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FACULTY OF EDUCATION

DEPARTMENT OF APPLIED EDUCATION

**AN ASSESSMENT INTO THE CHALLENGES FACED BY STUDENTS IN THE USE OF
INFORMATION COMMUNICATION TECHNOLOGY (ICT) AT PRIMARY LEVEL**

BY

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APPROVAL FORM

The undersigned certify that they have read and recommended to Midlands State University for acceptance of this research study entitled:

AN ASSESSMENT INTO THE CHALLENGES FACED BY STUDENTS IN THE USE OF ICT AT PRIMARY LEVEL

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In partial fulfillment of the requirements of the Bachelor of Education Degree in Computer Science

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Date.....

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Date.....

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DEDICATION

This project is a special dedication to my husband Benedict Betera as well as my daughters, Yvonne and Vanessa Betera.

ACKNOWLEDGEMENTS

I would like to give honor to the Lord Almighty for his grace and mercy throughout the course of this study.

Secondly, I would like to extend my sincere gratitude to my project supervisor, Mr. T. Mugodzwa, who was patient and ready to help me at all times. His guidance and encouragement throughout all the phases of this research is at this moment worth mentioning.

I would also like to thank all the participants who participated in my research study. Their contributions were valuable. To all the school heads in cluster 5- Glenview Mufakose District, I thank you for allowing me to carry out my study in your schools.

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Abstract

The study assessed the challenges faced by students in using Information Communication Technology (ICT) at primary level. The research was carried out in Cluster five of Glenview Mufakose District in Harare. In order to get an insight on the challenges, different authorities were reviewed. The descriptive survey design was adopted in this study. Probability and non-probability sampling techniques were employed in order to select participants in this research. Five teachers, twenty pupils, 5 heads and ten parents were used as participants. Data was collected through the use of questionnaires, interviews and observations administered in five schools. The findings of this survey showed that, a wide range of ICT challenges hinder its efficient implementation. These include; gender inequalities in relation to how ITC tools are used in schools and at family level, shortage of ICT equipment, infrastructure, lack of trained teachers and inadequate time to teach practical lessons. However, possible solutions to these problems include; holding awareness campaigns in schools so that teachers and parents are educated on how they empower the girl child so that they have confidence in using ICT gadgets. Schools must acquire ICT equipment, build computer laboratories and more ICT teachers should be trained to teach ICT at primary level. It was recommended that teachers must do away with gender stereotypes in the field of ICT. The government must prioritize the acquisition of ICT equipment for schools and training of teachers in ICT.

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CHAPTER 1

INTRODUCTION

1.0 Introduction

The chapter sought to give an introductory overview on the scope of this study which focuses on the challenges faced by students in using ICT at primary level in cluster five of Glenview Mufakose District in Harare. The background information on the challenges is well explored in this chapter. The statement of the problem, research questions, objectives, significance of the study and assumptions are also outlined in the chapter.

1.1 Organization of the study

The research study is organized into five chapters. Chapter one introduces the problem to be studied. Chapter two focuses on the literature review. The researcher explored what scholars say about the problem under study. The problem will be defined and expanded. More content and background of the study will be included. Chapter three deal with the methods and procedures for data collection. The researcher explained the research design, ethical considerations, and population, sample and sampling procedures. The instruments for gathering data such as questionnaires and interviews will be discussed. The methods and procedures for data presentation and analysis will be explained using tables, words and data presentation techniques. Chapter four deal with the presentation of the results. Tables and graphs were used to present the data and then the data will be analyzed. Chapter five is the last chapter where the

researcher summarized the findings of the study. Conclusion and recommendations of the study were stated.

1.2 Background of the study

In recent years, Zimbabwe is one of the countries which has adopted the use of ICT in education. The emphasis on learning about information communication technology is on the increase. In this regard the research sought to assess whether the development has the same meaning and consequences for all pupils. Pupils differ in their attitude and experience towards ICT. Pupils' background plays an important role on how they use ICT. At home do all pupils have equal access to ICT? Research shows that girls and pupils from poor background are two groups who need special attention when it comes to access to ICTs (Sulton, 1991, Volman and Van Eck, 2001)

A study by UNDP in 2012 noted that ICT is of paramount importance to national development. This is why the Zimbabwean Government sought to introduce computers in the education system. Zvobgo (1990) stressed that Zimbabwe hugely invested in education, especially in ICT in the early years of independence because it was seen as a prime mover to national development. To support the above, the Ministry of Primary and Secondary education circular number 3 of 2006 stipulates that schools should offer Technical and Vocational subjects to students and one of them is computer studies. Our President Comrade Robert Gabriel Mugabe is among people who want ICT to be developed because he went about distributing computers and ICT equipment in schools across the country.

The general situation relating to gender and information communication technology has however been dominated by men, and women are largely excluded. There are also differences between

boys and girls on how they evaluate their own computer skills and self efficiency on how they perform differently in ICT related tasks. Males are reported to have wider computer experience than females (Broos, 2006).

Students' motivation can be improved by the use of ICT in the teaching and learning situation. There are different factors that hinder students from accessing ICTs at home and school. These include the way children are socialized and their socio economic background (Passey 2004). These factors can lower students' levels of access to ICT.

In schools, the way ICT resources are allocated plays an important role in the way students access and use ICT gadgets. When there are few computers at school, if boys are not monitored they tend to run and occupy the few machines. If they sit on the machine they do not want to leave until the lesson is over. The girl child will therefore be disadvantaged and they end up losing confidence in themselves. There is need for schools to ensure that there are enough ICT gadgets in schools to make sure that all pupils have equal access. This study therefore sought to assess the challenges faced by students in the use of ICT at primary level.

1.3 Statement of the problem

Students are having problems in the way they access and use ICT. Given this scenario, it is necessary for this study to look into the challenges faced by students in the use of ICT at primary level.

1.4.0 Major research question

What are the challenges faced by students in using ICT at primary level?

1.4.1 Research questions

1. Do both girls and boys have the equal access to ICT gadgets?
2. What can be done to promote gender equality in computer lessons at school?
3. What infrastructure and equipment is needed to enable pupils to use ICT without problems?
4. Do we have enough time allocated to teach the subject?
5. Do we have enough trained personnel to teach ICT?

1.5 Research objectives

1. To investigate whether students are treated the same in accessing ICT gadgets.
2. To find out what can be done to promote gender equality in the teaching of computers in schools.
3. To determine the infrastructure and equipment needed to enable pupils to use ICT.
4. To assess the time allocated on the timetable to teach ICT per week.
5. To investigate whether there are enough trained teachers to teach ICT.

1.6 Purpose of the study

The rationale behind carrying out this study was to lay down a sound and comprehensive framework within which to deal effectively with problems faced by students in using ICT at primary level. The study is aimed at identifying gender issues and other problems in regard to the use of ICT in schools.

1.7.0 Significance of the study

According to Bless and Smith (1997), any research should be useful in people's lives. The researcher hopes that the research will be helpful to teachers and other undergraduate students. In this case the study would benefit and provide enlightening information to teachers and undergraduate trainees in the Faculty of Education at Midlands State University.

Teachers

The teacher has an educational obligation of helping children to develop an understanding of ICT skills. The use of ICT helps to make teaching easier by reducing the work load of the teacher. Thus ICT can enhance teachers' efficiency and enthusiasm. In this regard the teacher is equipped with skills to deal accordingly with both girls and boys in using computers. It can also encourage teachers to plan their work effectively and help them to adopt child centered approach.

Undergraduate students in the Faculty of Education

Under graduate trainees who will have access to this research will be helped to carry out their research projects by making reference to this research.

1.8 Assumptions

Ary (1990) says that any research should have assumptions which are in line with what the researcher wishes to investigate. Concurrently, Cohen and Marion (2011) assert that without appropriate assumptions a researcher will end up with information which is not of any use. With the view of coming out with authentic results, the researcher assumes that,

- Pupils can use the internet to research on given topics.
- Both boys and girls have access to ICT gadgets at home and at school.
- Pupils can play educational games on the computer.
- Can solve mathematical problems using a computer.

1.9 Delimitations

Leedy (1997) is of the view that it is important to demarcate a research in terms of specifically and physical area in which the research is being carried out. The geographical area covered in this study is cluster 5 in Glenview Mufakose District in Harare. The respondents will be the school heads, parents, pupils and teachers.

1.10 Limitations

A number of constrains were encountered by the researcher during the process of conducting this study. Time span in which the research was carried out was strained with the need to balance the time slots with other courses running concurrently with the research. Financial costs involved in transport, typing and printing questionnaires limited the number of participants. However, to reduce typing and printing costs, the researcher typed the whole project for herself and only paid for printing services.

1.11 Definition of terms

Hubbard (1992) says that some key terms in the research titles may confuse the reader of the research, if they are not explained. In this research the following terms are defined as follows:

Information Communication Technology (ICT)

Makhanu (2010) defines ICT as the use of computer based information systems and communication systems that process, transmit and store data and information. ICT also refers to computing and communication facilities and features that support teaching and learning in a variety of activities in education (Shumba, 2000). It implies that ICT describes exciting and innovative ways to provide lifelong learners with global access.

Challenge

A challenge is a difficulty or a struggle with something as a test of one's ability. In this regard therefore children will be convinced to perform an action they otherwise would not.

1.12 Summary

This chapter highlighted the skeletal framework of the research study. It encompasses such facts as the background information to the problem, the objectives of the study, the nature of the problem, assumptions, limitations and delimitation and definition of terms. The next chapter's thrust is to review what other authorities say about the topic under study.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

The chapter was mainly concerned with highlighting what other authorities say about challenges faced by students in the use of Information Communication Technology at primary level. The responses of various individuals and institutions responsible for ICT and Gender related issues are going to be looked at. Therefore the chapter looked at the definitions of terms, gender and ICT, gender inequalities and equalities and ICT in schools, theoretical framework and factors that hinder ICT in schools.

2.1 What is ICT?

Wajcman (1991) defines information as processed data using technology. Technology is also defined as practices and activities by human on physical objects like cars and computers and communication is the process of sharing information. Anyakoha (1991) also defines information technology as the use of artificial tools in recording, generating, collecting and communicating information.

Information Communication Technologies are communication equipment that have improved and modernized the exchange of information and ideas across the globe. Taimiyu (2003) describes ICTs as a broad name used to refer to a number of communication hardware used in disseminating information across the world. ICTs have eased the exchange of written information, pictures and videos across distances. In education, Information Communication

technology is making work easier for educators and learners since sharing of information is quick with the use of ICTs.

Tiemo (2006) says that technology is divided in two categories which are telecommunication and computing. Technologies include computer system, internet, mobile phones and fax machines to list but a few. The technologies are as follows:

- **A computer** is an electronic gadget used to intake data, process it and output it as information. Madu (2000) say computers can be used in schools, offices and at home to accomplish a variety of applications and tasks. Fapohunda (1999) list uses of computers as follows: writing letters, recording information, drawing, calculating, sending messages playing music, watching videos and playing games. This therefore means that a computer is a machine that can perform many tasks and can be useful to the new generation since it makes learning easier for them. Computer assisted instruction are used to enhance learning. These assist learners with difficulties in different areas through tutorials.

- **The internet** is a collection of computer networks linked together globally. Devices that are connected can share information. This therefore means that the internet is a communication channel for electronic messages. In the education context the internet can be used for research and communication purposes via E-Mails and instant messages (Adesanya, 2002). Eseyin (1997) describes internet as a combination of many services. The most commonly used are the (www) World Wide Web and Electronic Mail. In education the internet makes the process of teaching and learning easier because learners and educators can research on various topics on the internet.

- **Mobile phones** are a telephone system that can be moved from place to place (Bitter, 1989). Mobile phones are at present the ICT that is reshaping and revolutionizing the communications worldwide. In the Zimbabwean context the minister of Primary and Secondary Education (Honorable Dokora) is supporting the use of mobile phone at school. Pupils are now allowed to use phones for research purposes and communication at school.

Information communication Technology can be of benefit to both boys and girls if properly implemented in schools. Nowadays it has become part and parcel of everyday life for many people. It is of paramount importance to ensure that both boys and girls have access to ICTs.

