

# **Impact of Modern Technology-The Computers and Internet on Open and Distance Learning: A Case Study of Zou Masvingo Region**

By

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## **Abstract**

*Modern technology plays a major role in Open and Distance Learning (Akdemir, 2008). Many institutions of higher learning have adopted online education as the next logical step in educational delivery systems. Online courses are now being offered to respond to the high demand for flexible learning environments (O'Malley and Mac Craw, 1999). Attending face –to- face courses is problematic for many individuals due to a number of reasons such as time limitations, distance one travels to take courses and financial reasons (Frey, Faul, & Yankelov, 2003). Like many other institutions of ODL, ZOU is now faced with the challenge of offering online courses in addition to face-to-face courses. A descriptive survey was conducted to investigate the state of preparedness and perceptions of ZOU staff and students about offering ODL online in Masvingo. Questionnaires were used to gather data on ZOU's preparedness to do registration online send or receive assignments, course-outlines, tutorials and any other communications. Findings indicated a number of challenges that include lack of skilled personnel and lack of internet facilities. Positive as well as negative perceptions about online courses were registered. The study recommends training of lecturers and establishment of computer laboratories and internet facilities at the district centers.*

**Keywords:** *Distance Learning, Open and Distance Learning, E-Learning, E-Learning Readiness, Impact*

## **1. Background to the study**

Most of the distance teaching universities have over 100 000 students spread over a very wide geographical area (Hughes2004).ZOU is the second largest ODL University in Africa, second to UNISA. ZOU's catchment area goes beyond Zimbabwe's borders. ZOU Masvingo Region services seven districts with some students travelling over 200km to come to the centre. This is the case for students coming from Mwenezi, Chiredzi, Bikita, Gutu and parts of Zaka. Some of the students work in South Africa or Botswana. Others, due to the nature of their job, go out of the country during the course of the semester. At times, they are required to be out of the country for more than the whole semester. This presents a challenge as students are supposed to come to the centre for services such as registration, module collection, collection of tutorial guides, face-to-face tutorials and checking for information on the notice board.

Open and Distance Learning is gaining popularity around the world. ODL is a way of learning that focuses on releasing learners from constraints of time and place whilst offering flexible learning opportunities (Simond 2008). It is an excellent way of reaching the learners in their socio-economic cultural contexts without leaving their jobs and families. The growth of information and communication technology has facilitated the expansion of the distance mode of education.

Although development of internet technologies provides exciting dimensions, it also brings with it some challenges ODL and other institutions of education need to address in their effort to support the online

learners. ODL has a number of drawbacks such as lack or little access to adequate technologies so that students can enroll in the programs, do assignments online or receive course outlines (Mercado 2008). Other challenges related to the introduction of technology are connectivity costs that are ongoing and distance education teachers may lack basic skills or hardware to fully participate in distance education.

Many institutions of higher education have adopted online education as the next logical step in education delivery systems. Online learning has become an important instructional delivery medium for Universities (O'Malley & McGraw 1999). The alterations in the work environment have made it necessary for individuals to learn new skills and information to keep up to date. According to Hughes (2004), the potential learners' circumstances determine the potential and ability of online learning to enhance access to education to ODL students.

The present study was conducted to investigate ZOU's staff and students' state of preparedness on the need to introduce ODL online. This study, while it focused on Masvingo region, is also of potential benefit to ZOU as a whole, ministry of primary and secondary education as well as other institutions of higher learning.

### ***Statement of the problem***

The number of students interested in taking courses from a distance for convenience and financial reasons have been on the increase over the years. Many institutions of higher learning have adopted online education in-order to provide flexibility to the learning environment. What is the state of preparedness of ZOU (Masvingo Region) to receive and offer courses online?

### ***Research questions***

The study sought to investigate ZOU's state of preparedness on the offering of ODL online. Below are a set of pertinent research questions that are point of focus of the study.

- a) Is ZOU prepared to register and offer ODL to students online?
- B)) Does ZOU have the necessary resources for it to offer ODL online?
- c) Is ZOU staff well equipped to offer ODL online?
- d)) Are ZOU students prepared to receive ODL online?
- e) What challenges does ZOU face for it to offer ODL online?

### ***Purpose of the study***

The purpose of the study was to investigate how ready ZOU Masvingo Region's staff and students were:

- a) To offer or receive ODL courses online.
- b) To use new technology in ODL
- c) To integrate e-learning into their teaching
- d) To establish what factors that influences their readiness.

