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The University of the Witwatersrand

Wits School of Education

Masters in Education

(Educational Technology and E-Learning)

Research Topic

Factors Affecting the Adoption and Implementation of Online Learning at the Institute of Distance Education in Swaziland

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ABSTRACT

The concern of this study is the slow uptake of online learning at the Institute of Distance Education (IDE) in Swaziland.

The Institute of Distance Education in Swaziland was set up in 1996 (Sukati, 2010) to offer distance learning to students. To date, most courses have used traditional print based materials, with some face to face contact in regional centres. IDE Policy makes clear that increasingly courses should be available online, using the institute's learning management system (Moodle). However, uptake by lecturing staff of online learning has been very slow, and only a few courses are available on-line.

The study identifies the factors that are perceived to support or inhibit the adoption and implementation of online learning at the IDE, and strategies that are seen as effective in facilitating its adoption and implementation. The research is located in the qualitative paradigm, and uses interviews as the main data gathering tool. Five different but coherent interview guides were used to collect data from staff offering online learning; staff not offering online learning; IDE programme coordinators; and two members of senior management. Some documentary analysis was also undertaken. The findings show that there were institutional factors, personal factors and external factors that both supported and acted as barriers to the adoption and implementation of online learning at the IDE. The study proposed strategies that might strengthen the supportive factors and overcome the barriers to adoption and implementation of online learning at the IDE. The conclusion drawn from the study was that there were more barriers than supporting factors and that this explains the slow adoption and implementation to online learning at the Institute. It also shows that while similar factors operate on the adoption and implementation of online learning at IDE as those identified in the literature, there are some factors which are particular to the IDE itself, and the Technology Acceptance Model (TAM) (Davis, et al., 1989) is thus modified to show the factors operating in this context.

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v) I would like to exclusively thank my family's support. My wife Calsile, and my lovely daughters Andzile, Hleliwe and Seluleko for being there whenever I needed you.

To God be the glory.

DEDICATION

This research report is dedicated to my late father, Mabhojwana E. Maphanga.

> *Umcathama ziya e time hhovisi – dada elabhula amanzi ngezimpiko. Makhanda ezingane zakwa Simakahla. Themba lama BA's.*

Sekunjalo. Kushoda liplazi.

May your soul rest in peace.

_____

To my mother Hlaleleni P. Ndlangamandla-Maphanga – *Ukuya esifundweni nokukhonza uJehova kuyaphumelelisa.*

Your son, Phuzuk'mila.

DECLARATION

I declare that this research report is my own unaided work. It is submitted for the degree of Masters in Education (Educational Technology and E-learning) at the University of the Witwatersrand, in Johannesburg. It has not been submitted before for any degree or examination at any other university.

Phuzuk'mila Simon Maphanga
(Name of candidate)



…….
(Candidate signature)

14th March 2012

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CHAPTER 1

BACKGROUND TO THE STUDY

1.1 Introduction

The affordances of online learning in distance education seem to carry the promise of a possible solution to the problems associated with dwindling resources in education, particularly distance education. The demand for education keeps increasing and the resources for meeting the challenges of providing access to it keep shrinking. Distance learning delivered online seems to be a strategy that could address this imbalance as it has the potential to reach a large number of students with relatively little infrastructural expenses. It offers many benefits in terms of teaching and learning as well as opening opportunities to university education. However, despite its obvious benefits/affordances online distance education has not been adopted and implemented with great enthusiasm everywhere, even at an institution such as the Institute of Distance Education (IDE) in Swaziland. This study highlights the perceived factors that impinge on the adoption and implementation of online learning at the IDE, and suggests some strategies that might strengthen the supportive factors and overcome the barriers to the adoption and implementation of online learning at this institution.

1.2 Problem statement

Like any other country, Swaziland has an interest in educating its people as education is the key to success. In addressing the issue of education, the government built national schools throughout the country and donors as well as parents have played a fundamental role in building community schools. The government embraces both the national and community schools by providing teachers who mediate in the school system of Swaziland. In line with the global trend of prioritising education, the government of Swaziland has implemented free universal primary education as per the requirements of the United Nations Millennium Declaration which embraces the Millennium Development Goals (Swaziland Government, 2010). In this regard, the Swaziland government wants to provide equitable access to quality primary, secondary and high school education for every citizen of the country irrespective of

geographical location or social or economic classification (Swaziland government, 2010). The threat of equitable access might increase pressure on colleges such as the Swaziland College of Technology (SCOT), William Pitcher College and Ngwane College that only offer certificate and diploma qualifications as well as on the University of Swaziland (UNISWA).

In view of the above, one can highlight that there is only one national university in the Kingdom of Swaziland (i.e. the University of Swaziland) which offers certificate, diploma and degree qualifications. The demand for degree qualifications is high and the numbers of applicants meeting the entrance requirements keeps rising year by year (Sukati, 2010).The rising number of qualifying applicants for entry into the university has created immense pressure, forcing the university to come up with a strategy that will help reduce the pressure.

In light of the above, distance education was viewed by the university as an excellent way of relieving pressure of limited spaces on campus. As a result, the IDE was established in 1996 (Sukati, 2010). To date, the institute mainly uses print based materials and face-to-face instruction to take courses to students. Osguthorpe and Graham, (2003) posit that blended learning is a combination of face-to-face with distance delivery systems. They argued that lecturers, tutors and learners who use the blended approach tend to maximise the benefits and the affordances of both face-to-face and online learning methodologies by using the web for what it does best, and using real class time for what it does best. Computer technologies such as the internet and learning platforms such as Moodle have expanded the horizons of educational access, convenience, affordability and flexibility in teaching and learning. However, it is important that there exists a harmonious balance between online access to knowledge and face-to-face human interaction. In the same vein, blended learning environments provide for pedagogical richness, access to knowledge, social interaction, personal agency, cost effectiveness and ease of revision (Osguthorpe & Graham, 2003). The online learning technology that has been chosen by the IDE is the Moodle platform. It was anticipated that the system would enrich teaching and learning considering the affordances that come with it such as convenience and flexibility, increased access to material and affordability (Daniel, 1996). However, of late, this institution seems to be struggling with the ever increasing number of candidates and is finding it difficult to handle the task with

limited resources, such as space for face to face teaching. Despite its benefits, blended learning is not proving to be an adequate solution to the issue of too little space for face to face contact with students. Now, the problem that was faced by the university has shifted to the IDE. Surely, there is a need for the institute to come up with strategies to meet the challenge in order to become more efficient and effective in the delivery of programmes and courses to the people.

One of the strategies that appears to address the challenge faced by the IDE is to consider online distance learning as an appropriate way to accommodate the current and further increase in student numbers. In that way, the institution might be in a position to fulfil its mandate of taking education to the people, and also to make the institution more cost effective. In addition, online learning is increasingly seen as an appropriate mode of delivery for students who live far from an institution and for whom travel to attend contact sessions at fixed times is problematic. Online learning would allow for participation asynchronously and more conveniently.

Online learning is regarded as being beneficial to distance education institutions and students in terms of access, costs and flexibility (Daniel, 1997). In order not to deny access to the qualifying candidates due to limited space and infrastructure online learning seems to provide a solution to the problem faced by the IDE. This is so as online learning has no limit in terms of enrolment as long as one meets the entry requirements. Literature has it that the cost of taking courses through online learning is more affordable than full-time face-to-face interaction which is exorbitant as statistics indicate (Daniel, 1997). Besides the fact that online learning provides unlimited access and affordability in terms of costs, it is also advantageous in that it happens anywhere and anytime. This allows all types of learners employed, unemployed and self-employed to embrace it. In light of this discussion it seems clear that online learning seems to provide a feasible solution to the problems faced by the Institute of Distance Education in Swaziland.

However, despite the clear need for the institute to adopt and effectively implement online learning as stated in the strategic plan (UNISWA – IDE Strategic Plan, 2008/2012), there has been little progress in this regard. For example, only ten out of 32 of the teaching staff of

IDE are using the institution's learning management system, Moodle, as an online learning tool. Those using this mode of delivery are from the faculties of commerce, education and humanities and from the department of computer science. Clearly, while there are some factors supporting the adoption and implementation of online learning at IDE there also appear to be barriers impeding this.

The tool for offering online courses would vary from place to place, as there is a variety of online possibilities available such as CDs, DVDs, and Websites and the list is long. From the possible options, IDE has chosen Moodle. Therefore, in IDE the implementation of online learning in effect means the use of Moodle to offer online courses.

Clearly, the concepts 'online' and 'Moodle' are two distinct phenomena in educational technology; online being an approach used in taking courses to students and Moodle being the tool used to convey content and facilitate online interaction. In the case of IDE, in terms of adoption and implementation of online learning by staff, the problem seems to be the issue of offering courses online regardless of the type and kind of tool used. It is for this reason that this research focuses on the issues related to the adoption and implementation of online learning as an approach rather than focussing on the particular tool chosen, although issues related to the tool might emerge as important in the broader context.

1.3 Aim of the study

This study aimed to identify the perceived factors operating on the adoption and implementation of online learning at the IDE in order to better understand why the university has not been more effective at adopting and implementing online learning and how it could be more so.

1.4 Main research question

What are the perceived factors that affect the adoption and implementation of online learning at the Institute of Distance Education (IDE) in Swaziland?

1.4.1 Research questions

The research questions that enabled this question to be answered are:

i) What does literature suggest to be the key factors that impact on the adoption and implementation of online learning at an institution?

ii) What are the factors that are perceived to support the adoption and implementation of online learning at the IDE?

iii) What are the factors that are perceived to be barriers to the adoption and implementation of online learning at the IDE?

iv) What strategies are thought to be appropriate for strengthening the supportive factors and overcoming the barriers to the implementation of online learning at the IDE?

1.5 Rationale for the study

The IDE was set up to offer distance courses to students in Swaziland. It has become apparent that an effective way of doing this would be to offer courses online. Despite many sound reasons for this, in fact there has been a poor response at the institution. An understanding of the factors impacting on the adoption and implementation of online learning should enable the university and other decision makers to develop appropriate strategies to support the positive factors and overcome the barriers (Anderson, T. & Elloumi, F., 2004). This in turn should facilitate the adoption and implementation of online learning at the IDE. The adoption and implementation of online learning would, in turn, increase access to higher education to students who at present are unable to access it because of the distance involved in reaching the single institution, who need to work and study and whom the university cannot accommodate because of the imbalance in demand and resources to meet it.

1.5 Outline of chapters

Below is an outline of the remaining chapters presented in this research report:

Chapter 2: Literature review

In this chapter literature on the factors that are perceived to support the adoption and implementation of online learning; the factors that are perceived to be barriers of the adoption and implementation of online learning; and the strategies that are thought to be appropriate for the strengthening the supportive factors and overcoming the barriers is

reviewed. As part of the context of the study, literature on the affordances of online learning in distance education will also be reviewed.

Chapter 3: Research design, methodology and procedures

In this chapter the tools that were used for gathering data such as the interview schedules will be described. The chapter further explains the sample selection procedures that were followed. It also describes the procedure used in the research such as those related to ethical issues and collection of the data. It further highlights the limitations and the challenges experienced by the researcher.

Chapter 4: Data presentation and analysis

In this chapter the data derived from the interviews and documents are presented and analysed. Themes that emerged from the study are identified and described, and the spread of responses across these are presented in tables. Direct quotes from the respondents are used to validate the findings and the analysis. The presentation of the findings is mainly narrative. Some implications of the results are also given in this chapter.

Chapter 5: Discussion, Conclusion and Recommendations

In this chapter the findings are critically examined and comprehensively discussed. The discussion is related to the research questions, literature review, and the findings of the study. The researcher's reflections on the objectives of the study in relation to the findings are presented. Some recommendations and possibilities for further research are also presented in this chapter.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the literature significant to the study. Under the ambit of online learning and distance education, this study investigates factors supporting online learning, barriers affecting online learning, and strategies that might strengthen the supportive factors and overcome the barriers to online learning. The literature review will provide an enhanced background to the study as guided by the first research question which states: "What does literature suggest to be the key factors which impact on the adoption and implementation of online learning at an institution?" In expediting the exercise, attempts will be made to elucidate the constructs online learning, distance education, adoption of online learning, infusion of online learning, and implementation of online learning. Furthermore, the literature review demonstrates the perspective of supporting factors, barriers and strategies that might be appropriate in online learning. In addition, it presents the conceptual or theoretical framework that underpins this study.

The key focus of the study is an investigation of the factors affecting the adoption and implementation of online learning at the Institute of Distance Education (IDE), in Swaziland. The lenses to be used in the literature review are rooted in the technology acceptance model (TAM) developed by Davis et al., (1989). The researcher begins the literature review by defining terms that are key in the study, namely, distance education, blended learning, online learning, adoption, and implementation and infusion of online learning in distance education and then considers literature directly related to the key research questions.

2.2 Definition of terms

2.2.1 Distance education

The term 'distance education' is defined by Brindley, et al., (2004, p14) as "the geographical separation of teachers and learners from one another". This is rather a simplistic definition of the term because it does not give further details. A more promising, relevant and comprehensive definition is advanced by Keegan, (1996, p. 44) in Modestu and Tau, (2010,

p. 18) as: “The separation of learner and tutor as opposed to face-to-face; the influence of an organisation which distinguishes distance education from private study; the use of technical media, e.g. print, audio, website (internet) to unite tutor and learner; the provision of two-way communication so that the student may engage in dialogue with the tutor (and peers); the self directed nature of the learner’s involvement and the possibility of occasional meetings for purposes of interaction.” The definitions by Brindley et al. and Modestu highlight that distance education is the physical separation of teachers and students, and that learning in distance education is facilitated through the use of media.

2.2.2 Online learning

The term ‘online learning’ is defined by Alley, (2004, p. 5) as: “The use of the internet to access learning materials; to interact with the content, instructor, and other learners; and to obtain support during the learning process, in order to acquire knowledge, to construct personal meaning, and to grow from the learning experience.” In distance education, online learning can be beneficial because it allows for flexibility of access from anywhere and conveniently (Alley, 2004).

2.2.3 Blended Learning

The term blended learning is defined by Kim, (2006) as a combination of traditional classroom teaching and learning and the use of technologies in offering course content through online learning means (p. 1-8). Moebs and Weibelzahl, (2007) similarly defines blended learning as learning in which the Internet is integrated into regular classroom teaching. They further describe blended learning as a learning environment that combines teaching methods, delivery methods, media formats or a mixture of all these (pp. 162-173).

2.2.4 Adoption, implementation and infusion in online learning

2.2.4.1 Adoption

The term adoption means to accept a new innovation. However, adoption does not happen in a vacuum but rather into existing social practices in the teaching learning environment (Somekh, 2008). This definition highlights the fact that there should be a degree of change within institutions’ and teachers’ practices in order for technology adoption to be realised. This means facilitators, students and the institutions should embrace the innovation by

realising and appreciating its value in teaching and learning. The definition affirms that there has to be the necessary infrastructure in order for the adoption to be practical.

2.2.4.2 Implementation

Having adopted the technology, implementation becomes the initial attempts at grappling with technology in practice (Dwyer, et al., 1989). This means adoption and implementation cannot be separated, they work together. In online learning technologies this means teachers need to physically try out the premises of the online learning tools such as the computer and internet in order to realise their benefits.

2.2.4.3 Infusion

Vannatta and O'Bannon, (2002) define infusion as the integration of technology into curricula or programmes. They advance that conditions that favour infusion of technology include; "professional development, technical assistance and shared vision" (p. 112-113). In addition to these, they suggest that in order for technology infusion to be effective there has to be "adequate access to technology, skilled educators, shared vision, teacher commitment to technology as well as appropriate supportive policies and incentives" (p. 121). This suggests that for online learning to be infused the distance education institutions, lectures, tutors as well as students should have access to technologies for use in teaching and learning. In addition, Drazdowski, et al., (1998) posited that institutions need to purchase and maintain equipment, replace it when obsolete and create a technology rich environment.

