

MIDLANDS STATE UNIVERSITY



FACULTY OF EDUCATION

DEPARTMENT OF APPLIED EDUCATION

**CHALLENGES FACED IN THE APPLICATION OF INFORMATION AND
COMMUNICATION TECHNOLOGY IN THE TEACHING AND LEARNING OF BUSINESS
STUDIES AT ADVANCED LEVEL IN SHURUGWI DISTRICT.**

BY

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EDUCATION IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE
BACHELOR OF EDUCATION HONOURS DEGREE IN MANAGEMENT OF BUSINESS
STUDIES.**

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RELEASE FORM

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TITLE OF RESEARCH PROJECT: **challenges faced in the application of ICT in the teaching and learning of Business Studies at Advanced Level in Shurugwi District.**

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Challenges faced in the application of ICT in the teaching and learning Business Studies at Advanced Level in Shurugwi District.

A research project submitted to the Department of Applied Education

YEAR DEGREE GRANTED: 2016

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DECLARATION

I Ndhlovu Graciano declare that this is my original work and affirm that this has not been submitted in this university or any other university before in support for a degree or any other qualification.

SIGNATURE..... DATE.....

DEDICATION

This research is dedicated to my parents and my two brothers Graduate and Grasp and sister Graily, for their unwavering moral support they gave me during the time of conducting the study.

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Above all my gratitude goes to the almighty God who has taken me this far.

ABSTRACT

The purpose of the research was to investigate the challenges faced in the application of ICT in the teaching and learning of Business studies at Advanced Level in Shurugwi District. To carry out the study, the researcher used the descriptive survey design. Shurugwi consisted of five high schools. The researcher used a sample of three high schools. The sample was made up of thirty students, six teachers, three school heads. The researcher used the stratified and random sampling techniques in sampling the students. She used the hat system to select the students who participated in the study. Questionnaires, interviews and observations were used for data collection. The findings from the sample were presented in the form of tables and graphs and were discussed and linked with the related literature.

Findings from the study revealed that the main challenges that were faced in ICT application in teaching and learning processes were lack of access to resources, lack of technical assistance, interrupted power cuts and high costs of computer hardware and software. The research recommends teacher training and development, schools to source more tools to enhance the application of ICT in education, schools improve infrastructure and schools employ emergency technical personnel.

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CHAPTER 1

THE RESEARCH PROBLEM

1.0 Introduction

The function of Information Communication Technology (ICT) in teaching and learning is one of the most essential subjects taken into consideration in modern educational policy. It is agreed by experienced practitioners in education that the utilization of educational technology enhanced learning. Despite the fact that ICT is said to be important in teaching and learning, there are barriers that hinder the effective implementation of information communication technology policy in day to day teaching and learning activities. Therefore, this research sought to investigate the challenges faced in the implementation of information communication technology in the teaching and learning of Business Studies at Advanced Level in Shurugwi district. This chapter looks at the background to the study, statement of the problem, significance of the study, delimitations and limitations of the study.

1.1 Background to the study

During teaching practice the researcher noticed that most of the students and teachers of Advanced Level Business Studies were facing challenges in the application of ICT in their teaching. The researcher observed that much of the content in this subject cannot be delivered using the lecture method in teaching, but rather needs some other methods such as those which allow the use of information and communication technology resources. The use of ICT can be classified into tutor tool and tutee tool (Taylor, 1980 in Salehi and Salehi, 2012).

Tutorial packages can lead students step after step through a programme called drill and practice. The use of ICT tools may help learners in solving complex concepts and make it easy for learners to understand. ICT saves as a tutor where learners programme computers to ensure a better understanding.

There are a lot of different ICT tools and applications that maybe used in education. The tools and applications are intended for learning purposes as well as for general purposes. Teachers and learners have to choose from those tools and applications on which tools to use and which ones to forgo. According to Roblyer and Edwards, (2000) the selection of resources and the way they are applied in teaching and learning can be related to different concepts and this can be used to forecast the benefits of using ICT.

Roblyer and Edwards (2000) indicated that the application of ICT in teaching and learning progressed from two key approaches that is the directed to constructivist instructional methods. Woolforlk (2013) defined the constructivist approach as a view that stresses that learners build understanding and grasp concepts through active involvement in learning. Roblyer and Edwards,(2000) argue that according to the constructivists there are two central ideas which are for learning to take place learners actively participate in knowledge constructing and social interaction is important in constructing knowledge.

Rosen etal,(1995) argue the role of ICT in education is swiftly becoming one of the most negotiated subjects in the modern educational arena The continued negotiations about the role of ICT in teaching and learning really call for the application of information communication technology in schools. The use of ICT in schools improves the quality of lessons in all subject areas as well as in Business Studies. This was supported by Yursuf (2005), when in his research argues that most experienced people in the field of educational technology in the world agree

that when technology is utilised, teaching and learning can be improved. The use of information communication technology applies to numerous facets of people's lives, for instance in business, for leisure, in education and work. This means that technological competency is needed of every individual in the society; hence the school should be equipped with obligatory ICT tools. This will help them to provide the generation with the proper tools in order to gain expected skills.

For effective implementation of the innovation teachers should be involved in the process of change so as to instil an element of possession. Schools in Shurugwi District should effectively implement ICT in the educational system if they are to become educational institutions of choice in the current globalized village as well as prepare learners for the international labour market. History shows that the use of textbooks and chalkboards was adopted long back however none had a great impact in the educational process like the computer (Roblyer and Edwards, 2000). Yursuf (2005) is of the view that television and film has an impact only on the audio visual faculties of users but the computer is capable of activating the senses of sight, hearing and touch of the users. ICT has the potential to bring more interaction to the users so as to develop one's academic and creative abilities. Aduwa-Ogiebaen and Lymn (2005) argue that the major role of information communication technology "consists just in the development of human mental resources which allow people to successfully apply the existing knowledge." Sharvinina, (2001) asserts that the use of traditional teaching methods such as the lecture method and chalkboard does not add value towards transforming the old educational system to the modern learner centred teaching and learning. In the world today, computers are used for instructional purposes and they play a great role in education as many countries. This is also aided by the availability of computers as well as an increase in the world literacy rate which is needed by students to take advantage of this latest development (Thomas: 1987 in Aduwa-Ogiebaen and Lymn, 2005).

Today technology has turned the whole world into a global village that is, breaking all the physical boundaries and pave a way for free movement of information, goods and services around the world. Technology brought a big change to individual's life in the economy, in business and in education (Yursuf, 2005). Sharvinina (2001) argues that new technology encourages companies to introduce technological innovations rapidly into the business practices, thereby improving the economic environment. Employers in the world are in search of workers who are computer literate (Aduwa-Ogiebaen and Lymn, 2005).

Despite the efforts by the Zimbabwean president through his ICT initiative of donating computers in schools in collaboration with the government's rural electrification programme which resulted in schools in Shurugwi districts being connected to electricity, the researcher noted that the use of ICT in the teaching and learning of business studies at A' level is still very low. Therefore this study aimed to unpack the challenges faced by teachers in the application of ICT in teaching A' level Business Studies.

1.2 Statement of the problem

The Government of Zimbabwe and the Ministry of Primary and Secondary Education is convinced that when ICT is used in the teaching and learning it improves the quality and effectiveness on the educational system. The rapid expansion of technology led to many research efforts which investigate on how teachers can use or apply ICT in teaching and learning. Most of the teachers in Shurugwi District are not applying the ICT tools in teaching and learning processes. This has a negative impact on Advanced Level Business Studies students who are living in a society which has a great competition in terms of information. Learners should be equipped with the ICT skills which will help them find more information so that they can survive in the information competent world. This study, therefore, sought to establish the challenges that

are faced by the teachers in the application of information communication technology in the teaching and learning of Business Studies at Advanced Level.