### ***Delimitation of the study***

The study was based on ZOU staff and students at Masvingo Regional Campus only. The regional offices are located in Masvingo town. Students come from all the districts of Masvingo. The study focused only on the perceptions of ZOU staff and students on the need for online and the state of preparedness to offer and receive courses online.

### **1.5. Limitations of the study**

The findings of the study lack external validity as the study was a case of Masvingo regional campus only.

## 2. Review of related Literature

### *The Internet and why use It*

The internet is a worldwide network consisting of thousands of smaller networks scattered around the globe. The internet is not in one place, or 'owned' by anyone. Currently the internet links hundreds of millions of users worldwide, providing them with a pool of resources. Several billions of pages of information are currently available on the internet-and roughly four to five million are added each day. The 'internet' has rapidly evolved into a very broad concept, and could be linked to a term like 'the printed word'-the term we use to encompass all books and magazines (Thomas & Williams 1999, Pfaffenberger & Daley 2004).

The following are the most popular internet services:

- Usenet
- The world wide web (web or www)
- Instant messaging systems (e. g. Microsoft Windows Messenger)
- File transfer protocol(FTP)
- Electronic Commerce (e-commerce)
- Peer-to-peer (P2P)data exchange networks
- Telnet

### *Electronic mail*

Email is a means of almost instantly sending or receiving messages via the network. It enables internet users to send letters and other files including multi-media ones from one machine to another anywhere in the world. There were some 100 million emails a day sent worldwide by year 2004 (Thomas & Williams 1999).To use e-mail; one needs an e-mail address and an e-mail account (Pfaffenberger & Daley). Thus, ZOU students need to have e-mail addresses for them to receive ODL online. This allows the students to communicate with each other and with their teachers at home or across the world. They can share information and documents, and can be involved in all curriculum projects.

### *Usenet*

Usenet is a worldwide and ever expanding collection of network of interest groups or newsgroups. They allow people with all kinds of similar interests to share ideas. Usenet newsgroups are public forums, ongoing conversations over a period of days, weeks, months or more carried on through the Net with a group of individuals located anywhere in the world. Usenet is a bulletin board system (BBS).Writers 'post' items to discussion areas on the internet that can be read with the aid of special news reading software. There are over 28000 of these discussion groups (Thomas & Williams, 1999, Laudon &Laudon 1998).

### *The World Wide Web (WEB OR WWW)*

The web enables internet users to access billions of web sites worlds wide. It provides an almost standard means of transferring information in hypermedia form. These documents are not machine specific, so they can be viewed on different types of computer (Thomas & Williams 1999).To use the web you need a web browser. Web browsers provide tools for accessing web sites, searching the web, and bookmarking your favourite pages (Pfaffenberger & Daley 2004). World Wide Web provides massive information to parents, teachers and students. Much care is needed when using the web as some of the information it harbors is unsuitable.

### *Instant messaging systems*

Instant messaging such as Microsoft Windows Messenger lets you know when a friend or business associate is online (connected to the internet).You can then contact this person and exchange near real-time messages (Thomas & Williams 1999).

### ***File transfer protocol (FTP)***

File transfer protocol (FTP) is a very useful means of sending files of any type (programs, documents, worksheets, music etc) from one computer to another. FTP is an underlying tool for information retrieval. Using it you can gain access to any computer in the world that is on the internet and that allows FTP access. Once in the computer, you can browse all directories that have been made open to FTP access and download any files you select to your own computer (Thomas & Williams, 1999; Pfaffenberger & Daley 2004 Laudon & Laudon 1998).

### ***Electronic commerce (e- commerce)***

E-Commerce involves all kinds of traditional business transactions including buying, selling, renting, borrowing and lending. Web-based retail sites called e-retailers sell books; CDs, clothes, and much more. Most successful among e- tailers are click-and-brick e-commerce sites, which offer the convenience of solving customer service issues and returns at a local conventional store (Pfaffenberger & Daley 2004).

### ***Peer-to-peer (P2P)***

Peer-to peer (P2P) data exchange networks enable internet users to make computer resources (including videos, images and music files) available to users.

### ***Telnet***

Telnet is a program installed on computers that lets users access other computers remotely, so long as they are connected to a network. Using facility called Telnet run on the internet; one can work on a remote computer by typing or clicking commands on the computer in front of them as if they were actually sitting in front of the remote computer. It is a programme which enables users to execute commands on another computer over the Internet. It is a convenient way of altering certain aspects of a computer without physically being in front of that computer. (Thomas and Williams 1999, The Telnet Protocol 2011, Telnet Commands 2011).