2.2.0 Gender and Information Communication Technology

According to Haralambos and Holborn (2004) gender refers to human traits linked by culture to each sex. Gender is what the society makes out of being male or female. In other words it refers to social and cultural constructs that societies assign to values, characters and behaviors attributed to males and females. The basis of these constructs lie behind the idea that they are natural and they cannot be changed. According to Mlambo (2005) gender constructs are shaped by religious, ideological and historical determinants. The constructs are translated into social and political inequalities where men's activities and their gender attributes are perceived as essentially superior to woman.

With the issue of technology it is argued that most women do not actively participate in ICT. There seem to be a matter of concern since most of the women are technophobia and the issue

has a great link with how children are raised (Mlambo, 2005). It is also critical to note that the world is increasingly becoming dominated by technological gadgets with many nations making use of it. Therefore the issue of gender has to be dealt with, especially how children are raised.

According to Mlambo (2005), women face additional circumstance usually referred to as the 'gender digital divide'. Digital divide refers to the discrepancy between those who have the skills, knowledge and abilities to use technologies and those who do not (James, 2007). It implies that there are disparities between those who have access to technology and those who do not have. In this context, men have the ability to use technologies and women do not have.

Cottes (2003) explains that much persistent gender –structural inequalities constitute barriers to women's access, such as education, traditional cultural beliefs and practices and economic inequality. Usually it is the wider socio-economic and cultural context that accounts for constant barriers to women's access to and use of ICTs. In societies, in general boys and girls are treated differently by adults from the time they are born. Adults, encourage submissive and social behaviour in girls and active independent behavior in boys (Mlambo, 2005).

Society, cultural values and beliefs are responsible to a certain extent for negative attitudes towards women a factor which maybe a stumbling block not only to their advancement but to national development as a whole. These social processes and structures which oppress women are reinforced by sexist and patriarchal assumptions in our culture and language. A woman is identified with something that culture fails to recognize and defines as being of a lower order of existence than itself. That's why women have never shared the world equally with men and have been largely been deprived of certain basic benefits like education, which is a necessary tool for one's development (Mlambo, 2005).

The issue of gender and ICT is a matter of concern across the whole world. However in developed countries the situation on the ground is as follows:

2.2.1 ICT and Gender in Developed countries

Incorporating ICTs into the teaching and learning situation has become an important issue in developed and developing countries. The issue of gender and ICT is a global issue but the gap is narrower when it comes to developed countries like China and Britain. Brosnan (1998) says that even if they are afforded the chance, females are less interested in using computers.

A research carried out in China and Britain by Kirkup (2007) showed that more men frequently use the internet than women. British girls however, use the internet at the same rate with boys. The issue of language is a barrier to Chinese girls from using the internet because most of the sites are in English. According to Kirkup (2007) both British and Chinese students showed confidence in the use of computers because they are exposed to them at a tender age. In both countries computers are regarded as a household gadget. Both boys and girls have the equal access to them.

In Britain computers were introduced in schools in the 1980s and they are compulsory to every student (Somekh, 2000). The gender gap in the use of computers has since been narrowed in developed countries. In Britain both males and females are well versed with the use of application software like word processing, presentation and excel. Chinese students are on the other hand good at programming and computer architecture. Both sexes have confidence in these areas since they are compulsory to all students. In China each student should have knowledge of

at least one programming language. It is reported that the gender gap in the use of ICT no longer exist with the younger generation in the country (Kirkup, 2007).

The introduction of ICTs into education has been a key element of the United Kingdom government policy since around 1980 (Somekh, 2000). According to McMahon (1997) the UK higher education was spending up to one billion pounds a year on ICTs by the end of the 1990s. Students and educators were and are still encouraged to learn and teach through online courses, generate and collect information by accessing list serves, computer conferences, news groups and high quality websites and communicate electronically (Kirkup, 2007). In the UK, the use of the internet has become part of students' daily lives.

2.2.2 ICT and Gender in African Countries

According to Hajara and Mustapha (2013), in Nigeria gender difference in ICT is linked to patterns of discrimination in the society and power relations within the family. Jensen (1997) says that of all the people who are riding the information superhighway, only ten percent are women. In line with the same thought, Okunna (2000) cites that, this is twenty first century but traditional, cultural and religious factors continue to widen the gap between men and women. Moreover, in many parts of Africa high female illiteracy rates mean that women have little access to ICT. Most of them could hardly watch television due to many obstacles, like caring for the children.

The barriers to the use of ICT for women are a global phenomenon (Hajara and Mustapha, 2013) but it is more obvious in developing countries. Africa has various problems such as poverty, and high illiteracy among others. These problems faced by African women are the same problems

faced by the girl child. Women and girls are characterized by low self esteem in Africa because the society consider them as inferior or unimportant as compared to their male counterparts (Okunna, 2000)

The field of science and technology has been flooded by men because the area is regarded as difficult and is considered suited for men not women. The observation that women are poor in science and technology is often attributed to biological limitations of women, rather than to gender stereotypes in education materials and teaching approaches and technological designs that contribute to gender gap in ICT use in Africa.

2.2.3 Zimbabwean perspective

CERI, (2010) revealed many aspects of ICT related articles to gender, propounding that men are dominating in the field while women are left behind. This on its own implies that the ICT field is not that gender balanced. Especially when focusing with our own country Zimbabwe women are lagging behind when it comes to issues of ICT and other areas of technology.

Jirira (1998) argues that, women as mothers are also socially conditioned, through socialization to prepare their male children for this future role, a role unfortunately that will sooner or later contribute to the subordination of their daughters. The developments in information technology affect men and women differently. Hence with our society which has its roots of patriarchy, it leaves women and men socialized in different areas of specialization. In Zimbabwe, the girl child is socialized to accept her subordinate position.

In Zimbabwe a computer is found to be not easily accessible among women. In most cases technology is first introduced to male members of the family. This shows that boys are given the first priority over girls. Sisters are taught how to use the computer by their brothers. The Gender

working group (2000) states that women are largely absent from the realm of what counts as technology. This means that there is general assumption that women are essentially users and not producers of information. This explains why women have limited usage of computers.

However, the Zimbabwean Government is busy amending laws which are gender insensitive and replace them with gender responsive laws. According to the Gender Policy Document (2013, p.17) one of its objective is to “promote equal access to ICT by boys and girls, men and women.” This clearly shows that our government wants to make sure that both girls and boys to be treated the same when it comes to the teaching and learning of ICT.

The provision of ICT resources to the education sector is another development which shows that Zimbabwe is concerned with the use of technology in schools. The development of the ICT policy in 2005 promoted the use of ICTs in schools (Isaacs, 2007). The Nziramasanga Commission also recommended the use of computers in teaching and learning in schools.

However, some schools do not have the resources, some have inadequate resources and this becomes a challenge to pupils. For the schools that managed to acquire the equipment, some are not putting them to good use since they lack the skills. This becomes another problem in use of ICT in our country.

2.3.0 Gender equality and ICT in schools

Gender equality is affording males and females the same opportunities, same valuation, control of resources and enjoyment of rights (Mawere et al, 2011). In schools we should be able to answer the question; does it apply to a girl as it applies to a boy? In ICT therefore boys and girls

should be treated the same. Lips (2003) say gender equality refers to equitable relations between males and females. It is based on the notion that people are equal in value, regardless of their sex.

2.3.1 Equality in accessing ICTs

This is when boys and girls are afforded equal opportunities in education. ICT resources should be shared equally by boys and girls. Attendance of boys and girls should be monitored (USAID, 2008). In Zimbabwe when there is a problem at home, girls are disadvantaged as they are asked to take care of the young ones and their boy counterparts will be going to school. According to Stefanova, USAID (2005) the following are interventions that can be done to ensure access is achieved;

- Raise the awareness of parents on the rights and responsibilities in education and the importance of ICT to both girls and boys.
- Form girls' committees in schools where teachers educate the girl child that they are capable of taking subjects like computer studies and encourage them to experiment with the computer rather than seeking guidance all the time.
- Give more time to ICT so that children can learn more.
- Forming computer clubs in schools where children can be educated on the importance of computer studies (USAID, 2005).

2.3.2 Equality in the learning process

Girls and boys should receive same treatment in the teaching and learning situation. Teachers should use same teaching methods for all the children. The classroom environment should be

friendly and free from discrimination (Young, 2002). The following are interventions to ensure equality in the teaching and learning situation;

- Train teachers in gender awareness so that they will be gender sensitive. Gender sensitivity is when one is able to read issues of gender. (Mawere et al 2011).
- Ensure that there is safety in computer laboratories. Pupils should share the available machines without quarrels. Boys should be monitored so that they are not violent.
- Teacher pupil interaction should be free from gender bias.
- Avoid streaming pupils basing on gender stereotypes, for example boys are streamed into science and technology and girls are streamed into humanities (Gwirayi, 2010).
- Teacher should use child-centered learning where pupils are active participators in their learning.

If there is gender equality in the teaching and learning of ICT both girls and boys receive maximum benefit and this can develop them cognitively.

2.4 Gender inequalities and ICT in schools

Boys and girls differ in their use of ICT at school and outside. There are also differences in how they use it for educational and leisure purposes. Hayward et al (2003) say that there is a slight difference in ICT activities undertaken by boys and girls at school. The differences that exist are due to the fact that boys spend more time playing computer games after lessons hence they do not use computers during lessons only. However, Becta (2008) suggests that when boys and girls are given options of application to use in class, boys tend to favour database and file

manipulation and the internet and girls like communication, photo and publishing software. This therefore shows that girls prefer social uses of computers at school and at home.

ICT can motivate both sexes but boys are motivated more because of their high levels of access to ICT activities that are competitive in nature (Passey 2004). Volman et al (2005) alluded to the fact that different approaches used by boys and girls in working with ICT, boys would rather try out things for themselves whereas girls preferred to have clarification before starting ICT activities. Boys are interested in experimenting with computers and other ICT gadgets hence they are more exposed to them than girls. Hayward et al (2003) also say that the bulk of boys and girls like to use computers but boys are motivated more than girls.

However, in Becta's Harnessing Technology schools survey (Kitchen et al 2007) primary and secondary school teachers agree that ICT inspire boys positively and the gap is greater as they grow (Sanders 2005, Volman et al 2005, Christensen et al 2005) agreed that girls are less interested as they turn out to be older. Young girls are also not interested and this is caused by the way they are socialized (Passey 2004). The way the girl child is socialized at home may lead to lack of interest in computers.

Haralambos and Holborn (2004) define socialization as the process of transmitting norms and values to a human child. This is a process where young boys learn to be man and young girls learn to be woman. This process is primarily done at family level and secondary socialization is done at school, media and at church. Giddens (2009) say that early socialization has a role in creating gender difference in the family. This therefore means that the inequalities start at family level.

Balantine (1997) alluded to the fact that boys are usually given Science and Doctor's kits which help them to maneuver the environment. The toys given to boys help them to develop scientific skills. Lack of ICT toys for girls could be a restrictive factor in motivation that girls have at early ages. Girls are normally given dolls and utensils as toys and these socialize them to be house wives which lead to lack of interest in science subjects.

Girls are also affected by the existence of stereotyping in relation to gender and ICT, these affect girls' confidence. This, according to Copper (2006) become self reinforcing; girls learn that computers are for boys and this lead to them having a negative attitude and poor performance. Their bad performance will then be taken as evidence that the stereotype is true. Gender stereotyping may be done unconscious but it can however be unsafe for the children. A variety of teachers express commitment to equality (Sanders 2005) but those who think that girls dislike ICT are found to give more attention to boys when using ICT in the classroom.

The context in which ICT is being used in schools is of paramount importance. Copper (2006) say that when boys and girls are together in working with ICT, boys can have a negative impact on girls' performance. Boys tend to perform better in mixed sex class and girls perform better when they are in the same sex groups.

Early education software is also in support of boys than girls. It promotes the thought that ICT is associated with boys than girls (Aubrey and Dahl 2008). Cooper (2006) cited that ICT is used to raise boy's attainment and the design of educational software that are geared towards game like characters. Competition and goal scoring is associated with boys and girls are better in word processing.