2.3 Affordances and limitations of distance education

2.3.1 Affordances

The literature foregrounds several affordances of distance education (DE). According to Modestu and Tau, (2010), distance education has opened up chances and provided learning or education opportunities for those who for various reasons were unable to attend conventional schooling. Dickey, (2003) highlights that distance education encourages interaction among learners and those students are able to get direct immediate responses or feedback through the use of media such as the internet. Distance education also provides

flexibility in learning, allowing learners to pace themselves, and provides learning opportunities to even those who are employed and who have diverse social responsibilities.

2.3.2 Limitations

Several writers have suggested a range of limitations of distance education. Brindley, et al., (2004) highlighted that the distance learner is usually isolated and tends to be neglected. They advanced that learner support has complexities with regard to teaching and learning and as a result there is a need to be cognisant of learner behaviour. Newby, et al., (2006) support the claim mentioned by Brindley, et al., (2004). They said that one of the key limitations of distance education is the isolation of the learner. The need to be cognisant of learner behaviour means that there has to be motivational support and a broader understanding of social factors that might impede the distance learner. A distance learner often has to grapple alone with difficult concepts in the literature. In this regard, online learning has much to offer because, by its nature, it has the potential to overcome some of these limitations of distance education (Newby et al., 2006).

2.4 Impact of online learning in distance education

Generally, online learning is characterised by speed and convenience, and is an inexpensive way of communicating and sending and receiving content both by the learner and tutor. Brindley, et al., (2004) posited that the new technologies have a great impact on the way teaching and learning takes place. They advanced that through online learning, learners have wide access to information and can share and /or discuss with their peers through social networks. The growing number of people hungry for education can possibly be embraced through the use of online learning. Clearly this shows that online learning needs to be considered by distance education institutions as a way of complementing the other modes of delivering distance learning such as print, radio, television, and video and so on.

A key feature of online learning in distance education is the use of internet technologies to deliver a broad array of solutions that enhance knowledge and practice in teaching and learning (Glenn, 2008). The use of the internet enables learners to be active participants, engage with content and interact with other learners as well as facilitators. The issue of student isolation can be overcome by the web 2.0 technologies used in facilitating distance

education organised around the internet. Technology is enabling multi modal teaching. Glenn, (2008) suggests that academic institutions, especially those with a public service mandate (like IDE), need to consider online learning as key to advancing their mission, placing university education within reach of people who might otherwise not be able to access it. The integration of technology in teaching and learning has affected institutions by making them invest in the infrastructure that facilitates online learning.

2.5 Online learning technologies for distance education

McGreal and Elliott, (2004) posit that there are different types of technologies used in online learning, but assert that they are all internet based. They advance multimedia, peer-to-peer file sharing, hand held and wireless technologies, and instant messaging as specific online learning technologies. Newby, et al., (2006) also share similar ideas with regard to the technologies used in online learning by further contributing that word processors, graphic tools, presentation software, computer databases, electronic spreadsheets, telecommunication tools, and so on are part of the online learning technologies. However, a more contemporary outlook of the online technologies is advanced by Mason and Rennie, (2008) who specify them as Wikipedia, blogging, podcasting, e-mailing, mobile phones, iPods, You Tube, Skype, Face book, Twitter, and other web 2.0 tools.

2.6 Affordances of online learning in distance education

For distance education institutions such as the IDE which experience problems of infrastructure to accommodate all qualifying candidates, online learning seems to promise a solution. Bates, (1997) advances the promises of online learning as being to: improve and widen access to education and training; improve the quality of learning; reduce the costs of education; and improve the cost-effectiveness of education. These are positive promises because the facilitator, student and the distance institution benefit from them.

These benefits are of particular importance in developing countries, such as Swaziland, where there is a high rate of poverty. However, there are paradoxical views and opinions from people regarding online learning in distance education. In a study requested by UNESCO, Bates, (2001) in Guri-Rosenblit, (2005) suggested that “those countries that are not yet ready for a knowledge-based economy are probably not yet ready for e-learning” (p.

18). On the other hand, he suggested that countries with increasing educational demand should adopt the technological model of distance education as it is the most appropriate for mass education. This means institutions may consider turning to online learning technologies in distance education, and that can make learning accessible to an unlimited number of learners conveniently.

2.7 Limitations of online learning in distance education

Limitations of online learning technologies in distance education are delineated by Czerniewicz & Brown, (n. d.) as inequalities of technological access, inequality of aptitude, unavailability of network, and poor access to information. However, this does not mean that the concept of online learning has to be rejected as it seems to be the most appropriate in distance education (Appanna, 2008). Although online learning has limitations, it is important to give support to it as resources for face to face learning are dwindling with regard to both institutions and learners. Online learning has the promise of cost effectiveness, convenience and efficiency (Daniel, 1997). The limitations suggested by the literature in the context of any institution, particularly in Africa, which is eager to offer online learning could be lack of infrastructure such as bandwidth and the internet. The issue of physical access to facilities such as computers can also be a huge limitation of online learning in distance education.

2.8 Online learning and the digital divide

Research in many different contexts has shown that the issue of online learning in distance education hinges on the digital divide concept in that not all people have access to technology. The issue of digital inequality is broad but key of the emerging concerns are the technical factors. Bertot, (2003) advanced that the technical factors are concerned with the availability of and access to the physical technologies. In countries where the access to technology is a challenge, the digital divide continues to widen. The widening of the gap is most prominent in developing countries particularly in Africa as opposed to developed countries of the world.

The digital divide is described as the gap between people or countries that have and those who do not have access to information and communication technology. It denotes inequalities related to technological access. Technological access is referred to as being

equipped physically and technologically to perform tasks for one's own interests as an individual or as a country (Bertot, 2003). Castells, (2002) and Norris, (2001) cited in Fuchs & Horak, (2008) extended this understanding of the digital divide by suggesting that it constitutes both technical and social factors. The problem, however, with technology is that it keeps evolving and advancing, therefore, it is important for people to keep abreast of the technological changes. The question that comes to mind is: Can having the technologies be a panacea for the digital divide in Africa, as technology is used as a tool? Yes, it is a fact that information communication technologies do offer development potential but it is misleading to divert the focus away from the fundamental challenges faced by Africa (Adesina, 2006). This means there are other social factors that need to be considered when engaging the issue of the digital divide in Africa.

The issue of the social divide is one of the major factors related to the digital divide in Africa that pertains to offering distance education through online learning technologies. Norris, (2001), cited in Fuchs & Horak, (2008) advanced that the social divide is referred to as the inequalities between information rich and information poor countries and individuals. The economic inequalities are significantly responsible for the formation of social classes. Castells, (2002) and Wilson, (2006) cited in Fuchs & Horak, (2008) advanced that the social divide is caused by division and inequality in education, tribal differences, age, and the financial means to buy technology. Castells (2002) advanced that people should have epistemological knowledge about the technologies and develop ICT skills for self development in education in order to minimise the social divide. These social gaps have been major contributing factors to the digital divide in Africa. Annan, (1999) advanced that the largest share of the world's population lives in developing countries where there is little capacity to receive, download and share information through the use of information communication technologies.

The literature discussion flagged that there is a need to have the required technology, skilled people, and participation in the network society in the distance education context. Online learning and distance education seem to be in line with the global expectations by their inherent capacity to make education accessible to the masses, thus meeting the

demands of people. However, the issue of the digital divide seems to work against the implementation of online learning.

2.9 Enabling factors in the adoption and implementation of online learning in distance education.

2.9.1 Supportive factors to the adoption of online learning

Supportive factors in the adoption of online leaning in distance education have been presented in the literature in many different ways, but those that seem most relevant to the study are access to and availability of computers, full access to software, changing the culture of teaching by incorporating technologies, proper technical and training support, clear ICT vision from management, and clear policies on the use of ICTs in the curricula or programmes (Scrimshaw, 2004). For example, in distance education the conventional culture of teaching (face-to-face and text books) might need to be blended with online learning technologies (Scrimshaw, 2004).

2.9.2 Supportive factors to the implementation of online learning

Reviewed literature presented supportive factors in the implementation of online learning as access to sufficient quantities of technology, teacher motivation and commitment to using online learning, personal development, and support from decision makers (Czerniewicz & Brown, n. d.). The literature highlights that there is a need to conform to the global trend of offering distance education through the use of online learning technologies (Newton, et al., 2002). And, distance institutions, tutors/lecturers and students need to embrace the technologies in order to benefit from them by forming good ICT policies (Hennessey, at al., 2010).

Ely, (1999) identified eight conditions that facilitate the implementation of technology and programme innovations. Ely's conditions are: 'Dissatisfaction with the status quo, Skills and knowledge, Adequate resources, Rewards or Incentives, Adequate time, Participation, Commitment and Leadership'. The purpose of Ely's study was to determine which of the eight conditions faculty in higher education perceived as the most influential when implementing an online degree programme. Ely's study is similar to this study because it

wants to investigate the factors affecting the adoption and implementation of online learning at the IDE.

2.10 Barriers to the adoption and implementation of online learning in distance education.

2.10.1 Barriers to the adoption of online learning

Literature presented the barriers to adoption as being lack of confidence in using technology, difficulty in accessing information communication technology (ICT), lack of time from teachers, technical faults, resistance to change and teachers not realising the advantages of using ICT to teach (BECTA, 2004). Salmon, (2004) advanced that teachers get worried when talking about technology because they are not familiar with online learning technologies such as computers and the internet and cannot draw past experience from them. They consider computers as strange and difficult to understand and further highlight that technologies are inconsistent and unreliable.

Pointers from the literature indicated that there was a lack of adequate time to implement online learning courses, resistance to change, lack of technical and administrative support, and lack of ICT policy and clear vision of online learning (Scrimshaw, 2004). Therefore, distance education institutions need to have clear policies and training of staff and students toward the implementation of online learning in order to facilitate the adoption of technological innovations.

2.10.2 Barriers to the implementation of online learning

Literature has shown that the implementation of online learning involves grappling with the technology in trying to become familiar with it (Dwyer, et al., 1989). While this is true, Swanson, (1988) advanced that one of the major barriers to the implementation of online learning was attitude. Adding to the barriers of implementation was Unson, (2004) who highlighted that cultural, political, economical and technological factors had a bearing on online learning implementation. This suggests that a well developed distance education institution requires a well developed system, clear policies, infrastructure, and support by all parties involved.

2.11 The impact of infusing online learning in distance education.

2.11.1 The impact of infusing online learning on distance education institutions

Generally, online learning involves the use of technologies and these technologies have a direct impact in distance education institutions. Newhouse, (2002) advanced that when DE institutions embrace online learning technologies the institutions find themselves having to provide additional and different hardware and software, curriculum or programme and technical support for teachers as well as students. Decision makers need to develop clear ICT policies and practices to be followed when offering online learning through distance education. Brindley, et al., (2004) further posit that there are growing opportunities offered by the technologies such that distance education institutions are now able to meet their objective of facilitation to masses of students without limitations.

2.11.2 Online learning impact on teachers/tutors

Teachers play a fundamental role in online learning as they are the ones that facilitate using ICT tools. Newhouse, (2002) advanced that through online learning the teacher's role changes to that of being a facilitator, and their use of digital information is increased. Learning becomes more learner-centred. This suggests that the bulk of the work has to be undertaken by the learner. However, the learner may share the workload through discussion forums among counterparts and interacting directly with tutors or facilitators for more information and clarity.

2.11.3 Impact of online learning on students

Since students are key in education it is important that online learning technologies should have a positive impact on their learning. Newhouse, (2002) posits that online learning technologies provide learners with technological literacy, increase learning motivation, and help students perform better in their subjects. In that way they become independent and responsible, become cooperative and collaborative, and become self directed learners. Brindley, et al., (2004) further add that through the use of the internet students are able to communicate and share knowledge thus pushing the boundaries of education.

The literature has highlighted key points that relate to online learning and the use of technologies in offering distance education. The web 2 technologies have been viewed as

important in the delivery of content and in making teaching and learning feasible in distance education. An array of limitations of online learning have been highlighted. Key among these is the issue of access to computers and the internet. The enabling factors and barriers to the adoption and implementation of online learning have been reviewed. The impact of the infusion of online learning in distance education has been examined. The importance of technologies for facilitators and students in online learning has been explained.

2.12 Theoretical framework of the study.

The proposed theory that the study has adapted is the technology acceptance model (TAM) propounded by Davis, Bangozzi and Warshaw, (1989). TAM was developed around the factors affecting the acceptance and usage of a technology. However, in recent times, TAM has had widespread application in explaining perceptions and attitudes towards the use of technology. For example, in a study conducted by Holden and Karsh, (2008), TAM was used to explain the end users' reactions to health information technology and predicted and explained health information technology acceptance and use. Ju Chen, et al., (2008) undertook a study that acknowledged the knowledge economy era in public health nurses' education with regard to updating their knowledge to ensure quality of care through web-based learning. In Ju Chen, et al., (2008) the TAM was used as a filter in studying public health nurses' attitudes towards web-based learning.

Figure 1 below shows the stages of the Technology Acceptance Model

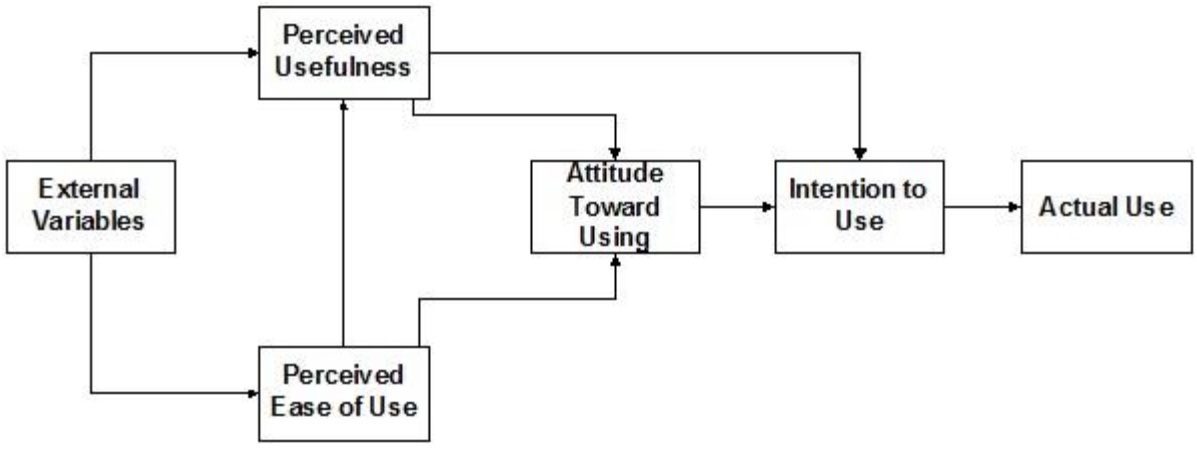


Figure 1. Technology Acceptance Model (adopted from Davis, et al., 1989)

Even though the TAM was developed to study acceptance and use of a particular kind of technology, in this study it will be used as a lense in studying the perceptions and attitudes of people (IDE staff) towards the adoption and implementation of online learning, not just a particular instance of technology. Examples of other studies which have used TAM in this broader way include that of Holdern and Karsh, (2008) which looked at the end user's reactions to health information technology acceptance and use and of Ju Chen et al., (2008) which looked at updating nurses' knowledge to ensure quality of care through web-based learning. In this study the researcher identifies factors operating at IDE which affect the adoption and implementation of online learning there and show how they can be linked to the TAM model.

2.13 Conclusion

From the literature review a number of contentions have been considered. In line with the research question addressed in this chapter, the constructs have been dealt with. Literature has been reviewed on the affordances of online learning, supportive factors to online learning, barriers and strategies that might be useful in addressing issues of adoption and implementation of online learning in a distance institution. A guiding framework to the study has also been presented and explained in the context of the study. The next chapter presents the methodologies used in the study.

CHAPTER 3

RESEARCH DESIGN, METHODOLOGY AND PROCEDURES

3.1 Introduction

In this chapter, the research design, the study population, data collection instruments and data analysis method used are discussed. It further describes elements of reliability and validity, and ethical issues that were considered. The chapter concludes by giving a narrative of the limitations to the study.