Telnet sets up a rapid, error-free link between the local computer and the remote computer .Thus, one can log in to their work computer from home or while on a trip. A person is able to run programmes, retrieve mail, or perform any other functions one could perform if they were sitting right in front of the remote computer. This facility can be used to log on to a number of third- part computers that are open to the public such as searching as university or government libraries(Laudon &Laudon 1998).

### ***Video-Conferencing***

Video-conferencing (video-teleconferencing) refers to the use of digital video technology to stimulate face- to-face meetings. Participants can see and communicate with each other even though they are not physically present in the same room. It allows students to communicate with others, especially with those abroad. This is particularly beneficial, for example, to modern language teaching. Students and staff can share programmes and data between institutions. Even teachers could be shared amongst several schools (Pfaffenberger & Daley 2004 Laudon & Laudon 1998).

### ***The Impact of global trends on open and distance learning***

Greenberg (1998) cited by Bebawi defines contemporary distance learning as “a planned teaching/learning experience that uses a wide spectrum of technologies to reach learners at a distance and is designed to encourage learner interaction and certification of learning”.

According to the European Commission (2001) as cited by Lopes 2002), E-learning refers to using new multimedia technologies and Internet to improve the quality of learning by facilitating access to facilities and services as well as remote exchanges and collaboration.

Relevant to the success of an e-learning implementation is the assessment of an organization's readiness for e-learning (So and Swatman 2006). E-readiness is thus the organization's capacity to obtain benefits from the use of ICT. E-Learning assessment helps the organization to design e-learning strategies more effectively. Karmakar and Wahid (2009) pointed out that when introducing e-learning, the organizations should be prepared with the correct environmental and other technological aspects. According to Borotis and Poulymenakou (2004) in So and Swatman (2006:3), readiness for an organization intending to adopt e-learning can be defined as "the "mental or physical preparedness for that organization for some e-learning experience or action."

Over the years, several studies have highlighted critical aspects of readiness for both teachers and students that must be addressed before e-learning can be incorporated effectively in their pedagogy. A basic requirement for online learning is the access to a stable internet connection on a dependable computer. For online learners and teachers, their computer and internet access are the primary instruments of learning and teaching [Mercado 2008]. Volery [2000] using an empirical study among college students proposed a framework for the critical success factors in online education with emphasis on three aspects in-e learning and technology access is one of the factors.

More than access, the students` teachers and the administrative who would technically support the e-learning environment implementation must have the technology skills to be ready to venture into e-learning. These involve computer skills, online skills and computer application literacy."Success in an e-learning world demands new forms of literacy and experience of students, teachers and administrators [Oliver, 2001] .Thus, learners must also be e-ready.

The move from traditional delivery instruction to an e-leaning environment requires that commitment is secured from all levels especially the administration [Mercado 2008] .Special support , necessitated by the unique circumstances of the online environment , such as financial , human and infrastructure / technical research for the organization must be in place .

According to Chapnick(2000), before implementing e-learning programs, organizations need to expand the usual needs assessment process by creating high - level requirements document that includes objectives (Macro organization objectives and micro target learner population objectives),an e-learning readiness score, a list of advantages and obstacles to e-learning adoption and list of e-learning configurations.

According to So and Swatman (2006), Chapman designed a model for measuring the e-learning readiness of an organization by answering the questions:

- a) Can we do this?
- b) If we can do this, how are we going to do it?
- c) What are the outcomes and how do we measure them ?(3)

So and Swatman ( 2006) stated that organizations need to be assessed in terms of their psychological readiness ( the individual`s state of mind as it impacts the outcome of the e-learning initiative), sociological readiness (the interpersonal aspects of the environment in which the program will be implemented), environmental readiness , human resource readiness, technological skill readiness , equipment readiness and content readiness.

The traditional delivery system for higher education has been a classroom setting with a lecturer giving a lecture and students listening and taking notes. Interaction between the lecturer and students was seen as an important learning element in this arrangement. Innovations in educational delivery mechanisms have challenged this paradigm (O'Malley & Mc Craw 1999). Today, modern technologies such as the computers and the internet play a very important role in our education delivery system as well as our day to day lives. Advances in information technology (IT) have enabled little used educational delivery

method such as distance learning (DL) to gain new life. The internet has been used widely in education for information sharing and communication (Bishop, Giles and Bryant 2005 cited by Akdemir 2008).The internet computer technology has altered the education landscape. The web has become an increasingly important medium for providing instruction in an electronic format.