Moreover, girls tend to have lack of confidence when it comes to ICT. This becomes a challenge to them during computer lessons. Faulkner (2002) says that girls' confidence with ICT is lower than that of boys. When they fail in computer activities, girls blame themselves and when they succeed they think that they are luck and it's not due to their skills (Cooper 2006). Boys are confident when it comes to the use of ICT, when they do not succeed in accomplishing an activity; they do not blame themselves but the machine. Males are reported to be more capable of dealing with high level skills like downloading games, music, and software (Broos, 2003 and CERI 2010). Boys are also reported to have wider computer experience and they have positive attitude towards computer activities. However this does not necessarily mean that girls' skills are lower than that of boys (Sanders 2005). Research shows that girls are good but they tend to under-estimate their ability.

Socio economic background is another factor which affects both boys and girls in the use of ICT. Volman and van Eck (2001) cited that lower economic status relate to lower levels of interest in computers for both sexes. However, girls are affected more because of gender roles they play within the family. Girls are most of the time given household chores like cleaning and cooking. Boys are assigned duties like mending punctures on bicycles and fixing radios and television. These duties widen the gender gap between boys and girls. Besides the issue of duties, if the family's financial status is low, parents tend to give first preference to a boy child when it comes to ICT gadgets. Most of the time boys are given phones of high quality while their girl counterparts do not have.

In some instances both boys and girls are affected because some families cannot afford to purchase phones for their children. These children will be introduced to ICT for the first time at school. These children are more likely to have challenge in their use of a computer.

At home there is a noticeable difference in how boys and girls access ICT. Girls are more likely to have no access to computers or to have limited access to computers but boys have uncontrolled access to ICT. A boy can spend the whole day playing computer games and no one would deny them. Unlike their girl counterparts, they are not allowed to be seated for a long time playing with the computer.

2.5.0 Factors that hinder ICT in schools

Both boys and girls have some challenges in their access to ICT in schools. There are a number of constraints that hinder children from using ICT in schools. These include; lack of trained personnel, infrastructure, lack of equipment, social and cultural issues and financial resources.

2.5.1 Lack of trained personnel

Various researchers noted that there are few teachers who have specialized training for ICT in primary schools. One finding of Pelgrums' (2001) study was that there were not enough training opportunities for teachers in the use of ICT in a classroom environment. A research in Turkey found that the main problem with the implementation of new ICT in education was the insufficient amount of in-service training programs for teachers to use ICT (Ozden, 2007). This is a challenge that hinders both boys and girls in the use of ICT because teachers are supposed to be role models but most of them are unable to use a computer.

According to Becta (2004) the issue of training is certainly complex because it is important to consider several components that ensure the effectiveness of training on the use of ICT in the classroom. The reason why our children are failing to use ICT is in the weakness of teacher

training in computers. Teachers are still using ancient methods of teaching instead of taking advantage of the modern technology. Emile Durkheim cited in Haralambos and Holborn (2010) point out that economic training is necessary to ensure society's survival and well being. He also stressed that the education system needs to provide skills training ranging from those involved in caring services to those involved in high technology and to match the global needs of society.

Becta (2004) says that it is important to have computer application training for teachers rather than simply training them to use ICT tools. Cox et al (1999) researched on teachers who attended professional courses in ICT and noted that they still did not know how to use ICT in their classrooms; instead they just knew how to run a computer and set up a printer and browsing the internet. The researcher explained that this is because the courses only focused on teachers acquiring basic ICT skills and often did not teach them how to develop pedagogical aspects of ICT. The view above is also supported by Balanskat et al (2006) who stressed that inappropriate teacher training is not helping teachers to use ICT in their classrooms and in preparing lessons. The researchers assert that this is because training programmes did not focus on pedagogical practices in relation to the development of ICT skills.

Some initial training is needed to enable teachers to develop appropriate skills, knowledge and attitudes regarding the effective use of ICT in schools (Newhouse, 2002). He pointed out that teachers require continuing provision of professional development to maintain appropriate skills and knowledge. According to Newhouse (2002) teachers need not only to be computer literate but they also need to develop skills in integrating computer use in their teaching and learning process. Teachers need training in ICT education and educational training. Albrini (2006)

stressed that teacher education play a significant role in providing opportunities for experimentation with ICT before using it help them teach pupils in the classroom.

To curb this problem the Government of Zimbabwe with the help of UNICEF has started to train teachers in ICT. The first group started in January 2015 at Midlands State University and the department of education technology has the mandate to train the teachers. However the number is not enough for the whole country because only five hundred teachers are being trained.

2.5.2 Infrastructure

Access to ICT is a step in making technology available to people (www.metafuture.org). The challenge of infrastructure hinders students from accessing ICTs in schools. In this context infrastructure needed is computer laboratories. In Zimbabwe most schools are not able to meet the requirements to implement ICT because they cannot afford building computer laboratories. If the buildings are there, schools have to incur extra expenses to burglar proof the computer rooms. In Zimbabwe each computer should be burglar proofed to make sure that there is security. This is one of the requirements for a computer laboratory. These expenses make schools shy away from buying computers for their students. Computers are still expensive in Zimbabwe, this makes them a target by thieves. If the laboratories are not well secured they will break in and steal them. Schools are now resorting to old fashioned machines which are no longer targeted by thieves. However, the old computers are very slow in processing and can be a challenge to the children.

2.5.3 Shortage of equipment

ICT equipment is expensive and most schools cannot afford to buy them. According to Farrell (2007), the cost of acquisition and maintenance of ICT infrastructure is a challenge which has continued to hamper adoption and implementation of ICT in schools. Thus, the implementation of ICT requires large capital investments. Loaria (2013) pointed out that purchasing ICT equipment like computers require large capital investments because the equipment is costly.

Schools are unable to purchase computers for use by their pupils because they are expensive. Most schools benefit from donated used computers and they need to be repaired and maintained. Research shows that it is very common to see a school computer laboratory full of broken computers. In Kenya, the government had to put strict measures on companies who wish to donate second hand computers to make sure that the machines are in a good state. This was done because some companies see schools as dumping places for their obsolete machines. In our country some schools are also benefiting from donated computers. Those who benefited from the President's donations were lucky because the computers are brand new.

Conflict theorists cited in Giddens (2009) argue that ICT is unevenly distributed in schools. Thus schools in high density are less likely to access ICT equipment such as computers than those in the low density because the schools usually lack the funds to purchase the equipment because the learners come from low income groups which cannot afford to pay fees to enable the school to purchase ICT equipment. In Zimbabwe a vast of schools are not offering Computer Studies because they cannot afford to buy ICT equipment.

2.5.4 Lack of resources

Grayson (2003) claims that lack of resources or the poor quality of resources have been identified as undermining the effort of teachers and can seriously hinder the implementation of ICT in schools. Results of the study carried by Adeniyi (1991) show that the teaching of ICT is unsuccessful in African countries because of inadequate resources amongst others.

The study by Ginsberg and McCormack (2006) showed that teachers in both highly and less effective schools reported that ICT equipment like computers and printers were few which made it impossible for teachers to execute effectively. This therefore leads to a challenge to students in accessing ICT in schools. According to Menda (2006) inadequate technological infrastructure such as lack of hardware and software and the internet is a challenge in the use of ICT to students. If there is no internet pupils will not enjoy the use of ICT because the internet provides a vast of programmes for primary school children. They can research, download games and music there. If they are not connected then pupils may lose interest in using computers.

2.6.0 Theoretical framework

This section explored what gender theories say about the topic under investigation. The Marxist, Liberal and Radical feminist theories are going to be explored.

2.6.1 Marxist Feminist Theory of Gender

The ideas of the theory were derived from the Marxist Philosophy. According to Gwirayi (2010) Marxist feminist theory relies heavily on the idea of social class. The theory blames capitalism for all the ills perceived in the society (Nyoni, 2004). Marx says that the differences in the society are due to capitalism since it is divided into two groups, the haves and the have-nots. In this context men are the haves and women are the have-nots.

In ICT, women are disadvantaged because they are being subordinated. Men are powerful because they own the means of production while women do not own the means of production hence they are oppressed just like the proletarians (Gwirayi, 2010). In Zimbabwe men have the cash to purchase computers which benefit them. Women and the girl child are associated with domestic work.

2.6.2 Liberal Feminist Theory

According to Gwirayi (2010) liberal feminists strongly believe that women are equal to men. The standard mark of liberalism is that all human beings are born free, equal in rights and dignity. This implies that boys and girls should be afforded the same opportunities when it comes to education. Pupils should not be discriminated on the bases of sex. www.sociology.org.uk (2005) say that gender prejudice is based around individual ignorance and education is seen as a valuable tool in the battle against discrimination. If one is educated she/he is brought from darkness to light.

In the issue of ICT, all students should have equal access to ICTs at school and home. Liberal feminists cited in Schaefer (2006) say that girls are socialized to take up inferior roles to boys. The theory advocates for the removal of stereotyping in the language used in schools and in text books. They say that the socialization in schools should be changed because the school socializes boys and girls into traditional gender roles (Gwirayi, 2010). Women's participation in ICT and in decision making is crucial in the development of the nation.

2.6.3 Radical Feminist Theory

The theory is a break-away movement of the Marxist theory. Radicals say that causes of women's oppression are patriarchy, socialization and sexuality (Mawere et al 2011). They say that, men are oppresses even if they are poor. Therefore capitalism is not the cause of inequalities.

In ICT girls perform better when they are on their own. Radicals say that men and women should be put in different communities. If they are separated from boys, girls will have access to ICT without the disturbance of boys. Radicals also say that the society should be restructured in order to deal with male domination to eliminate women's oppression (Mawere et al 2010).

In patriarchal societies like Zimbabwe, women need to be awakened so that they see the realities of life and start living for themselves. Formation of women's pressure groups helps to enlighten their minds and see that they are capable of performing better than men. If the mothers are empowered, the girl child will automatically be enlightened. They will start to have confidence in science and technology.

2.7 Conclusion

The chapter highlighted what other authorities say about the challenges faced by students in the use of ICT in schools. Gender inequalities in the teaching of computers were also looked at. Factors that hinder the use of ICT were highlighted as well.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

The chapter focused on the research methodology, including information about the research design; that is the description of the structures in which the study was executed. It also includes the population and sample which the researcher worked with. The chapter further focused on the instruments that were used for gathering data. Reasons why the chosen methods of collecting data have been selected among others were spelt out. Data collection procedures and data analysis methods were also examined herein.

3.1 Research design

In this particular research, the researcher adopted the descriptive survey in order to assess the challenges faced by students in the use of ICT at primary level. A research design is a work plan that enables the researcher to come up with solutions to the problems and guide in the various stages of the research (Rukuni, 2008). Cohen and Manion (2007) define research design as an exposition on an overall plan on how the research executes the formulated research questions. This implies that a research design describes the procedures for conducting the study and layout of how the project is carried out so as to obtain the required evidence in answering the research questions.

In addition, a research design involves conducting research in a systematic way, thus ensuring the authenticity of the research results. Best and Khan in Chikoko (2004) are of the view that

descriptive survey is concerned with describing and interpreting conditions and relationships that exist, opinions that are held, processes that are going on, effects that are evident or trends that develop. That was the reason which forced the researcher to opt to employ the survey in assessing the challenges that are faced by students in the use of ICT at primary level.

Gwimbi and Dirwai (2003) postulate that the descriptive survey design is an excellent vehicle for the measurement of attitudes prevalent in a large population like those in schools. Therefore, descriptive survey design is effective in dealing with huge population since it is mostly concerned with the generalization of statistical results when data is collected from a representative group. It allows data to be collected from a number of people through the use of questionnaires and interviews as data collecting instruments. The data collected using descriptive survey design was quantified, that is, the responses given were analyzed in terms of quantity to make generalizations on the major finding.