1.3 Research questions

The study was guided by the following questions

- What are the challenges faced by A' Level Business Studies teachers in the application of Information Communication Technology in their teaching?
- What are the challenges faced by A' level business studies students in the application of Information Communication Technology in their learning?
- What are the advantages of applying ICT in teaching and learning Business Studies at Advanced Level?
- What Information Communication Technology tools can be applied by Business Studies teachers in their teaching?
- What skills do Business Studies teachers use to enhance the implementation of ICT in the teaching and learning of Business Studies?
- How can teachers and learners mitigate the challenges faced in the application of ICT in the teaching and learning of Business Studies at Advanced Level?

1.4 Significance of the study

The aim of the study was to unpack the challenges faced in the application of Information Communication Technology in Business Studies teaching and learning. This study explains the significance of the research to Business Studies teachers, learners and other interested parties such as Ministry of Primary and Secondary Education and to the researcher herself.

1.4.1 Significance to Business Studies teachers

This research was meant to remind Business Studies teachers in Shurugwi District to apply ICT in their teaching. The use of ICT will also help teachers in the sense that the use of technology motivates learners. The utilisation of technological tools such as overhead projectors and videos will attract the concentration of pupils thereby reducing pressure from the instructors. This study is going to make teachers become aware of different technological tools accessible which can assist in teaching and learning.

1.4.2 Significance of the study to learners

The use of ICT tools benefits the learners in the sense that they get motivated as the use of computers allows them to work at any time they want and at their own pace. The computer has patience when testing as it gives more chances of retesting when the students fail the test. This patience is of great benefit to the learners. Computer based learning is able to provide almost instant feedback and this motivates learners as they receive feedback in time and try to correct themselves where they get wrong.

.3 Significance of the study to the Ministry of Primary and Secondary Education.

This study is aimed to detect the challenges faced by the A' Level Business Studies teachers and learners in the use of ICT. After the identification of the challenges the information will be shared with many stakeholders in the education sector including the ministry in charge. The findings will be used by the Ministry of Primary and Secondary education in findings solutions to address them so as to improve the use of ICT in the teaching and learning of A' level Business Studies and all the subjects in the curriculum. The study will also reveal the reasons why schools don't fully utilised ICT in the teaching and learning of Business Studies in Shurugwi District.

The study will then come up with strategies and recommendations to address challenges faced in the application of ICT in the teaching and learning of Business Studies.

1.4.4 Significance of the study to the researcher

This study will be a benefit to the researcher since the study is carried out in particular fulfilment of the requirements of the degree programme she was pursuing. The researcher will benefit from attaining the Bachelor of Education Honours Degree in Management of Business. She will also acquire skills she can use to carry out her professional duties as well as in pursuing other academic studies.

1.5 Assumptions

Assumptions of the study included that:

- schools are providing computer education as a subject in the curriculum however teachers are not putting it into practise buy using ICT in the teaching and learning of other subjects in the curriculum.
- Both instructors and students do not know advantages of implementing ICT tools in teaching and learning
- Participants are computer illiterate
- Leaders of the school that is the head of the schools are unwilling to acquire tools that can enhance the use of technology in teaching and learning.

1.6 Definition of terms

- **Information Communication Technology:** is the variety of technological equipments which are used to generate, converse and manage information.

- **Computer:** It is an electronically controlled machine that works under the control of stored programs that automatically processes data/information.
- **Business Studies:** is a subject which is taught at both ordinary level and Advanced Level.
- **Challenges:** these are factors that hinder the successfulness of a goal.
- **Application:** is the utilisation of ICT tools in teaching and learning in Business Studies.

1.7 Limitations to the study

There were many limitations during the course of the study. The restrictions included time, adequate funds, and lack of co-operation from participants. Inadequate finance leads the researcher into failing to administer questionnaires to all Business Studies. The researcher did the research in Shurugwi District only. This was so, because of very short time which was available to hold research in the entire province. Resources such as time and finance also did not allow accomplishment of the research on a wider scale. The other restricting factor was distance between the University and Shurugwi District. Shurugwi District and Midlands State University are places which are far away from each other. That meant that the researcher required time to travel to gather data and also needed money to finance the travelling. The study was also limited to Business Studies and therefore, the generalisation of the findings is limited to that subject.

1.8 Delimitations of the study

The major aim of this research was to look into the challenges faced in the application of Information Communication Technology in the teaching and learning of Business Studies at Advanced Level in Shurugwi District. This study was carried out in schools offering Business

Studies in Shurugwi District. Investigations focused on the challenges faced in the application of ICT in the teaching and learning of Business Studies at Advanced Level. The period in which the research was done is from August 2015 to April 2016.

1.9 Summary

In this study the researcher wanted to unpack the challenges faced in the application of ICT in teaching and learning of Business studies at Advanced Level in Shurugwi District. This research study was done on the hypothesis that many ICT tools can be applied in teaching and learning. Research questions were derived from the assumptions. The chapter also looked at the importance of this research to students, teachers, some other interested parties such as the Ministry of Primary and Secondary Education. The following chapter will focus on a review of related literature.

CHAPTER 2

REVIEW OF RELATED LITERATURE

2.0 Introduction

The chapter will focus on the related literature. The chapter will show other alike studies which were done in Zimbabwe and some other countries. This chapter will also reveal the views of different researchers and authorities say about similar research problem. It wants to discover what different authorities and researchers found on the challenges faced in the application of ICT in the teaching and learning of Business Studies at Advanced Level. The literature review will be carried out focusing on ICT tools available for teaching and learning, benefits of applying ICT tools in the teaching and learning and challenges faced in the application of ICT tools as well as the ways to mitigate those challenges.

2.1 Benefits of applying ICT in teaching and learning

Sithole (2010) argues that, implementation of ICT tools in education will inspire and stimulate students' interests in learning. The learning processes of today can be enhanced through the use of modernized technology. The use of modernized technology in education can result in the increase of ICT linked competences in Advanced Level Business Studies. Aduwa-Ogiegbaen and Lymn (2005) in addition they argued that there are many and good quality predictions intended for the utilisation of advanced technology in education of secondary schools. Aduwa- Ogiegbaen and Lyman (2005) indicated that there are a variety of applications which computers can provide and they help the teachers and learners during their lesson processes. Aduwa- Ogiegbaen and Lymn (2005) mentioned that the application of information communication technology in teaching and learning processes enhance effectiveness. For instance the instructors can use

overhead projector to teach a large class. The computer can also help with problem solving skills by focusing on thinking skills especially in subject such as Business Studies. Aduwa-Ogiegbaen and Lymn (2005) further stresses that computers can serve administrative by reducing paper work such as filling documents, writing correspondence and reports, assigning students to classes, reporting students' progress and testing students as well as giving marks. Computers can also be used for individual learning in secondary schools (Sithole, 2010). The differences in individual learning styles and pace, application of ICT tools will allow learners to develop their individual paces and obtain constant assessment, response and corrections for errors made (Aduwa-Ogiegbaen and Lymn, 2005).

The other benefit mentioned by Aduwa-Ogiegbaen (2005) is that the use of ICT can change the teaching practices in schools. Aduwa-Ogiegbaen and Lymn (2005) mentioned that computers allow more of self-governing, searching more individually modified actions, more cooperation and little informative instruction. This changes the role of the teacher from information distributor to that of information manager (Aduwa-Ogiegbaen and Lymn, 2005).

Patil (2012) is of the view that ICT can develop individual access to learning thus; learners can use internet to research on topics such as business and its environment, human resource management and decision trees and many other in Business Studies. Due to use of the internet students, can study on their own at their spare time during the day of after school. Patil (2012), goes on to say that ICT also helps that students with special educational needs can also learn at their own pace and may be able to accomplish the tasks working on their own. In his research Patil (2012) stresses that pupils with the use of ICT they can be able to revisit tasks, to do revision on what had been done in the classroom. Some other educational software allows students to write some tests or exercises and give feedback. The application of Information

Communication Technology tools generate greater eagerness for learning among the learners, learning will also become amusing through games, puzzles and quiz (Patil 2012).