3.2 Research design

3.2.1 Research paradigm

This research deals with opinions, views, and interpretations related to online learning and distance education expressed by the participants. This research is a qualitative case study of the IDE. The study sought to investigate factors that affect the adoption and implementation of online learning in distance education. Data was collected from interviews, the perusal of IDE documents and observation. Data was analysed using the text analysis technique. The next section provides greater detail of each of these aspects of the research design.

3.3 Qualitative research

Yin, (2003); Yin, (2009); and McMillan and Schumacher, (2010) describe qualitative research as research used to uncover and understand thoughts and opinions, feelings, and the manner in which people perceive phenomena. They advanced that it is a type of research that describes qualities, as well as attributes of individuals, group or phenomena. The findings from a qualitative study lead to the understanding of a phenomenon and the meaning established gives insight that can be applied more broadly. It relies strongly on the researchers' interview skills. McMillan and Schumacher, (2010) note that quantitative research is concerned with measurements and prediction of results, therefore, it will not be useful in this study. As this study will be investigating views and opinions it was found to be more appropriate to use the qualitative research methodology rather than quantitative.

3.3.1 Case study

According to Yin, (2003), a case study is an enquiry into a real life context. He further advanced that a case study is an empirical inquiry that investigates a phenomenon. McMillan and Schumacher, (2010) posit that a case study examines a bounded system in depth in one entity. This study fits well within these case study definitions because the researcher will be examining a bounded system which is the IDE. In this entity the researcher will examine factors affecting the adoption and implementation of online learning.

3.4 Target population

In this study senior management, middle management, teaching staff using the online learning system as well as teaching staff that are not using the online learning system of the IDE formed the target population. It is the researcher's view that these people have a good understanding of the complexities surrounding IDE practices, and were therefore able to provide valuable insights.

3.5 Selection of participants

In this study, the researcher used non-probability sampling techniques which were characterised by the use of purposive sampling. Sampling is a process of taking a small portion from the larger population with similar characteristics. Purposive sampling as described by McMillan and Schumacher, (2010), is the selection of subjects with certain specific characteristics that are relevant to the study. In this case study, purposive sampling was used to choose participants with particular experiences that gave them useful perspectives on the issues related to the adoption and implementation of online learning. The participants chosen were those with a deeper understanding of the complexities of the practices at the IDE. All nine administrators and also all ten teaching staff that make use of Moodle (Learning Management System), and groups of eight teaching staff not using the online learning system from the faculties of commerce, humanities and education formed the complement of the sample. One of the senior management staff at IDE gave information with regard to policies and procedures of the online learning system. The other senior management staff contributed technical information on the use of the online learning system at the IDE. The IDE middle management staff, and teaching staff that use the

learning system and those that do not use the system, highlighted their diverse experiences and opinions with regard to the online learning system at the IDE. The Table below presents the selection of participants.

Table 1 Selection of participants

Participants	Selected number of participants	Actual number of participants	Percentage
Staff using OLL	10	8	80
Staff not using OLL	8	5	62
IDE programme coordinator	5	5	100
Senior management	2	2	100
Total	**27**	**20**	**73**

The Table above shows that 73% of the staff selected to participate in the study were in fact interviewed. 73% is an acceptable representation of the total sample according to McMillan & Schumacher, (2010).

3.6 Reliability and validity

The interview instruments provided information on the views and opinions of teaching staff and administrators. Because different groups were interviewed, their responses served as a means of triangulating the key findings. In addition, data from the analysis of documents provided an additional means of triangulating the findings. In addition, the researcher employed the technique of member checking (McMillan & Schumacher, 2010) to ensure accuracy of data collected as the interviewees were allowed to make corrections to the interviewer's understandings of their responses.

3.7 Data collection techniques

Two main research techniques were used - interviews and the examination of documentary evidence (IDE documents). In order to get people's understanding and perceptions the relevant research strategy was to interview them. The advantage of the documentary

evidence is that it helps the researcher get a deeper understanding of the historical practices of the institution. Interviews allowed the researcher to probe further as needed and thus to get a broader understanding of the phenomena.

Data was collected from the targeted population using semi structured interview schedules. IDE documents such as minutes, policy documents and blueprints were perused. The documents and the interviews provided important information about the phenomenon that was investigated. From the findings, a very clear picture emerged about the complexities of practices in IDE and a deeper understanding of how people perceive online learning at the institute. The researcher gathered data from the 5th to 16th September 2011 for a period of two weeks and that allowed sufficient time to transcribe and analyse the data.

3.7.1 Interview schedules

In this study, interview schedules were used in conducting the interviews. There were seven interview schedules, shown as appendices to this research report numbered A1 to A7. A1 interview schedule was intended for the academic coordinator whose role is to coordinate all the IDE's academic activities through the help of the other programme coordinators. This position is key in IDE as teaching and learning revolves around it. In this study, the academic coordinator is viewed as a motivating factor in any teaching and learning innovation that is to be introduced. It is for this reason that the researcher selected this individual to be part of the study.

Interview schedule A2 was intended for the materials design and developer whose function is to coordinate the development of all courses in the institute of distance education. She was selected to be part of the study because she has the insight regarding the development of online learning which is paramount in this study. The researcher hoped to get a sense of the development of online learning and how it impacted on the staff offering IDE courses online and on those not offering IDE courses online.

Interview schedule A3 was intended for the IDE programme coordinators. Their role is to coordinate teaching and learning within their specific units such as humanities, law and modern languages. The researcher considered these people to be the ones in the forefront

of advocating the use of online learning. This is so because they have a direct link to the teaching staff and students and their opinion on online learning adoption and implementation was seen as important in this study.

Interview schedule A4 was directed to the director, IDE. This is the top office in the IDE and issues of policies, and the general operation of the institute hinges around this office. Decisions are taken at this level with the involvement of IDE management as well as the IDE academic board. The support of this office in the online learning initiative in the IDE was viewed by the researcher as fundamental. This is so because any policy correspondence to the university officers is undertaken through this office following the appropriate channels.

Interview schedule A5 was intended for the information communication technology director. The researcher selected this person because he has the necessary information regarding online learning technologies. The researcher wanted to investigate the degree of support afforded by this office to the IDE in terms of technical and infrastructural support as the Moodle learning system required technical expertise such as in the setting up and monitoring of the server(s) that host the system.

Interview schedule A6 was intended for teaching staff that did not offer courses online. The questions were structured such that they solicited both perceptions and technical information regarding the use of the online learning system at the IDE. The researcher was interested in knowing the reasons that made them not to offer IDE courses online and how that might be overcome.

Interview schedule A7 was directed to staff that offered IDE courses online through the use of Moodle as the online learning management system used at the institute. The researcher was interesting in finding out what made them offer IDE courses online, in contrast to those staff who did not. The researcher thought this information to be important because it revealed to some extent the supporting factors in and the barriers to offering courses online.

In involving all the above mentioned participants in the study the researcher expected that imbalances and different opinions about offering IDE courses online would arise. It was hoped that the responses would inform the IDE about what is practically happening on the ground so that appropriate online adoption and implementation strategies could be employed.

3.8 The interviews

Conducting interviews was a first experience for the researcher who panicked, and was not sure about the cooperation of the interviewees. The questions were read time and again to ensure that the key concerns of the study were being captured, which boosted the interviewer/researcher's confidence. Confirming appointments and reminding participants on the day also helped because the researcher was able do the interviews within two weeks. As highlighted earlier, interviews are considered appropriate if one wants to investigate people's perceptions. The researcher found that indeed interviews were very informative and the participants opened up and said exactly what they felt about the issue of online learning at the Institute of Distance Education and possible strategies that IDE might wish to consider.

3.9 Documentary sources

Msuya and Maro, (2002) cited in Oladokun, (2008) used documentary sources to obtain information in their study of information provision to distance learners of the Open University of Tanzania. It is on this vein that the researcher chose documentary sources as part of data collecting tools. Many documents such as IDE minutes were read, but the UNISWA–IDE strategic plan 2008/2012 and the review of the Institute of Distance Education report by Siaciwena, (2007) were considered by the researcher as specifically relevant to this study. It is from these documents that the researcher was able to learn about the vision, mission and objectives of the IDE as well as the issues that surrounded online learning. The Siaciwena report gave information on the way forward in relation to IDE becoming a college which was viewed as a possible solution to the many challenges of online learning faced by the IDE.

3.10 Data analysis

The interviews and documentary evidence provided data that needed to be transcribed, coded and analysed. As posited by McMillan and Schumacher, (2010), the researcher organised the data according to the interview questions, assigned codes, arranged data in themes and categorised it in patterns. In that way, the researcher compiled the themes, isolated concepts and illustrative quotes and made the analysis. The researcher was also able to transcribe the interviews on Word. The transcription of the interviews gave an opportunity to engage more deeply with the data. Tables were used to provide an overview of the participants' responses.

3.11 Limitations

The researcher had feared that access to some key administrators might be difficult because some institutional information might be considered confidential. However, due the fact that this study was supported by the university it was much easier to get cooperation from the participants. I say "supported" because the researcher's study leave was approved by the university. For the same reason, he was given permission to access documents that might otherwise have been denied.

Time for undertaking the study was short and the researcher undertook it under immense pressure. The distance from Johannesburg to Swaziland also added to the delay because the researcher had to make appointments. In order to expedite this, he requested the participants' cell phone numbers so that they could be reminded of the time scheduled. This worked because the researcher was able to achieve the interviewing objective within time even though the university was closed due to strikes that prevailed throughout the country. The whole exercise proved expensive for a student who was not sponsored but was worthwhile. Due to limited time, the researcher did not cover all that pertains to online learning and distance education, but endeavoured to embrace as much as was required to meet the objective of the research.

There was a high possibility of bias due to the fact that the researcher is an employee of the institution under investigation and might be given biased information. To overcome these problems the researcher established professional rapport with the participants. In order to

deal with the issue of bias, the intentions of the study were declared to the participants as were its value to IDE and the university, and the researcher believes that this led to the information given being objective.

3.12 Ethical issues

Before the study was undertaken, the researcher sought clearance from the Human Research Ethics Committee (HREC) of the University of the Witwatersrand in Johannesburg. Before proceeding with the study the researcher requested for authorisation to conduct research at IDE and further sought consent from the participants (appendix 8). The information gathered was used solely for the study and participants names did not appear anywhere in the study (i.e. they were anonymous). The participants were invited to participate in the study and were also informed that their participation was purely voluntary, and as such there were at liberty to withdraw from participating at any time if they felt uncomfortable, and that this would not prejudice them in any way. The researcher also assured them that the data would be destroyed after three years (2016). During the process of the research, audio tapes and written documents were kept under lock and key. The researcher was the only one with the access to the documents. The computer used had a personal password, and passwords were assigned to the files as a means of protecting them.

It was the ethical clearance letter obtained from HREC (appendix 9) that opened doors for the research because the researcher kept making reference to it whenever asked about the conducting of the research at the IDE. The Institute of Distance Education also gave the researcher permission to interview staff after producing the ethics clearance letter (appendix 10). The ethics clearance assured the IDE and the university staff of their confidentiality and that the researcher was fully responsible for the data collected and also the perusal of IDE's confidential information such as the minutes of the IDE academic board and other relevant documents.

3.13 Conclusion

In this chapter, an account of the research design, the study population, data collection instruments and data analysis method used were discussed. Further described were the

elements of reliability and validity, and the ethical issues that were considered in the study. The chapter concluded by giving a narration of the limitations to the study. Regardless of all these limitation the study was able to obtain sufficient data to address the research question, and this data is presented in the next chapter.

CHAPTER 4

PRESENTATION AND ANALYSIS OF FINDINGS

4.1 Introduction

The intention of this study was to identify the perceived factors operating on the adoption and implementation of online learning at the Institute of Distance Education (IDE) in Swaziland to better understand why this university has not been more effective in adopting and implementing online learning. In addressing the objective of the study, the researcher designed seven different but coherent interview schedules which were used to guide the interviews. The interview schedules were designed for the following groups of respondents: lecturers offering IDE courses online; lecturers not offering IDE courses online; the three different IDE programme coordinators; and two senior managers. These instruments were used to capture responses to questions that elicited respondents' experiences, perceptions and understanding of the adoption and implementation of online learning at IDE.

The interview schedules covered three broad areas; the factors that are perceived to support the adoption and implementation of online learning, the factors that are perceived to be barriers to the adoption and implementation of online learning at the Institute of Distance Education, and the strategies that are thought to be appropriate for strengthening the supportive factors and overcoming the barriers to the implementation of online learning at the institute. This chapter presents and analyses the findings obtained from the interviews with each group of respondents regarding these three broad areas. In each, the findings are presented and discussed in terms of themes which were derived from a classification of codes that emerged from participants' responses. Later, patterns that can be identified in the themes are used to refine the discussion further. Direct quotations from participants are referenced by using the number ascribed to each participant within the group that they represented (such as p1, p2 in each group).

In reporting on the findings, no distinction is made between the processes of adoption and implementation. According to Ely, (1999), innovators are usually intrinsically motivated to use new technologies and tolerate ambiguity and setbacks. He regards early adopters as the opinion leaders who have extrinsic reasons to adopt innovation. He further advances the

notion that late adopters of innovation may be influenced by peer pressure. The description of adoption as posited by Ely, (1999) seems to align with this study as it sought to investigate factors operating around adoption and implementation of online learning at the IDE. Alan, (1977) cited by Ely, (1999) advances the idea that beyond adoption is implementation and the two processes cannot be separated as noted in the literature review. He asked the question: "What does adoption mean if it is not followed by implementation?" He argues that implementation is a process of teasing out reasons for a successful effort after an innovation has been adopted. He advances the idea that it is important to note the conditions that appear to facilitate the process of adoption and implementation. It is against this background of Ely, (1999) that the researcher used adoption and implementation together to describe and explain the conditions that were elicited from the participants in investigating the factors affecting adoption and implementation of online learning at the IDE.

4.2 Factors supporting the adoption and implementation of online learning at the IDE

4.2.1 Presentation of findings from interviews

Responses from the interviewees regarding factors supporting the adoption and implementation of online learning were organised into six themes.

The first theme, 'students' characteristics', is used to capture those responses that refer to the nature of the students themselves that would make online learning appropriate for them. This theme includes responses such as students are 'spread out' and are 'digital natives'. The theme of 'institutional imperatives' is used to collate responses that refer to both internal and external pressures on the IDE for the adoption and implementation of online learning. It thus includes responses such as 'technology in distance education is a global trend, technology addresses the issue of lack of space, dwindling resources, lack of classrooms and lack of capacity.' The theme 'pedagogical value' is used to describe responses which highlighted the pedagogical benefits of online learning such as: *communication, interaction, collaboration and anytime learning* which are attributes of online teaching and learning. The theme of *'e*xternal support' is used to describe responses that flagged the staff's prior knowledge and experiences with online learning which would

encourage their adoption and implementation of it at IDE. The theme of 'internal support' is used to describe responses related to conditions at IDE that were seen to support the adoption and implementation of online learning. Responses here included *the training offered by IDE, Moodle available* and *technical support afforded by the ICT centre office or the university.* And the theme of 'staff attitude' was used to describe responses that indicated personal qualities which staff felt led them to support the adoption and implementation of online learning, such as self-motivation, self-drive, willingness to try out the technology and to seek assistance from others.

Table 2 shows how responses elicited from the interviews with the 8 members of staff who are offering on-line learning were spread across the 6 themes.

Table 2: Spread of responses of staff offering courses online

Themes	Number of Participants	Percentages
Students' characteristics	8	100
Institutional imperatives	5	62
Pedagogical imperatives	8	100
External support	5	62
Internal support	7	87
Staff attitude	8	100

The results show that the characteristics of students were noted by all of the staff offering online courses. These respondents noted that students have responded well to online learning noting such things as *"Nowadays…my students search for information online in the internet…" (P 2)* and suggested that one reason for this good response was the fact that students were 'digital natives', for whom the use of technology is part of their daily lives. Another 'student characteristic' that they thought to be supportive of online learning was that some of the students are employed and are located all over the country and as such cannot attend face-to-face contacts sessions. They believed that: *"…online makes education accessible to everyone in the country…" (P7)*

These comments suggest that staff offering online courses believed students to be eager and ready to learn online, and that, the geographic spread of students means that online learning is appropriate for them as it makes access to courses easier for them. Both these characteristics of IDE students are factors that support the adoption and implementation of online learning at IDE.