Descriptive survey gives room to the attainment of first hand data and it can be collected from the natural setting. Therefore, it is because of this reason that the researcher opted, for this design since it helped the researcher to describe phenomena in its natural setting. First hand information is the most reliable one and descriptive survey is capable for extracting it. Cohen, Manion and Morrison (2011) say that descriptive survey has the capacity of gathering data from primary sources. In this study, data of assessing the challenges faced by students in the use of ICT at primary level was obtained from primary sources, which were grade primary students, Computer studies teachers, heads and parents, through the School Development Committees.

However, the descriptive survey has a number of weaknesses. Leedy (1993) argues that the results of a survey are no more trustworthy than the quality of the population or the representativeness of the sample. Generalizations of descriptive survey design are doubtful because it is done under the sampling base. To cater for this problem the researcher used a large sample. Moreover, a descriptive design over relay on the genuineness of the information provided on the questionnaires and interviews which is usually doubtful on private issues like teacher's qualifications. To get reliable information, the researcher assured respondents and interviewees confidentiality and protection from harm. However, despite the aforesaid weaknesses, the descriptive survey design suits the problem under study.

3.2 Population

Chiromo (2009) define a target population as all individuals, units or events that will be considered in a research project. According to Best and Kahn (1993) a population is any group of individuals that has one or more characteristics in common that are of interest to the researcher. A population can therefore be seen as a group of people who can provide the researcher with the required information in carrying out a study.

In this research, all students at Mukurunbira, Mutiunokura, Ruzivo, Tendai and Makundano Primary schools as well as all computer studies teachers, all school heads and all the School Development Committee (SDC) members of all the fives schools constituted the population. The number of computer teachers was five (5), whereas the number of pupils was approximately five thousand (5000), the number of SDC members (parents) was approximately fifty (50) and the number of school heads was five (5).

3.3 Sample and sampling procedure

As the population was too big to be dealt with entirely, the researcher selected a sample. According to Muchengetwa (2005, p.3) “a sample is a subject of the population under investigation.” It can also be identified as a portion of the population that shows how the rest is like. In addition, Mugenda (2003) defines a sample as a subset drawn to reduce the population to a manageable unit selected for observation and analysis. In simple terms, sampling is selecting a number of individuals for a study in such a way that the individuals represent the larger group from which they are selected.

In this study, the researcher used purposive sampling to select one cluster from schools in Glenview Mufakose District in Harare province in Zimbabwe. The basis being that the problem under investigation is prevalent in the chosen site of study. Purposive sampling is also called judgmental or selective sampling. According to Fraenkel and Wallen (2006) in purposive sampling, the researcher handpicks the cases to be included in the sample. The subjects are selected on the basis of the researcher’s judgment. Gray (2009) posits that a good sample is a miniature of the population, just like it but smaller. In this study, the sample was drawn from five schools in Cluster 5 in Glenview Mufakose District. The schools selected were Mutiunokura, Ruzivo, Mukurumbira, Makundano and Tendai Primary schools. The sample constituted of five heads, five ICT teachers, ten parents and twenty pupils (ten boys and girls).

Sample for heads N= 5.

Purposive sampling method was used in the sampling of heads. Heads of schools were automatically selected by their virtue of being administrators. They were considered to be

knowledgeable about the challenges faced in the ICT department and the issues of gender in ICT. Three males and two females were selected to make a total of five.

Sample for pupils N=20

In this research, the selection of pupils was done using randomization. This technique is favoured in researches because it is a probability sampling technique which reduces the chances of choosing a biased sample (Chiromo, 2009).

The number of primary students doing computers was very big, so the researcher chose to work with the grade six and seven only. They were chosen because they are the ones who can provide the information needed as they are able to answer the questionnaires with little or no assistance.

The researcher took advantage of the cluster end of month tests that were held at Makundano Primary School to select the sample. To select the sample, the researcher used the simple random sampling to select ten pupils from each school. When using this method, each member has an equal and independent chance of being selected (Choromo, 2009). To select equal number of boys and girls, the students were first put into groups which were boys and girls. This method is also called stratified random sampling (Chiromo, 2009). The hat system was used to select ten students from each school.

The researcher made twenty cards written “Yes” and the rest were written “No”. The cards were put in two hats (one for boys and the other one for girls) for pupils to pick. Ten “Yes” cards were used for the boys and ten for girls. Pupils who picked “Yes” were to represent the sample. Through this method, ten females and males were selected and included the sample.

Sample for teachers N=5

The researcher went on to use purposive sampling method to handpick ICT teachers in the cluster. All the five schools in the cluster schools are offering Computers at primary level. Then number of teachers selected was five (5).

Sample for parents N=10

To arrive at the sample for parents, the researcher used the random systematic random sampling method. The chances of choosing a biased sample using this technique are also reduced since it is a probability sampling method. The researcher allocated numbers to parents who attended the SDC meeting for the cluster. The numbers were one up to hundred and each parent picked a number. Parents who picked multiples of ten were included in the study. The number of parents who took part in the study was ten (10)

3.4.0 Research instruments

To solicit information from the participants, the researcher used research instruments. According to Chisi (2000), research instruments are tools that serve to assist the researcher to collect relevant data that will help answer research questions, as stated in chapter one. Three instruments, are observation, questionnaire and interview were employed in this research. Since each instrument has its strengths and weaknesses, the researcher used a number of them as a way of triangulation to encounter the shortcomings of each. According to Mutasa (2003) triangulation

encompasses multiple sources of data collection in a single research project to increase the reliability of the results and to compensate for the limitations of each method.

The use of three instruments enabled the researcher to have an understanding of the problem under investigation by approaching it from different angles. This ensured validity and reliability of the results of the research.

3.4.1 Questionnaire

A questionnaire was used as one of data gathering instrument. Gwimbi and Dirwai (2003) define a questionnaire as a data gathering instrument which is in the form of a document containing a list of questions which the respondents are expected to answer usually through writing. According to Leedy (1993) a questionnaire is a document containing questions designed to solicit information on a particular research topic. Chikoko and Mhloyi (2000) propound that a questionnaire is a document containing questions designed to solicit information appropriate for analysis. Thus, a questionnaire is an instrument used for collecting data and compiling information about people`s attitude, values, opinions or beliefs about a range of topics or issues. In the study, questionnaires were completed by five (5) Computer studies teachers, and twenty (20) pupils.

For the purpose of this research, both open ended and closed questionnaires were used. Open ended questions give the respondents enough room to express themselves. David and Sulton (2004) are of the view that an open ended questionnaire contains questions that allow the participants to express their opinions freely.

The respondents were given the questionnaires and instructed them on how they can indicate their responses. This enabled the researcher to collect data over a reasonable short period of time. Leedy (1993) posits that a questionnaire is a fast way to get information being asked. Questionnaires are cheap to administer as one can send them to the respondents without necessarily going to the field, thus it saves time and money. Scale (1998) points out that questionnaire can be used where the respondents are dispersed. In this regard questionnaires played a significant role in terms of being cheap for the researcher to visit the five schools. Best and Khan (1993) posit that the questionnaire method is an economic way of accumulating information in terms of time. A questionnaire is easy to complete and as such, it saves time on the part of both the researcher and the respondent.

The drop and pick method was used to administer the questionnaires. This method gave the respondents a platform to give honest responses since most of them were completed in the absence of the researcher. Questionnaires also made data processing and analysis much easier since all the respondents were asked the same questions. That is, same questions for the pupils and for the teachers.

However, questionnaires have their demerits as well. They cannot be used to illiterate people (Masuku 1999). They are greatly limited by the fact that the respondents are supposed to be able to read the questions and answer them. According to Leedy (1993) closed ended questionnaires lacked the capacity to probe deeper into the respondents' feelings and opinions. To counter the shortcoming, the questionnaires in this research included both open and closed questions to allow the participants to air their views on what they felt about the issues in the questionnaires.

Questionnaires can produce biased results if improperly instituted, for instance vague questions on unfamiliar subjects can produce biased results. To curb this problem, the researcher framed clear questions. Clearly instituted questionnaires will ensure reliability and validity of the research results. Despite the highlighted shortfalls, the questionnaire still remained a vital instrument of data collection.

3.4.2 INTERVIEW

In this study, the researcher used the semi-structured interview in order to collect data from parents and school administrators. An interview is a method of collecting data by the use of oral questions by the interviewer followed by verbal responses by the interviewee. According to Farrant (2011) in semi-structured interview, information that is not directly observable is obtained by the researcher. This therefore shows that interviews enable the researcher to solicit information which cannot be observed.

Interviews enable the researcher to get first hand information since they are normally a face to face technique. Bless and Smith (1997) states that interviews give first hand information from the interviewees. Interviews allow the researcher to collect verbal data. There is room for the researcher to solicit more information like nodding and frowning which helps to reveal emotions and feelings. Gwimbi (2003) asserts that the researcher can observe non-verbal responses and interpret them usefully. As such they give the researcher an opportunity to understand the real message.

During a face to face interview, the interviewer can exhibit flexibility in wording, sequence and direction. Furthermore, the researcher can repeat or rephrase questions so that the interviewees

understand what is meant by the particular questions. The interview can be used for people who are illiterate since the questions will be asked by the interviewer for them to respond. The respondents can also use the language they are flexible with in answering the questions. Unlike in the structured interview, the interviewer has room to probe for more information in semi-structured because they are free. In the structured interview the interviewer is not allowed to divert. They should stick to a set of questions without exploring.

Despite the above mentioned advantages of interviews, they also have some limitations. Interview are time consuming since there is need to book for an appointment with the respondents. The time should be convenient to the interviewee and they should choose a venue which is convenient to them. Their appointment dates maybe too far for the researcher to gather the information needed and this becomes a problem to researcher.

The method was time consuming since the interviewees would divert and concentrate on irrelevant information. The researcher was however very patient and took the required time to explain questions to the interviewees. The major shortcoming of the interview is that the interviewees may be reluctant to freely air their views to the researcher. To counter the problem, the researcher assured the interviewees privacy and confidentiality. The researcher promised the respondents that names of persons will not be used in the research report. Ary (1990) states that one of the central obligations that field researchers have with respect to those they are studying is the guarantee of anonymity via the assurance of confidentiality.

3.4.3 OBSERVATION

An observation enables people to observe situations as they exist with the aim of determining whether or not individuals behave in a certain way. Chiromo (2009, p. 27) say “ observation seeks to ascertain what people think they do by watching them in action as they express themselves in various situations and activities.” It is the most direct way of studying behaviour of people. There are different types of observation according to Chiromo (2009), these include complete participant observer, participant observer and complete observer or a visiting stranger.

In this particular research, the researcher assumed the role of a visitor. Three grade six classes were visited during their computer lessons so that the observer could get direct information on what actually transpires during computer lessons. The main aim of the visits was to see and record how teachers treat boys and girls during lesson.

The main advantage of observation as a method of data collection is that it enables the researcher to get first hand information by observing situations as they occur. According to Bong and Gall (1990), the reason why observation is so important is that it is not unusual for persons to say they are doing one thing but in reality they are doing something else and the only way to know this is through observation. This implies that information about human behaviour and the physical environment is recorded directly by the researcher without relying on others.

However, the observation method has a disadvantage of leading to bias as some people would behave in a certain way because they are aware that they are being observed. They may behave well so that they please the researcher and the information he/she gets would not be correct. In this research, the researcher overcame this shortcoming through paying several visits to the classes prior to the observation day and as such, on the actual day the researcher was almost seen

as part of the participants. Thus their behaviour was rendered natural on the actual day for observation. This was necessitated by the fact that the researcher was on her vacation to pay the visits.

3.5 DATA COLLECTION PROCEDURES

The researcher used the introductory letter from the Faculty of Education of the Midlands State University to ask for permission to carry out the research in targeted schools from the provincial education director of Harare Metropolitan Province. The researcher asked for permission from the District Education Authorities and the Heads of schools so that she can conduct her study in the schools.

The researcher ensured that privacy and confidentiality was maintained throughout the course of the study. No names were revealed and their private life issues were not of significance in this study. The researcher sought oral informed consent from participants so that they were in a position to participate willingly in the research. She also respected the rights of participants by giving them the freedom to withdraw at any stage of the study.