Many institutions of higher education have adopted online education as the next logical step in educational delivery systems (O'Malley &McCaw, 1999). Online learning has become an important institutional delivery medium for Universities. Online courses are courses separated by distance, and communicate with each other through the traditional face to face.

The alternations in the work environment have made it necessary for individuals to learn new skills and information to keep them up to date. Most of the time, attending face to face is problematic for many individuals who have difficulty to attend such courses on a regular basis because of time limitations. Sometimes distance can be a problem for individuals who have to travel long distances to take courses. The number of students interested in taking courses from a distance for convenience & for financial reasons is on an upward trend (Frey, Faul & Yonkelov, 2003). Online courses offer time and place flexibility which makes them popular for individuals looking for alternative learning environment. Thus many institutions of higher education have started offering online courses in addition to their traditional face-to-face courses to respond to high demand for flexible learning environment (Bruner, 2007). Software computers have put in place online course management systems with many features to facilitate teaching and learning over the internet.

The enrolment rate in online courses is growing rapidly throughout the world since societies in many countries have moved from industrial age into the information age and there is high demand for flexible learning environment (Kemp 2006). As a result, ODL is now faced with many challenges than ever before in dealing with the diverse nature of the students. Forging an educational relationship is harder online. A positive relationship between learner and teacher is vital but, this is hard to build when liaising with students remotely. Video calls give the illusion of face to face teaching but do not quite close the gap.

Technology is great when it works but a nightmare when it does not. To offer online tutoring one needs to have some computer know – how and tolerance of the problems that can be thrown up.

### ***Prospects of e-Learning***

Regardless of the various challenges, e-learning offers a number of opportunities. According to Karmakar and Wahid (2009), applying the information technology in organizations particularly in education can bring immense opportunities for developing countries. They highlighted the following as some of the prospects of e-learning:

- saves time, cost and effort
- satisfies educational needs of scholars from remote areas
- provides self educational opportunities
- provides positive impact on learning process
- provides a mechanism of collaborative learning

### **3. Methodology**

A descriptive survey was conducted to investigate ZOU staff and students' views on the need to receive or offer ODL courses online. The survey design was preferred because it is the most appropriate design where perceptions of participants are sought (Neuman2000).Surveys are descriptive and explanatory and have the advantage of allowing the use of a sample to generalize the results. Leedy (1997), points that descriptive survey design is one of the most effective ways of conducting research. A survey was made taking the views, opinions and impressions of ZOU staff and students on issues to do with registration,

collection of study materials, course outlines, modules, assignments, tutorial letters and attending face-to-face tutorials.

### **Population**

The target population for this research was all ZOU students registered at Masvingo Regional Campus. Currently enrollment figures stand at around 700 with possibilities of it rising to 1000 when the economy improves.

### **Sample and sampling techniques**

The sample comprised forty respondents. The composition of the sample was made up of five academic staff and five administration staff as well as 30 students. One lecturer was sampled per department. Five administration staff concerned with student's registration were involved. Students involved in the study are those who had visited the regional office to hand in their assignments and pay fees.

### **Research instruments**

Structured questionnaires were administered to lecturers and students. Questionnaire for lecturers looked at their ICT usage, skills, e-learning experience and availability of suitable equipment. Student questionnaire checked their skills on computers, internet use, access to internet and their perception on e-learning. A semi-structured questionnaire was used to collect data from the administration staff. The semi-structured questionnaire allowed the administration staff to give their views on the region's state of preparedness to offer ODL online.

### **Data collection procedures**

The researchers personally handed the questionnaires to the ZOU staff. Students collected their questionnaires from the reception. All the participants completed the questionnaires at the regional office on the same day.

## **4. Data presentation and analysis**

Data from the lecturers, administration staff and students were analysed and presented in form of tables and figures.

## **5. Findings**

### **Data from lecturers**

**Table 1: Responses from lecturers Number (N) = 5**

<b>Section A</b>				
<b>QUESTION</b>	<b>YES (N)</b>	<b>%</b>	<b>NO (N)</b>	<b>%</b>
1. Do you own a computer?	5	100	0	0
2. Is there a printer attached to your computer?	0	0	5	100
3. Do you know basic functions of a computer?	5	100	0	0
4. Can you save or open documents to or from Hard disc or other removable storage devices?	5	100	0	0
5. Are you able to protect your computer from virus?	4	80	1	20
6. Do you have an e-mail address?	5	100	0	0
7. Can you open or send e-mail with file attachments?	5	100	0	0
8. Do you know how to navigate the web pages	5	100	0	0

