Adult Education Students' Perceptions of E-learning: A Case Study of Midlands State University.

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Abstract

This paper examines Adult Education Students' perceptions of e-learning at Midlands State University in Zimbabwe. Considering students' perceptions toward e-learning is important in successful development of e-learning in higher education since perception of users towards application of information technology is one of the most effective factors of technology integration. A descriptive survey approach was used in this study. Adult Education students (n = 24) participated in the study. Reliability and validity of instruments were determined in consultation with e-learning specialists at Midlands State University and application of Cronbach's Alpha ($\acute{a}=0.88$.) Descriptive statistics were used to analyze the data using SPSS version 13. Results indicate that students have a positive perception of E-Learning as it enhances their learning and facilitates communication and interaction between fellow students and between lecturers and students, a means to access additional information to supplement the course content.

Introduction

In order to understand the concept of e-learning, it is important that we define it for the readers to understand. There is no single agreed definition of e-learning. According to Bakare (2007), there is still a lack of consensus about what e-learning represents and its boundaries are not clear as it intersects numerous fields. Bakare, however, states that e-learning is learning that takes place in cyberspace. Stockley (2003) suggests that e-learning is the delivery of a learning, training or education programme by electronic means. E-learning is a fast growing way of learning with the help of computers and internet connection. Rosenberg (2001) defines it as the use of internet technology to deliver a broad array of solutions that enhance knowledge and performance. From this perspective, e-learning thus, involves all forms of network and wireless techniques. For the purposes of this paper, the

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term of e-learning will encompass the use of computer-based technology to mediate learning, including internet tools such as email, discussion boards and other online electronic environments and including a range of online media.

Research has shown that e-learning is unlocking new doors and various opportunities for teaching and learning at every level (Bakare, 2007). Although elearning has a lot of potentials and advantages, the advantages can not be realised until issues of students' perceptions of this relatively new mode of learning have been taken into consideration (El-Gamal and Aziz, 2011). The issue of whether students accept technology as part of their learning environment must be considered in the process of implementing e-learning as a mode of instruction in a learning institution. Positive perception of technology has been shown to influence student satisfaction with e-learning (Drennan, Kennedy and Pisarski, 2005). Several studies have indicated that students have generally positive attitudes about a course and their learning in an online context (Sandercock & Shaw, 2000; Spiceland & Hawkins, 2002; Stringer & Thomson, 1998; Wegner, Hollyway, & Garton, 1999). Sanders and Morrison-Shetlar (2002)'s results of their examination of students' attitudes with regard to the Web-enabled learning component in a general biology course for undergraduate non-majors revealed that a positive attitude has an impact on the success of e-learning.

Furthermore, Rogers (1995) suggests that attributes about a new technology such as relative advantage and complexity are critical to the attitude an individual forms about a new technology. Rogers (1995) also emphasizes the fact that attitude towards an innovation is a critical intervening variable in the innovation adoption decision. Attitude towards a specific information technology is conceptualized as a potential user's assessment of the desirability of using that technology (Davis et al., 1989). According to the technology acceptance model (TAM),one's attitude towards technology predicts an individual's use of technology. Additionally, Davis (1989) suggests that an individual adopts a new technology primarily because of the functionality offered, rather than because it is easy to use. Thus, users tend to overcome difficulties in using new technology if the benefits of usage are substantive.

While e-learning presents numerous opportunities to support learning, the technology cannot be adopted regardless of the adopters' nature, perception, and preferences. In effect, focusing on the students' voice plays a vital role in understanding and improving e-learning adoption and use strategies. In Zimbabwe, there has been few studies that focus on students' perception in relation to adoption and use of e-learning (Zengeya 2008). As a result, this research addresses this gap by investigating students' perceptions of adoption and use of e-learning at Midlands

State University in Zimbabwe. This study sought to examine the perceptions of students on the topic of e-learning integration in the teaching of programmes in the Department of Adult Education at Midlands State University. It is important to find out the perceptions held by adult education students who are mostly working adults who form the target groups of e-learning. Their perceptions are really important to improve e-learning services at the University.

E-Learning at MSU

Midlands State University (MSU) is a multi-campus institution catering for local and international students studying in a wide variety of disciplines within Arts, Education, Commerce, Humanities, Science and Technology and Law disciplines at both undergraduate and postgraduate levels. Students study either on campus or off campus as block release or visiting school students. The University has a long tradition of using Information Communication Technologies (ICT) to support students' learning, particularly to facilitate communication between teaching staff and students. More recently, the strategic direction of the University has been to incorporate online technologies into the learning experience of all students, encouraging the creation of "...a comprehensive learning environment through integrated networked technologies to enrich learning experiences for both oncampus and off-campus students" (Midlands University Strategic Plan, 2004).