To collect data, the researcher used questionnaires interviews and observations. According to Chakasa (2011) the researcher is the key person for data collection. Copies of questionnaires were given to five (5) heads, Twenty (20) pupils and four ICT teachers. The researcher ensured that the respondents received clear explanations and instructions on the purpose and intention of the study. Instructions on how to complete the questions were also given the respondents to ensure that they are aware of what they are expected to do and how they should do it. As alluded to earlier, the researcher used the drop and pick method to administer the questionnaires.

The parents and administrators were interviewed on the agreed dates. The researcher made use of interview guide that served as a suggestive reference during the interview. The responses from the participants were recorded for letter analysis. Lastly, lesson observations were done on agreed dates. The researcher observed one lesson from each of the five computer teachers at each school. Observation reports were written after each lesson observation.

3.6 DATA ANALYSIS PLAN

Treatments performed on the data collected that then enable one to interpret the results is what is referred to as analysis by Charles (2000). After gathering data, the researcher presented it on tables, graphs and analyzed it statistically using percentages.

3.7 SUMMARY

The chapter focused on research methodology. The chapter set off with the presentation of the descriptive survey, and the justification of its choice as well as its weaknesses. The population involved was discussed and the sampling procedure was described. Finally, the chapter looked at data collection procedures and analysis plan. Data collected is analyzed in order to get results in the next chapter.

CHAPTER 4

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter looked at data presentation, analysis and discussion on the challenges faced by students in the use of ICT at primary level. The analysis, description and interpretation of data is done in relation to the questionnaires, interviews and observation schedules conducted in five schools in Glenview Mufakose District. Tables, graphs and pie charts were used to present the data.

4.1.0 Data Presentation

Parents n=10

4.1.1 Parents' responses to interviews

Table 4.0 *responses of parents to interviews*

| Question | % Yes | %No |
|--|-------|-----|
| Do you own a computer as a home gadget? | 20 | 80 |
| Are you connected to the internet at home? | 10 | 90 |
| Do you allow your children to browse through the internet? | 10 | 90 |
| Do you allow your children to play computer games? | 40 | 60 |

A total of 10 interviews were conducted and all the parents cooperated in answering the questions. The response rate was 100%. Parents' responses showed that, out of the ten parents who were interviewed, only 20% had computers at home and 80% of the parents did not own computers. This clearly indicates that children's access to computers is limited at home. 90% of the parents interviewed indicated that they are not connected to the internet at home. This also showed that most children in cluster five in the Glen view Mufakose District are not accessing the internet at home. Their socio economic status hindered them from having the service since the internet service provider need to be paid every month. According to Volman and van Erk (2001) lower economic status relate to lower levels interest in computers. Since the parents could not afford ICTs, their children are disadvantaged when it comes to internet services.

Only 10% of the respondents had their homes connected to the internet. As the interviewer was questioning the interviewees, there was evidence that the parent who had an internet connection at home had secured it by using a password. This meant that the children could not access it. One of the interviewees admitted that the only person who knew the password was his boy child. There was an issue of gender which was noticed in that response. This therefore means that the girl child has less access to ICT at home. Giddens (2009) pointed out that early socialization has a role in creating gender differences within the family. As a result of the way they are raised, girls are behind in ICT area. Most of the time, girls and their mothers are at a disadvantage.

The question of computer games showed that 40% of the respondents allowed their children to play computer games at home. 60% of the parents indicated that they want their children to play computer games but they could not afford to buy them. Those who allowed their children to play computer games managed to buy toy computers for their children. 40% of the parents indicated that they bought toy laptops for both boys and girls.

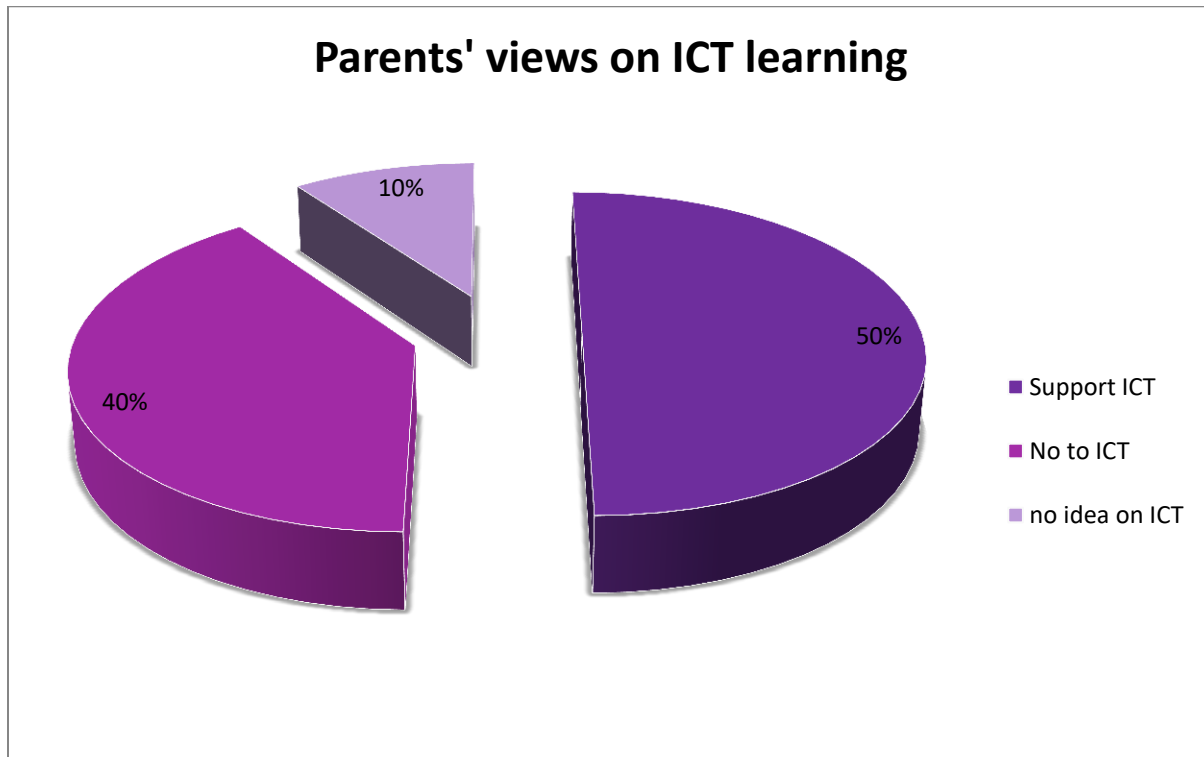


Fig 4.1

Views of parents on the teaching and learning of ICT

Half of the parents who were interviewed were supporting the teaching and learning of ICT at primary level. They wanted their children to be well versed with ICT at lower levels of education so that they will not have problems when they grow up. Even though some of the parents said they could not afford to buy computers for their children to use at home, they supported ICT education.

40% of the parents said that they did not want their children to be taught computers because they will not concentrate much in other subjects which are examinable. They alluded to the fact that, computers are a practical subject and should be taught after school like co-curricular activities.

They also indicated that their children were still young at primary level and the use of technology will expose them to harmful programs. This could happen if they access information which is not of their age. Only 10% of the parents interviewed had no idea on ICT issues.

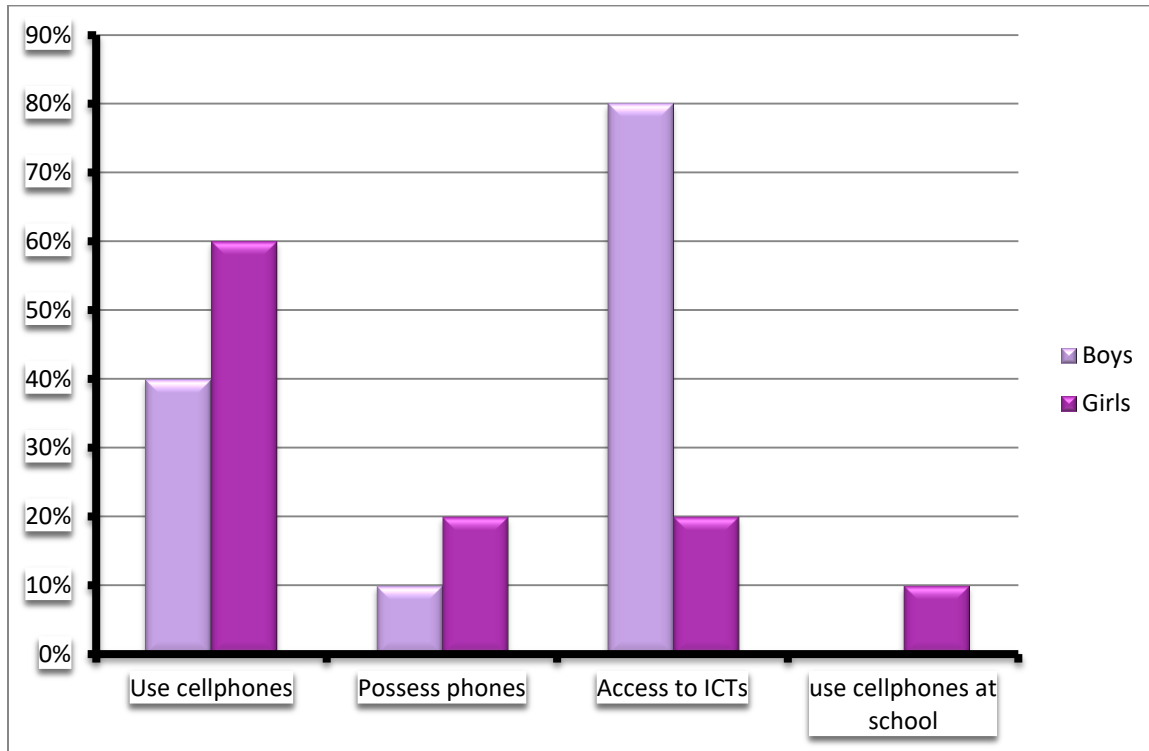


Fig 4.2

Views of parents on the use of cell phones by children

The responses on the use of cell phones by primary school children showed that pupils had limited access to cell phones. Those who are allowed to use cell phones use them mainly for communication purposes. The results on fig 4.2 showed that 40% of the parents allowed their boy children to use cell phones and 60% allowed girls to use cell phones at home. Those who allowed their girl child to use cell phones said that, girls are responsible, that's why they are

given phones at home. The major reason being that, their parents wanted to assign them duties when they are away.

Only 10% of the parents had their boy child in possession of cell phones. The children used the phone mainly for playing games. 20% of the parents had their girls in possession of cell phones. They bought them so that they could communicate with them. The rest of the parents, which was 70%, did not want their children to have cell phones at primary level. They cited that if they give their children phones at primary level that will lead to mischievous behaviour by their children. Besides that, they also said that cell phones are an expense and they could not afford buying their children cell phones. Most of the parents disagreed with the issue of going to school with cell phones. They said that their children would not learn properly while playing games on the phone. 90% of the parents were disagreeing while 10% wanted their children to use cell phones at school.

More boys had access to other ICT gadgets at home. These include DVDs, Televisions, radios and decoders. They cited that when they have problems with one of their gadgets, their boys can fix them. This clearly indicated that boys are a step ahead of their girl counterparts when it comes to access to ICTs at home. In support of this, Passey (2004) cited that ICT can motivate students but boys are motivated more because of their high levels of access to ICT gadgets.

The issue of toys for boys and girls was another factor which hindered girls from accessing ICTs at home. Most of the parents indicated that their girls are not too demanding since they are satisfied with the dolls and utensils they are given as toys. They said their boys demand those scientific toys, thus why they buy them. This was in agreement with Balantine (1997) who said

that boys are usually given science and doctor's kits which help them to maneuver the environment.

Lastly, the issue of gender roles was another problem to the girl child when it comes to ICT access. Girls are not given duties like fixing ICT gadgets at home. Some of them were not able to connect the decoder to the television because boys are the ones who are assigned to do the connections.