Patil (2012) went on to support the application of ICT tools in teaching and learning. Patil(2012) mentioned that visual pupils, due to use of the internet they can have information along with their sighted peers. The application of ICT may also help learners with deep and numerous learning problems for they can communicate easily using projected media and many other ICT tools (Patil, 2012). According to Patil (2012), ICT allows distant learning nationwide by using online educational materials and with additional resources to assist resource based learning.

2.2 ICT tools available for teaching and learning

According to British Educational Communications and Technology Agency (BECTA: 2003a), a number of ICT tools can be applied in the teaching and learning and these include LCD projectors, Web based learning, Encarta software, computer productivity tools and interactive white boards. LCD projectors work the same way as the overhead projector. The BECTA (2003) is of the view that the LCD projects an image onto the screen or blank wall thus, providing more instructional flexibility. BECTA (2003) further noted that slides can be stored in files on the computer and that they can also be made successful to pupils or other instructors. Yusurf (2005) noted that presentations and hand outs can be made using power point or other software applications and teachers can post their slides on the web so that students may download them from wherever they are for the purpose of studying.

According to Yusurf (2005), web based learning creates a chance for personalised learning, visualisation of micro and macro world, creation of two dimensional and three dimensional mental images. Visualisation tools allow pupils to view, rotate, as well as coming up with new

images for example curves or graphs in Business Studies (Yusurf, 2005). This will make the concepts real and helping students in understanding the Business Studies difficult concepts. BECTA (2003) also mentioned Encarta software as one of the ICT tools which can be applied during the teaching and learning. Dawes (2001) is of the view that Encarta software is an educational software package that is highly interactive and is meant for individualised or group learning. The software allows pupils to click on parts of the program where it actually talks to them and they can see what it does, rather than just seeing a picture on the board (Osborne and Hennessey, 2003). The BECTA (2003) also mentioned the computer productivity tool as a tool that can be applied in teaching and learning. It includes computer applications such as Word, excel, power point and data base. The tool aids to bypass writing and drawing by hand (Yusurf, 2005).

Smaldino et al (2012), supports BECTA (2003) by stating that interactive white boards are tools which can be used in education. Smaldino (2012), purports that interactive white boards offer a whole class spontaneous access to a wide range of multimedia resources that can be manipulated and annotated. Manipulation of objects on screen offers opportunity for knowledge building, although use reinforces a teacher –centred didactic pedagogy lacking response to individuals (Smaldino et al, 2012).

Smaldino (2012) further noted that the CDs can be used in teaching and learning as they store sound as digitalized bits of information. The information can be selected and taken back by learners or planned by the teacher. The most important benefit of the CD is its resistance to scratch (Smaldino,2012). Many computers are capable of creating or burning audio, and this makes it easy for instructors and learners to produce CD recordings (Smaldino et al, 2012). Smaldino (2012) indicated that auditory recordings can be used to demonstrate book reports,

which learners may record during study time. Smaldino et al (2012) said that students can record information to bring into being from a field trip on portable devices. Pupils can record their selves giving a speech and presenting some of the topics in their syllabus. Auditory recordings adds an aspect to learning environments this improve pupils' education experiences.

2.4 Challenges faced by both the teachers and learners in the application of ICT

The action of applying ICT into teaching and learning is a difficult process and one may face a number of difficulties. The difficulties are known as challenges (Schoepp: 2005). A challenge is defined by Schoepp (2005) as any situation that makes it difficult to achieve. The challenges that most researchers identified will be explained below.

Most researchers had indicated that one challenge that prevents teachers from using ICT in their teaching is lack of confidence (Dawes, 2001). According to BECTA (2004), most of the researchers propose that this is the key barrier to the application of ICT by teachers in the classroom. Most researchers have investigated the reasons for teachers' lack of confidence with the use of ICT. Beggs (2000) argued that teachers' fear of failure may cause lack of confidence. Balanskat et al (2006) found that limited ICT knowledge makes them feel fearful about using ICT in classroom and thus they will not feel confident to use it in their teaching. The BECTA (2004) concluded its study by supporting other above researchers when it say many teachers who do not heed themselves to be well skilled in employing ICT feel nervous about using it in front of a class of children who maybe knowing more than they do. Lack of self-assurance and familiarity with technology affect teachers' motivation to use ICT in the classroom (Balanskat et al, 2006).

Some researches into the challenges faced in the application of ICT in education found that teacher's attitudes and intrinsic opposition to change was an essential challenge (BECTA: 2003).

The BECTA (2003) also stated that one key area of teachers' attitudes towards the use of ICT is their perception on how these technologies will help their teaching and their student's learning. Schoepp's study of (2005) found that, though teachers feel that there is more than enough technology accessible, they do not believe that they are being supported, guided or rewarded in the application of technology into their teaching. Empiracal (2006), noted that teachers who are not applying modernized technology in their teaching are still of the perception that the employment of Information Communication Technology has no benefits.

Shortage of individual skills is one more challenge faced in the application of Information Communication Technology in classrooms (Aduwa-Ogiegbaen and lymn, 2005). Aduwa-Ogiegbaen and lymn, (2005) further asserts that utilisation of ICT in schools, needs emergency technical personnel to set up, maintain and support the systems. Aduwa-Ogiegbaen and Lymn (2005) noted that teachers lack the skills to completely utilise the ICT tools in their teaching thus the traditional method of teaching still exist (Aduwa-Ogiegbaen and Lymn, 2005). Dawes (2005) is of the view that teachers tend to suspend behind in adaptation and adoption of new technologies therefore, in spite of the advanced technology development teachers find themselves not prepared to meet new demands of the accelerating educational technology that confront them.

According to Beggs (2000), the other challenge faced in the application of ICT is time constraints. Beggs (2000) in his study noted that computer studies as a subject was only offered to few students who had chosen it. The numbers of those who were chosen were few because they were limited according to the resources accessible. Most of the learners, therefore, had no opportunity to learn computer basics so, the introduction of new strategy meant that all students needed to be trained computers skills, but due to large numbers of students versus few

computers, this strategy had failed (Schoepp, 2005). Schoepp in his study said that even the school schedule in place could not allow for this new arrangement. He finds out that there are 9 to 10 lessons of 40 to 45 minutes a day respectively. On rearranging the schedule only a few slots were available. Most schools in the study of Schoepp could slot a class only once a week to the computer laboratory. This meant late training and hence late in the actual employ in classroom teaching.

Schoepp's study was supported by Alwani (2005), when he purports that lack of time is a barrier that hinders the application of ICT in Saudi Arabia because of busy schedules teachers work from 7:00 am until 2:00 pm and the average number of class sessions taught by Business Studies teachers is 18 per week, both teachers and students have a limited number of hours during the day to work on applying Information Communication Technology in teaching and learning of Business Studies.

Some researchers into the challenges encountered in the application of Information Communication Technology in education found that unavailability of technological support is one of the challenges. Lacking good technical supports in the classroom and ICT resources, teachers cannot overcome the challenges hindering them from using ICT (Lewis: 2003). Pelgrum (2001) noted that in the view of primary and secondary school teachers, one of the top challenges in using ICT in teaching and learning is lack of technical assistance. Silica (2005) supported Pelgrum (2001) when Silica said that technical challenges include waiting for websites to open, failing to connect to the internet, printers not printing, malfunctioning computers and teachers having to work on old computers. Technical challenges reduce the smooth delivery of the lesson or the other natural flow of the classroom activity (Silica: 2005). Dawes (2001), argues that ICT support from the laboratory technicians in schools help teachers to use ICT in teaching without

losing teaching time through having to fix software and hardware problems. BECTA's study of (2004) indicated that technological faults might discourage them from using ICT in their teaching because of fear of equipment breaking down during lessons.