Responses included comments such as: 'students are very active when it comes to online discussions'. This suggests that participants perceived online learning to support student participation in discussion and active learning, and thus to be of pedagogical value. All of the participants highlighted 'pedagogical value' as important. This means that they viewed communication and collaboration presently addressed to some extent in the blended learning mode already in place, as important, and that such affordances of online learning are clearly supportive factors for its adoption and implementation at IDE.

Comments classified as 'internal support', raised by 87% of the participants, related to the view that the availability of Moodle, training and technical support were important in supporting the adoption and implementation of online teaching and learning. Respondents here noted that the institution had computers, internet and basic facilities for online learning that both students and staff could access. Phrases like:

> 'The institution has internet, it gives technical assistance, and there is training, the Moodle learning management system is available and there is access to computers.'

were some of the comments mentioned by the respondents. They felt that these facilities supported the adoption of online learning by some of the staff members.

Comments classified as 'external support' indicated that previous experiences have helped some of the staff in adopting and implementing online learning. This is what they said:

> *"I was motivated by my experience of working in Zimbabwe Open University and asked friends in computer science to help me with the learning platforms such as Claroline and Moodle. I was introduced to Moodle when I was in the United Kingdom. When I came to Swaziland I already had the skills of working online." (*P 7*)*

"I was motivated by the exposure I had when doing my Master's degree in the United States of America, where I was exposed to the Blackboard Learning Management System. I also have a strong background in information technology so I wanted to make online learning practical for the students I teach. I want them to learn the theory as well as the practicality of using the systems." (P 8)

"I am a member of an organisation which promotes literacy, teaching and learning. In that organisation they encourage presentation of learning materials in various modes and I was taken by the new trends that you could teach using cell phone, television, and teach using online really motivated me. As a result that motivated me to start thinking about developing online material for the IDE." (P 3)

The above responses show that many of the respondents were encouraged to offer online learning by the previous experiences in different contexts. It is noteworthy that they have shown commitment and dedication to offering their courses online. This suggests that the external support they have had, had a strong influence on the use of Moodle at the institute.

Responses related to 'institutional imperatives' were of less importance than some others in supporting online learning as only 62% of the participants gave responses in this category. They identified the lack of space as an important factor encouraging the implementation of distance learning, and believed that the IDE should attempt to be in line with global trends in using online learning as the preferred mode in this regard. Examples of their comments include:

"…the use of online learning in distance education is the way to go and one of the tasks of the IDE…online brings the university to the twenty first century." (P 2)

"Definitely this is the way to go. The more we have online the better because many people could access them, and would make our job much easier." (P4)

The comments show their view that online learning direction taken by the institute is the way to go. The use of the internet by the IDE seems to suggest that the institute is adhering to the global trend as it brings the university to the twenty first century.

Factors related to 'staff attitude' were mentioned by all the respondents as important in supporting the adoption and implementation of online learning at the Institute of Distance Education (IDE). They felt that self-motivation and determination were important. Here are two examples of what they mentioned:

> *"I developed an interest and attended a few workshops outside the country and the skills I learnt benefited me in terms of trying the online learning out…" (P 3)*

> *"Some people are self-motivated and can research in the internet on how things are done…" (P 1)*

The respondents perceived that there should be a strong willpower when adopting a new innovation like offering online learning, which is a positive attitude. The discussion revealed that interest in attending workshops and being self-motivated are an indication of willingness to learn new innovations and to try them out. In that way this kind of staff attitude is a factor that might affect the adoption and implementation of online learning.

Table 3 shows how the responses from the 5 staff not offering online were spread across the themes that emerged from an analysis of supporting factors. Responses given fell into the themes of pedagogical imperatives, institutional imperatives and staff attitude.

Table 3: Spread of responses across themes perceived to support online learning by staff not offering online learning.

Themes	Number of Participants	Percentages
Pedagogical imperatives	3	60
Institutional imperatives	5	100
Staff attitude	5	100

Responses from the theme of 'pedagogical imperatives' included phrases like

"…the distance leaner would have the material at hand as if communicating with the lecturer and responses are immediate…lecturers will be able to give students more learning material…" (P 3).

and:

"…The online mode would certainly improve communication between the IDE itself, the instructors and students…students can do their quizzes online and get feedback at the same time and saves marking time for the lecturers…these days there are many freely available instructions that can be used and as a lecturer you can post these instructions to your students via the online learning system…" (P 1)

This group of respondents perceived the value in the institute, staff and students changing their traditional ways of teaching and learning and adapting to the twenty-first pedagogical approaches of teaching and learning. These responses indicated that more than half of those staff not offering online learning perceived it to provide a collaborative learning environment, and considered it to be an ideal platform for teaching and learning in distance education. In addition, they believed that the perceived benefits of online learning such as flexibility and learning conveniently anywhere and anytime were strong motivating factors for the implementation of online learning; especially in support of the characteristics of the student body, although these were not given as supporting factors *per se.*

The staff that did not offer online did not share how they personally felt about the issue of attitude towards offering courses online. Instead, they made frequent reference to those who offer online when asked about the attitude that supported online learning. They made observations such as those noted below:

"Their background on computers could be one of the aspects, also prior delivery of content using computer technology…" (p 2)

"My response will be based on the experience of this one person I talked with regarding developing online courses. This person firstly developed interest …and tried out the online learning…" (p 3)

"I think they belong to the twenty-first century…" (p 4)

These responses show that this group of staff perceived certain personal characteristics to be of importance in supporting the adoption and implementation of online learning. They suggested that those who offered online learning courses did so because they have *computer skills and online learning experience,* and probably know of the benefits of online learning. Clearly, they are interested in online learning and motivated to try it for themselves, and have skills which give them the confidence to do so.

Responses related to institutional imperatives were represented by phrases such as:

> 'IDE is of *value to the nation because it opened the opportunity for university education, and accommodates large numbers of qualifying candidates and technology is the way to go in online learning.' (P 3).*

These respondents perceived that there is a high number of candidates qualifying for university education and that this number keeps increasing, while the Institute has limited capacity to accommodate all of them, suggesting to them that online learning was the most appropriate way of meeting the ever-growing demand.

Respondents felt that access to computers and the internet were supportive pillars of online learning at IDE. The respondents perceived that IDE was of value to the nation as it provides unlimited access to university education while easing the intake pressure in the main stream of the university. Online learning technologies were regarded as the way forward and IDE as a distance education institution had to meet/subscribe to certain global developments in teaching and learning. The respondents said the following about the institutional imperatives:

> *"The value of the IDE is to ensure that the majority of the populace in Swaziland actually get access to university education. IDE modes of delivery and ways of admission ensure that a larger amount of the population is actually enrolled for university education" (P 2)*
>
> *"...online learning is of value to the nation because children get the opportunity to access university education" (P 5)*

These respondents clearly show that there are pressures from outside the university that seem to advance the argument that online learning is the most appropriate mode of offering distance education.

Table 4 shows how the responses from the five programme coordinators were spread across the themes that emerged from supporting factors. The programme coordinators in the Institute of Distance Education are part of the IDE's management team. The expectation is that they motivate institutional innovation towards meeting the mandate of the institute. They are the major link-pins between the IDE and conventional departments as they are expected to, among other responsibilities, coordinate teaching and learning. They are the people who liaise directly with the full-time lecturers with regard to developments such as online learning and other academic activities that take place in the IDE.

Table 4: The spread of responses from the 5 IDE programme coordinators across the themes that emerged from supporting factors.

Themes	**Number of Participants**	**Percentages**
Pedagogical imperatives	2	40
Institutional imperatives	3	60
Staff attitude	5	100
Internal support	5	100
Students' characteristics	1	20
External factors	2	40

Responses under the theme of 'pedagogical imperatives' as mentioned by the programme coordinators show that they believe online learning to be an ideal way of facilitating learning in distance institutions. The benefits of IT technology include flexibility and collaboration among staff and students regardless of the physical distance. This is what was mentioned:

"As a teacher, I know that teaching online gives the teacher an opportunity to incorporate a number of other teaching methodologies that would enhance teaching and learning." (P 2)

"…learning material will mainly be accessed online as a result students will engage with it more regularly." (P 4)

The responses indicate that the participants in this group have an understanding of the benefits of offering distance education online. The flexibility of accommodating a number of different methodologies in teaching afforded by online learning worked to the advantage of both the facilitators and students. This is so because there would be online interaction where students engage in discussions and share information with counterparts as well as with the facilitators.

Responses under the theme of 'institutional imperatives' were mentioned by 60% of the respondents. They highlighted that the IDE had to follow the regional and global trends of using online learning in offering courses to distance learners as globally distance learning is facilitated by online learning. This is what was mentioned:

"I think my belief as an educator is that I want to be in line with what happens elsewhere as many other universities in the SADC region have taken up online learning and that other colleagues have been very supportive." (P 5)

Clearly, the response shows that several of the programme co-ordinators believe that the IDE needs to improve and do better in terms of offering online learning in order to keep abreast with global trends. They believe that there is a need for staff to conform to the new ways of teaching and learning in order for them to be relevant in the twenty-first century.

The programme coordinators viewed staff attitude as important in the adoption and implementation of online learning. They highlighted that self-motivation and willingness to offer courses online was important. This is what they said:

"The ones who are being trained have taken online learning seriously." (P 1)

> *"As a programme coordinator I have to encourage my colleagues to adopt the system…"* (P 3)

> *"When we look at staff within IDE, I think half of them are supportive while the other half is rather hesitant and sceptical. Some people are keen to know what it (online learning) is all about, whilst others are rather cautious. It's just human behaviour."* (P 5)

The programme coordinators also indicated that internal support has created awareness about online learning at the IDE. This was undertaken through advocacy, communication, strategic plan, availability of Moodle and training. They advanced the idea that internal support has made the use of online learning use in distance education possible. There were phrases expressed, such as: *"the IDE has been supporting the training of staff in online learning."* This is an indication that the IDE is gradually moving towards the use of online learning and that there is a possibility of adopting online learning as mandated by the strategic plan.

The response from the programme coordinators under the theme 'students' characteristics' were mentioned by 20% of the respondents. This person highlighted that the majority of the students were born in the digital era and as such had no problem adopting new technological innovations such as online learning. Phrases like:

> "*The learners in general were very happy with the Moodle platform. At first they were scared, but after explaining to them what Moodle is, and how it can be utilised, they became open to it and the majority enjoyed using it. They participated on forums…"* (P 5)

were mentioned by this respondent. The response suggests that the students have responded well to courses that are offered online. This programme coordinator thought this was largely due to the fact that these students are digital natives, for whom the use of technology is part of daily life.

Responses under the theme 'external factors' were mentioned by 40% of the respondents. These respondents mentioned that their previous experiences in using online learning

systems had made them accept the use of Moodle in offering courses online at the IDE. This is what they said:

> *"What has helped me are the courses that I personally attended. I undertook facilitating online learning. That course was facilitated by the University of West Indies. It gave me the skills for online learning."* (P 1)

> *"…I have been sensitised on Moodle by going to workshops and conferences where I got information from other colleagues in African Universities, and I also think Moodle is user friendly…"* (P 5)

The programme coordinators recognised that the factors that have contributed to the adoption and implementation of online learning were external factors, students' characteristics, internal support, pedagogical support, institutional imperatives and staff attitude. The programme coordinators expressed the view that it would be appropriate for the institute to strengthen these factors so that the offering of online learning might be adopted and implemented.

Table 5 below shows how the responses from the interview with Senior Manager 1 were spread across the themes. The information communication technology (ICT) centre is the main centre of the university with regard to infrastructure and technical computer support. The interview with the Senior Manager 1 made it clear that the role of the ICT office is to offer support with software and hardware and is not necessarily about teaching lecturers how to use Moodle for pedagogical purposes.

Table 5: Factors perceived by the ICT director to support online learning

Themes	Number of Participants	Percentages
Staff attitude	1	100
Internal support	1	100

From Table 5 it is clear that the Senior Manager 1 emphasised internal support and staff attitude as key factors supporting the adoption and implementation of online learning. With

regard to the former, he commented on the value of the computer foundation course, which he believed equipped students with skills necessary for using graphic interfaces on computers necessary for engaging with courses offered on line. With regard to staff attitude, he reflected on how some of the staff's interest and initiative in using Moodle had led to them developing courses online. For example, he said that the availability of courses on line is evidence of interest in using Moodle. These views of the Senior Manager 1 seem to be in agreement with those of other groups of respondents. They are, however, confined to fewer of the themes, possibly because his role does not require him to engage in teaching the students.

Table 6 shows how the responses derived from the Senior Manager 2 were spread across the themes.

Table 6: Spread of responses across factors perceived by the Senior Manager 2 to support online learning.

Themes	Number of Participants	Percentages
Pedagogical imperatives	1	100
Institutional imperatives	1	100
Staff attitude	1	100
Internal support	1	100
Students' characteristics	1	100

The Senior Manager 2 clearly had a positive attitude towards online learning. He explained that:

> *"really our plan is that everything should be offered online and students should be able to study online, complete the course and be able to pass it where ever they are. They do not necessarily have to be in Swaziland."*

His responses in the interview regarding factors supporting the adoption and implementation of online learning touched on all the themes. He believed that the IDE

needs to adapt to the global trend of offering distance education online, and that global trends are imperatives operating on the IDE, noting that: *"I personally think the movement to online learning is inevitable and as the world changes, technology is the only way to go."*

He reflected that for the required shift to happen at IDE the staff needed to accept the new innovations in teaching and learning. He highlighted the importance of positive staff attitude as a supporting factor in the adoption and implementation of online learning, saying for instance: *"Interest from the lecturers is the one of the key drivers…"*

With regard to the theme, 'internal support', Senior Manager 2 expressed the view that the institute needs to provide adequate support structures, such as access to ICT from the structures of the university. He also believed that the IDE's vision and policy documents were supportive of the adoption and implementation of online learning at IDE.

He also believed that *s*tudents' characteristics seemed to support the adoption of online learning both because they were digital natives and also because they were scattered all over the country, making the internet the most effective means of disseminating teaching and learning materials.

The analysis of his responses shows that Senior Manager 2 believed that the benefits that come with online learning technologies in distance education were factors that supported its adoption and implementation at the IDE. **'**Institutional imperatives' were advanced as inevitable and the institution might consider moving with the world towards online learning in facilitating distance education. 'Staff attitude' was considered an important factor because he had observed that those who had already adopted and implemented online learning had a more positive attitude to this mode of delivery than those who had not. 'Internal support' was described as vital and that there was a need for IDE to improve those structures which are a factor in the adoption and implementation of online learning.

4.2.2 Overview of responses regarding supporting factors

Responses to the interview questions related to factors that supported or would support the adoption and implementation of online learning at IDE showed that the groups had similar views as to what these factors are. These factors were organised into six themes. Generally, all respondents shared the perception that the supporting factors included

internal support whereby the IDE provided the basic requirements such as access to computers and internet and training and the force of institutional imperatives such as the need to conform to the global ways of offering distance education. Thirdly, the pedagogical affordances of online learning were seen as supporting the move toward implementation of this mode of delivery. These included the flexibility of the system in delivering teaching and learning materials as well as the possibility of collaboration between lecturers and students. Fourthly, students' characteristics of being born into the digital age and being widespread physically were also seen as factors which were supportive of the adoption and implementation of online learning. A positive staff attitude was identified as a fifth supportive factor to the adoption and implementation of online adoption, with staff self-determination and motivation being seen as important attributes in this regard. In addition, exposure to the benefits of online prior to joining the IDE was also seen as a supportive factor because staff with this prior experience had most readily adopted and implemented online learning at IDE.

The discussion revealed that both staff using online learning and those who are not share similar sentiments with regard to the value of online learning in distance education. Drawing from these two groups, it is clear that the staff offering online and staff not offering online do perceived the value of online learning at the institute and how it can be useful to students. Also, what came out clearly was that both groups seemed to see that certain institutional factors categorised above as pedagogical, institutional and personal support the adoption and implementation of online learning at the Institute and that some of these are already in place at the IDE.