4.2.0 Data collected from teachers

Table 4.1 demographic data of teachers

| Teachers | Sex | Prof Qualification | ICT Qualification |
|--------------|-----|------------------------|----------------------|
| A | F | Dip In Education | Cert in Computers |
| B | F | Dip In Education | Cert in Computers |
| C | M | | Comp maintenance |
| D | M | | Cert in Computers |
| E | M | | Comp maintenance |
| Percentage M | 60% | Qualified Teachers 40% | Cert in Comp 60% |
| Percentage F | 40% | Unqualified 60% | Comp maintenance 40% |

As shown on table 4.1 above, all computer teachers from the five schools managed to respond to the questionnaires. The information shows that there are more male computer teachers than female teachers. This on its own showed that the number of women who pursue further in ICT is less than that of men. The percentage for male teachers was 60% as compared to 40% of their female counterparts.

Teacher qualification showed that 40% of the teachers were holders of a diploma in education and 60% were unqualified teachers. This therefore means that the field of ICT is flooded with unqualified personnel. This explains that students are being disadvantaged as they are taught by people who did not train to be teachers. Those teachers were reported to be employed by the school and are being paid by the SDC.

As per ICT qualifications, all teachers had a certificate in computers. However, 40% of the teachers had certificates in computer maintenance. This clearly indicates that the field of ICT is in short supply of teachers because people who are supposed to be repairing computers are the ones who are teaching the subject. In support of the above, Balanskat et al (2006) pointed out that inappropriate teacher training is not helping as pupils are not taught the proper skills.

4.2.1 Teachers' views on the problems encountered by students in using ICT.

Table 4.2 Teachers' response on the shortage of ICT tools

| Question | Responses |
|--|---|
| Do you face problems like shortage of ICT equipment in your teaching? | 100% responded yes |
| Indicate equipment and infrastructure needed to ensure that there are no problems in computer lessons. | <ul style="list-style-type: none"> ○ More computers ○ Relevant software ○ Bigger computer lab ○ Printers ○ Key boards ○ Generator |

The responses indicated that there is overcrowding of students in ICT lessons due to the shortage of resources. All the respondents showed that there is scarcity of ICT equipment in schools. They cited that their main challenge is the shortage of computers. 100% of the respondents indicated that there is need to acquire more computers so that they will not have problems in ICT lessons. Grayson (2003) says that lack of resources or poor quality of resources has been identified as undermining the efforts of teachers in teaching ICT. This therefore hinders the implementation of ICT in schools.

They also highlighted that they are in need of the relevant software for teaching the young children so that they enjoy their computer lessons. According to Farrell (2007) computer software is a set of computer programmes that enables the computer to work. The game software was indicated to be needed by 60% of the respondents. All of them required educational software so that students will have educational games. This will improve their performance in other subjects like Mathematics and English.

Printers, keyboards and monitors were also cited. The need for printers was to make hard copies of students' work so that they display them in the classroom as evidence that they were learning something. The machines were too old in 80% of the schools and they indicated that the key boards and monitors were no longer working and they needed them.

The shortage of electricity hindered the students from having all their ICT lessons. The respondents alluded to the fact that, the issue of power need to be addressed as a matter of agency since students was losing their lessons due to massive power cuts. They indicated that schools should procure heavy duty generators so that lessons will not be disrupted.

40% of the respondents indicated that they needed bigger computer laboratories so that pupils will not be overcrowded during lessons.

4.2.2 Gender problems in ICT.

The issue of gender seemed to be a matter of concern when it comes to ICT. 80% of the respondents indicated that there are gender problems in the use of ICT in schools. Due to the shortage of equipment, girls were said to be on a disadvantage since they are over powered by boys during practical lessons. At the beginning of each lesson, teachers said they made sure that they monitor boys so that they share the few machines with the girls equally.

Possible solutions provided by teachers to gender problems in the use of ICT were that; schools should acquire more computers and build bigger computer laboratories so that there will be no scramble for computers. In support of this Grayson (2003) cited that inadequate resources can seriously hinder the implementation of ICT in schools. If schools ensure that there is enough equipment needed, some gender problems will be curbed.

Some respondents however suggested that boys and girls should be separated and learn computer lessons in different groups. Radical feminist are also of the same sentiments as cited in Gwirayi (2010) that men and women should be put in different communities to eliminate women oppression by men. If they learn in separate groups, girls will perform better as compared to when they are mixed. Boys on the other hand will also be competing amongst themselves and they excel to higher levels.

4.2.3 Gender and the use of computer applications

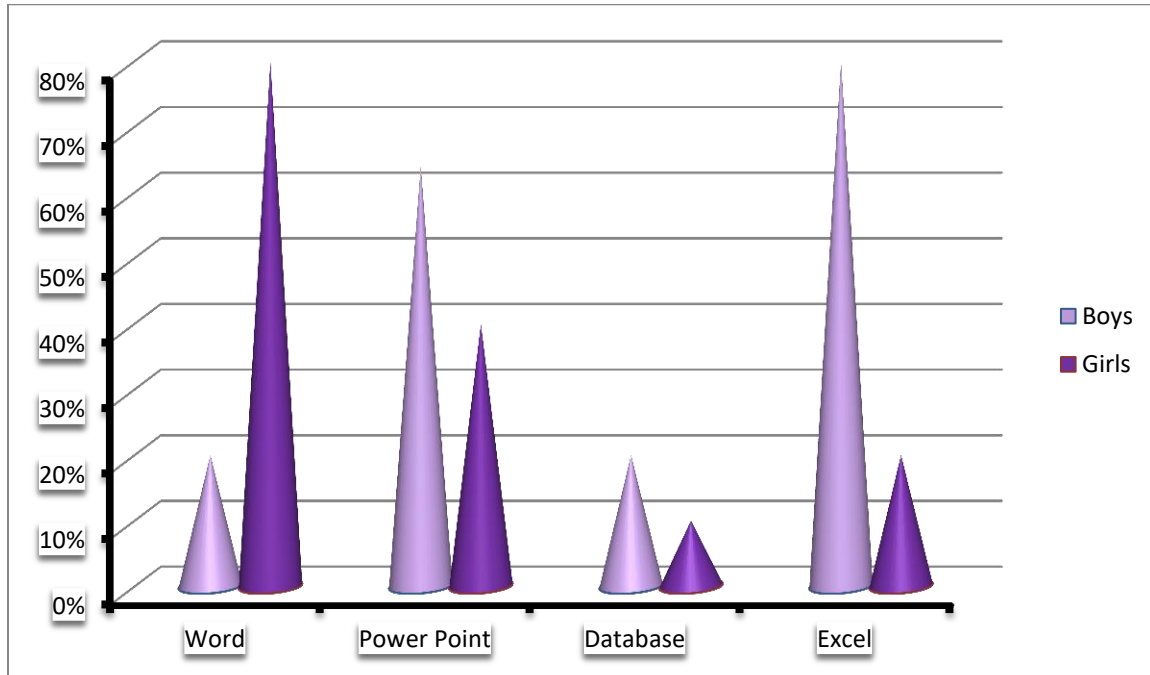


Fig 4.3

Responses of teachers on gender and the use of computer applications

Computer applications offered at primary level include Microsoft Word, Power Point Presentation, Database, and Microsoft Excel. As shown on the above graph, boys were reported to have some problems when it comes to typing. 80% of the respondents indicated that girls perform better than boys in word related tasks. Only 20% of the respondents indicated that boys were also good in typing activities.

Power Point presentation concepts are reported to be a problem to girls. Boys were reported to be producing better sides than girls. However, the gape was not much, 60% of the teachers showed that boys were better and 40% of the teachers showed that girls perform better. Databases seemed to be a problem to both boys and girls. The main challenge that was noticed was that the

teachers were not able to use Microsoft Access and the application is difficult for them. That was the reason why students were lagging behind in database creation. In support of this, Madhuku et al (2010) said that majority of teachers in public schools do not have skills and competences needed in implementing ICT.

Microsoft Excel application was reported to be male dominated. 80% of the teachers highlighted that boys are good in using the package since it deals with calculations. 20% of the teachers reported that girls also perform better in using excel application.

4.2.4 Internet access

All schools were reported to have internet connections. However, pupils do not have access to the internet. The only people who had access to the internet were the teachers and the administrators. In some of the schools the internet was for use by the administrators only since they use passwords to access the internet. This showed that all students are unable to use the internet in schools. Therefore, all students had a challenge in the use of the internet since the net provide a vast of activities that can improve their academic performance. Students were deprived of the service which can help them to excel in their studies.

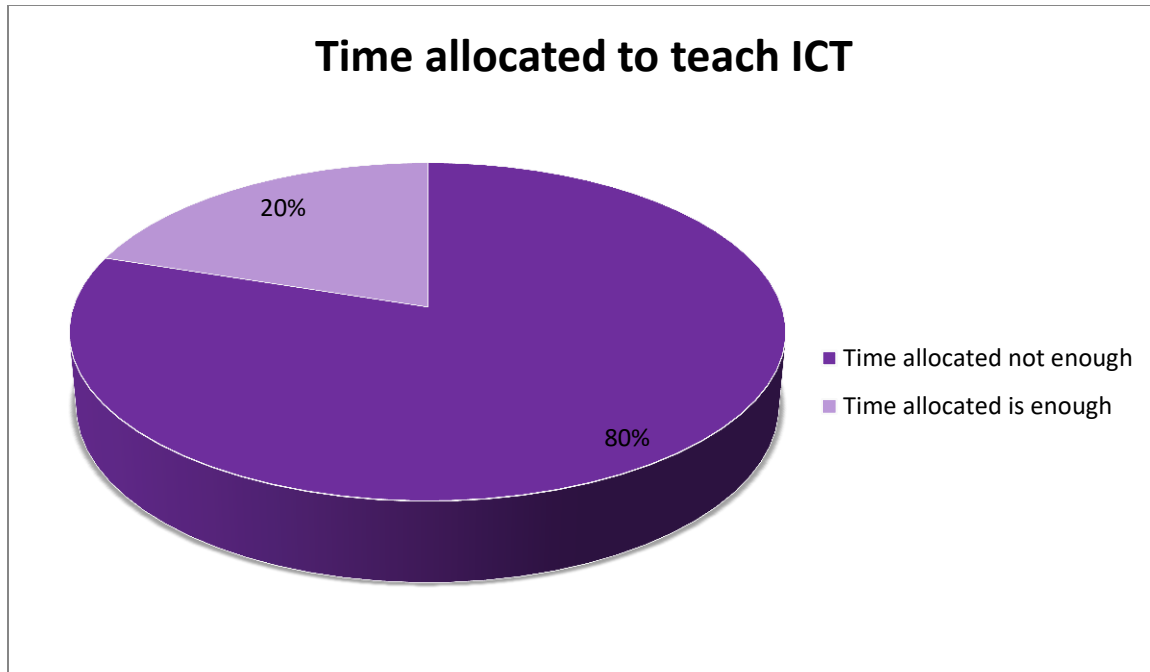


Fig 4.4

Views of teachers on the time allocated to teach computers

80% of the teachers alluded to the fact that the time allocated to teach ICT is not enough for the children to grasp the concepts taught. Only 20% indicated that the time was enough to teach the subject. They said that their theory lessons were 30 minutes and practical lessons were also had 30 minutes per week. For the classes with hot sitting, they only had one hour after a fortnight. They proposed that the time for practical lessons should be 1hour and 30 minutes for theory lessons.

4.3.0 Data collected from students

Student N=20

Table 4.3 *students' questionnaire response rate*

| Respondents | frequency | Total | Percentage |
|-----------------|-----------|-------|------------|
| Grade 6 males | 4 | 4 | 20% |
| Grade 6 females | 6 | 6 | 30% |
| Grade7 males | 6 | 6 | 30% |
| Grade7 females | 4 | 4 | 20% |

A total number of 20 questionnaires were distributed to a sample of 20 students in 5 schools.

There was 100% return rate.50% of the students were from grade 6 and 50% were from grade 7.

There was also a gender balance since 50% were males and 50% were females.