MSU has realized the importance of investing in technology to fulfill students' demands for a convenient and flexible learning environment. E-learning is a new pedagogical tool that is beginning to gain recognition at MSU as a critical tool for flexible teaching and learning (Chitanana 2008). E-learning at MSU is opening up new opportunities for both on-campus and off-campus learning. Through its inhouse designed learning management system, Changamire, MSU has created a dynamic and flexible learning environment for its students. On enrolment with the university students are required to open an e-learning account through the university e-learning portal. Through its electronic library portal, students have access to a wide variety of up to date electronic resources independent of time and place. The university selects and updates a collection of online documents for each module. The collection of these resources jumped from 175 835 in March 2010 to 206 967 in September 2011 (MSU Strategic Plan 2011). Through their e-learning accounts students have access to additional learning materials posted by their lecturers. Students are expected to interact with their lecturers and colleagues online, taking part in discussions and undertaking collaborative work facilitated by the technology.

Statement of the problem

Most students in the department of Adult Education at Midlands State University are on fulltime employment and by their nature such students usually have competing interests. These students have little time for face to face learning. These employed adult learners have to take time off from their work and many of them have experienced challenges getting time off from their work places. Most of these adult learners prefer to attend their classes after work or during short block release periods. To meet the challenges faced by adult life-long learners, Midlands State University needs to intensify the use of new technologies and appropriate ICT tools for learning. The use of e-learning with such students therefore has potential to enhance their learning. There is therefore need for Midlands State Universities to take advantage of e-learning to provide a flexible learning environment in order to meet the demand for education from the lifelong learners who are fulltime employees.

However, it should be noted that although e-learning seems to be the dream that would solve the increasing demand for flexible education delivery at MSU, there is still much to be done in order to make e-learning more popular. Bearing in mind that e-learning is in its infancy stage in Zimbabwe, it is important that we establish students' perceptions of this mode of teaching and learning. Students perceptions on e-learning systems have been attested to by several studies as one of the crucial elements in providing management with better understanding of what is required for effective e-learning development and use.

Purpose of the study

The study at hand aims to establish Adult Education students' perceptions towards elearning and whether they believe that it is an effective mode or not. In particular, the study sought to understand the nature of the Adult Education students, their readiness to use, and whether they believe that e-learning can help improve their learning. Students' perceptions of this new mode of learning would help decision makers to better understand the forces that are at play with regards to the use of e-learning systems by students. For e-learning to play a meaningful role in university teaching and learning, it is important that the university focus on students' attitudes and their expectations with regard to the role of e-learning within their learning experiences.

Research Questions

In order to understand the perceptions of students regarding e-learning implementation in the Department of Adult Education (DAE), the following questions needed to be answered:

 What is the level of Adult Education students' familiarity with e-learning as a mode of instruction?

- What is the Adult Education students' perceptions regarding the usefulness of e-learning as a mode of learning in their programmes?
- What is the Adult Education students' perceptions of the impact of elearning on their learning?

Limitations

This study involved students in Adult Education programmes only. The results of the study, therefore, cannot be generalized to non-adult education students. In addition, students who participated in the study were at one university and these results cannot be generalized to students at other universities. Another major limitation of this study was that the results presented in this paper were generated from a momentary snapshot approach of a single study. However, the results could be enhanced through longitudinal measures in order to gain a deeper understanding of the student perceptions that impact on the effective utilization of e-learning to support learning. Furthermore, while students mentioned that considerable learning through the use of e-learning was achieved, learning was not measured in this study. The results presented in the paper are therefore based on self reported learning and not actual measures of learning.

Literature Review

E-Learning is a complex and diverse field, currently experiencing significant and sustained growth within higher education (Alexander, 2001; Dutton & Loader, 2002; Hogarth, Day & Dawson, 2004; Levine, 2003). E-learning can be a powerful means of creating open educational resources accessible to everybody thus counteracting a divided knowledge society. Conversely, some have expressed caution that the "expectations for technology to transform education are disproportionately high" (Hara and Kling, 1999, p.4). Whatever the opinion taken, it is clear that e-learning is becoming widely used within the education and training industries. According to Naidu (2004), Brown, (2000) and Rapaport (1991) e-learning is increasingly becoming important because of the following reasons:-

- It is convenient, thoughtful and reliable
- It balances work and continues to afford the leaner opportunities to capture, store and distribute information and resources of all types and formats.
- It affords opportunities to design learning environments that are situated in the learning context and also problem-based in order to provide students with "learning by doing experiences".
- It requires learners to carry out tasks or solve problems and reflect upon their actions.