4.3 Barriers to the adoption and implementation of online learning at the IDE

4.3.1 Presentation of findings from interviews

The analysis of the responses related to barriers suggested that they could be organised into five themes. These are: staff attitude; internal challenges; staffing; students' characteristics; and access to information communication technology (ICT). The theme of 'staff attitude' was used to capture responses that related to the negative attitude shown towards adopting and implementing online learning. 'Internal challenges' was used to describe

responses that related to lack of appropriate training on the use of Moodle, lack of incentives, and lack of infrastructure to expedite the adoption and implementation of online learning. 'Staffing' was used to capture responses that related to inadequate provision of teaching staff and the problems that they encountered as they taught in IDE. 'Students' characteristics' was used to describe responses that related to their unfamiliarity with distance education and the challenges experienced by their facilitators in this regard. 'ICT access' was used to capture responses that related to the challenges posed by technology in offering online learning at the IDE.

Table 7: shows how the responses from the 8 staff members who teach courses online were spread across the five themes.

Table 7: Barriers to online learning spread across themes mentioned by those offering courses online.

Themes	Number of Participants	Percentages
Staff attitude	8	100
Internal challenges	8	100
Staffing	8	100
Students' characteristics	3	38
External ICT access	6	75

In the interviews, it emerged that, for some staff, negative attitudes to adopting online learning for a variety of reasons seemed to be a barrier to the adoption and implementation of online learning. The following quotations give a sense of what these negative attitudes are and provide some of the perceived reasons for them:

> *"I think it's probably the fear of the unknown. If I go online I am not sure of how this online learning may turn out to be in terms of pedagogical principles. Changing from the traditional mode to online learning may be a challenge hence people do not feel free to change their teaching perception."* (P 3)

"From my experience, people are afraid of technology. I would say this could be a big challenge or hindrance…there are those who are traditionalist, they are not open, they see this as a sneaky way of having students learn…they prefer to drill the students in the classroom…and now they would think learning has taken place." (P 4)

Clearly, fear of extra work, of the unknown and of technology were all perceived as attitudinal barriers to the adoption and implementation of online learning at the IDE. This suggests that there is a need for the staff to change their attitude so that the offering of online learning can be embraced. The responses indicated that 'staff attitude' was ranked among the highest as a barrier to online.

Discussion with respondents revealed that internal factors that were perceived as barriers to the adoption and implementation of online learning included the limited resources for online learning, the lack of training available to staff on how to offer courses online, and lack of advocacy to motivate staff to offer courses online. Here are some examples of what respondents said:

"…this online learning development is not well explained to staff members…" (P 5)

"…my colleagues are not well informed about the development of the online learning system which is used in the Institute of Distance Education. Creating more awareness is important. Another thing is the issue of computer skills development. I think the university needs to do something about that." (P 7)

The theme of 'staffing' also emerged as a barrier in the discussion. Respondents expressed their concern that IDE relied on staff employed by the University to offer face to face courses there and who taught at IDE in addition to this work. Although these staff members were paid for the additional teaching at IDE, there was no incentive offered for offering courses online. This lack of an incentive to offer courses on line was seen as a barrier to its adoption and implementation. The following quotations from interviews reflect these views:

"…there is a need to come out with a model for remunerating people involved in online learning at the IDE. One of the ways could be to negotiate flat figures based on credit hours given…" (P 1)

> *"The university should incentivise the lectures so that when they weigh the benefits they see them as favouring them also not just the students alone. The university may incentivise by money, time, and even promotion and in that way the uptake of online learning might be high at the IDE."* (P 8)

These responses suggest that staff feel that they were doing extra work, and so should receive additional recompense in some way and lack of this was a barrier.

Comments made in the interviews showed that external ICT access had a bearing on the adoption and implementation of online learning at IDE because there seemed to be a lack of access to computers, internet and bandwidth outside the university where the students live. Although this group of staff offered online learning it is important to point out that they perceived that their students' lack ICT access was a barrier to their work. This is what they had to say:

> *"…not all our students will have equal access to the internet. Some are in the rural areas where internet is inaccessible. We also have a problem of broadband which might be a problem for some students…"* (P 3)

The discussion revealed that although there is infrastructure at the campus (though not entirely adequate even there) the challenge seems to be with the students who do not have a computer and who live where there is no access to the internet. This is clearly a barrier to online learning because it is the students that need to receive course material and engage with it online.

The interview revealed that certain characteristics of the students were perceived to be barriers to the offering of online learning. These characteristics included their unfamiliarity with distance education as a mode of teaching and learning, and their lack of requisite skills. This is what the respondents said:

> *"…the calibre of students, the skills they have, and also the issue of culture that anything that comes in the form of online learning is new to them."* (P 6)

Discussion with respondents about the students at IDE revealed that they are mainly fresh from school and so used to being taught by a teacher in class. This, coupled with their lack

of familiarity with online learning was seen as posing a barrier to the adoption and implementation of this mode of delivery at IDE.

Table 8 shows the themes that were derived from the interviews with staff who were not offering on-line learning.

Table 8: Spread of responses of staff not offering courses online

Themes	Number of Participants	Percentages
Students' characteristics	1	20
Internal challenges	5	100
Staff attitude	2	60
Staffing	5	100

The results show that one staff member perceived 'students' characteristics' to have a negative bearing on the adoption of online learning at the IDE. The respondent indicated that the IDE students are not self directed or driven in learning. The response seems to suggest that the students are not yet ready for online learning. This is what was mentioned:

> *"…my experience with IDE is that very few students are committed to reading text…face to face contact pushes them to the corner…"* (p 4)

The comments made by this group of staff also revealed that internal challenges were perceived to have a negative impact on the offering of online learning at the IDE. Respondents felt that IDE lacks the required infrastructure, and does not adequately train staff on new technology, and that there are insufficient computers and that bandwidth is too limited and access to the internet too slow for online learning to be effectively implemented. This is what was mentioned:

> *"Before you can offer courses one has to be well versed with computers and be familiar with the software and the hurdles of how to write a course module suitable for online learning…with me I do not have the expertise."* (P 3)

> *"…we do not have the infrastructure at IDE and was not using it (online) so we just flow with the motion. Although I have not used any (online learning modes), I think training will be important so that we can all begin to use these modes."* (P 5)

The interview with this group of staff revealed that 'staff attitude' towards the adoption and implementation of online learning at the IDE was also a significant concern. Reflecting on how staff attitude serves as a barrier for their colleagues and themselves, some members of this group of respondents offered the following comments:

> *"Old-fashioned. I do not belong to the electronic or technological age and you cannot teach old horses new tricks. I do not want to push myself. I have closed my mind because I am moving towards retirement. Those who offer online learning belong to the twenty first century to which I do not belong…look we are different. People of my age I am told are on Facebook and other social networks, but I am determined not to."* (P 4)

The responses show that while some of the staff not offering online learning appreciate what staff offering online learning are doing, they seemed to be reluctant to adopt and implement online learning at the IDE themselves. What emerged from the discussion is that some of the staff were not convinced that online learning was an effective way of offering distance education. Also within this group, there are those who are determined not to adopt online learning for the simple reason that they just do not want to learn new skills, or because they were afraid of the technology and of learning new things, or of the additional work that converting their courses to an online mode of delivery would entail.

The results also indicated that 'staffing' was another barrier when it came to offering online learning. The concern raised was that staff had no time to offer courses online because they were fully occupied with their conventional teaching loads. This is what they said:

> *"I did not choose to teach at IDE. I was told that it is part of my contract. If I teach courses in the full time then I should also teach them in IDE…the workload is too much for me."* (P 4)

The responses show that the current staff seemed to be de-motivated by teaching at the IDE because of the added teaching load. This is a barrier to offering online at IDE because the staff seemed not to have enough time to prepare for online learning.

Table 9 shows the spread of themes that were elicited from the interviews with IDE programme coordinators.

Table 9: Barriers to online learning as identified by the five IDE programme coordinators

Themes	Number of Participants	Percentages
Internal challenges	5	100
Staff attitude	5	100
Staffing	5	100

The results indicated that all the programme co-ordinators viewed certain internal challenges as barriers to the adoption and implementation of online learning. These barriers included: inadequate infrastructure and facilities for online learning, and also inadequate staff training which meant that staff members did not all have the skills required to offer courses online. This is what two of the participants said:

> "*…the situation of access to the internet and computers is still generally limited and we seek to increase access, as well as keep abreast with new technologies being used to offer education." (*P 1*)*

> *"…I feel there has been little support by the university structures and management, and lack of financial support. Financial support is crucial towards the implementation stages of any new development. Institutional wise, there has been little support."* (P 5)

These responses suggest that the IDE has some ground to cover in order to have the required infrastructure, facilities and training of the staff such that the environment at IDE is conducive for online learning. The scant support from the institute has clearly been a

barrier to some of the staff offering online learning. This seemed to work against the desired outcome of offering online learning.

The programme coordinators also perceived that 'staff attitude' was a constraint on the adoption of online learning. Some of the staff were not eager to accept this new innovation in teaching and learning as introduced by the institute. This is what they highlighted:

> *"The main obstacle is change management…this has proved a challenge as some people are reluctant to tread new grounds."* (P 4)

> *"It has been difficult mainly due to the negative attitude of most of the full time colleagues, where there are sceptical and there is fear of change. I think people are scared when something contrary to the status quo is introduced…taking into consideration all those fears and attitudes."* (P 5)

The responses clearly show that there is a problem that needs to be rooted out of the people's minds, which makes them reluctant and sceptical to accepting new teaching and learning innovations. The programme coordinators highlighted that some of the staff do not want to move from their comfort zones.

The interview with the programme coordinators also revealed that they, too, perceived staffing at IDE to be a barrier to the adoption and implementation of online learning. As with others interviewed, they believed that the fact that IDE did not have its own dedicated teaching staff meant that nobody seemed able to dedicate enough time to offering online learning. Here are some to their comments in support of these ideas:

> *"Lack of staff specifically employed to facilitate online learning is a barrier. There is need to hire specialised staff for online education."* (P 2)

> *"Most of our tutors and lecturers in this unit are not full time and the implication is that getting their cooperation is difficult." (P 3)*

Table 10 shows how responses derived from the interview with the information communication technology centre director were spread across the themes.

Table 10: Barriers to online learning as identified by the Senior Manager 1

Themes	Number of Participants	Percentages
Internal challenges	1	100
Staffing	1	100
External ICT access	1	100

Senior Manager 1's responses fell into three themes, as shown in Table 10. He perceived that the lack of ICT infrastructure beyond the institute was a barrier to the adoption and implementation of online learning as it meant that students struggled to access learning materials or engage in courses delivered this way. This compounded the internal challenge of limited ICT resources at the institute itself. In this context, he noted that:

> *"The main barrier in terms of using Moodle is having access to computers. What happens is that students tend to come to the university instead of using Moodle from wherever they are. The university has no adequate computers…"*

In discussion, Senior Manager 1 also noted his belief that other internal challenges also affected the adoption and implementation of online learning at IDE. He believed that the lack of technical assistance and of training on the use of Moodle worked against the offering of online learning at the IDE. He also felt that a further barrier to the adoption and implementation of online learning was the lack of clarity about what the IDE meant about offering online learning. Without this lack of clarity, and a full understanding of the implications of offering online learning he felt that the ICT centre did not know exactly where to focus its effort in supporting the adoption and implementation of online learning at the IDE.

Again, the interview with Senior Manager 1 indicated that 'staffing' was also another major barrier faced by the Institute in offering online learning. This respondent highlighted that there was the need for IDE to employ suitably qualified technical staff dedicated to maintaining the ICT infrastructure. This is what he mentioned:

"The main challenge for IDE is in terms of staff complement. With online learning you really need a person or people that will specifically focus on it…a person who will look after the system after its installation, someone who will on a frequent basis oversee the running of the system…"

Table 11 shows how responses of the Senior Manager 2 were spread across the themes

Table 11: Spread of response of Senior Manager 2 across the themes

Themes	Number of Participants	Percentages
Pedagogical challenges	1	100
Staffing	1	100
Internal challenges	1	100

The results showed that the director's response fell into three main themes. With regard to pedagogical challenges, the respondent highlighted that the institution believes in offering a blended mode of teaching and learning. Although this approach is partly supported by technology, it seemed to work against the concept of online learning which is mostly used in distance education. This is what the respondent mentioned:

"…we believe in blended mode…we will still have some limited face to face in the form of tutorials…"

"…we need a network out there where students can access the material. Without centres out there where students can go to learn and interact with the lecturer it would be a barrier to the success of this programme."

Clearly, the institute's commitment to blended learning, as noted here, is a barrier to the move to the adoption and implementation of online learning.

In discussion, Senior Manager 2 also highlighted his view that staffing was a major barrier in the adoption and implementation of online learning at IDE. He noted that current teaching staff complained of teaching overload, and lack of time to prepare for online learning and

felt that these and other problems arose from the IDE not having its own complement of staff. *"…one I would say is structural barrier where IDE does not have staff of its own…"*

> *"The staff members have full load in full time, and have many students to teach and as well as supervise projects when they are not in class, and the additional requirement from lecturers to do research. We are competing as IDE with a number of activities that are core to their employment. So, IDE cannot be made a priority and we end up suffering as people really do not want to engage in online learning activities."*

As with the other groups, the issue of 'staffing' also emerged clearly as a barrier to the adoption and implementation of online learning in the discussion with Senior Manager 2. He attributed the failure to adopt and implement online learning largely to the fact that IDE does not have its own staff which could specifically teach in the institute.

The director's responses also showed his views that several internal factors were barriers to the adoption and implementation of online learning. These included lack of staff expertise, a lack of time to prepare for online learning, and a lack of ICT infrastructure. This comment captures some of these views:

> *"I think there is a constraint of time for staff members to develop their online courses. There is also lack of expertise…There is also lack of hardware and software…not all staff members have access to a computer which they can use, hence, you cannot expect those staff members to develop online courses."*

4.3.2 Overview of finding regarding perceived barriers to the adoption and implementation of online learning at IDE

In the light of the themes that emerged the groups generally saw things in similar ways. All groups or respondents perceived that the fact that the IDE did not have its own staff to teach content to their students was a barrier to the adoption and implementation of online learning. They saw the internal challenges, such as limited access to infrastructure and facilities of online learning as being barriers. They viewed certain attitudes, such as technophobia, and the fear of changing from a traditional mode of teaching to a new

methodology related to the use of technology among some staff as inhibiting the adoption and implementation of online education. In addition, lack of experience and exposure to online learning were viewed by staff that did not offer online learning as a barrier to the adoption and implementation of online learning at the IDE. For some respondents, the approach used in teaching and learning at the IDE such as the blended approach was viewed as a barrier because it promotes face to face interaction, rather than a reliance on online learning and interaction only.

4.4 Strategies for strengthening the supportive factors and overcoming the barriers to the adoption and implementation of online learning at the Institute of Distance Education.

4.4.1 Presentation of findings about strategies from the interviews

In their analysis, the responses related to strategies were organised into six themes. These are: training; advocacy; change of governance; policy directives; improved access and incentivising. 'Training' was used to capture responses that related to re-skilling staff so that they may have the knowledge of offering courses online. 'Advocacy' was used to capture responses that related to making staff and students aware of the affordances of online learning in offering distance education. The awareness would probably increase the adoption and implementation of online learning and change staff attitudes towards it. 'Change of governance' was used to capture responses that related to IDE becoming a college as that would give it autonomy from the main university. 'Policy directives' was used to capture responses that referred to the need for a clear policy statement regarding the IDE's intention to offer its courses online. 'Improve access' was used to capture responses that related to the provision of infrastructure required in offering online learning. 'Incentivising' was used to capture responses that related to rewarding materially staff who make an effort to implement online learning. And lastly, 'staffing' was used to capture responses that related to the IDE having its own staff. The idea here is that the staff would devote all their time to IDE activities and embrace the practices of offering distance education at the institute.

Table 12 shows how responses derived from the interviews with the eight staff offering online learning were spread across the themes.