4.3.1 Views of students on the challenges they face in using ICT

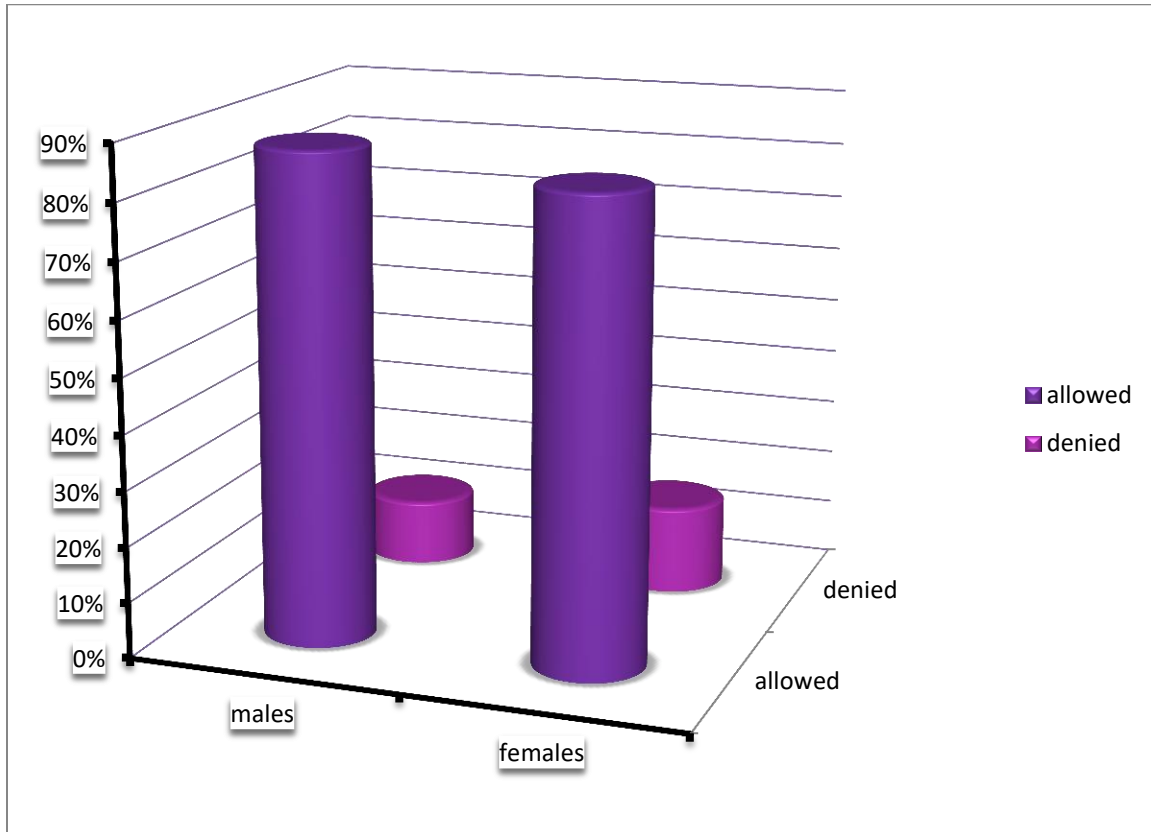


Fig 4.5

The use of computers by students at school

Fig 4.5 above showed the number of male and female students who were allowed and denied use of computers on their own at school. 88% of male students indicated that they were allowed to use computers on their own at school and 84% of the female students were also allowed to use computers at school. The number of students who were denied access was 12% and 16% for males and females respectively. This showed that most of the students in cluster 30 in Glen view Mufakose District are allowed to use computers at school.

4.3.2 Views of students on the teaching and learning of ICT

Table 4.4 Responses of students to questionnaires

| Question | Responses |
|--|--|
| Do you enjoy ICT lessons? | Yes 19 students=95% No 1 student= 5% |
| Teaching of ICT must be stopped? | Yes 0= 0% No 20 students=100 |
| Do you have problems in using ICT at school? | Yes 16 students=80% No 4 students=20% |

Table 4.4 above showed the views of students on the teaching and learning of computers in schools. 95% of the students indicated that they enjoyed ICT lessons. Only one student, which is 5% of the students, did not enjoy computer lessons. This showed that students were motivated by the use of ICT. Hayward et al (2003) pointed out that the bulk of students like to use computers, but boys are motivated more than girls. The respondent who did not enjoy computer lessons happen to be a girl and Hayward's view was supported. All the respondents however indicated that the teaching of ICT in schools should not be stopped.

80% of the students showed that they were encountering problems in using ICT at school and 20% of the students had no problems in the use of ICTs. Some of the problems cited include; shortage of computers, electricity problem, no internet services for students and no permanent teacher.

The major problem that was noted by the 90% of the students was that of the computer pupil ratio. They were using a single computer in groups of 3 or 4 pupils. They said they were having difficulties in using the gadget since the time allocated for practical lessons is 30 minutes. The issue of permanent teaches was also raised. They said that they were changing teachers nearly every term.

4.4 Data collected from school administrators

In order to elicit data from school administrators, the researcher conducted interviews with either heads of schools or their deputies on the challenges faced by students in the use of ICT. All of the heads indicated that they introduced computers in their schools less than five years ago. This showed that the area of ICT was still new in schools.

They were supporting the teaching and learning of computers in schools because it can improve the performance of students in different subject areas. However, they cited that there were some challenges which are hindering the implementation of computers in their schools. These include the issue of ICT equipment. 60% of the administrators showed that they acquired their computers from donations. 40% of them purchased their own computers. Most of the computers which were donated were reported to be old and slow in processing.

The issue of ICT literacy in teachers was also raised. They revealed that their teachers, other than their computer teachers could not use computers. The teaching and learning of other subjects can be done effectively if the teachers can use the computer as tool. Newhouse (2002) stressed that training is needed to enable teachers to develop appropriate skills and knowledge regarding the

effective use of ICT in schools. If teachers are trained to use computers in their teaching, pupils will benefit more. Computers can be used to make presentations, for calculations and typing.

They agreed that their teachers need to be trained in ICT area. They however said that some teachers were undergoing in service training of computers at different teachers colleges during the holidays.

On the issue of gender in ICT, the administrators argued that they were not perpetuating the already existing gender gap between boys and girls. They are ensuring that there is gender equality in the use of ICT tools at school. There was no gender discrimination in all the schools visited.

4.5 Data obtained from the observation schedules conducted.

Table 4.5 observation results

| School A | School B | School C | School D | School E |
|----------------------|----------------------|----------------------|----------------------|---------------------|
| Computers=25 | Computers=20 | Computers =25 | Computers=30 | Computers=15 |
| Working computers=15 | Working computers=13 | Working computers=18 | Working computers=25 | Working computers=9 |
| Printers=1 | 1printer | 1printer | 2 printers | |
| | | | 1Overhead projector | |

As shown on table 4.4 above, usable computers are few in all the schools. There is a shortage of printers and other ICT equipment in all the schools visited. The researcher also observed that 100% of the schools did not build computer laboratories in their schools. They only converted a classroom into a computer lab. 20% of the schools were using home economics rooms as their labs. The computers were on top of kitchen tables and on the other side, were some kitchen sinks. This indicated that there is need for proper infrastructure so that ICT is fully implemented.

The teachers were also observed teaching computer lessons. 80% of the teachers had problems in demonstrating concepts since they did not have overhead projectors. They had to go around and show each group what they want them to do. This was a disadvantage to pupils who had little idea of computers. Only 20% of the teachers who were observed were using an overhead projector.

The treatment of students was also looked at with a gender eye and it was observed that most teachers made use of boys to demonstrate skills to those who were slow. This indicated that boys are a step ahead of girls in ICT.

4.6 SUMMARY

This chapter presented and interpreted the data collected from the primary school learners, teachers, parents and school heads. Data obtained from questionnaires, interviews, and observations administered in five schools was analyzed and discussed in this chapter. Tables, graphs and pie charts were used to present data. The next chapter gives the summary of the whole project and its key findings.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter focused on summary of the whole project, conclusions and recommendations on the challenges faced by students in the use of ICT at primary level. Ideas in the previous chapters were brought together in the summary and conclusions are drawn from the findings of the research. Recommendations which are suggestions of what can be done to pave way for the improvement of ICT in schools are spelt out and recommendations for further studies are also highlighted.

5.1 Summary

The main purpose of the study was on the challenges faced by students in using ICT in Cluster five of Glenview Mufakose District in Harare. In this study research questions were used in attempt to find possible solutions to the problems faced by students in the use of ICT. A variety of problems were found, these include; gender inequalities at school and family level, lack of trained personnel to teach the subject, inadequate equipment, no internet access for students, infrastructure and little time allocated for the subject. All these hindered the students from accessing ICTs.

The descriptive survey was adopted in order to collect data. Questionnaires, observations and interviews were used. The researcher used probability and non- probability sampling techniques in order to come up with the sample to work with. Data that was elicited from respondents was presented using tables, it was analyzed and then discussions on the findings were done. The

student ensured that all research ethics were observed. No names of respondents were revealed, there was confidentiality in the information collected and informed consent was sought with the participants before carrying out the study.

5.2 Conclusion

Conclusions of the research were made from the research questions outlined in chapter one. The study revealed that girls had little access to ICT tools at home. Results from the interviews conducted with parents showed that girls are overloaded with household chores like caring for the young ones, cleaning and washing and they are left with little time to use ICT gadgets at home. The only ICT gadget they seem to have access to, is the cell phone.

A number of teachers highlighted that the issue of gender is a matter of concern in the field of ICT. When there are few computers, girls have problems in sharing the gadget with boys. Girls are overpowered by boys hence having little access computers.

School heads stressed that the issue of gender roles should be looked at. Boys and girls should be assigned same roles at school. When there are some connections to be done to computers, printers, DVDs and televisions girls should also be given a chance to do the connections.

Some computer teachers advocated for the separation of boys and girls when conducting practical lessons. It was found that girls' performance in ICT is affected by boys since most of them are a step ahead of girls when it comes to practical lessons.

Shortage of computers was the major issue raised by respondents. The pupil computer ratio is 1:4 in most of the schools. This showed that there is a challenge in the way students access the

gadget. The need for other equipment like printers, projectors, internet and generators was also highlighted.

There was also need to build big computer laboratories because children are having problems of overcrowding in computer lessons. All the schools in cluster 5 converted classrooms into computer laboratories and the rooms are too small, without ventilation.

It was revealed that the time allocated to teach ICT is not enough for practical lessons. All the participants were advocating for more time in the teaching and learning of ICT.

The issue of ICT teachers is a challenge in schools. There were no teachers who are trained to teach the subject. Schools are resorting to teachers with computer certificates but they are not trained as teachers. In most schools, they employed their own teachers because the government failed to supply them with trained teachers.

School heads pointed out that other teachers who are not ICT teachers are computer illiterate. This becomes a challenge to students since there is no integration of ICT with other subjects. If ICT is used to teach other subjects in schools, pupils will benefit more.

5.3 Recommendations

In line with the findings of this study, the researcher recommends that:

- ❖ Parents should be educated on the issues of gender so that they treat their children equally in all aspects of life.

- ❖ Workshops and awareness campaigns should be held in schools so that students are educated on the issues of gender when it comes to ICT.
- ❖ There should be computer clubs formed in schools so that students are educated on the importance of ICT nowadays. These clubs will educate the girl child that they can take up subjects like ICT to higher levels.
- ❖ Gender stereotyping in the language and labels in schools should be removed. For example labels on school heads' doors like '*Headmaster's office.*' These give male students an upper hand and they will think that they are superior to girls in ICT related areas.
- ❖ There is need to prioritize the acquisition of computer software and hardware in schools so that the teaching and learning of ICT will be effective.
- ❖ The Government should source funds to acquire required ICT equipment to use in schools so that pupils will not have challenges.
- ❖ Heads of schools should prioritize staff development workshops and in-service training of teachers in using computers as a teaching and learning tool.
- ❖ More ICT teachers need to be trained so that pupils will have trained teachers to teach them.

