfare

This one the most important of quality of education in Zimbabwe . Teacher welfare includes the salary , the environment that the lessons are being conducted in and also the lives of the teachers on the job , is the environment conducive enough. ICT has contributed to the attainment of good quality of education. Traditionally many teachers have been admitted in hospitals due to the working conditions in schools and this included the use of chalks, black-boards that produced dust which made teachers cough and some attacked by asthma during lessons. But the introduction of ICT has brought new innovations such as projectors and computers (laptops) which are used to teach pupils in a clean and friendly environment.

2.4 Chapter summary

This chapter was a revelation of how the ICT project of HLF is benefiting the students and also the teachers in the Masvingo province. After post-independence, the nation drifted from the approach of making education accessible to all to an approach that integrates the students into the global world with the help of NGOs like HLF. The education industry has met setbacks in terms of the quality of education because of the economic crisis of the country since 2000. In trying to meet the quality of education like any other state, Higherlife Foundation introduced ICT projects that include the building of learning hubs and giving appropriate furniture. The chapter alludes that introducing learning hubs and Ruzivo in the rural schools of Masvingo has made tremendous changes in terms of the quality of education. ICT has improved the quality of learning environments, pass rates are slowly rising up, health hazards are minimising, the quality of teachers are improving, the pedagogy is now ICT based . but one can note that the quality of education in Masvingo stated in the above chapter is not improving at the rate that was set. ICT has made more changes since its introduction as it links the rural to the urban and more modernised world, thus ICT has proved to be a very effective contributory factor to quality education in Masvingo province.

CHAPTER THREE : MAINSTREAMING THE USE OF ICT FOR THE ATTAINMENT OF QUALITY OF EDUCATION

3.1 Introduction

This chapter is aimed at highlighting what is that can be done by all sectors involved to improve the quality of education in Masvingo and also bring out why ICT appreciation is low in communities.

Although the contributions of ICT are still being noticed and acknowledged , there is still a lot that needs to be done in terms of fully developing a nation of quality education. Many researchers have aired their views on the importance of ICT but in Masvingo a lot has to be done for the attainment of quality education in schools and in communities. The reason why education is improving at a slower rate is because of the lack of knowledge among the community elders. The ministry of primary and secondary education must take into consideration that the way people in Africa receive new ideas is different from the way western individuals receive developments. In the African community there is the top-down approach that is recognised by all people. This is an approach were elders are the leaders of the communities and every development that happens in a community is firstly approved by the elders.

For ICT to be recognised as a game changer in education , there is the need for clarity on the ICT policy of Zimbabwe which means the government should also act in a manner that encourages ICT. The policy is not well-known among most people which makes it difficult for people to accept it when introduced to them by NGOs.

3.2 Demerits and merits of ICT

In terms of ICT in Masvingo the main reason why its dissemination is failing to produced quick results is because elders in the community see the introduction of ICT as Neo

Colonisation, as alluded by Julius Nyerere . They believe that using the modernisation approach to develop is form of colonisation by the western countries. There is the need to teach the communities advantages are seen through ICT and how it contributes to their children's educational uplift. In the MASVINGO province a survey done by the HLF group shows that elders are ones that are discouraging students to participate in activities that involve computers, and because children are obliged to listen to their elders they tend to develop negative attitudes towards ICT in schools.

Mainstreaming ICT is a difficult thing to do in communities because of the abuse by students when using ICT. During an interactions with one of the teachers at Danhamombe, she said that the learning hubs lack strict supervision which is now making students to miss behave as some have been caught watching pornography. For learning hubs to contribute effectively to the education system of Masvingo there is need for supervision and also hub assistances should lock the computers so that they can not access some websites. Due to this abuse of innovation, elders do not see the contribution of ICT as a good thing but one that is now leading to moral and cultural decadence. The researcher advices the HLF group to conduct campaigns through the rural communities of Masvingo so that they stop seeing ICT as a way of colonisation but as a development strategy that will help link the worst areas of Zimbabwe to the most advanced areas of the world. The reason behind this wrong conceptualisation of ICT among students is because there was little knowledge delivered to them when learning hubs by ICT were introduced which is now leading to the negative contribution.

Furthermore, ICT contributes to GDP of the county, in Masvingo remittances that are flowing in are coming from people abroad that effectively used ICT to their advantage. Through ICT opportunities of jobs in other countries is made readily available to the people. Most of the students that are in Masvingo are having their school fees paid by relatives in South Africa which is enhancing the quality of education by increasing the enrolment numbers.

42

3.3 Recommendations to HLF

➢ The foundation should train teachers more on why it is important to acknowledge ICT in classrooms and how they can use it to deliver lessons . during the course of this researcher it has been discovered that some might call it ignorance that is making teachers deduce ICT but it is because they do not know how to put it to effective use.

➢ Build blocks which are well ventilated that will be used as learning hubs and not to base on the already available blocks at schools.

➢ Survey on the number of students that are at a certain school, to see if the numbers are going to be proportional with their resources (computers, desks, chairs and also the cooling system) as this reduces conflicts among teachers and students also as this leads to conflict.