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- E-learning has the power to reach wider audiences in a cost effective manner and encourages global communication
- Organisations see advantages in making their programmes accessible via a range of distributed locations, including on-campus, home and other community learning or resource centers.

Other reasons for the growth of e-learning given in literature are:

- Reductions in public funding (Hogarth et al, 2004) leading to the need for educational institutions to operate as enterprises if they are to remain viable (Levine, 2003);
- A growing demand for education that is more flexible, partly due to an increase in part-time and remote students (Oblinger, 1999);
- Many more students choosing to undertake higher education (Oblinger, 1999);
- The impact of new and emerging technologies (Dutton & Loader, 2002; Levine, 2003); and
- Increasing competition from new providers of post-secondary education (Hogarth et al, 2004)

Although e-learning is a relatively new means of disseminating and acquiring knowledge and skills, it has already shown the potential to offer more adequate solutions to those demands and circumstances. Through e-learning tools, instructional materials can be made available and tutorials, exercises and examinations be held in a more dynamic and engaging way on the part of the learner. Besides digital communication systems such as e-mail, news and chat, there is an array of other tools that can be used to foster both individualised learning and support group work and peer evaluations.

E-learning also provides for new forms of learning, for instance through interactive games, three dimensional images or audiovisual platforms. These may be more adequate than printed study materials for particular student groups or study subjects. Digitally stored or animated learning content may also be updated and changed rapidly and allow for students to contribute to such material. E-learning enables the individual needs of students to be met because of its greater flexibility. E-studies can reach, for instance, employed part-time students as well as students living in remote areas, the countryside or abroad. People in hospitals or in detention centres may also benefit from targeted e-learning programmes.

Compared to the conventional learning environment, e-learning can be a factor in changing the environment from brick to click. Many universities, even in Zimbabwe, have set up portals to offer e-learning environments either as teaching aids to support conventional teaching approach or as a teaching medium for long-distance or off-

campus programs (Chitanana, Makaza and Madzima, 2008). E-Learning is seen as having the "capacity to increase levels of equity and access for existing students, while others see new technologies as capable of reducing the costs of delivery of programs and courses" (Oliver, 2001: 407). E-learning provides more learning opportunities to adults who are no longer of the formal education age. E-learning can also promote inclusive education, in particular for people with disabilities and the socially marginalised. In addition, e-learning also ensures quality in education since technology is able to provide interactivity and active learning.

From literature, the most highlighted benefit of e-learning is with respect to its flexibility. This includes flexibility in time, place and pace in learning. Some researchers such as Collins (2002), Hitlz (1997), and Koory (2003) use the terms 'flexible' and 'convenient' very generally to represent e-learning flexibility. Researchers have found that a key benefit of e-learning is that it is flexible in terms of being self-paced learning (Baldwin-Evans, 2004; Koory, 2003; Smith & Rupp, 2004). Additionally, e-learning is also flexible in a financial or economic sense in that the student can remain working to earn money (Oakley, 2004), and also flexible in providing just enough learning as desired by the individual (Baldwin-Evans, 2004). Other benefits of e-learning are that it can enhance efficiency in the areas of student support and communication, information retrieval, interactive learning, virtual seminars, study exercises as well as administration. Communication with student online may not only increase the quality and efficiency of the services provided, but also lower their costs.

Methodology

The study used an exploratory research design that sought to investigate the adoption and use of e-learning, a relatively new phenomenon in the Zimbabwean education system, by Adult Education students at Midlands State University. As Kotler et al.(2006) argue the objective of exploratory research is to gather preliminary information that will help define a problem and suggest hypothesis. This research design was chosen because of its suitability for the phenomenon not sufficiently known, the purpose being to provide explanations and comprehension of this new phenomenon which has not been fully explored in Zimbabwe. The study population consists of all Adult Education block release students at MSU. Convenience sampling was used to draw the participants of this study. All the students who were attending the April 2011 block of lectures, who agreed to participate in the study constituted the sample of participants in the study. A sample of 23 students comprising of 10 male and 13 female students were selected. These were registered in various programmes in Adult Education. The age range was from 23 to 49 years.