Table 12: Strategies to strengthen online learning by the staff offering online

Themes	Number of Participants	Percentages
Advocacy	5	63
Staffing	3	38
Improve access	3	38
Training	6	75
Policy directives	2	25

The results show that 5 of the 8 staff members offering online learning courses perceived improved advocacy to be a strategy that the institute needed to consider. These respondents felt that advocating for online learning by making the benefits of online learning explicit would probably promote the uptake of offering courses online and perhaps change staff attitude. This is what some the respondents mentioned:

> *"…engage on an awareness campaign because in some cases some are not aware…of what is possible and the benefits. Conscientise them about the good of these tools."* (P 1)

> *"…talk about it to them…have colleagues in the region coming to talk about their experiences, what has worked and what has not worked and mainly through sharing…IDE should take the lead informing people about the existence of online teaching and learning, forwarding models and giving people strategies…"* (P 2)

> "*Make them aware of the benefits of the online learning system…"* (P 5)

The responses clearly show that the '*gospel of online learning'* (P 3) needs to preached. They suggest that not all staff and probably not all students either are aware of the online learning system used at the IDE, nor of its potential benefits.

The discussion also indicated that staff in this group believed that the IDE needs to have its own staff dedicated to online learning and to move away from relying on staff who are primarily employed to teach the university face-to-face courses. The idea is that IDE should have control of its staff and ensure that they align themselves with the expectations of the institute. This is what selected respondents noted:

> *"There should be staff members who are dealing with online learning at the IDE."* (P 4)

> *"IDE needs to have staff that will be responsible for the online learning activities."* (P 5).

The comments also show that this group of respondents believed that there was a need to improve the provision of ICT infrastructure. This was highlighted as important because staff and students would then be better able to access computers and the internet. In that way, receiving material and interaction with facilitators might improve. Selected respondents had this to say:

> *"…IDE needs to provide infrastructure that would support distance education such as computers and internet."* (P 1)

> "…we need to work harder in making online learning more accessible" (P 6).

The responses show that IDE needs to take up the issue of providing access to facilities to students so that they can access their learning materials online. In addition, there is a need for the institution to encourage students to visit centres where they can access computers and the internet in order to interact with their lecturers as well as their counterparts.

The responses from this group also showed that they believed that training of staff and students was a necessary strategy if staff and students were to be equipped with the online learning skills which are required for the adoption and implementation of online learning at the IDE. They suggested that the institution needed to train staff and students on how to use the learning management system (Moodle) used at the IDE, and also to consider holding workshops and seminars to train and re-skill the staff regarding the design and development of learning material suitable for online learning. Selected respondents had this to say:

> *"…organise more workshops…teach them how to use the online learning tool such as Moodle."* (P 5)
>
> *"The university needs to re-skill and train them on issues of using technology tools in teaching and learning"* (P 8).

The comments suggest that the re-skilling and holding of workshops will capacitate the staff with the required skills of offering courses online. Respondents also noted that they believed that such training would also make those previously reluctant keen to adopt and implement online learning.

Responses in interviews showed that this group of staff believed that policy directives need to be very clear so that people know that it is expected that they offer their courses online. The comment below captures this view:

> *"I think paramount to online are the policies of the mother organisation (UNISWA). The policies must be in line instead of being in conflict with the issue of distance education. For instance, the intention for IDE is to use technology in offering online then the policies of the university as a whole must embrace that."* (P 8)

The response suggests that IDE may need to consider drafting a clear online learning policy.

These participants were able to share such valuable information because they had hands-on experience from offering of IDE courses online. The discussion revealed that the institute needs to craft its online learning strategies. One of the strategies would be to create awareness about the benefits of any online learning system including Moodle which is used at the IDE. The issues of re-skilling and training of staff in online learning material development was considered important to strengthen the supportive factors and overcome the barriers to the adoption and implementation of online learning. The deliberations revealed that IDE needs to employ its own staff as a strategy that would relieve pressure on the existing IDE teaching staff. The discussion also highlighted the need for a strategy to provide adequate access to computers and the internet for both staff and students. The responses also note the need for the institute to have policy directives in place that will

make clear the institute's commitment to the adoption and implementation of online learning at the IDE.

Table 13 shows how responses derived from the interview with the staff not offering online learning were spread across the themes.

Table 13: Strategies suggested by the staff not offering online learning

Themes	Number of Participants	Percentages
Staffing	5	100
Advocacy	5	100
Training	5	100
Improve access	3	60

For this group of respondents, there were two strategies that can be classified in the theme 'staffing' - increasing the number of lecturers and the IDE having its own staff. Selected respondents had this to say:

> *"…what would apply would be increasing more lecturers and tutors…"* (P 4)

> *"For me I would see IDE being effective in what they offer to their distance learners if they could have people who are focussing just on distance learning."* (P 5)

Like their colleagues who were offering courses online, these respondents too considered advocating for online learning at the institute to bea strategy that would make staff aware of online learning as well as its benefits in teaching and learning. They suggested that IDE should take the lead in spreading the 'gospel of online learning.' Selected respondents mentioned that:

> *"We should be made aware of what is practically involved in the online learning environment…"* (P 5)

There were many responses similar to this one and they suggested that IDE should consider advocacy as a strategy in strengthening the adoption and implementation of online learning.

This group of respondents also suggested that training was an important strategy. In this group's opinion, capacitating staff with knowledge and skills might increase the number of staff who offered online at the IDE. Selected respondents had this to share:

> *"IDE would be responsible for work shopping the instructors on how the online learning tool works and in the process showing them that it is easy and can be done."* (P 1)

> *"IDE should have seminars and introduce online learning gradually, help them to see that they can do it…"* (P 3)

For this group of respondents, another strategy that was mentioned related to improving access to online learning. This requires that the institute acquire the necessary infrastructure such as computers and access to the internet. Selected respondents had this to say:

> *"If we can be assured that online learning infrastructure is ready, then I can start offering my courses online."* (P 1)

Even though this group of participants were not offering online learning they had insightful ideas about strategies that would support the adoption and implementation of online learning. All the suggested strategies noted above, like those of colleagues offering courses online, seem to be suggesting that it is the institution that needs to make an effort in order for the staff to be encouraged in the offering of online learning, for example, through advocacy and training programmes.

Table 14 shows how responses derived from the interview with the IDE programme coordinators were spread across the themes.

Table 14: Strategies used for online learning by the IDE programme coordinators

Themes	Number of Participants	Percentages
Training	5	100
Advocacy	5	100
Staffing	5	100
Incentivising	3	60

For this group of respondents, the training of staff was considered to be one of the ways of making sure that people offer their courses online. Once people have received online learning training, the respondents thought that they would be more motivated and less afraid of the technology and would more readily adopt and implement online learning in their work. The following quotations from interviews reflect these views:

> *"As for staff, there is need for training, orientation, and motivation for them to be more computer- tolerant."* (P 1)

> *"There has to be some vigorous training of staff on the designing and development of online."* (P 2)

> *"…the whole IDE staff should be trained on online learning, learning management systems, and learning content development systems."* (P 5)

This group also suggested strategies that were related to issues of advocacy. The sensitisation of staff about online teaching and learning was considered to be a catalyst to the adoption and implementation of online learning at the IDE. One respondent had this to say:

> *"…there is need to sensitise staff and students of the importance of offering online learning…"* (P 3)

The response suggests that there is still a lot of ground to be covered by IDE in terms of creating awareness about offering online learning. Communicating and encouraging staff through awareness campaigns was regarded as a strategy that IDE could employ.

This group also raised the issue of increased staffing as a strategy to ensure that there was enough capacity to facilitate the adoption and implementation of online learning in the institute. They believed that an increased number of staff would ease the load that is currently experienced by the teaching staff. A representative respondent had this to say:

"In my case in …the strategy will be to obtain staff to facilitate online learning." (P 2)

This response seems to suggest that it is a matter of urgency that the IDE add more teaching staff, in particular those who will specifically focus on online learning.

The responses from the respondents in this group also included strategies to incentivise staff. The group suggested that staff offering online learning needed to be rewarded for their efforts in putting online learning into practice so that they would be encouraged to continue. This is what was said by some of the respondents:

"…There is a need to reward lecturers for offering online learning…" (P 3)

The response suggests that the institute should incentivise staff who offer online learning and any other staff member that will be involved in facilitating online learning. The offering of incentives was seen as one way to trigger interest and encourage more staff to adopt and implement online learning.

Table 15 shows how responses derived from the interview with the Senior Manager 1 were spread across the themes.

Table 15: Strategies used by Senior Manager 1 for online learning

Themes	Number of Participants	Percentages
Staffing	1	100
Policy directives	1	100
Training	1	100

Senior Manager 1 identified strategies that belonged to the staffing, policy directives and training themes. With regard to staffing, he proposed that the institute should consider employing staff that would specifically focus on online learning. He mentioned that:

> "W*ith online learning you really need a person or people that will be responsible for online learning …a person who will look after the system after it has been installed on frequent basis…"*

Not surprisingly, given his role, his view of staffing needs focussed on those who would be responsible for technical support for online learning infrastructure.

Referring to the need for policy directives, he noted that it was important to have clear policies regarding online learning. He had this to say:

> *"An online strategy is the starting point such as: Why is the university offering online learning?; How is online learning going to be rolled out at the university?…As ICT centre we need to understand what IDE means when they say they want to offer courses online….what are the expectations of IDE in terms of online learning in order to determine the kind of infrastructure that will be required?"*

The response clearly shows that Senior Manager 1 felt the need for far greater clarity in the existing policy. The responses from this respondent also highlighted strategies related to training. He said:

> *"Lecturers needed to be oriented more on how they can possibly utilise Moodle in offering online learning courses and be familiar with the features offered by Moodle."*

Clearly, there is need for IDE to embark on an intense training exercise to capacitate staff with knowledge and skills required in offering online learning.

Table 16 shows how responses derived from the interview with the Senior Manager 2 were spread across the themes.

Table 16: Strategies to support online learning suggested by the Senior Manager 2.

Themes	Number of Participants	Percentages
Training	1	100
Incentivising	1	100
Change of governance	1	100

For this person, strategies for supporting the adoption and implementation of online learning at the IDE fell into the categories of 'training, incentivising staff and change of governance'. He emphasised that the institute should consider training staff in the area of online learning. He said:

"…I think we need to train our staff members in this area…."

He also stated his view that staff needed to be paid for the extra effort they put into offering online learning. These payments would motivate them to continue with the exercise and probably also encourage other colleagues to develop an interest in online learning. He said:

> *"…the element of incentives, obviously there has to be some incentives to motivate staff, otherwise if there is nothing to motivate them they might look at it as a burden, added responsibility and abandon."*

Senior Manager 2 felt that the IDE should consider coming up with models of remuneration so that staff can be compensated for additional effort put into offering online learning.

With regard to issues of governance, Senior Manager 2 suggested that the IDE needed to become a college. He said:

> *"…we are looking at changing the institute to a college of distance education. As a college of distance education we are looking at IDE engaging its own staff members to teach the content in the various courses…"*

It might be worthwhile for the IDE to consider this strategy because changing it to a college would make the institute autonomous. Once the institute becomes autonomous, it will administer its funds and may lobby for the improved provision of bandwidth and thus better

access to the internet, and computers so that the adoption and implementation of online learning can be made possible.

4.4.2 Overview of findings regarding strategies proposed to strengthen the adoption and implementation of online learning at the IDE

In light of the themes that have emerged from the groups, it is clear that the respondents in the various groups shared similar opinions in terms of the strategies that the IDE might consider employing to strengthen the adoption and implementation of online learning at the institute. The strategies that groups had in common were advocacy, staffing and training. The groups all emphasised the need for online awareness campaigns and felt that the IDE should take the lead in informing staff and students about the existence of online learning and its benefits. There was also a sense of the need for a training strategy to equip staff with the necessary skills to offer their courses online. Staff who already offered courses online added the formulation of policy directives as another strategy, as did Senior Manager 1. Members of staff who were not offering courses online added 'improved access' as a strategy.

4.5 Documentary analysis

Two documents were analysed. These were the UNISWA–IDE strategic plan 2008-2012 and the report of the review of the Institute of Distance Education, Siaciwena, (2007) commissioned by the Commonwealth of Learning. The strategic plan presented a road map for the institute towards online learning within specific time frames. The strategic plan anticipated that online learning would be fully implemented by the year 2012. However, in reality very little of this has been achieved, confirming the need for this study. It also confirmed that online learning is a part of the vision of the institute, and something that needs to be implemented. The review of the IDE report proposed strategies for overcoming the barriers to offering IDE courses online. One of the strategies raised was to change the IDE to a College of Distance Education through online learning. This change might afford the college the autonomy needed to be able to employ its own staff that would be fully committed to online learning. The review report of IDE, Siaciwena, (2007) proposed strategies related to issues of policy, governance, staffing and training. The report

emphasised that there is a need to make IDE autonomous so that it can manage its own activities, such as recruiting its own staff. In addition, the report highlighted the need for the strategic use of training to enhance professional competencies and to effect the desired changes of attitude among staff to the adoption and implementation of online learning. These strategies are very similar to those proposed by respondents in their interviews.

4.6 Patterns in the themes related to the adoption and implementation of online learning at IDE

The themes identified by the analysis of the themes affecting the adoption and implementation of online learning above can be organised into groups which are referred to in research as "patterns" (McMillan & Schumacher, 2010). In this study, the patterns that emerged from an analysis of the themes are institutional, external and personal patterns. The institutional pattern refers to what is within IDE in terms of offering online learning. It captures those resources, activities and structures of the institution itself that either support or inhibit the adoption and implementation of online learning. The external pattern refers to those themes that lie beyond the institution which either supported or inhibited the adoption and implementation of online learning within it. The personal pattern includes themes that support or inhibit the adoption and implementation of online learning that derive from the personal attitudes, skills and resources of staff and students at the institute.

Table 17 below shows how the themes in the factors supporting or inhibiting the adoption and implementation of online learning at IDE are spread across the three patterns.

Table 17: Spread of themes across patterns in factors impacting on the offering of online learning at IDE

Institutional	Personal	External
Institutional imperatives	Students' characteristics	External support
Internal support	Staff attitude	External ICT access
Staffing	Pedagogical value	

4.6.1 The institutional pattern

The institutional pattern in the factors supporting online learning included the provision by the institute of ICT infrastructure such access to the internet, computers and the learning management system, Moodle; the availability of technical and teaching staff with skills to support online learning, and the provision of training. In addition, the fact that the university needed to resolve issues related to shortage of space and the fact that it also saw the need to remain abreast of international trends in offering distance education through online learning were also institutional factors that supported the adoption and implementation of online learning.

In this pattern, the institutional barriers to the adoption and implementation of online learning at IDE included inadequacies in ICT provision; inadequate training and advocacy programmes with regard to online learning, the lack of a clear ICT policy for the adoption and implementation of online learning and the focus on blended learning which inhibited the move to IDE becoming a fully fledged distance education institution. The lack of a dedicated staff, committed to the offering of online learning, staff overload and the lack the IDE's autonomy which exacerbated these issues were also institutional barriers to the adoption and implementation of online learning.

4.6.2 Personal patterns

This pattern embraces personal factors captured in themes that support the adoption of online learning. They include the positive attitude of some staff toward the online learning initiative. These staff members were self-driven and wanted to explore the affordances of online learning. These attributes of the staff offering online made it possible for IDE to offer distance education online. In addition, there were members of staff who recognised and valued the pedagogical affordances of online learning as a mode of offering distance education, and so were willing to support its adoption and implementation. The other personal factors were those of the students in that they were born in the digital era and some have embraced online learning.

This pattern also included factors in themes which inhibited the adoption and implementation of online learning. These included the lack of knowledge and skill among

many staff members, and their negative attitude toward developing the required skills. The fact that so many staff were digital immigrants seemed to contribute to the slow adoption and implementation of online learning at the IDE. In addition, the lack of experience of students in learning online and their lack self-motivation and an ability to work on their own independently at home or wherever without the guidance of the lecturer are also personal factors included in this pattern.

4.6.3 External patterns

The external pattern pulled together the external factors that supported online learning at the IDE. These included the previous experience of some staff in using a learning management system (LMS) such as Blackboard. The skills, knowledge and expertise they had obtained at other institutions encouraged them in offering distance education online at the IDE in Swaziland.