Silica (2005) is of the view that lack of access to resources, including home access is another complex challenge that discourages teachers from applying new technologies into education. In Silica's study of (2005) teachers complained that it is always difficult to have access to computers. Silica (2005) in his study indicated that computers had to be booked in advance and the teachers would forget to do so, or they could not book several periods in a row when they wanted to work on numerous projects with the students. BECTA (2004) postulated that inaccessibility of ICT resources is not always due to inaccessibility of the hardware and software or other ICT materials within the school. The unavailability may be caused by poor administration of resources, poor quality hardware, inappropriate software or lack of access for teachers (Becta, 2004).

Toprackci (2006) in his study found that unavailability of computers, oldness or slothfulness of ICT systems and scarcity of educational software in the school were barriers to the successful application of ICT systems in science education in Turkish schools. Al-alwani (2005) found that having little or no access at all to the internet during the school day and lack of hardware were hindering the progress of technology application in Saudi schools. Albirini, the author, indicated that insufficient computer resources are one of the most critical obstacles to the application of technology in their teaching.

2.5 Suggested ways of addressing the challenges faced in the application of Information Communication Technology in teaching and learning of Business Studies

Some researchers have suggested that teachers should be thoroughly inducted on how to operate the machines before they could utilize them in their lessons. Bhasin (2012) supported the above view when he purports that it is a well known fact that professional teacher development is a key to successful integration of ICT in the teaching and learning process. Calson (2002) further says that teachers should not be ignored if there is need for successful use of technology in and teaching and learning. In order to improve the use of skills of teachers, they should be developed professionally. Bhasin (2012) indicated that a digital classroom is the teacher starts with the teacher. Training of teachers results in effective use of ICT tools for planning lessons. The purpose of a teacher has changed from an instructor to being a facilitator as learners discover for their selves in the ever changing world (Calson, 2002).

Access to technology resources was mentioned as a challenge in the application of ICT in teaching and learning. Ruthven et al (2004) says that there is need for accessibility and flexibility of use over and above quantity of machines. In this research Ruthven et al (2004) find out that management should solicit for more computers from all sources possible.

2.6 Summary

This section showed five aspects of ICT application in teaching and learning. The viewpoints included tools and resources accessible for ICT application, challenges faced in the application, ICT skills among teachers, approaches to address challenges faced in application and advantages of utilizing ICT as a part teaching and learning of Business Studies. Researchers and authorities everywhere throughout the world have upheld the ICT application into teaching and learning. Resources and tools accessible for use have been portrayed, challenges experienced have been

sketched out, methods for tending to the difficulties have been recommended and reasons to why ICT application is to be included in teaching and learning has been given. The following chapter is going to show the research methodology which was used in this research.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

The chapter focuses on the research design, its justification, and appropriateness, population, sampling and it portrays the population of the study and the sampling techniques used. It also shows the research instruments which were used to adequately address the research questions. The chapter in addition looks at the merits and demerits of the research instruments which were used to collect data. It also explains the data collection, presentation and analysis procedures followed.

3.1 Research design

The research design involves the clear statement of the problem or it can give the clear reason what caused the rise of a study (Cohen et al, 2011). The research design includes the overall plans of collecting data in order to answer research questions or hypotheses (Cohen et al, 2011). A design should involve issues such as who are the subject respondents? , what is to be determined and from who? , what procedures are to be followed and what are the instruments for capturing data? (Cohen 2011). A research design involves analysing, confirming data, sequence, the period and the method used in the study that is whether it used survey, historical or experimental (Leedy 1979).

Research is a process in which the researcher tries to accomplish methodically with the help of data, solutions to the questions and way of addressing the problems (Chiromo 2009). Cohen (2011) describes a research design as a plan which gives information on how the research should be carried out. To accomplish this research, the researcher chose descriptive survey design.

3.2 Descriptive survey design

Descriptive survey involves creating options that are guided by the researcher's assumption, access and pre-understanding (Gummerson, 1991). Descriptive survey design was used in this study because it provides time to make clear the research problem and this is one of the key concerns for research. Schoenberg (2013) postulated that the descriptive survey design facilitates in the elucidation of actions or conditions. It is flexible and it lessens the possibility of bias and it also produces accurate results. The descriptive survey design helps the researcher to recognize areas for further research (Gummerson, 1991).

However, the descriptive survey is very expensive considering that the researcher was a full time student and had a limited and strained financial position. The other disadvantage of this design is that there is a constraint that the researcher was dealing with a smaller group which might be biased in terms of answering questions. There could be bias because the design emphasized on estimation rather than testing.

3.3 Population

Fraenkel and Wallen (2003) see population as the group of interest to which the researcher would like to generalise the results of the study. This can also be defined as including all people or items with the characteristic one wish to understand. In this study, the population comprised of five high schools offering Business Studies in Shurugwi District. Research population is a huge collection of persons or items focused by the research (Best and Khan, 1993). The population consisted of 15 Advanced Level Business Studies teachers, five schools heads, five heads of department and 150 Advanced Level Business Studies learners in Shurugwi District.

3.4 Sample and sampling technique

According to Field (2005) a sample is a smaller collection of units from a population used to determine the truths about that population. This means that the sample will represent the whole population on all characteristics. A sample is a subject of a population Springer (2010). Researchers gather information from subsets of the population so that the knowledge gained will represent the whole population in that place so as to avoid negative effects toward the research and these include expense, time and accessibility. There are a numerous sampling techniques which include simple random, purposive and stratified. The researcher used simple random sampling for selecting the schools, purposive sampling technique for HODs, teachers, and heads of schools and stratified and simple random for selecting 30 students. The sample size included three heads of school, three HODs, six teachers and thirty students. According to Springer (2010) simple random sampling is a process in which each member of the population has an equal and independent chance of being selected for participation in the study. The researcher used simple random sampling technique because it is bias free. There is no bias in selection of participants since everyone has equal chances of being picked. The researcher used stratified sampling technique where she grouped learners into Lower Sixth and Upper Sixth. On simple random sampling the researcher used the hat system where she put papers written yes or no and allowed students to pick. If the student picked a yes paper that student was going to be selected.

3.4 Research instruments

3.4.1 Questionnaires

Maddon(2000), defines a questionnaire as a statement that contains a series of questions that will be asked respondents by the researcher to obtain information for a study. The questionnaires were designed basing on the objectives of the research and research questions. Babbie (1992) defines a questionnaire as a collection of questions. This means that a questionnaire is viewed as a technique which is used to find information. It includes many questions on a paper to be answered and the answers are regarded as data. Leedy (1993) regards a questionnaire as a common instrument for observing data beyond the physical reach of an observer. Questionnaires are divided into two that is closed ended and open ended questions. Open ended questionnaires enabled the respondents to show their feelings and attitudes (Babbie, 1992). The use of questionnaires will result in some benefits and these include that questionnaires are economic, because they can be used to find data from many people at the same time (Walker 1990). A questionnaire is also impersonal, that is, people can complete it without bias of knowing the researcher. The questionnaire is free from ambiguity, if the values of clearness and accuracy are taken into consideration when collecting data (Maddon, 2000). Participants do not write their names on the questionnaires and this means that all questions will be answered truthfully because participants will know that they will not be identified (Walker, 1990).

A questionnaire promotes critical thinking and increases the respondent's involvement (Maddon: 2000). Since questionnaires are not answered in pairs or groups this gave respondents time for individual opinion and this reduces the bias of collecting similar answers. The researcher used both open and closed ended questions. Use of open ended and closed ended questions enables collection of qualitative and quantitative data (Cohen et al, 2011).

3.4.2 Interviews

Chiromo (2009) sees an interview as a verbal representation of the set of questions that are set in advance. An interview can be exceptional tool that involve the collection of data through oral communication. There are two types of interview guides and these are structured and the unstructured questions. A structured interview guide is an interview which only allows questions on the list (Leedy: 2000). An unstructured interview guide is an interview which has room for adding more questions and responding to them (Leedy: 2000). The interviewer could probe for more information and opinions since the interview allows flexibility in terms of dialogue (Best and Khan: 1993). Maddon (2000) supported the use of interviews because they give instant feedback and they also allow the researcher to have a conversation with the participants as well as adding more questions. Interviews were also used to find clear explanations on what people think. Best and Khan (1993), say that interviews allow the interviewer to gain clear explanations about what the respondents think.