(Go to next or previous page)?				
9. Do you know how to download files using any browser?	5	100	0	0
10. Do you know how to access online library and Other resource databases?	4	80	1	20
11. Do you know what word processing is and can use it effectively	5	100	0	0
12. Do you have Internet service in your area?	5	100	0	0
13. Do you really like to offer or receive tutoring online?	5	100	0	0
14. Do you really know what e-learning is?	4	80	1	20
15. Do you really want to do without face to face and go for online tutoring?	5	100	0	0
16. Are you able to send or receive assignments and course outlines online?	4	80	1	20

<b>Section B</b>				
<b>QUESTION</b>	<b>YES (N)</b>	<b>%</b>	<b>NO (N)</b>	<b>%</b>
17 Do you know how to use presentation software such as power point, slides and Video conferencing?	4	80	1	20
18. Can you mark assignments online?	3	60	2	40
19. Can you design curriculum for online learning?	3	60	2	40
20.Can you modify and add content using Online learning management system?	4	80	2	40
21.Have you attended workshops and Seminars related to online learning activities?	3	60	2	40
22.Do you know how to use asynchronous Tools such as discussion boards and chat tools.	4	80	1	20
23 Is your regional office ready to register students On line?	1	20	4	80
24.Do your students have enough IT skills to use E-learning technologies?	4	80	1	20
25.Does your senior management support the use of E-learning?	1	20	4	80
26.Are there adequate human and material resources to support e-learning at your Regional campus?	2	40	3	60
27 Do you think going online is the right direction For ZOU to take?	3	60	2	40

The five lecturers involved in the study returned all the questionnaires thus making a hundred percent return rate. Data from indicate that they indicate necessary skills. (See table 1 above.) All the items had positive results except items 2, 23, 25 and 26 which have the following percentages 0, 20, 20 and 40.



*Data from the students***Table 2: Responses from students****Number (N) = 30**

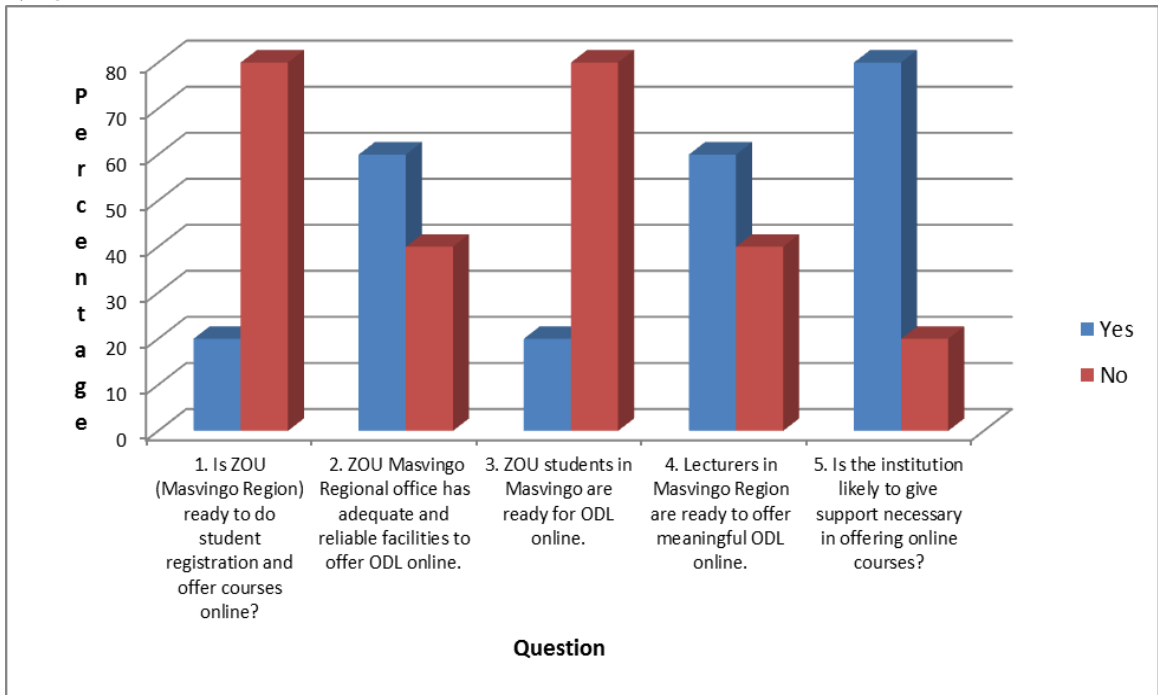
QUESTION	YES (N)	%	NO (N)	%
1. Do you own a computer?	13	43.3	17	56.6
2. Is there a printer attached to your computer?	8	26.6	22	73.7
3. Do you know basic functions of a computer?	24	80	6	20
4. Can you save or open documents to or from Hard disc or other removable storage devices?	23	76.6	7	23.3
5. Are you able to protect your computer from virus?	14	46.6	16	53.3
6. Do you have an e-mail address?	18	60	12	40
7. Can you open or send e-mail with file attachments?	19	63.3	11	36.7
8. Do you know how to navigate the web pages (Go to next or previous page)?	18	60	12	40
9. Do you know how to download files using Any browser?	18	60	12	40
10. Do you know how to access online library and Other resource databases?	15	50	15	50
11. Do you know what word processing is and can use it effectively?	17	56.6	13	43.4
12. Do you have Internet service in your area?	23	76.6	7	23.3
13. Do you really like to offer or receive tutoring online?	24	80	6	20
14. Do you really know what e-learning is?	17	56.6	13	43.4
15. Do you really want to do without face to face Tutorials and go for online tutoring?	15	50	15	50
16. Are you able to send or receive assignments And course outlines online?	18	60	12	40