Some of the external factors that were a barrier to the adoption and implementation of online learning were that there was poor access to the internet and a lack of computers in the rural areas where most of the students stay. This is a barrier because it creates a challenge to IDE plans to offer distance education online in places where there is no access to the internet.

The patterns that are presented above take the analysis further than do the themes alone, and give greater insight into the complexities associated with the adoption and implementation of online learning at IDE as they help to pull together the supporting factors and those that are barriers to the adoption and implementation of online learning at IDE. As will be shown in section 4.7 they also offer a way of focussing the strategies that emerged from the research on the three key patterns, and of making clear which are within the control of the institute and on which it will have more difficulty impacting.

4.7 Links between strategies and patterns

Unlike the factors impacting on the adoption and implementation of online learning, which can be organised into institutional, personal and external patterns, the strategies proposed can all be described as institutional as they are all strategies which the IDE itself needs to

put in place. However, in terms of their impact, they cut across the three patterns in the factors impacting on the adoption and implementation of online learning as will be described below.

The first strategy, that of increasing advocacy is clearly one that is useful in addressing factors included in the personal pattern. Given that many staff had negative attitudes to the adoption and implementation of online learning, creating awareness about the benefits of offering courses online might help change their attitude. The institute needs to hold things such as online learning awareness campaigns to ensure that staff understands what is meant by offering distance education online.

Improving access by making ICTs such as the internet and computers more available is another strategy that the institute needs to consider. Without the technology in place it would be difficult to offer online learning. The improved access would also complement the institutional factors by capacitating the institution with the required technology to offer courses online. Once the institution is capacitated with the necessary online learning technology it would be easier for staff to develop skills and knowledge from within the IDE. The issue of external factors would no longer be a strong factor in the adoption and implementation of online learning as is the case now. It should be noted, however, that the institution itself is not well able to address the issue of ICT access in the more remote areas from which many students are drawn.

Training, as in re-skilling staff, is another useful strategy when it comes to the adoption and implementation of online learning. The staff need to be taught new skills of teaching and learning required by offering courses online, rather than the traditional method of teaching. This includes both pedagogical skills and those related to the technology, such as those associated with using Moodle. Once that staff have developed these skills the expectation would be that they would change their attitude toward online learning and more willingly adopt and implement it.

Policy directives were regarded important in influencing staff's willingness to adopt and implement online learning. The policy can be used to lobby for funds and more support from the university or government and other organisations. The policy directives no doubt

would support the adoption and implementation of online learning. The support would then work against the barriers that impact the adoption and implementation of online learning.

Incentivising whereby all staff that offer online learning are remunerated for the effort that they put into offering courses online is a further strategy as it promotes the adoption and implementation of online learning at the IDE. The institute has to play its role of paying staff so that they may be motivated toward adopting and implementing online learning.

Change of governance, as this would give the institute autonomy to administer its affairs without consulting the main university administration. Such autonomy would allow IDE to recruit its own staff who would focus specifically on IDE's interests.

4.8 Conclusion

This chapter has presented and analysed the data obtained in the study. The three research questions have been addressed by the groups of participants. The supporting factors to the adoption of online learning were addressed, barriers that hindered online learning were exposed, and the strategies for strengthening supporting factors and overcoming the barriers were shown. The next chapter will discuss the findings based on the analysis and make recommendations.

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The discussion of the results of the data analysis, conclusion of the study and the recommendations are presented in this chapter. The research was located at the IDE which was set-up to deliver distance education through online learning to the populace of the country (Swaziland). However, the institute does not seem to be delivering online learning effectively. My main research question was "What are the perceived factors that affect the adoption and implementation of online learning at the institute of distance education (IDE) in Swaziland?", and I have attempted to answer this question by addressing three sub-questions which guided my research at the IDE. These were: i) What are the factors that are perceived to support the adoption and implementation of online learning at the IDE? ii) What are the factors that are perceived to be barriers to the adoption and implementation of online learning at the IDE? iii) What strategies are thought to be appropriate for strengthening the supportive factors and overcoming the barriers to the implementation of online learning at the IDE?

In the discussion below, the study considers the findings related to these three questions in the light of related literature, and then offers some recommendations for strengthening the adoption and implementation of online learning at IDE. In chapter 4, this study presented findings from the research and shows clearly that, although the IDE has a mandate for offering online learning, it has not been implemented as well as it should. Arising from that were the patterns that gave a good insight into the issues and complexities around implementing online learning, and what the way forward might be. The research found that there were institutional, personal and external factors in relation to the patterns and that the institution needs to perhaps grapple with each of these. The grouping of the factors into themes that are subsumed under patterns makes the discussion easier (McMillan & Schumacher, 2010).

5.2 Discussion

The international trend to online learning in distance education has an impact on the way distance institutions operate in terms of offering online courses Alley, (2004); Somekh, (2008); Dwyer, et al., (1989); Modestu and Tau, (2010); Dickey, (2003); Brindley, et al., (2004) and Bates, (1997). These researchers accentuate that the best way of offering distance education is through the use of online learning technologies. They argue that offering online learning is the most appropriate way of reaching out to a large number of students regardless of their geographical position. The affordances that are embedded in online learning work to the advantage of the teacher and the students. The learners are able to collaborate and share ideas among themselves through online learning technologies. The use of online learning in offering distance education is an inevitable imperative for the IDE as it strives to become an international institute for excellence in distance education. Therefore, for the IDE to achieve its mandate of offering online learning it is imperative that the staff adopt and implement online learning at the institute.

However, as indicated in the literature review, while there are supporting factors for the adopting and implementing of online learning (Scrimshaw, (2004); Czerniewicz & Brown, (n.d.); Newton, et al., (2002), there are also barriers that need to be overcome if it is to be adopted and implemented (BECTA, (2004); Salmon, (2004); Scrimshaw, (2004); Dwyer, et al., (1989); Swanson, (1988); Unson, (2004).

This study found this to be true at the IDE. While there were factors that supported the adoption and implementation of online learning at the institute, there were also barriers to this which resulted in only a small number of courses being offered online.

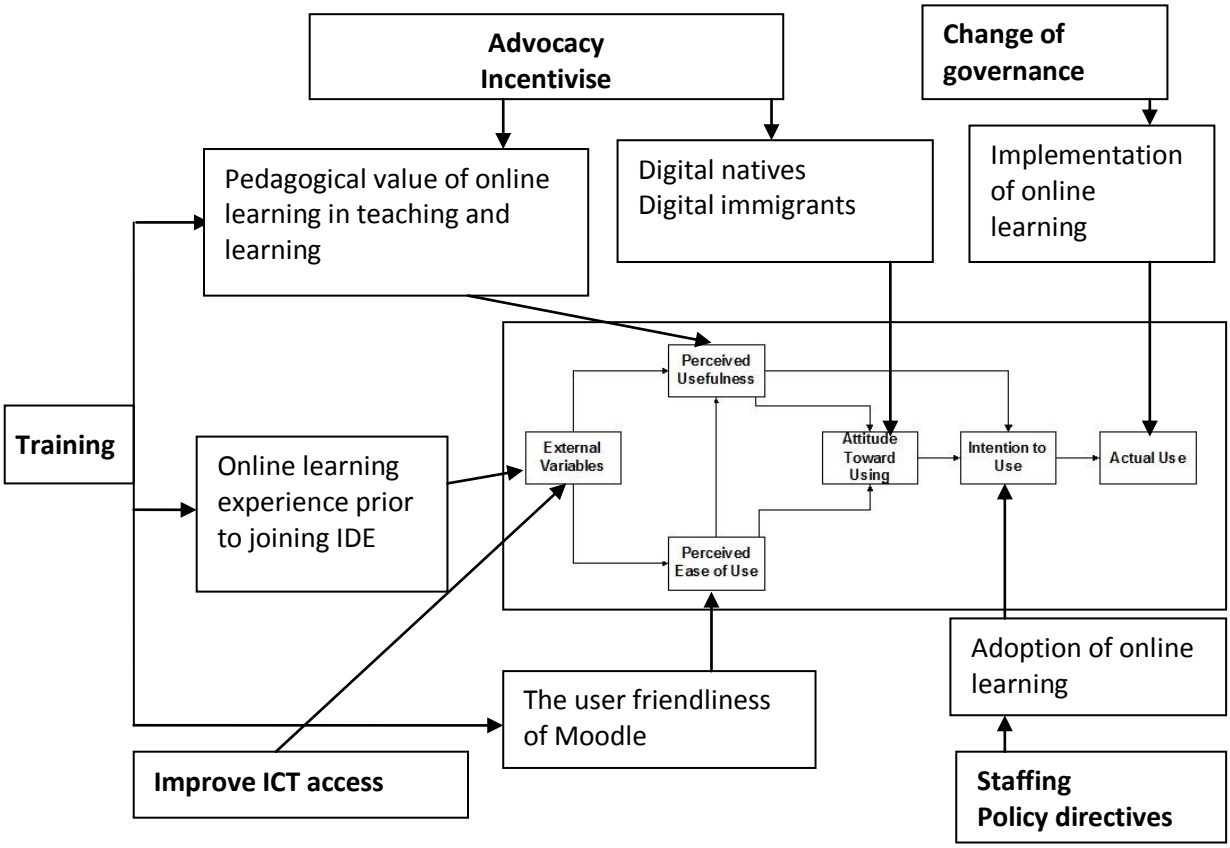
Strategies that emerged included training, advocacy, incentivising, improve access, staffing, policy directives and change of governance. These strategies cut across the institutional, personal and external patterns that emerged in chapter four.

What is interesting about these findings is how they can be considered in the light of the technology acceptance model (TAM). The TAM has constructs that say there are external

variables which have a bearing on the adoption of technology. The perceived usefulness (value of technology) and the perceived ease (simple and friendly) of the technology make people changes their attitude toward using the technology and thus develop an intention to use it, and eventually influence the actual use of the technology.

Clearly in this research, it was found that the constructs in TAM can be applied in studying the perceptions of people (teachers) towards adoption of technology. Furthermore, it was found that 'external factors' have made some staff offer online learning in the IDE. The perceived usefulness of offering online learning and the ease of the learning management system in delivering distance education have led to some staff adopting online learning at the IDE. The identification of the value of offering online learning and the ease of technology use seemed to change the staff's attitude toward offering online learning. The end result of the process is the actual adoption and implementation of online learning. Having adopted the TAM, it was modified to suit this study as presented below. In the diagram the researcher has shown the perceived key supporting factors and barriers to the adoption and implementation of online learning at the IDE, and the way the strategies that were foregrounded to deal with these are linked to them.

Figure 2 modified TAM



A modified Technology Acceptance Model adapted from Davis, et al., (1989).

In applying the TAM, one gets a clearer understanding about what is happening at the IDE. The TAM can be used as a useful lense or filter for looking at perceptions about adoption of online learning at the IDE. The modified model has proposed strategies that might strengthen as well as overcome the barriers to the adoption and implementation of online learning. All these constructs that came out of the study can be referred into TAM, providing a useful structure for the institute to examine its progress about the adoption and offering of online learning.

5.2.1 Supporting factors to online learning

5.2.2 Institutional factors

There were supporting factors to online learning that emerged which were institutional, and within the control of the institution. These included training, online

learning awareness campaigns, staffing, institutional imperatives and pedagogical imperatives. The institute needs to be assertive in capacitating the staff with online learning skills and knowledge, and also to talk about and show the benefits of offering online learning. Concerning the issue of staffing, the institute would preferably choose people from the beginning who are going to be doing online learning and only appoint them if they want to offer online learning. In addition, the institute would seek staff that have experience in offering distance education online. The institute also has to adhere to the global distance education practices so that it can be in line with other distance education institutions. It is important that the issue of ICT access is also addressed by IDE because the institute cannot offer online learning to students who have no access to the internet as the digital divide prevails in Africa as alluded to in the literature review.

5.2.3 Personal factors

There were issues that were personal that the institution needs to consider such as the positive attitude for adopting and implementing online learning at the IDE. Advocating for online learning would require that the institute engages in awareness campaigns such as showing the value of offering courses online to the staff and students referred to it as the affordances of online learning in the literature review. Once staff and students have seen the value of online learning probably they would develop interest and their attitude toward online change for the better.

It is important that the staff have an open minded approach in working with the IDE to ensure that its mandate is achieved. For example, IDE's mandate is to have online learning by 2012 (UNISWA – IDE strategic plan, 2008/2012). The staff needs to realise that they have an influence on the distance learner just as they would have on the conventional learner. This means that if they do not adopt online learning students might not take the issue of online learning seriously. Likewise, if staff accepted the use of online learning students might follow suit and see the need for online learning. Therefore, it would be appropriate that all stakeholders in online

learning in IDE come to a common understanding in order to push the agenda of adopting and implementing online learning and put their personal attitudes aside.

In the Institute of Distance Education (IDE), the majority of the student population is young. Prensky, (2001) advanced that today's students spent their lives surrounded by and using computers, video games, digital music players, cell phones and all other toys and tools of the digital age. He delineated that students spend few hours reading and many hours on the internet, Face Book, twitter, cell phones and watching television. This ubiquitous environment has an impact on how students think and process information (Prensky, 2001). Prensky, (2001) referred to these students as "digital natives." Clearly the argument presented by Prensky shows that today's students are more technologically inclined. This means the use of technology in teaching and learning suits them. In light of this, the adoption and implementation of online learning seems inevitable. Staff that might be resistant to online learning might not be relevant in the digital era of pedagogy and might need to realign themselves.

Tapping from the argument presented it can be noted in the context of IDE that while there are 'immigrant' staff not willing to adopt online learning, there are also some 'immigrant' staff who have adopted online learning. This is what was said:

> *"It has not been easy. I have an interest in the programme (online learning) and have been able to do some things. …I already had a printed module so I adapted it to suit the online teaching." (p 3 staff offering online learning)*

Clearly while there are different perceptions about online learning adoption and the use of technologies in pedagogical discourses there has been some progress achieved by the institution in trying to meet its mandate of offering online learning. It is the view of the researcher based on the above statements that age is not necessarily a deterrent because some of the staff who offer online learning are old.

What affects it is that some staff are not willing to take this route (online learning) at the IDE because of such things as teaching overload, lack of training and so on.

5.2.4 External factors

The external factors that supported online learning were the skills and knowledge acquired by the staff from outside IDE. Most of the staff that offered their courses online have had experience with using a learning management system such as Blackboard and Moodle. The staff highlighted that they got the online learning skills by enrolling for online courses in other universities and through attending workshops and seminars where they were taught how to offer courses online. The experiences they have had have helped them to adopt and implement online learning at the IDE.

5.3 Barriers to online learning

Clearly even if there were factors that supported online learning, there were barriers that impacted on online learning and these were institutional, personal and external.

5.3.1 Institutional

Some of the institutional barriers were lack of adequate training, lack of advocacy, lack of online learning policy and lack of ICT access. Daniel (1995) advanced these challenges as having a direct affect that impedes progress in distance education and the adoption and implementation of online learning. Castells (2005) describes the internet as an organising form of knowledge within the global network. He advanced the importance of participating effectively within the flows so that one does not find oneself outside this network. This argument is relevant to the situation at the Institute of Distance Education as it strives to become an international centre of excellence in distance education access, delivery, practice, research and life-long learning.

5.3.2 Personal barriers

The personal barriers that impede online learning at the IDE were the attitude of staff and their characteristics. At the IDE most of the lecturers are 'digital immigrants'. Prensky, (2001) referred to the older generation (of teachers) as the

'digital immigrants.' Prensky, (2001), Oblinger, (2003), Long, (2005), Barnes, et al., (2007) cited by Bayne & Ross (2007) asserted that the 'digital immigrant' teachers need to adapt to the new technological ways of teaching and learning in order to be relevant in their employment in this time and age.

5.3.3 External barriers

There were barriers that were outside the institute (external) and included lack of ICT access to such tools as computers, the internet and bandwidth. If the institute wants to offer online learning to the populace of the country as per its mandate it is important that there is access to the internet. It is not surprising that there is lack of ICT access such as internet taking into account the nature of Swaziland's economy. The issue of ICT access is a problem in the third world given the digital divide as described in the literature review.