3.4.3 Observations

Chiromo (2009) is of the view that observations try to find out what people believe and do by watching them while they do their everyday practices as they express themselves in many circumstances and performances. Observation is seen as the shortest way of studying people in order to know their behaviours (Dube and Nkunda, 2010). The collection of data using observations results in getting real and true answers since the researcher will be witnessing the behaviours (Maddon: 2000). Dube and Nkunda (2010) say observations allow the researcher to gauge real activities rather than when people give reports on their own. In this study the researcher tried to prevent bias by use of observations. Observations are a very straight means of gathering data and they are good at studying individual behaviours. The use of observations

reduces the difficulty of relying on responses of participants (Kothari: 2004). Observations are less demanding in nature, which makes them less bias in working abilities (Best and Khan: 1993).

However, observations are unprincipled especially if they are inconspicuous and if they are also time consuming (Kothari: 2004). Mhlanga and Ncube (2003) say the other disadvantage of using observations is that problems of the past and thoughts cannot be studied using observations. The disadvantages of using observations were alleviated by using questionnaires and interviews. The researcher sought permission to collect data from the Ministry of Primary and Secondary Education to make sure that observation are ethical.

3.7 Data collection Procedures

The Faculty of Education at Midlands State University offered the researcher a letter. The researcher went on to get permission from the Ministry of Primary and Secondary Education Provincial office for Midlands Province. The researcher started collecting data with the permission from the Ministry of Primary and Secondary Education District office of Shurugwi. On each school the research first ask for permission from the school heads and HODs for commercial subjects. Interview guide was used to interview the school heads in each school. The researcher also used observations while lessons were in progress to see if the teachers were using ICT tools in their teaching use in teaching. The researcher gave questionnaires to Business Studies teachers and students. After the interviewing, observations and administering of questionnaires the researcher collect all the answers and filed them for analysis.

3.7.1 Reliability

Babbie (1983) indicated that reliability is a matter of whether a certain technique repeated to the same item would yield the same measure of consistency. A set of questions in a questionnaire were analysed to see if they were likely to collect the same information from all respondents on the same position. Questions that are clear, short and precise were used by the researcher to make the questionnaires reliable. Reliability was then used to measure consistency of an instrument and what it intends to measure. The researcher used pilot studies before carrying out the research.

3.7.2 Validity

Lotz and Lee (1999), defines validity as the suitability, meaningfulness and helpfulness of the specific inferences made from a test score. Chivore (1994) argues that validity can refer to whether the observer is observing what is intended by the given instruments. The main aim of validity is to make sure whether the ways used were suitable for the scientific enquiry that was set to be investigated (Chivore: 1994). The researcher designed the instruments using research questions, significance of the study and then pilot test was conducted in order to see if the instruments used measured what they were intended to measure.

3.8 Data presentation and analysis plan

Tables and graphs were used to present the gathered data. Data should be presented in description form this means telling the events as they happen (Best and Khan, 1993). Tables and graphs are also used to aid improved clearness, and to allow understanding of the information at a quick look (Best and Khan, 1993). After gathering data, the data was presented linking it with the research questions. The answers from the participants were critically analysed so as to fully

take to meaning each item on the questionnaire. The collected data was analysed to get results and recommendations quantitatively.

3.9 Summary

This chapter has focused on the research design, population, sample, ethical issues, reliability, validity, data collection procedures and data analysis procedures. The chapter explained the descriptive survey design, targeted population and the sample, sampling techniques during data collection as well as research instruments. The three instruments for collecting data that is interviews, observations and questionnaires were explained pointing out their advantages, disadvantages and the ways used to eliminate those disadvantages. The chapter also made attempts to justify the use of those data collection methods. The next chapter focuses on the presentation, analysis and discussion of the data collected.

CHAPTER 4

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.0 Introduction

This chapter will present the collected data as well as showing the analysis of the data. The data will be presented in form of tables and graphs. The chapter will present data on the findings of the benefits of applying ICT in teaching and learning of Business Studies at Advanced Level, on technological tools available to be used by Business Studies teachers, findings on the skills that Business Studies teachers have in Information Communication Technology. It also explores the challenges faced in applying Information Communication Technology and the possible ways to mitigate the challenges. The chapter will finally discuss the research findings.

4.1 Which ICT tools do you have in your department?

In her study, the researcher wanted to know the challenges faced by teachers and learners when applying Information Communication Technology tools in their learning processes, she first find out what Information Communication Technology equipments on hand which can be used to enhance the teaching and learning process. The question mentioned above was included in both the questionnaire for teachers and that of students. Participants responded to the question and their responses were presented in the graph below.

Graph 4.1 ICT tools available for teaching and learning

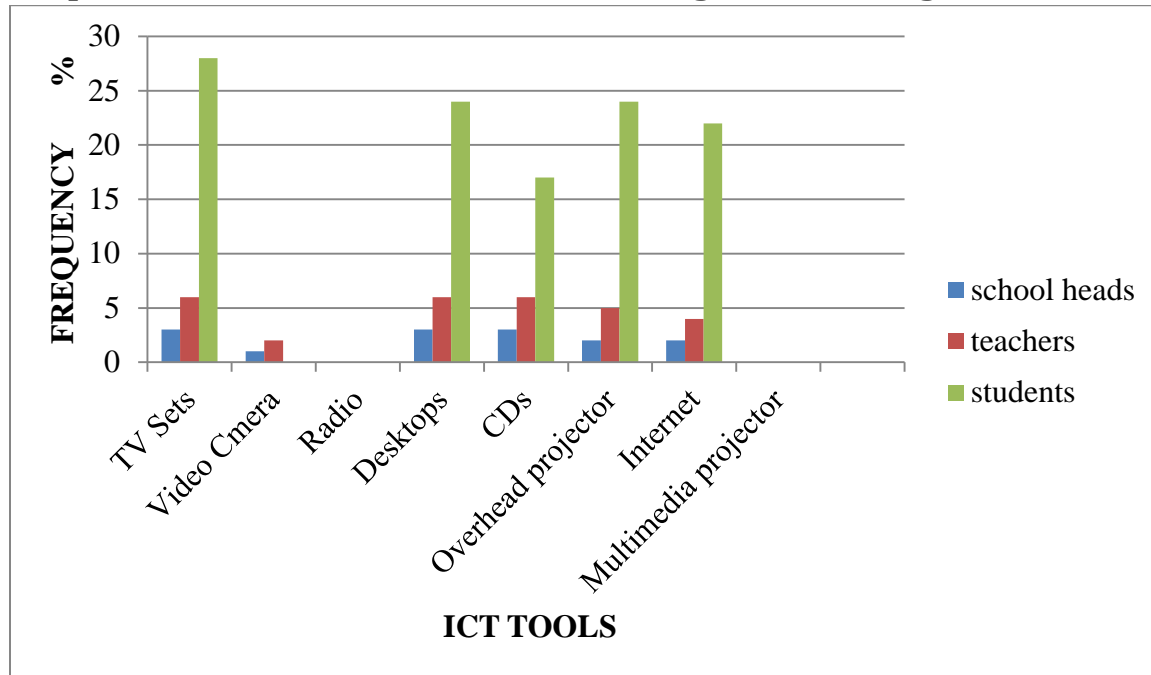


Figure 4.1

Above is a graph that presents the research findings on the ICT tools available in the sampled schools. The graph shows that three out of six school heads agreed that television sets are available at their schools. Six teachers and twenty-eight learners showed that they had access to television sets at their schools.