There was 100% response rate as all the questionnaires were returned by the participating students. Table 2 shows that the majority of the respondents (56.6%) do not own a computer. Most of the respondents (80%) indicated that they had basic skills in computers. 76.6% of the students indicated that they had computer skills such as saving or opening documents to or from the hard disc and other removable storage devices. 60% indicated that they had e-mail addresses and 63.3% gave the response that they could open or send emails with file attachments. 60% of the students were of the view that they could navigate web pages and another 60% indicated that they had knowledge on how to download files using different types of browsers. Half of the participants indicated that they had knowledge on how to access online library and other resource database. 56.6% of the students were of the view that knew what word processing is and could use it effectively.

The majority of the respondents indicated that there is internet service in their area. They liked to receive ODL online and knew what e-learning is, thus 76.6%; 80% and 56.6% respectively.

*Data from Administration Staff*

**Fig 1. Responses from administration staff**  
N = 5



The five participating administration staff managed to complete the given questionnaire giving 100% response rate.

Fig.1. shows that the majority of the respondents (80%) indicated that ZOU was not ready to offer courses online. While some gave the reason that ZOU online was not connected, others said that ZOU Masvingo does not have a reliable and fast internet connection. On whether students are ready, 80% of the staff said that it was not possible to successfully offer courses online since students come from remote areas where there is no internet connectivity. Some of the respondents stated that students lack basic technology like computers or laptops.

## 6. Discussion

### *Opinions on the need to move to online – teaching and learning*

The study sought to determine lecturer and student perceptions on the need to move from face to face tutoring to e- learning. Opinions on this issue were rather mixed. Fifteen out of thirty students [50%] indicated the desire to do away with face to face tutorials and go for online tutoring instead and the other fifteen [50%] indicated otherwise. Such a division in opinion could be linked to the necessities of on-line learning such as the online learning technologies which may or may not be available .Mixed opinions may also be a result of differences in IT skills which are necessary in using on-line learning technologies .In addition , such different views could imply that in real life situations (for instance in developing countries), doing away completely with face to face tutorials may not be the proper action to take .Maybe a blend would be a better opinion. However, unlike the responses of students, all the five lectures signified that they all would like to do away with face to face tutorials and this could be an indication that they did not want to lag behind technological developments in online tutoring. However only three

lecturers out of the five, indicated that it was the right thing for ZOU to go online and offer online teaching. However, 80% of the administrative staff indicated that ZOU was not ready to offer ODL online (see table 3).

### ***Technology access***

One of the purposes of the study was to establish whether lecturers and students had access to the necessary technology in e-learning and teaching. According to Mercado [2008] internet and computer are the primary instruments in e-learning and teaching. In the study, it was pleasing that all the lecturers signified that they each had a computer, e-mail address and that they had a reliable internet service in the campus. However, the internet service is their personal connection which could be disconnected any time. ZOU, as an institution does not have a connection of its own. Nonetheless, not a single lecturer indicated that they had a printer connected to their computer. In determining student access to basic on-line teaching / learning technologies, thirteen out of thirty students [43,3%] stated that they had each a computer while seventeen [56,7%] did not. Only eight out of thirty students signified that they had printers attached to their computers and 73,3% (22) did not have. Ease access to printers is critical in e-learning. Twenty three out of thirty students [76,6%] indicated that they had internet service in their areas. So by large, lecturers' and students' accessibility to computer and internet seems fairly impressive. Administration staff was positive on availability of necessary materials as seen in item 2 and 5 in table 3 above.