Data was collected using two major data collection instruments, namely questionnaire and an interview guide. Content and face validity of instruments were established through consultations with e-learning specialists at Midlands State University. Questionnaire reliability was estimated by calculating Cronbach's Alpha. Reliability for the overall instrument was estimated at 0.88.

The questionnaire covered background characteristics such as: gender, study programme, age and level of study; student preparedness to use e-learning, their perceptions of the usefulness and impact of e-learning to their studies. Perceptions were measured on a five-point Likert scale that ranged from 1(strongly disagree) to 5(strongly agree). The questionnaire was administered face to face to all the sampled students at the agreed time during their block release session.

Interviews were used to supplement the data collected through the questionnaire. This approach to data collection was based on Yin's (2003) affirmation that with the combination of multiple sources of evidence within a study of the same phenomenon rests on the premise that the weaknesses in each single method will be compensated by the counter-balancing strengths of another, reducing the likelihood of misinterpretation of the research results. In order to establish students' perceptions and experience with elearning, students' comments were obtained through a questionnaire and interview guide. Quantitative data was obtained by asking students to indicate if they agreed or disagreed with a series of statements about their experiences and preferences regarding the use of e-learning tools on a 5 point Likert scale (1=Strongly Disagree and 5=Strongly Agree). The researchers administered the questionnaires in person to students who agreed to participate in the study. Ten (10) students who completed the questionnaire were invited to participate in the interviews. Interviews were used to follow up on issues raised in the questionnaire. Audio recordings of the proceedings were made during the interviews and later transcribed. The quantitative entries were imported into SPSS for analysis, while the qualitative entries were compiled and categorised in emerging themes for analysis. Statistical procedures for description which include: frequencies, means and standard deviations (SD) were used to interpret the quantitative data.

Results and Discussion

The data presented in this section was generated from students' perception, in terms of use of e-learning technologies to support their learning process.

Student Familiarity with e-learning technologies

Since e-learning is based on ICT infrastructure, respondents were asked on their ownership of a computers at home, and whether the computer is connected to the Internet or not as depicted in Table 1. A few had computers and internet connectivity in their homes. Ownership of computer at home comprised of 16 out of 23; and those with their computers connected the internet represented by 9 out 23. In other words, almost 39% of adult education students were able to interact with e-learning materials that are available online in the comfort of their homes. A majority of the students needed to get themselves connected to the internet to be able to access

materials that are available online. Most of the students without internet connectivity in their homes, however indicated that they could have access to the internet at other places such as on their mobile phones, internet cafés and through their friends among other places. It was also saddening to note that less than half the students had email addresses, a basic communication tool in the 21st century. A summary of the results are shown in Table 1 below.

Table 1; Students' familiarity with e-learning technologies

N=24

No.	Question	Yes	No
5	Do you have a computer at home	16	7
6	Do you have an e-mail address	9	14
7	Are you able to use the internet	20	3
8	Do you have internet connectivity at home?	5	18
9	Do you have internet connectivity at your work place?	9	14
10	Have you have internet access elsewhere?	14	9

In terms of familiarity with e-learning technologies, many students indicated that they were ready to use e-learning. The findings suggest that respondents were comfortable using e-learning. The majority of the students (20 out of 23) indicated that they were able to use the internet. Only 2 respondents out of 23 indicated that finding information in the e-learning system was difficult. This may be an area which would need further follow up. It was also encouraging to note that a majority of the students indicated that they intended to be heavy users of the university's e-learning resources. A summary of the results are shown in Table 2 below.

Table 2: Students' readiness to use e-learning

No	Question	SD	D	N	A	SA	Mean	SD
11	I feel confident using a computer in my learning.	1	0	7	12	3	3.95	1.56
12	I have the necessary skills for using internet in my studies.	2	2	5	11	3	3.64	0.62
13	I have the necessary skills for using an e-learning system	0	4	5	8	6	3.50	1.38
14	I feel confident finding information in the e-learning system	0	2	5	9	7	4.09	0.75
14	I have no difficulty accessing and using an e-learning system in the university	1	5	3	12	2	3.55	0.61
15	I intend to be a heavy user of the e-learning system.	0	0	4	11	8	4.36	0.83

1(strongly disagree) to 5(strongly agree).

Adult Education students' perceptions of usefulness of e-learning system.