A total of three participants responded and confirmed the availability of video cameras in their schools. This total included two teachers and only one school head. None of the participants on the sample showed the availability of radios. On availability of desktops a total of thirty-three participants confirmed that, they are accessible. From the total of thirty-three, three school heads, six teachers and twenty-four students indicated that they had desktops. Six teachers, seventeen pupils and three schools heads agreed that CDs are available at their schools. Two head teachers, five teachers and twenty-four students indicated that they had overhead projectors

at their schools. Twenty two students, four teachers and two school heads indicated the availability of internet at their school, giving a total of twenty seven respondents. All of the participants showed that they do not possess multimedia projectors.

4.2 Level of competence in the use of the following ICT tools in teaching Business Studies

Below is a table which shows the level of competence of instructors and students on different computer application tools.

Table4.2.1 Level of competence of teachers and students on different computer application tools

	Respondents	Excellent	Very good	Good	Fair	No capability
Word processor						
Teachers	5	2	1	2	0	0
Students	24	13	3	2	5	0
Spreadsheets						
Teachers	4	0	0	1	0	3
Students	10	3	2	0	1	4
Power point						
Teachers	1	0	1	0	0	0
Students	12	0	0	0	0	12
Basic- email						
Teachers	4	0	0	3	0	1
Students	25	0	6	13	4	2
Browsing the internet						
Teachers	4	4	0	0	0	0
Students	15	7	2	0	0	6
Developing databases						
Teachers	0	0	0	0	0	0
Students	0	0	0	0	0	0
Developing educational soft						

wares						
Teachers	0	0	0	0	0	0
Students	0	0	0	0	0	0
Developing basic static web page						
Teachers	0	0	0	0	0	0
Students	0	0	0	0	0	0
Prepare lesson plans and tests						
Teachers	0	0	0	0	0	0
Students	0	0	0	0	0	0
Chatting platforms						
Teachers	4	0	0	1	0	3
Students	30	12	2	5	0	11
E –mailing for tele-collaborating						
Teachers	0	0	0	0	0	0
Students	0	0	0	0	0	0

Five teachers showed that they had word processing skills. Two teachers said they had excellent skills, one of them said he was very good and the other two said they were only good. Twenty four students responded on the level of competence in word processing. Thirteen of them said they were excellent, three said they were very good, two said they were good and finally five of them said they were fair. Four teachers give responses on spreadsheet skills of which one of

them said he was good and the other three confirmed that they had no capability. All students gave responses on spreadsheets and none of them confirmed possession of such skills. They all showed that they had no capability. Six teachers responded on power point skills. One of them indicated that he was excellent in this tool and five of them showed that they had no capability. Twelve students responded on power point but all of indicated that they had no capability. Three of the four teachers who responded indicated that their level of competence in basic emailing was good and only one showed that he had no capability. Twenty- five students responded on basic e- mailing six said they were very good, thirteen said they were good, four said they were fair and finally two of them said they had no capability. On the aspect of internet browsing only four out of six responded and all of them showed that their level of competence is excellent. Fifteen students indicated their level of competence on internet browsing. Seven students said they were excellent, two said they were very good and six indicated that they had no capability. None of the teachers, students possessed database development skills. On the skills of developing software skills, no participant indicated the level of competence. Only two teachers indicated that they have skills on the skill of preparing assignments and lesson plans using the computer. No participant showed the possession of basic static webpage skills. Four teachers responded on use of chatting platforms where one of them has good skills and the other three do not posses any skills. None of the respondents possessed e-mailing for collaborating skills.

The following table shows the responses given by teachers, students and school heads. The table will show the views of the above mentioned respondents on the challenges faced in the implementation of Information Communication Technology in the teaching and learning of Business Studies.

Table 4.3: Challenges faced in the application of ICT in teaching and learning

Challenges	School heads	Teachers	Students
Poor information infrastructure	1	2	18
Lack facilities to enhance ICT use in schools	2	4	25
Insufficient ICT tools in schools	2	4	23
Regular electricity disruption	3	6	29
Insufficient ICT manpower in the schools	3	3	27
High cost of internet connections	3	6	22
Unaffordable prices of ICT tools	2	5	30
Lack skills among teachers	3	3	26
Poor awareness of ICT among teachers and Administration	1	3	27
Not enough educational software	3	6	23
High maintenance costs	2	3	15
Limited budget of the school	3	0	0
Lack of interest in both teachers and learners	3	0	0

Two teachers, eighteen students, one school head had a perception that limited information infrastructure can be a barrier to the use of Information Communication Technology in schools. Four teachers, twenty-five pupils and two heads of the schools were of the view that limited facilities in schools can be a challenge in applying technological tools in their education processes. Four teachers, twenty-three pupils and two heads of the schools agreed that frequent

electricity interruptions maybe one of the challenges faced in the application of Information Communication Technology in education. Twenty seven learners, three heads of the school and three teachers indicated that insufficient Information Communication Technology equipment in school as a challenge encountered in applying ICT. Three teachers, twenty-seven students indicated that the other challenge is scarcity of manpower that is technologically skilled. Two Business Studies teachers, five heads of schools and twenty two pupils mentioned that high cost of internet connections is one of the barriers to computer application. Six teachers, twenty-two pupils and three heads of schools mentioned lack of technological skills amongst teachers is one of the challenges face in the implementation of Information Communication Technology tools in education. Three teachers, twenty- seven pupils, and one school head were of the view that poor awareness of modernized technology amongst teachers and leaders is one of the challenges faced in applying Information Communication Technology in education. Six teachers, twenty- three learners and three heads of schools indicated that insufficient educational software is one of the challenges faced in applying ICT tools. Three teachers, fifteen learners and two school heads revealed that minimum maintenance of available tools is a challenge. Six teachers, twenty- three learners and three heads of schools argued that shortage of qualified advancement opportunities for attaining information and expertise as a challenge in applying ICT in education. Six teachers, twenty- two and three heads of schools agreed that unaffordable prices of Internet facilities are a challenge to ICT application. Twenty- four pupils and three heads of schools noted that lack of curiosity in using ICT is a challenge to its application. Only three heads of schools indicated that limited school finances are an additional barrier to ICT application. Five teachers, thirty students, two school heads and indicated that unaffordable prices of technological tools is one more barrier applying ICT tools in their learning processes.

The table below shows the ways mentioned by respondents to mitigate the barriers faced in applying Information Communication Technology in education processes.

Table 4.4: ways of addressing the challenges faced in the application of ICT in teaching and learning of Business Studies

Suggestions	Teachers	Students	School heads
Teacher training and development	5	28	3
Sourcing more tools to enhance ICT application	4	21	2
Improving infrastructure	2	26	1
Employ emergency technical personnel	4	0	3

Five teachers, twenty- eight students and three school heads suggested that teacher training and development may assist in addressing the challenges faced in the application of technological tools education. Four teachers, twenty- one learner and two heads of the schools mentioned that sourcing more ICT tools may enhance the application of Information Communication Technology in education. Two teachers, twenty- six pupils and one school head were of the view that improvement of infrastructure may enhance the implementation of Information Communication Technology in instructing and learning of Advanced level Business Studies. Four teachers and three school heads were of the view that employing emergency technical support personnel is one of the solutions to challenges faced in the application of ICT.

4.5 Discussion

4.5.1 What Information Communication Technology tools are accessible for application in classrooms?

The results from research disclosed the Information Communication Technology tools accessible to schools as well as classroom practitioners. The findings from the study made it clear that schools had fewer Information Communication Technology equipments to apply in instructing and learning Business Studies at Advanced Level in Shurugwi District. Every one of heads of schools in the research accepted that they had television sets. They also revealed that teachers do not use them as an ICT tool because they only had few television sets of which not all teachers were having access to them. The television sets of most of the schools are either in the entertainment room or in the computer laboratory where they were merely used by learners during entertainment or lessons. On interviews the heads of schools showed that the TV sets were not accessible to instructors to be applied in instructing and learning process. In the research most of the respondents have shown that use of video camera as an ICT tool is very

essential in teaching and learning. They have also shown that they had interest in using video cameras but most of the school do not have cameras at schools. At any school which owns a video camera the respondents revealed that it was not used as an ICT tool but it was only used when there are functions at schools. Most of the respondents in the research have radios but though they do not use them as an ICT tool in teaching and learning. On the interviews school heads indicated that the radios were only used when there was function for example when the school is hosting sports or on prize giving days so that they can use microphones.