### ***Technology skills***

According to Mercado [2008], more than technology access, lecturers, students and administrative staff need e-skills before an institution can venture into e-learning. All the five lecturers indicated that they had the following technological skills and knowledge necessary in an e-teaching and e-learning environment:

- knowing basic functions of a computer
- opening and saving documents to and from removable storage devices
- sending e-mails with attached files
- knowledge about word processing
- using word process effectively
- Sending and receiving assignments and course outlines online.

Four out of five lecturers indicated that they could protect their computers from viruses while only one did not. Four out of five lecturers indicated that they could access data from online library and other resource databases. Four out of five pointed out that they knew what e-learning was while one lecturer did not. Again, four out of five lecturers indicated that they could use presentation software while one did not. Furthermore, three out of five lectures signified that they could mark assignments on-line while the other two in these two cases stated otherwise. On the student side, eighteen out of thirty [60%] signified that they had e-mail addresses. E-mails are a critical tool in on-line learning, Students' opinions on the technology skills indicated that they did not have some clear patterns indicating varied degrees of skills. Out of 30, 23 students [76, 6%] stated that they could save and open documents to and from removable storage devices. The other seven did not. Fourteen out of thirty students indicated that they could open and send e-mail with attached files. Eighteen students [60%] stated that they could navigate the web pages, could download files on any browser and could send and receive assignment and course outlines online while the other twelve signified that they could not do any of these two activities. Furthermore, seventeen out of thirty students indicated that they could word process, knew what e-mail learning is but the other 13 students [43.4 %] signified that they could not word process and did not know what e-learning is. Fifteen [50%] stated that they could access online library and other databases and the other fifteen pointed out that they could not access online library and other databases. Responses by some students indicating the inability to do some activities which involve using computer could be the reason for lecturers to point out that students did not have the necessary IT skills necessary in on-line learning. Administration staff pointed out that ZOU staff was ready to start offering on line learning but students were not.

### ***Institutional readiness***

Human, financial and infrastructure / technical resources for the organization wishing to offer e-learning must be in place. According to one out of five members of the administrative staff , the region was ready to register students online and offer courses online .The respondents gave the following reasons for their opinion ;

- the regional campus has an internet facility and some computers
- ZOU has a capable computer laboratory technician

However, the other four members of the administration staff were of the opinion that the Masvingo regional campus was not ready to do student registration and offer their courses online and gave following reasons:

- ZOU Masvingo Region does not have a reliable and fast internet connection as the internet service is not wholly owned by ZOU
- Laboratories are not connected to internet
- Computers are very few
- Regional staff is not very knowledgeable about on-line courses.

When asked to state whether students had the necessary IT skills, four out of the five members of the administrative staff pointed out that students were not ready and the following reasons were given for their responses:

- the majority of students stay in remote rural areas where there is no connectivity , and no computers
- most students do not have the relevant IT skills necessary in on-line learning

However, one member of administrative staff was of the opinion that some students were ready for on line learning as some students had the necessary technologies and were eager to move along with technological developments.

When asked whether members of staff were really ready to take part in provision of e-learning, three out of five members of administrative staff indicated that staff members were read to provide e-learning. The reasons given for this response were that refresher courses on computer basics had been done at the campus and that all staff members had computers and laptops .The other two who were of a different opinion expressed that the members of staff had very little knowledge of on-line tutoring. Lecturers were of the opinion that they were ready to offer online learning as they had the basics requisite skills and technology (table 1).

## **7. Conclusion**

In a number of respects lecturers have the requisite knowledge and skills necessary in the move to offer e-learning .However, among the lecturers some do not have the necessary skills such as designing curriculum materials for learners and using power point for making presentations.

Some students have the requisite technologies and skills but others do not have all or some of these. The institution in some respects has some resources which could be used when moving into the direction of online learning and teaching but the resources are inadequate.

## **8. Recommendations**

If ZOU Masvingo regional campus is to move in the direction of e-learning, we recommend the following:

- emphasizing the concept of using IT to students not only by studying the IT related theory but to do real practical work using computers
- institutional hooking up to the internet which is reliable
- setting up district centres with computer labs and hooked up to the internet ,and
- Running relevant workshops as the institution moves in the direction of online teaching and learning.