Taking an average rating, the results from the study suggest that the students viewed e-learning favourably. Students rated e-learning highly in areas of improved performance, improved overall learning experiences and easy accesses to learning materials (Mean < 4). Table 3 below presents measures of students' reactions relating to their perception of the usefulness of e-learning in their learning process. However, the results also suggest that students did not see that e-learning could be used to enhance their interaction with fellow students and their lecturers and were not sure as to whether e-learning could support higher order learning. This was consistent with the finding that a majority of the students had no email addresses, which was a major communication tool to them.

Table 3: Adult Education students' perceptions of the usefulness of e-learning system

No	Question	SD	D	N	A	SA	Mean	SD
16	E-learning is good for my learning performance	0	0	3	10	10	4.30	0.00
17	E-learning can improve my learning experiences	0	0	3	13	7	4.17	0.04
18	E-learning could make it easier to study module content	0	0	1	15	7	4.26	0.00
19	Thanks to e-learning, the problems of access to learning for block-release students have been resolved.	0	1	8	9	5	3.78	0.16
20	E-learning facilitated my interaction with fellow students.	2	6	4	9	2	3.13	0.00
21	e-learning increased amounts of communication with my lectures when compared with other forms of education	2	4	5	10	2	3.22	0.04
22	E-learning can be used to encourage me to be an active participants in learning.	0	0	1	16	6	4.22	0.00
23	E-learning can be used to support the development of higher level thinking skills such as synthesis and problem solving.	3	1	4	13	2	3.43	0.00
24	E-learning can be used to support more individualized learning programmes tailored to our own individual needs.	0	0	9	13	1	3.65	0.00
25	Studying through e-learning is a good idea	0	1	4	13	5	4.00	0.05
26	What e-learning stands for is important for me as a university student.	0	0	6	12	5	3.96	0.00

1(strongly disagree) to 5(strongly agree).

The results in Table 3 were confirmed by the interviews. During interviews, students highlighted that e-learning was an essential component of their learning and that they were intending to step up its use. The students indicated that e-learning provided them with great flexibility in interacting with their instructors and learning material. The students were also apprehensive about the usefulness and applicability of the university's e-learning portal to their course. A majority of the students reported that they had gainfully accessed the e-learning Portal of the university. For example, one student mentioned that;

"E-learning should be applied at all stages of learning processes in order to improve on our level of learning and understanding".

While emphasising the significance of e-learning to student learning, another student said:

"E-learning is one of the most important elements that should be introduced as a teaching aid because without ICT skills, one could suffer in this knowledge society".

The students further illustrated that they found e-learning to be useful in research, especially where there are no textbooks. The statements below exemplify this:

'... obviously e-learning can give you research information that is effective to your learning'

'I believe e-learning is the only way out really ... because if you haven't got books and stuff, I suppose the e-learning has ... yes, it really is a good tool'

Impact of e-learning on student learning

The student's perceptions in relation to impact of e-learning in their learning process was measured. This was obtained by asking students to indicate if they agreed or disagreed with a series of statements about their experiences in relation to the application of e-learning in their learning process. The responses were measured on a five-point likert-type scale (1- strongly disagree and 5-strongly agree). The results as shown in Table 3 suggest that the students regarded the application of e-learning in the learning process to have increased their efficiency and effectiveness in their learning.

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Table 4: Students' perceptions of the impact of e-learning on their learning

No	Question	SD	D	N	A	SA	Mean	Sd
27	E-learning has facilitated access to materials for those studying part-time.	1	0	1	12	9	4.22	0.00
28	The integration of e-learning approaches in campus teaching has enhanced the effectiveness of learning.	0	1	3	13	6	4.04	0.04
29	E-learning has allowed students to have frequent interaction with the lecturers.	0	2	5	13	3	3.74	0.41
30	E-learning has facilitated the presentation and communication of learning content.	0	1	3	18	1	3.83	0.06
31	Additional notes in e-learning Portal helped me in my study	0	1	4	17	1	3.83	0.05
32	From my personal study experience I find that e-learning is valuable.	0	1	4	12	6	4.04	0.01

1(strongly disagree) to 5(strongly agree).

On average, students were very positive about the impact of e-learning to their learning. The students were positive about the usefulness and applicability of the university's e-learning portal to their course. During interviews, students showed that the majority of the students have gainfully accessed the e-learning Portal of the university. Students emphasised the point that additional notes in the form of PowerPoint slides, and handouts posted by their lecturers on the MSU portal were very helpful.