Most of the schools confirmed the availability of desktops and some they even do have computer labs. When the researcher interviewed the heads of schools they indicated that computer laboratories just accommodate Computer Studies learners when they are doing their lessons. They also revealed that these computers were not accessible for use to teachers from other departments. The respondents in addition indicated that some other desktops were just for managerial programs and were not accessible for use them for teaching. Some teachers agreed on the use of CDs and noted that those CDs were their own and they had purchased them to improve the understanding of learners and to make it easy to explain concepts..

From the data collected only a few of the respondents accepted the accessibility of overhead projectors in teaching and learning. The research indicated that though some of the schools do have projectors they do not use them in their teaching and learning since each school might have only one and it is difficult to access it. This was supported by Toprackci (2006) in his study argued that low numbers of computers' oldness or slowness of ICT system and shortage of instructive software in school were challenges to the successful application of Information Communication Technology systems into science education in Turkish schools. Some schools in this research have indicated that they have access to internet but they did not use it in teaching

and learning since they did not know how to access educational games using internet. Some schools have shown that internet is mainly used for the purposes of management. The researcher noted most teachers were teaching without any of the technological tools.

4.5.2 What ICT skills do participants have to enhance application in teaching and learning?

The students and the school heads indicated that shortage of skilled teachers reduces the use of ICT tools in teaching and learning. Though learners and teachers showed that they had skills in other ICT tools they had indicated that they do not have skills in database development, development of educational software, development of basic static web page, e-mailing for collaborating and in preparing tests and coursework making use of ICT tools. Bhasin (2012) argues that though instructors believe that application of ICT is of great benefit, they are not able to recognize that. Findings from this study revealed a skill space on Head of Departments and school heads. Seyal (2012) views management as a crucial element in achieving application of Information Communication Technology in teaching and learning. Findings of the study showed that Heads of Departments and head of schools have no skills, so, this gap can affect the application process.

The focus on applying Information Communication Technology into education process is the learner (Bhasin, 2012). This means that, the learner is the one who is subjected to the application. Due to this motive, it is essential to find out the type of students who are the target group for the application process. When the researcher profiled the Information Communication Technology literacy of pupils it showed that learners do not possess very essential aspects of the ICT skills. The results showed that only a few learners had basic Information Communication Technology skills which cause a difficult in applying ICT.

4.5.3 What challenges are faced by Advanced Level Business Studies Teachers in applying Information Communication Technology in teaching and learning?

Ohiwerei et al (2013) indicated that shortage of funds is one of the main problems which hinder the application of ICT in schools. The findings from the study tell that computer software and computer hardware have higher cost and schools do not afford to acquire them that is the reason why commercial departments are not using ICT. Research finding indicated that the accessibility of computers is just for the learners who do computer studies so they are not available to other departments in schools.

Aduwa-Ogiegbaen and Iyamn (2005) stated that unavailability of qualified personnel hinders utilisation of Information Communication Technology into teaching and learning. Dawes (2005) supported the above mentioned point when he argues that instructors have a tendency of hanging behind the adaptation and adoption of modern technology so, despite the modernized technology development instructors find themselves not ready to meet the demand of the ever changing curriculum technology that is facing them. The above assertion made by Dawes (2005) was supported by the findings of the study when most of the participants showed that they had no basic Information Communication Technology skills this may affect the successful implementation of ICT tools in teaching and learning. They even revealed their lack of skills in using ICT when they were asked to show their level of competence on tools which were given in a questionnaire.

The results of this study revealed that shortage of rooms for computer laboratories is one of the major factors that bring a challenge in applying Information Communication Technology in education at Advanced Level. Respondents had also mentioned that the accessible Information

Communication Technology tools are damaged and unreliable source of energy being the reason. These tools were not repaired because of higher costs in repairing.

Access to ICT infrastructure and resources is a basic condition to the application of ICT in teaching and learning (Buabeng-Andoh, 2012). Results from the research revealed that teachers in Shurugwi District do not have relevant software and they have few computers and most of the teachers have limited access to them. The respondents showed that shortage of software is affecting them since they do not have access to the software even if they are willing to use it on their own computers. Aduwa- Ogiegbaen and Iymn (2005), asserts the supply of suitable software is the main difficult hindering the implementation of ICT. If both teachers and instructors do not have right to use technological tools, then they are not going to apply these tools in their teaching. This means that access to ICT resources is the major element to successful application of Information Communication Technology in education.

4.5.4 Ways to overcome the challenges faced in applying ICT in teaching and learning

Buabeng-Andoh (2012) sees instructors' qualification advancement as a major aspect to efficient application of ICT into Business Studies teaching and learning. Bhasin (2012) asserts that both beginners and experienced should be developed in their Information Communication Technology skills so that they can improve their competences in using the ICT tools. Results from the study indicated that, most of the respondents agreed that training teachers on how to use ICT tools can be one of the ways to mitigate challenges in the Information Communication Technology application in education.

Bhasin (2012), supports this when he argued that qualification instructor advancement is the major reason to effective application of Information Communication Technology education.

Respondents also agreed that mechanization of teacher's colleges may assist in mitigating challenges that hinders the application of ICT. Other respondents from the research mentioned that their schools should source more tools to enhance the use of ICT in teaching and learning. All school heads in their interviews suggested that government should subsidize curriculum Information Communication Technology tools and this will boost application of Information Communication Technology education in Shurugwi District. Ruthven et al (2004) supported this when he argues that administration should seek for extra ICT tools from all possible sources.

4.6 Summary

The chapter showed the presentation and analysis of data collected using. It showed the responses from selected Advanced Level Business Studies teachers, school heads learners. The key results presented related to the Information Communication Technology tools accessible, the skills which teachers have on ICT tools, the advantages of applying ICT in the teaching and Learning of Business Studies at Advanced Level, the difficulties faced in applying computers and lastly ways of mitigating the challenges. The next chapter will portray conclusions of the study and then give some recommendations expected to mitigate challenges faced in applying Information Communication Technology in teaching and learning in Business Studies at Advanced Level.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter is going to provide a summary for the whole study. It will outline conclusions and recommendations drawn from the research findings which were derived from the research questions. It will present a summary of findings on challenges encountered when using ICT in teaching and learning of Advanced Level Business Studies in Shurugwi District. The conclusions were drawn from the findings from the study. Lastly the chapter is going to suggest recommendations basing on the findings from the research and conclusions.

5.1 Summary

The rationale of this research was to find out the challenges faced in the application of Information Communication Technology in teaching and learning of Business Studies at Advanced Level in Shurugwi District. The study was investigating whether teachers and learners were applying ICT tools or not in their teaching and learning processes. The researcher used descriptive survey research design. The population on which the researcher has taken her sample consisted of five high schools, five school heads, five HODs, fifteen Business Studies teachers and one hundred and fifty Advanced Level Business Studies students. The sample of the researcher included three high schools, six Business Studies teachers, three HODs, three school heads and thirty students. From the thirty sampled students the researcher selected ten students from each school. She used the stratified random sampling technique to group the students into lower sixth and upper sixth. The researcher proceeded to use the simple random sampling technique to select the grouped learners. She used the hat system to select the participants. The

researcher wrote a yes or no on pieces of papers so the pupils had to pick any of the paper. The students who picked the yes paper written yes become part of the participants.

Questionnaires, interviews and observations were used to collect data. In this study the researcher administered questionnaires to the selected Advanced Level Business Studies learners and teachers. Interviews were also used in this research where the researcher interviewed the school head on each of the three schools. The researcher moved around the school computer laboratories and the HODs' offices, the offices of the school heads as well as classrooms to observe whether the teachers were using ICT tools or not. Before collection of data the researcher first sought permission Ministry of Primary and Secondary Education, Midlands Province and from the Shurugwi District Education office. The researcher then goes to schools and collected the data she required.