3.4 Recommendations for schools in Masvingo

➢ Schools must work out modalities to ensure that all students benefit from the available computers.

➢ SDC's must also be involved as they are the leaders of the schools and they drive the development of the school.

➢ Acceptance of ICT in the school as this is the only way that can change the pass rates of the schools without compromising much.

3.5 Recommendations to the government

➢ the government should turn its focus from computerising schools but firstly meet other demands that are the need for electricity in the rural schools. The government should work in collaboration with ZETDC and REA so as to quicken the electrification process in schools.

> Training of computer studies teachers is mostly needed as there is a shortage . only one teacher's college that is Mutare Teacher's College is the only one that has been set to teach the subject. Also there is the need to increase the number of ICT teachers in rural areas be it temporary teachers those that are coming from technical college to help in impacting the students with the knowledge of ICT in Masvingo.

> The government has to strengthen its relations with the NGOs such as HLF in order to hear their views and concerns and also in the ICT policy formulation that is favourable to their needs.

> Increase the infrastructure that is adaptable to the world of today and encourages the use of technology.

3.6 Chapter summary

ICT is a good initiative that was introduced to the community of Masvingo rural and its contributions in the society are highly recognisable. Positive attributes are being seen in the educational sector but negative impacts in the society at large as ICT is being abused by the people that are benefiting from it. ICT is changing the way education is also the lives of people are transforming because of the innovation. Although the transformation is visible there are still so important aspects that need to be changed and addressed so that a complete change and improvement in the way people are taking in the new innovation of learning hubs.

3.7 Conclusion

ICT has made tremendous improvements in the way education is being perceived in the country. In Masvingo a lot has changed since independence , new reforms have been put in place to try and meet the demands of having quality education. As compared to the way indicators of quality education were before the contributions of ICT were recognised in the

education sector. Things like teacher welfare, pass rates, learning environments, pedagogy have since improved since the introduction of learning hubs and Ruzivo in the system. Once these indicators have improved this shows that the quality of education is changing for the betterment of the nation. Learning hubs in Masvingo are not only meant to make the education sector a success but it is also a way of improving the economic situation of the nation as this is a way of creating human capital that is more than educated but also competitive in the industrial market as the world is now lining on the integration approach. In the research ICT does not only bring good to the communities but it is playing a role of destroying the norms and values of the African community as people are now using ICT as an advantage to integrate into the ways of the western nations. Despite all the bad , in terms of education ICT is the way to go when it comes to quality education in the country and it is advised that the programme move as it has brought about success stories in the education industry.

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Appendix 1 : Questionnaire for Higherlife Foundation Masvingo

1.   What are learning hubs in the context of learning and teaching?

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2.   What was the reason behind the introduction of ICT learning hubs?

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3.   Learning hubs and Ruzivo are learning ICT products, what exactly do we expect to see on this platforms?

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4.   Most of the schools that have benefited in Masvingo are rural-based schools. What the selection criteria used and why?

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5.   In those the few selected schools, is there a selection process on who is going to benefit from the project?

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6.   Seeing how people are embracing ICT , is Higherlife Foundation going to continue with the computerisation of rural schools?

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7.   Has the introduction of learning hubs brought tangible results (statistics)?

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8.   What is it that makes ICT the solution to quality education in Zimbabwe

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9.   Are there any projects that are ICT based that are to be rolled out in the future?

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Thank you

Appendix 2: Questionnaire for Danhamombe High School

1.   What is your understanding when it comes to ICT in schools?

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2.   Is ICT at your school being accepted by teachers

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3.   How are students responding to this innovation that has been brought to this school through Higherlife Foundation?

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4.   In terms of the quality of education that has been there at the school before the introduction of ICT ,can you help by summarising it?

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5.   Has ICT helped in improving the quality of education at this school and how has that happened?

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6.   To use the learning hub resources what is the criteria that has to be met?

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7.   What is the response of teachers, when it comes to using ICT in their pedagogy?

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8.   Is using ICT an good thing or it has brought unnecessary changes in the education sector?

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9.   Can you encourage the Higherlife Foundation to continue with their project to other schools?

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10.   What do you want the organisation improve when it comes to rolling out learning hubs and Ruzivo in schools?

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Thank you

Appendix 3: Interview Guide

Interview guide for the DEO of the Ministry of Primary And Secondary Education in

Masvingo Province

1.   What is the main aim behind ICT introduction in schools?

2.   In trying to globalise the country is ICT the appropriate approach?

3.   The government has introduced a lot of reforms and strategies, why is it they failed to recuperate the quality of education in Masvingo?

4.   What has been the stance of the province in terms of pass rates before the introduction of ICT and after it had been rolled out?

5.   Why is it , the ministry thinks that ICT can improve the quality of education in Masvingo?

6.   Since the introduction of learning hubs in the province, what changes has the education sector noticed?

7.   What is it that can be done by Higherlife Foundation to improve their service delivery of the ICT project?

Thank you