In their interview responses, students highlighted a number of areas in which they have done well as a result of their use of e-learning. The following are some of the issues that the students mentioned:

"... it makes you produce a good assignment, researched work, detailed, clear and precise, it is good.."

'E-learning opens you up ... you have this infinite amount of information'

'It make learning easier for us who are at work ... e-learning can help you in all ways for studying'

Some student were naive in their responds to the impact of e-learning to their studies. For example :

'...getting relevant information from various sources'.

'The benefits [of using e-learning in learning] are in searching and researching.

'... e-learning enables me to obtain more information to be able to do my assignments.

'... e-learning provides an easier way to acquire knowledge. ... easy access to information'

It should also be noted that a significant number of students who were interviewed were of the opinion that the additional materials which were provided by some lecturers through the e-learning portal were insufficient. They pointed out that lecturers needed to put more materials for them to prepare for their examinations.

The main purpose of this study was to provide an understanding of how Adult Education students perceived e-learning as a mode of instruction in their programmes. This was accomplished by analysing various aspects of e-learning as it is practised in the Department of Adult Education at Midlands State University, in Zimbabwe. The results obtained from the study indicated that students had a positive perception towards the use of e-learning in their learning process. The majority of the respondents held a positive perception towards e-learning. The fact that Adult Education students supported e-learning is consistent with Quek and Wong (2003), Lam, Lee et al., (2010) and Ho et al., (2009) who found out that, on the whole, students' attitudes towards e-learning were moderately positive. This creates an environment for successful implementation of e-learning, as Quek and Wong (2003), further note being successful in the online environment requires that students understand and appreciate the purpose and function of online learning. Gurpinar, Zayim, Ozenci and Alimoglu, (2009) also noted that adults are commonly well satisfied with education methods supported by e-learning facilities possibly due to their appropriate nature to adult learning principles.

The findings from the study show the importance of computer knowledge in indicating satisfaction from the students in their e-learning. The students perceived e-learning as a useful and flexible way of learning mainly because a majority of them had the basic craft skills required for one to successfully use e-learning tools. It was also noted that students who had computers at home and work were more familiar with e-learning support services. Familiarity with technology as a prerequisite

to acceptance of e-learning was observed by Jones, et al (2004) who observe that students who use ICT in their personal and professional lives are comfortable with online learning environment. Chitanana, Musingarabwi, and Mayeresera (2011) observe that students' prior knowledge and experience with technology affects their attitude about the technology and the level of user satisfaction with the technology.

In addition, previous research results have shown that e-learning is also very successful where it opens up new opportunities. E-learning in the department of Adult Education has created a flexible learning environment which offers adult learners access to a wide range of learning materials and learning opportunities. Through the MSU e-learning portal students have the opportunity to exploit student to student online interaction where considerable learning can be achieved through collaborative efforts among learners. It has been established that if students perceive some benefits of a system to their learning, they will likely be more motivated to perform well. As shown in this study, e-learning opens up new opportunities for adult learners, such as increased communication between students and lecturers, consultation of online learning materials. However, it was also clear from the results that e-learning was not being used effectively by some lecturers to ensure that student to student interaction as well as student to lecturer interaction were used to facilitate active student learning. Thus, the lecturers need to design and prepare learning in a proper and systematic way so that these materials are seen to be adequately satisfying students' information needs.

Conclusion

While we acknowledge that from a national perspective the current e-learning developments in Zimbabwe are still at their infancy stage, the results in this study shows a growing trend in the use of e-learning in the students' learning process. Two major conclusions can be drawn from the findings of this study. First adult education students had a positive attitude towards e-learning. Second, e-learning has had a positive impact on adult education students. The study recommends the inclusion of other online communication tools such as chat-rooms like yahoo and messenger to be used for informal communication outside class activities to enhance "informal learning" to takes place. The results derived from the study have significant implications on research and practice in relation to the adoption and use of e-learning in Zimbabwe. E-learning offers many opportunities for supporting education for block release students. E-learning has a competitive advantage over the conventional methods due to the speed and efficiency of the Internet, especially in reaching off-campus students. Inevitably, the competitiveness created by e-learning within university education context implies that institutions that have not joined this education venture risk losing out. Universities

should take advantage of emerging technologies to move towards the transformation of the traditional paradigm of learning. The students' positive perceptions towards e-learning identified in this study points to moving beyond ICT acquisition and set up to integrating strategies that engage students in an e-learning environment to facilitate the attainment of their learning goals.