## References

- Akdemir, O (2008) Teaching in Online Courses: Experiences of Instructional Technology Faculty Members. Turkish Online Journal of Distance Education. Retrieved 20 April 2011 from <http://academic.research.microsoft.com/Paper/12094090>
- Chapnick, S. (2000) Are You Ready for e- Learning? Retrieved 11 April 2011 From [blog.uny.ac.id/unready/files/2010/08/are-you-ready-for-e-learning.pdf](http://blog.uny.ac.id/unready/files/2010/08/are-you-ready-for-e-learning.pdf)
- Frey, A., Faul, A. and Yenkelov, P. (2003) Student Perception of Web-assisted Teaching Strategies. Journal of Social Work Education, 39 (3), 443-449.
- Bebawi, S. Definition of online Education as Distance Learning. Retrived on 21/05/2011 from [http://www. Sabri.org/EDTECH\\_01/Definition.htm](http://www.Sabri.org/EDTECH_01/Definition.htm) <http://www.articlesbase.com/online-education-articles/what-is-distance-learning-education-251>
- Hughes, J (2002). Supporting the online learner. In Anderson, and Elloumi, F. (2004) Theory and Practice of Online learning. Athabasca: Canada.
- Karmakar, C.K and Wahid, C.M.M. (2009) Recommendations for Bangladesh towards E- Learning Readiness retrieved 24 April, 2011 from [www.scipub.org/fulltext/AJAB//AJAB\\_52122-127pdf-similar](http://www.scipub.org/fulltext/AJAB//AJAB_52122-127pdf-similar)
- Kemp, J.E (2006) Foundations for Systemic Change Tech Trends, 50(2), 20-21.
- Laudon, K. C & Laudon, J.P (1998) 4<sup>th</sup> edition Information Systems and The Internet: A Problem Solving Approach, Toronto: The Dryden Press
- Lopes C.T. (2007) Evaluating E-learning Readiness in a Health Sciences Higher Education Institutions. Accessed 26 April 2011 from <http://academic.research.microsoft.com/Publication/11154561/-in-a/->
- Mercado, C.A. (2008) Readiness Assessment Tool for An eLearning Environment Implementation. Retrieved April 2011 from [http://www.elearninggap.com/e/AP\\_2008/Proceedings/18-full\\_paper Cecilia](http://www.elearninggap.com/e/AP_2008/Proceedings/18-full_paper_Cecilia)
- Neuman, W.L. (2000) Social Research Methods, Needman Heights: Allyn & Bacon.
- Oliver, R (2001) Assuring the Quality of Online Learning in Australian Higher Education retrieved 20 April 2011 from [elond.scam. Ecu. Edu. au/oliver/20001/moc.pdf](http://elond.scam.Ecu.Edu.au/oliver/20001/moc.pdf)
- O'Malley, J. and McGraw, H. (1999) Students Perceptions of Distance Learning, Online Learning and the Traditional Classroom (Electronic Version).Online Journal of Distance Learning Administration, 2. Retrieved 25 March 2011 From [htt://www.westga.edu/~distance/jmain//.html](http://www.westga.edu/~distance/jmain//.html)
- Pfaffenberger, B and Daley, B. (2004) Computers in your future. Upper Saddle River: Prentice Hall.
- Simond, M. (2008) Issues and Challenges in Open and Distance Learning. Retrieved 15 April 2011 from <http://ezinearticles.com/?expert=MatheW>
- So, T. and Swatman, PMC (2006) e Learning of Hong Kong Teachers. Retrieved 27April 2011 from <http://academic.research.microsoft.com/Paper/12887756.aspx>

- Telnet Commands, Retrieved on 20/09/11 from <http://technet.microsoft.com/en-us/library/bb49101> The Telnet Protocol, Retrieved on 20/09/11 from <http://support.com/kb/231866>
- Thomas, B. & Williams, R (1999) the internet for Schools. A practical step -by –step guide For teachers, student teachers, parents and governors. Plymouth: Internet Handbooks.
- Valentine, D. (2002) Distance Learning: Promises, Problems, and Possibilities. Retrieved 15 April from [www.westga.edu/2 distance/ojdla/fall53/valentine 53html](http://www.westga.edu/2%20distance/ojdla/fall53/valentine%2053.html)
- Volery , R (2001) Critical Success Factors in Online Education. The International Journal Of Educational Management retrieved 16 April 2011 from [Books google.com/books? ISBN=1599040190](http://books.google.com/books?ISBN=1599040190)