Results from the research indicated that schools had insufficient Information Communication Technology equipment for application in education. The ICT tools which were indicated their availability were computers, overhead projectors, Internet facilities and educational soft ware. Results of the study showed that Advanced Level Business Studies teachers lack Information Communication Technology skills. Results of this study also revealed that ICT application in teaching is caused by insufficient Information Communication Technology infrastructure and inadequate funds to acquire Information Communication Technology tools.

5.2 Conclusions

Conclusions were drawn basing on the findings of the study. The researcher find out that both teachers and pupils in Shurugwi District were facing challenges in the application of ICT in teaching and learning processes. From the findings the researcher got, she noted that success in

using ICT does not only rely on the accessibility of ICT tools, but it also depends on the availability qualified personnel. Results from the findings indicated that most of the schools in Shurugwi District were not applying Information Communication Technology in the teaching and learning of Advanced Level Business Studies. This might be caused by shortage of qualified personnel.

Results from the study revealed that ICT tools available in schools such as computers were not meant to be used by teachers in their lessons. The research also finds out that there is a skill gape on leadership. School administrators and teachers who should take into action the application process do not have any Information Communication Technology skills. The researcher noted that Information Communication Technology application in Shurugwi District had not been taken into action because of shortage of required skills basing on the research findings.

The other conclusion made basing on the outcomes of the study is that Information Communication Technology application in the teaching of Advanced Level Business Studies was affected by lack of funds. The results of the study indicated that insufficient funds is a key obstacle to the application of Information Communication Technology in the teaching and Learning of Advanced Level Business Studies in Shurugwi District. Other outcomes from the research pointed out the lack of appropriate education software, restricted right to use of the internet and shortage of Information Communication Technology infrastructure. Basing on these results of the study, the researcher concludes that ICT application in Shurugwi District is deeply hindered by shortage of Information Communication Technology infrastructure, lack of suitable educational software, high cost of internet connections, lack of ICT skills, inaccessibility due to scarcity of the tools and undependable power supply.

5.3 Recommendations

Basing on the research findings, the following recommendations are suggested to overcome challenges faced in the application of ICT in the teaching and learning of Business Studies at Advanced Level in Shurugwi District.

- Teachers should be trained to be equipped with the expertise and awareness of Information Communication Technology thus, increasing the interests in the utilisation of ICT tools.
- The state should support financially all schools which require Information Communication Technology tools so that schools will be able to acquire expensive tools
- Ministry of Primary and Secondary Education should expand applicable educational software and make it available to schools at affordable prices to enhance ICT application in the teaching and learning processes.
- School heads should encourage instructors to use Information Communication Technology tools in every single subject so as to mitigate bad perceptions towards Information Communication Technology application in the teaching and learning process.
- The Ministry of Primary and Secondary education should employ emergency technical personnel who will help in case of breakdowns during lessons.

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APPENDIX A
QUESTIONNAIRE FOR ADVANCED LEVEL BUSINESS STUDIES STUDENTS

I am a student at Midlands State University studying for a Bachelor of Education Honours degree in Management of Business. I am carrying out a research on the challenges faced in the application of information communication technology (ICT) in the teaching and learning of Business studies at Advanced Level.

This questionnaire is meant to obtain your views on the challenges faced in the application of ICT in teaching and learning of Business Studies. Do not write your name or the name of your school on any part of the questionnaire.

You are kindly requested to tick in the relevant box (es) and fill in the spaces provided. Your cooperation in completing the questionnaire is greatly appreciated. Responses will be purely for academic purposes, and hence will be treated with confidentiality.

1. Sex Male Female

2. Where is your school located? Urban Rural

3. Please indicate ICT tools available at your school from the following list

Overhead projector	
Multimedia projector	
DVD	
CDs	
Desktop computer	

Printer	
Scanner	
Internet connections	

4. Please indicate by a tick your level of competence in the following computer applications

Basic Applications	Excellent	Very good	good	Fair	No response
Word processing					
Spread sheets					
Presentation tools e.g power point					
Basic E-mailing					
Basic internet browsing					
Use of charting platform					

5. What are the uses of ICT tools in Business Studies?

6. What are your favourite activities using computers?

Downloading music	
Chat	
Surf the internet	
Use educational software	
Play games	
E-mail	
Find and research information	

7. Do you consider the internet and other ICT tools important for learning?

YES NO

Give reasons

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.....
.....

8. Do you think teachers need help in ICT in the classroom

YES NO NOT SURE

9. Which of the following challenges have you encountered during technology usage in learning?

	YES	NO
Poor information infrastructure		
Lack of ICT facilities in the school		
Inadequate ICT tools in the school		
Frequent electricity interruption		
Inadequate ICT manpower in the school		
High costs of internet connections		
High costs of ICT tools		
Lack of ICT skills among teachers		
Poor perception of ICT among teachers and administration		
Inadequate education software		
Limited school budget		

10. What should be done to address those challenges?

APPENDIX B
QUESTIONNAIRES FOR BUSINESS STUDIES ADVANCED LEVEL TEACHERS

I am a student at Midlands State University studying for a Bachelor of Education Honours degree in Management of Business. I am carrying out a research on the challenges faced in the application of information communication technology (ICT) in the teaching and learning of Business studies at Advanced Level.

This questionnaire is meant to obtain your views on the challenges faced in the application of ICT in teaching and learning of Business Studies. Do not write your name or the name of your school on any part of the questionnaire.

You are kindly requested to tick in the relevant box (es) and fill in the spaces provided. Your cooperation in completing the questionnaire is greatly appreciated. Responses will be purely for academic purposes, and hence will be treated with confidentiality.

Fill in the Box by a tick

- 1. Sex male female
- 2. Where is your school located? Rural Urban
- 3. Which of the following ICT items do you have in your department?

DVD	
VCD	
Overhead projector	
TV	

Video camera	
CD writer	
Desktop computer	
Multimedia projector	
Radio cassette player	

4. Which of the following ICT tools do you use in teaching Business Studies?

Laptop computer	
Video camera	
Overhead projector	
Internet	
Multimedia projector	
Desktop computer	

5. Please indicate your level of competence in the use of the following ICT tools in teaching Business Studies

Skill	excellent	Very good	good	fair	No capability
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Word processing					
Spreadsheets					
Presentation tools and power point					
Basic e-mailing					
Database development and management					
Developing basic and static webpage for school work					
Developing lesson plans					
Developing and operating e-learning or online learning platforms					
Setting up and moderating group discussions and chats					
Creating web-based and ICT-based multimedia materials					
developing educational software and new Applications.					
Use Statistical tools for developing formulations and packages					

6. Which of the following challenges have you encountered during technology usage in the teaching and learning of Business studies?

Poor information infrastructure	
Lack of ICT facilities in school	
Inadequate ICT tools in school	
Frequent electricity interruption	
Inadequate ICT manpower in the schools	
High cost of internet connections	
High cost of ICT tools	
Lack of ICT skills among teachers	
Poor perception of ICT among teachers and administrators	
Inadequate educational software	
Lack of maintenance culture	
Lack of interest in ICT use on the part of students	
Limited school budget	

What should be done to address the challenges?

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APPENDIX C

INTERVIEW GUIDE FOR SCHOOL HEADS

1. What facilities do you have at your school?
2. What are the benefits of using ICT tools when teaching Business Studies at Advanced Level?
3. What do you think is hindering the use of ICT in the teaching and learning of Business at your school?
4. What are the challenges faced by teachers in using ICT tools at your school?
5. What can teachers and schools do to overcome challenges to ICT application in teaching and learning in Business Studies

APPENDIX D

OBSERVATION GUIDE

1. ICT tools availability
2. Availability of computer laboratories
3. Source of power
4. Generated power
5. Costs incurred
6. Use of ICT tools in teaching and learning in Business Studies