References

Agarwal, R. & Prasad, J. (1999). Are individual differences germane to the acceptance of new information technologies. *Decis Sci*,30(2):361–91.

Alexander, S. (2001). e-Learning Developments and Experiences. *Education* + *Training*, 43(4/5), 240-248.

Bakare, T. V. (2007). Computer Awareness and the Usage of E-learning facilities among adult Education students in the University of Lagos. J. Nigerian National Council for Adult Educ., 14: 1.

Baldwin-Evans, K. (2004). "Employees and e-learning: what do the end-users think?", *Industrial and Commercial Training*, 36 (7): 269-74.

Barnett, J. (2006). Focus groups tips for beginners. *TCALL Occasional Research Paper No.1*. Retrieved August 2, 2006, from http://www-tcall.tamu.edu/orp/orp1.htm

Brown, G. (2000). Where do we go from here? *Technology Source, January*. Available online: http://ts.mivu.org/default.asp?show-article&id-667 29(3), 399-426.

Chitanana, L. (2008). The Adoption of E-learning at the Midlands State University: Opportunities and Challenges, *The Dyke*, 3,(2) 28-42.

Chitanana, L. Makaza, D. & Madzima, K. (2008). The current State of E-learning at Universities in Zimbabwe: Opportunities and Challenges. *International Journal of Education and Development using ICT*, Vol. 4(2) (Available online) http://ijedict.dec.uwi.edu/viewarticle.php?id=450

Chitanana, L. Musingarabwi, S. & Mayeresera J. (2012). A Comparative Study of Cognitive and Affective Outputs of Students with Computer Prior-Knowledge (CPK) and Students without Computer Prior-Knowledge in their Computer Studies, *Journal of Educational and Developmental Psychology*, 1(1).

Collins, G.R. (2002). Case study: A satellitebased internet learning system for the hospitality industry. *Online Journal of Distance Learning Administration*, 5 (4).

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Q* 13(3):319–39.

Drennan, J., Kennedy, J., and Pisarski, A. (2005) Factors Affecting Student Attitudes Toward Flexible Online Learning in Management Education, *Journal of Educational Research*, 98, 331-338.

Dutton, W. H., & Loader, B. D. (Eds.). (2002). Digital Academe: the new media and institutions of higher education and learning. London: Routledge.

El Gamal, S. and Abd El Aziz, R. (2011). An Investigation of the Effect of Higher Education Students' Perception on their Readiness for E-Learning Adoption', Congress, The 2011 International Conference on e-Learning, e-Business, Enterprise Information Systems, and e-Government, WORLDCOMP'11, EEE'11: July 18-21, 2011, USA.

Gurpinar, E. Zayim, N. Ozenci, C.C. and Alimoglu, M.K. (2009). First Report about an E-Learning Application Supporting PBL: Students' Usages, Satisfactions, and Achievements. *The Turkish Online Journal of Educational Technology*, 8 (2).

Hara, N., & Kling, R. (1999). Students' frustrations with a web-based distance education course. *First Monday*, 4(12), retrieved 2/3/12, from http://firstmonday.org/issues/issue04 12/hara/index.html .

Hilgard, E.R, & Bower, G.H. (1975) Theories of learning. Englewood Cliffs (NJ): Prentice Hall.

Hiltz, S.R. (1997). Impacts of college level courses via asynchronous learning networks: Some preliminary results. *Journal of Asynchronous Learning Networks*, 1 (2), 1-18.

Ho, A., Lam, P., & McNaught (2009). Investigating students' need for e-learning at university. In *Blended learning: Blending technologies and teaching practices* (pp. 561–569). Proceedings of the 2009 International Conference on ICT on Teaching and Learning. The Open University of Hong Kong, 6–8 July 2009.

Hogarth, K., Day, I., & Dawson, D. (2004). Online Professional Development in Support of Online Teaching: some issues for practice. retrieved 20/12/11, from https://olt.gut.edu.au/udf/olt2004/index.cfm?fa=getFile&rNum=1586504.

Jones, P., Packham, G. Miller, C. and Jones, A. (2004) An Initial Evaluation of Student Withdrawals within an e-Learning Environment: The Case of e-College Wales, *Electronic Journal of E-learning*, 2(1): 113-120.

Kotler, P., Adam, S., Brown, L., & Armstrong, G. (2006). Principles of Marketing (3rd ed.). Frenchs Forest, NSW, Australia: Prentice Hall.