5.4 Recommendations for further studies

While this research focused on the challenges faced by students in using ICT, future research areas should cover the following areas:

1. Ways that can be employed to motivate students to use ICT in schools.
2. Evaluate the usefulness of ICT to female students.
3. Explore ways in which the internet can be used productively in schools.

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APPENDIX 1

Questionnaire for students

My name is Jori Merjury, an undergraduate student at Midlands State University. I am currently studying for a Bachelor of Education Degree in Computer Science in the Department of Applied Education. I am conducting an educational research which seeks to assess the challenges faced by students in the use of ICT at Primary level. The research is for educational purpose and the information that the researcher intends to elicit shall be treated as confidential. I therefore request you to take a moment and answer this questionnaire honestly. Thank you!

Part A

(Please tick in the appropriate box or write on spaces provided)

- | | | | | |
|--------------------------|--------------------------|------|--------------------------|--------|
| 1. Sex | <input type="checkbox"/> | Male | <input type="checkbox"/> | Female |
| 2. In what grade are you | <input type="checkbox"/> | Six | <input type="checkbox"/> | Seven |

Part B

- | | | | | |
|---|--------------------------|-----|--------------------------|----|
| 3. Are you allowed to use computers on your own at school? | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 4. Are you allowed to use cell phones at school? | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 5. Do you have a computer at home? | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 6. Do you enjoy ICT lessons? | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |
| 7. The use of ICT in teaching and learning must be stopped. | <input type="checkbox"/> | Yes | <input type="checkbox"/> | No |

8. Do boys and girls have the equal access to ICT tools at school?

(Tick to indicate where boys or girls have access)

| Access to ICT Tools | Boys | Girls |
|---------------------|------|-------|
| DVD Player | | |
| Computers | | |
| School TV | | |
| Internet | | |
| Printer | | |
| Overhead Projector | | |

9. Do you have problems in using ICT at school? Yes No

10. If yes what are some of the problems you encounter in the use of ICT?

.....

.....

.....

.....

11. How many computer lessons do you have per week? None Once
Twice and above.

12. Do you think the time allocated for computer lessons is enough? Yes No

APPENDIX 2

Questionnaire for Teachers

My name is Jori Merjury, an undergraduate student at Midlands State University. I am currently studying for a Bachelor of Education Degree in Computer Science in the Department of Applied Education. I am conducting an educational research which seeks to assess the challenges faced by students in the use of ITC at Primary level. The research is for educational purpose and the information that the researcher intends to elicit shall be treated as confidential. I therefore request you to take a moment and answer this questionnaire honestly. Thank you!

Part A

(Please tick in the appropriate box or write in the space provided)

- | | | | | |
|------------------------------------|--------------------------|---------------|--------------------------|---------------|
| 1. Sex: | <input type="checkbox"/> | Male | <input type="checkbox"/> | Female |
| 2. Length in teaching experience | <input type="checkbox"/> | 0-2 years | <input type="checkbox"/> | 3-5 years |
| | <input type="checkbox"/> | 6-9 years | <input type="checkbox"/> | 10 years plus |
| | <input type="checkbox"/> | | <input type="checkbox"/> | |
| 3. Highest Academic Qualification. | <input type="checkbox"/> | Cet. Edu | <input type="checkbox"/> | Dip. Edu. |
| | <input type="checkbox"/> | BED. | <input type="checkbox"/> | PGDE |
| | <input type="checkbox"/> | M.Edu | | |
| 4. ICT Qualification | <input type="checkbox"/> | Cert. in Comp | <input type="checkbox"/> | Dip in Comp |
| | <input type="checkbox"/> | Degree | <input type="text"/> | Others |

Part B

5. Do you face problems like overcrowding or shortage of ICT equipment in your teaching? Yes No

6. If yes indicate equipment needed to ensure that there are no problems in computer lessons.

.....
.....
.....
.....

7. Do you encounter any gender problems in the teaching of ICT?
 Yes No

8. If yes, list challenges that are faced by boys and girls in the use of ICT in the table below.

| <u>Challenges faced by boys</u> | <u>Challenges faced by girls</u> |
|--|---|
| | |
| | |
| | |
| | |

9. What are possible solutions the cited problems?

.....
.....
.....
.....

10. Indicate the computer applications that boys and girls have problems in comprehending

| Computer Application | Boys | Girls |
|---------------------------|------|-------|
| Microsoft Word Processing | | |
| Power point Presentation | | |
| Database | | |
| Microsoft Excel | | |

11. Is your school connected to the internet? Yes No

12. Are your children having access to the internet? Yes No

13. If yes, what activities do they normally perform on the internet?

.....
.....
.....
.....

14. Do you have enough time allocated to teach ICT?

15. Indicate the time allocated for practical and theory lessons.

a) Practical lessons.....hrs.' b) Theory.....hrs.' per week.

16. Do you think the time allocated for computer lessons is enough? Yes No

17. If no what time do you think should be allocated to computer lessons

PracticalHrs. Theory.....Hrs.

Thank you for your time

APPENDIX 3

Interview guide for Administrators

1. When did your school start to offer computers as a subject?
2. What are the advantages that computers have brought to your school?
3. What are the disadvantages that computers have brought to your school?
4. How did your school acquire most of its computers?
5. Apart from computers what other ICT equipment do you have at your school?
6. Does your SDC support the buying of computers and other ICT tools?
7. Is your school connected to the internet?
8. Do you allow your students to use the internet at school?
9. Do the parents support the use of the internet by children?
10. Do you allow the use of cell phones by students at school?
11. What challenges are being faced by students in the use of ICT?
12. What solutions do you propose to improve the use of ICT by students?
13. What measures are being taken by the school to make sure that the girl child is not disadvantaged in the use of ICT?
14. Other than the ICT teacher, do you have teachers who are computer literate at this school?

15. For those teachers who are computer illiterate, what measures are you taking to ensure that they get to know computers?

APPENDIX 4

Interview guide for Parents

1. Do you support the learning of ICT by children at primary level?
2. Do you own a computer as a home gadget?
3. Are you connected to the internet at home?
4. Do you allow your children to browse through the internet?
5. Do you allow your children to play computer games at home?
6. Do you afford your children equal time to use ICT at home?
7. Are your children attending primary school children in possession of cell phones?
8. Do you allow your children to use cell phones at school?
9. Which types of toys do you normally buy for the girl child and boy child?
10. Do you support your girl child if she wants to pursue a career in ICT?

APPENDIX 5



MIDLANDS STATE UNIVERSITY

P. BAG 9055
Gweru
Zimbabwe

Telephone: (263) 54 60404/60337/60667/60450
Fax: (263) 54 60233/60311

FACULTY OF EDUCATION
DEPARTMENT OF APPLIED EDUCATION

TO WHOM IT MAY CONCERN


The bearer.....JORI MERJURY..... is a B.Ed/
MED/PGDE student at this University. She / he has to undertake research on the title:
challenges faced by students in the
use of ICT at primary level

He/she is required to present a Research Project in partial fulfilment of the degree programme.

In this regard, the university kindly requests both your institution and personnel's assistance in this student's research endeavours.

Your co-operation and assistance is greatly appreciated.

Thank you


.....
Mrs Shoko B
(Acting Chairperson –Applied Education)

DEPUTY HEAD
RUZIVO PRIMARY SCHOOL
08 SEP 2015
BOX 50, MUFAKOSE, HARARE
PHONE: 698400, ZIMBABWE

HEAD
TENDAYI GOVERNMENT
PRIMARY SCHOOL
08 SEP 2015
P.O BOX 20, MUFAKOSE
TEL: 698 290

MUTIYONKURA PRI SCHOOL
08 SEP 2015
P.O. BOX 1
P.O. BOX 10 MUFAKOSE
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MIDLANDS STATE UNIVERSITY
FACULTY OF EDUCATION
DEPARTMENT OF APPLIED EDUCATION
21 JUL 2015
PRIVATE BAG 9055 GWERU
ZIMBABWE TELEFAX: 054-2503747

DEPUTY HEAD
MAKUNDANO GOVERNMENT
PRIMARY SCHOOL
08 SEP 2015
P. O. BOX 30, MUFAKOSE
ZIMBABWE

Ministry Of Primary And Secondary Education
Glen View / Mufakose District
07 SEP 2015
D.E.O
P.O. Box GV 63
Glen View, Harare

APPENDIX 6

All communications should be addressed to "THE PROVINCIAL EDUCATION DIRECTOR"



ZIMBABWE

Telephone : 792671-9
Fax : 796125/792548
E-mail : moeschre@yahoo.com

REF: G/42/1
Ministry of Education, Sport and Culture
Harare Provincial Education Office
P. O. Box CY 1343
Causeway
Zimbabwe

DEPUTY HEAD
RUZIVO PRIMARY SCHOOL
08 SEP 2015
BOX 50, MUFAKOSE, HARARE
PHONE: 698400, ZIMBABWE

Mendury Jori
Midlands State University
P. Bag 9055
Gwen

RE: PERMISSION TO CARRY OUT RESEARCH IN SOME SELECTED SCHOOLS
TOPIC "CHALLENGES FACED BY STUDENTS IN THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY AT PRIMARY SCHOOL LEVELS"
SELECTED SCHOOLS: MUTUNOKURA, MUKURUMBIRA, MAKUNOANO, RUZIVO AND TENDAI PRIMARY IN GLENVIEW MUFAKOSE DISTRICT
Reference is made to your letter dated 25 AUGUST 2015.

Please be advised that the Provincial Education Director grants you authority to carry out your research on the above topic. You are requested to submit the Provincial Office with a copy of your research findings.

ZISHIRI M

DEPUTY HEAD
RUZIVO PRIMARY SCHOOL
08 SEP 2015
P. O. BOX 30, MUFAKOSE
ZIMBABWE

DEPUTY HEAD
TENDAI GOVERNMENT PRIMARY SCHOOL
08 SEP 2015
P.O. BOX 20, MUFAKOSE
TEL: 698 290

For: Provincial Education Director
Harare Metropolitan Province

MUTIUNOKURA PRI SCH
08 SEP 2015
P.O. BOX 10 MUFAKOSE
TEL: (04) 697 222

Ministry Of Primary And Secondary Education
Glen View / Mufakose District
07 SEP 2015
D.E.O
P.O. Box GV 63
Glen View, Harare

MINISTRY OF EDUCATION
HARARE REGION
28 AUG 2015
CY 1343, CAUSEWAY
ZIMBABWE

APPENDIX 7

All communications should be addressed to
"The Secretary for Primary and Secondary Education"
Telephone: 799914 and 705153
Telegraphic address : "EDUCATION"
Fax: 791923



Reference: C/426/3 Harare
Ministry of Primary and
Secondary Education
P.O Box CY 121
Causeway
Harare

25 August 2015

Merjury Jori
Midlands State University
P. Bag 9055
Gweru

**RE: PERMISSION TO CARRY OUT RESEARCH IN HARARE PROVINCE:
GLENVIEW-MUFAKOSE DISTRICT: MUTIUNOKURA, MUKURUMBIRA,
MAKUNDANO, RUZIVO AND TENDAI PRIMARY SCHOOLS**

Reference is made to your application to carry out a research at the above mentioned schools in Harare Province on the research title:

**"CHALLENGES FACED BY STUDENTS IN THE USE OF INFORMATION AND
COMMUNICATION TECHNOLOGY AT PRIMARY LEVELS."**

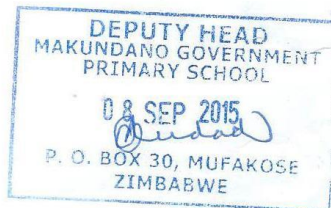
Permission is hereby granted. However, you are required to liaise with the Provincial Education Director Harare, who is responsible for the schools which you want to involve in your research. You should ensure that your research work does not disrupt the normal operations of the school.

You are required to provide a copy of your final report to the Secretary for Primary and Secondary Education by December 2016.

A handwritten signature in blue ink, appearing to be 'P. Muzawazi'.

P. Muzawazi

Acting Director: Policy Planning, Research and Development
For: **SECRETARY FOR PRIMARY AND SECONDARY EDUCATION**
cc: PED – Harare Province



R/AATM15