Koory, M.A. (2003). Differences in learning outcomes for the Online and F2F version of "An Introduction to Shakespeare", *Journal of Asynchronous Learning Networks*, 7(2), 18-35.

Lam, P., Lee, J., Chan, M., & McNaught, C. (2010). ELearning needs among students who lead a digital life in nearly every aspect except learning. In J. Cordeiro, B. Shishkov, A. Verbraeck & M. Helfert (Eds.), *CSEDU 2010* (pp. 268–275).

Proceedings of the 2nd International Conference on Computer Supported Education, Valencia, Spain, 7–10 April.

Levine, A. (2003). Higher Education: a revolution externally, evolution internally. In M. S. Pittinsky (Ed.), *The Wired Tower: perspectives on the impact of the internet on higher education* (pp. 13-40). Upper Saddle Rive, NJ.: Pearson Education, Inc.

Midlands State University (2004) Strategic Plan.

Naidu, S. (2004). Trends in faculty use and perceptions of e-learning. *Asian Journal of Distance Education*, 2(2): 1-8.

National Telecommunications and Information Administration ("NTIA") (2002). A nation online: how Americans are expanding their use of the internet. Washington D.C.: US Department of Commerce.

Oakley, B. (2004). The value of online learning: perspectives from the University of Illinois at Springfield. *Journal of Asynchronous Learning Networks*, 8 (3), 22-31.

Oblinger, D. G. (1999). *Putting Students at the Centre: a planning guide to distributed learning*. U.S.A: International Business Machines Corporation.

Oliver, R. (2001). Developing e-learning environments that support knowledge construction in higher education. In S. Stoney & J. Burn (Eds.), *Working for Excellence in the Economy* (pp. 407-416). Churchlands, Australia: We-B Centre.

Quek, C., & Wong, A.F. L. (2003). Evaluating e-learning environments in Singapore. In M. Khine & D. Fisher (Eds.) *Technology-rich learning environments: A future perspective*. Singapore: World Scientific Publishing.

Rapaport, M. (1991). Computer Mediated Communications Bulletin Boards, Computer Conferencing Electronic Mail and Information Retrieval. London, John Willeys and Sons, Inc.

Rogers, E. (1995). Diffusion of Innovations. (4th ed.). New York, NY: The Free Press.

Rosenberg M (2001). E-Learning Strategies for Delivery Knowledge in the Digital Age. New York: McGraw Hill.

Sanders, D., & Morrison-Shetlar, A. (2002). Student attitudes toward web-enhanced instruction in an introductory biology course. *Journal of Research on Computing in Education*, 33(3), 251-262.

Sandercock, G., & Shaw, G. (2000). Learners' performance and evaluation of attitude towards web course tools in the delivery of an applied sports science module. *Journal of Asynchronous Learning*, 3(2), 1-10.

Smith, A.D., & Rupp, W.T. (2004). Managerial implications of computer-based online/faceto-face business education: A case study. *Online Information Review*, 28(2), 100-109.

Spiceland, J. D., & Hawkins, P. C. (2002). The impact on learning of an asynchronous active learning course format. *Journal of Asynchronous Learning Networks*, 6(1), 68-75.

Stockley D (2003). "E-learning definition and Explanation." ECampus. com.au. Stringer, S. B., & Thomson, J. S. (1998). Evaluating for distance learning: Feedback from students and faculty (pp. 2-7). *ERIC Document Reproduction Service* No. ED422879

Wegner, S.B., Halloway, K.C. and Garton, E.M. (1999) The Effects of Internet-Based Instruction on Student Learning. *Journal of Asynchronous Learning Networks*,. 3(2): 98-106.

White, C. (2005) Contribution 0f Distance Education to the development of individual learners. *Distance Education*, 26 (2) 165 – 181

Yin, R. K. (2003). Case study research: Design and methods (3rd ed.). Thousand Oaks: Sage.

Zengeya, M.A., (2008). Information and Communication (ICT) Skills for Bachelor of Education Degree Students at the University of Zimbabwe: Implications for University Policy on a Computer Course for Undergraduate Student Teachers. Zimbabwe Journal of Educational Research, 20 (3) 349-370.

Zezekwa, N. and Mudavanhu, Y. (2008). Students' perception of Information Technology and Projections for the Future in Science Education. *Zimbabwe Journal of Educational Research*, 20 (2) 246-260.