5.4 Strategies to support the adoption and implementation of online learning

A range of possible strategies to support the adoption and implementation of online learning at IDE emerged from the interviews. These strategies have to deal with the institutional, personal and external problems. With regard to the institutional issues the strategy that the IDE needs to employ is to strengthen training by continually having workshops or seminars where staff and students will be capacitated in online learning. During the course of the training, the institute needs to showcase the online learning affordances in the pedagogical discourses to the staff and students. The IDE needs to employ its own staff that will have skills and knowledge of offering online learning prior to joining the institute. In order for these strategies to be effective, the IDE needs to have an online learning policy where it will state how online learning will be rolled out within the institute. The issue of incentives as a strategy is important because the IDE needs to remunerate the effort put into the online learning initiative.

Another strategy that was highlighted by this study was that the IDE needed to change it governance structures. The IDE becoming a college would promote its autonomy and give it freedom in offering online learning at a distance. This strategy was viewed as a possible way

to overcome the institutional challenges and strengthen supportive factors that were highlighted. Highlighted in the findings was that:

> *"…once we have got staff that is dedicated to IDE, then those staff members can make sure that what IDE needs is done. It will be done because they will be full time on IDE…where staff members can take this work as part of their core business."* (Senior Manager 2)

> *"I think the important thing would be for IDE to impress upon them that the direction that IDE is to fully use the online learning approach, such that it is mandatory for everyone offering courses in the IDE. Then IDE would be responsible for work shopping the instructors on how the online learning tool works and the process showing them that it's easy and can be done. Once it becomes a formal policy that IDE is now using the online mode then that can help. If using online learning in IDE is optional then people will not feel the need to learn how to use the system because for currently it looks like it is for those who want to use it. "* (P 01 staff not offering online)

Clearly, these comments indicate that the institution needs to be administered independently of the main university in order to effectively serve its purpose of offering its courses online. Hazelkorn, (2009) advanced that an innovation that is introduced in teaching and learning has to be institutionally embraced. In that way the IDE might achieve its vision and become an international centre of excellence in distance education.

With regard to personal issues the strategy that IDE needs to consider is to be aggressive in advocating and training of staff and students. It is important that staff develop a positive attitude toward online learning for it to be effective (Brooks, n.d.). Before staff can be effective and serve as a support structure to the institution, Murray, (2001) cited by Brooks, (n.d.) advanced that they must have an understanding of online pedagogy and the tools associated with distance education. The tools include email, discussion forums, chat rooms, and are useful in enriching online learning and distance education. The issue of poor attitude could be overcome by advocating for online learning. Once the people are made

aware of what online learning entails and what it means to them in terms of teaching and learning most likely they would embrace it and their perceptions would change for the better.

There were external problems such as lack of ICT access. The issue of ICT access is also beyond the competence of the institute to address; hence the IDE needs to advocate and lobby for internet access and bandwidth to government, private companies, business persons and non-governmental organisations. This strategy is important because it involves all parties concerned in the economy of the country.

5.5 Key Findings related to the research questions

In relation to the specific research questions posed earlier, the findings are as follows:

i) What are the factors that are perceived to support the adoption and implementation of online learning at the IDE?

The factors that were perceived to support the adoption and implementation of online learning at the IDE that emerged from the findings were; *i) pedagogical imperatives, ii) institutional imperatives, iii) staff's prior knowledge, exposure and experience in online learning, and iv) student's characteristics (digital natives).*

ii) What are the factors that are perceived to be barriers to the adoption and implementation of online learning at the IDE?

The factors that are perceived to be barriers to the adoption and implementation of online learning at the IDE that emerged were: *i) staff attitude, ii) lack of ICT access (computers), iii) lack of staff and iv) lack of adequate training.* The TAM indicated that ease of use of the technology was important when considering adopting an innovation.

iii) What strategies are thought to be appropriate for strengthening the supportive factors and overcoming the barriers to the implementation of online learning at the IDE?

The strategies that are thought to be appropriate for strengthening the supportive factors were: *i) training, ii) advocacy, and iii) incentivising.* The TAM showed that there has to be a change of attitude from the people in order for them to adopt online learning. Indeed, in the IDE the study highlighted that there has to be vigorous training (skills development), advocacy (campaigns and awareness) about online learning and incentivising of staff as a way of motivating them. Moreover, the strategies that were thought to be appropriate for overcoming the barriers were: i) staffing, ii) improve access, iii) policy directives, and iv) change of governance.

The findings related to the research sub-questions provide insight into the main research question. The research has identified the perceived supporting and limiting factors and the strategies perceived to be necessary to further the adoption and implementation of online learning at the IDE.

5.6 Conclusion

The findings of this study indicated the barriers to online learning outweighed the factors supporting online learning. The study also showed that within a similar environment some of the staff offered online and others did not. Some of the staff were not discouraged by the challenges they faced as they continued to offer their courses online. They were self-driven and had the advantage of having experience of the benefits of using online learning in offering distance education. The study indicated that they wanted to be relevant in their teaching skills as the global trends in offering distance education have set the pace. In contrast, the staff not offering online learning were not keen on taking up the issue of online learning seriously. The study has offered or proposed strategies that might be worth considering by the IDE in order to ensure that online learning is adopted and implemented.

The study has identified factors that operated on the adoption and implementation of online learning at the IDE. The factors that were seen to facilitate the adoption and implementation were change of governance, advocacy, incentives, training, improve ICT access, staffing, and policy directives. What is interesting is that these factors are similar to

Ely's, (1999) eight conditions that facilitate the implementation of technology and programme innovations as reflected in the literature review.

The TAM model has provided a framework that was used to study the perceptions and attitudes of staff at the IDE. It is important that the theory has been modified wherein the new constructs that emanated from this study are shown. These constructs are not just for technology acceptance but also embrace the issue of attitudes and perception in online learning (Sandberg & Wahlberg, n.d.). In addition, the modified model shows the proposed strategies that might be employed by the IDE in helping staff adopt and implement online learning at the institute. Indeed TAM has served the purpose in the study as a theory used to establish the factors that operated around adoption of online learning in the broader sense, not only the technical issues of the online learning platform used in IDE.

5.7 Recommendations

The study has provided useful information with regard to the factors that support the adoption and implementation of online learning. It is the researcher's view that the IDE should take cognisance of these factors and try to strengthen them as they have the potential of making the staff adopt online learning in offering distance education.

The study has also provided useful insights about the barriers that impinge on the adoption and implementation of online learning. These were lack of infrastructure and facilities such as computers and internet. The researcher found that there was very little support given to the IDE towards ensuring that the infrastructure is put in place. The study showed that IDE relied on UNISWA it terms of running the institution. This means that there is bureaucracy in terms of how things are done including the process of acquiring infrastructure and other facilities that might be needed for online learning adoption and implementation. It is the researcher's view that the IDE might consider proposing that it becomes an autonomous institution that runs and administers its activities.

This study proposed strategies that the IDE might consider in order to have online learning adopted and implemented at the institute. The researcher recommends that the IDE should consider drawing up an online learning policy. This policy would give clear guidelines as to how online learning is to be undertaken. This policy would also help IDE expedite its mandate and possibly address the issues of its own staff and change of governance that might give the institute autonomy as its mission is national.

5.8 Future research

The Institute of Distance Education (IDE) offers university education access to the nation. It is not the only distance institution in Swaziland. There is also the Emlalatini Development Centre which offers secondary and high school education through the distance mode. There may be a need to undertake a study on how they use technology to offer distance education.

This study focussed on staff in the IDE pertaining to online learning in offering distance education. In the light of the study being focussed on staff, the researcher feels there is a need to undertake research on how IDE students perceived the use of online learning in offering distance education.

Appendices A1 – A7

A 1

Interview schedule – Academic coordinator
Background

1. Please can you tell me what the institution's intentions are with regard to offering courses online?
    - Does it hope that all courses will be online at some time?
    - If so, by when
2. What is the understanding of 'online courses' – will students only access materials and interact online, or will these be some face to face contact as well?
3. Why does the institution wish to offer online courses?
4. What is your role in the process of developing online courses?
5. How easy or difficult has your role been thus far?
    - What obstacles have you had to overcome?
    - What has supported you in your role?

Adoption

6. What has the institution done to support the development and offering of online courses?
7. What are your views about these initiatives?
    - Have they been effective?
    - What should be done as well / instead?
    - How have staff responded to the initiatives?
    - What might account for such responses?

Implementation

8. Please can you tell me which courses are presently offered as online courses?
    - What do you think these courses have become available online?
    - What have been the key factors driving their process?
9. What has been the response to the development and offering of these courses?
    - On staff involved with the process in these subjects
    - On staff outside these subjects?
    - On students?
    - On the institution as a whole?
10. Why do you think other courses are not yet available online?
11. What do you think could be done to support further development of online courses at the IDE?
12. What barriers might there be to these initiatives
    - How do you think these barriers could be overcome?

Thank you for your time, I appreciate your cooperation.

A 2

Interview schedule – Materials design and development

1. Please can you tell me what the institution's intentions are with regard to the design and development of online learning courses?
    - Does it hope that all courses will be designed and developed for online delivery at some time?
    - If so, by when?
2. What is the institution's understanding of 'online courses' – will students only access materials and interact online, or will there be some face to face contact as well?
3. Why does the institution wish to offer online courses?

Adoption

4. What is your role in the process of design and development of online courses?
5. How easy or difficult has your role been thus far?
    - What obstacles have you had to overcome?
    - How has the institution supported you in your role?
    - Have you received any other support? Please say what

Implementation

6. Please can you tell me which courses are presently offered as online courses?
    - Why do you think these courses have become available online?
    - What have been the key factors driving this process?
7. What has been the response to the process of designing and developing online courses?
    - Of staff involved with it
    - Of staff not involved with it
8. Why do you think so many courses are not yet available online?
9. What do you think could be done to support the design and development of further online courses?
10. What barriers might there be to these initiatives?
    - How these barriers might be overcome.

Thank you for your time, I appreciate your cooperation.

A 3

Interview schedule –Programme coordinator Law and Humanities

Background

1. Please can you tell me what the institution's intentions are with regard to offering courses online?
    - Does it hope that all courses will be online at some time?
    - If so, by when?
2. What is the understanding of 'online courses' – will students only access materials and interact online, or will these be some face to face contact as well?
3. Why does the institution wish to offer online courses?
4. What is your role in the process of developing online courses?
5. How easy or difficult has your role been thus far?
    - What obstacles have you had to overcome?
    - What has supported you in your role?

Adoption

6. What has the institution done to support the development and offering of online courses?
7. What are your views about these initiatives?
    - Have they been effective?
    - What should be done as well / instead?
    - How have staff responded to the initiatives?
    - What might account for such responses?

Implementation

8. Please can you tell me which courses are presently offered as online courses?
    - What do you think these courses have become available online?
    - What have been the key factors driving their process?
9. What has been the response to the development and offering of these courses?
    - On staff involved with the process in these subjects
    - On staff outside these subjects?
    - On students?
    - On the institution as a whole?
10. Why do you think other courses are not yet available online?
11. What do you think could be done to support further development of online courses at the IDE?
12. What barriers might there be to these initiatives
    - How do you think these barriers could be overcome?

Thank you for your time, I appreciate your cooperation

A 4

Interview schedule – senior manager 1

Background

1. I notice your involvement with IDE regarding the use of online learning. What role does your office play with regard to online learning at IDE?

Adoption

2 What do you believe is necessary technically for IDE to be able to offer its courses online?

3. What do you see as the technical challenges facing the IDE's attempt to introduce online learning?
4. What do you think can be done to address /overcome these?
5. What barriers are there to overcoming the challenges?
6. What technical changes would you recommend in order for the IDE to be able to offer its courses online?

Thank you for your time.

A 5

Interview Schedule – senior manager 2

Background

1. Please could you describe the IDE's vision with regard to the use of online learning as a mode of delivery?
    - Will it be one of a variety of modes? If yes, which are the others?
    - Will certain courses or all eventually be offered online?
    - What will be the nature of online learning? Will the courses be available entirely, or will there be some face to face contact as well?

Adoption

2. Why is the institution including online courses in its offerings?
    - What benefits are envisaged?
        - to staff?
        - students
        - the institution?.
3. Is there a policy document regarding the introduction of online learning?

    If there is none – why is this?
    - What implications do you think the lack of policy might have for the development and offering of online courses?
    - How are decisions regarding the development and offering of courses made?
    - If there is one – how widely known is the policy?
    - How widely accepted is it?

Implementation

4. Is there a strategic plan for the development and implementation of online learning?
    - If there is – how well is the institution doing in implementing the plan?
    - What factors have supported progress?
    - What factors have hindered progress?
    - What do you think might be done to ensure the effective implementation of the plan?
5. Please can you tell me which courses are presently offered as online courses?
    - Why do you think these courses have become available online?
    - What have been the key factors driving this process?
6. What has been the response to the development and offering of these courses?
    - On staff involved with the process in these subjects?
    - On staff outside these subjects?
    - On the institution as a whole?
7. Why do you think other courses are not yet available online?
8. What do you think could be done to support further development of online courses at the IDE?
9. What barriers might there be to these initiatives?
    - How do you think these barriers might be overcome?

Thank you for your time, I appreciate your cooperation.

A 6

Interview schedule – – Participants NOT offering online courses online learning

Background

1. What courses do you teach in the IDE?
2. Why have you chosen to teach at the IDE?
3. How would you describe the differences between the way courses are offered at the University itself and at the IDE?
4. What do you thing is the value of the IDE to the University?

Experience

5. Have you had any previous experience of working in a distance education institution?
    - What modes of content delivery were used?
    - Have you attempted to use similar modes here?
    - Why/why not?
    - If you have, have you been able to do this?
      Why/why not?

Adoption

6. I notice that you do not offer any courses online. Kindly tell me, what has motivated you not to offer your courses online
7. In your opinion and experience what are the benefits and drawbacks of using online learning in distance education? For:
    - The Institute of Distance Education as a whole;
    - Teaching staff; and
    - Students?

Implementation

8. I notice that some of your colleagues are offering courses online. What is your view of this initiative?
9. Why do you think they chose to go this route?
10. What might have been difficulties they had to overcome?
11. What might have supported them in developing their online courses? What do you think could be done to help and motivate those who are not offering courses online?

Thank you for your time, I appreciate your cooperation.

A 7

Interview schedule – Participants offering online courses

Background

1. What courses do you teach in the IDE?
2. Why have you chosen to teach at the IDE?
3. How would you describe the differences between the way courses are offered at the University itself and at the IDE?
4. What do you think is the value of the IDE to the University?

Experience

5. Have you had any previous experience of working in a distance education institution?
    - What modes of content delivery were used?
    - Have you attempted to use similar modes here?
    - Why/why not?

Adoption

6. I notice that you do offer courses online at the IDE; kindly tell me, what motivated you to develop online courses here?
    - Did you face any difficulties in taking up an online learning approach?
    - If you did, how did you overcome the difficulties?
7. In your opinion what are the benefits and drawbacks of using online learning in distance education? For:
    - The Institute of Distance Education as a whole;
    - Teaching staff; and
    - Students?

Implementation

8. How easy has it been for you to develop your online learning courses at IDE ?
    - What supported you in developing these courses?
    - What hindered you in developing your online courses?
9. Would you think of putting other courses on online? Why? Why not?
10. What lessons have you learnt in using online learning?
11. I notice that some of your colleagues do not offer any courses online. Why do you think they do not?
12. What do you think could be done to help and motivate your other colleagues that are not yet using the online learning mode of delivery?

Thank you for your time, I appreciate your cooperation.

Appendix 8

School of Education

University of the Witwatersrand

Private Bag 3

Wits 2050

South Africa

Telephone: +27-11-717-3402

INVITATON AND INFORMATION SHEET

Dear Participant

My name is Phuzuk'mila Simon Maphanga and I will be conducting research at the Institute of Distance Education. My research topic is 'Factors Affecting the Adoption and Implementation of Online Learning in Distance Education in Swaziland'. The Institute of Distance Education has given its support for this research, and has agreed that staff members may be interviewed.

I would be very grateful if you would agree to being interviewed by me on the practice of online learning in the Institute. I am asking you because I believe that your experience at the Institute will contribute immensely to the research study.

The interview will last about an hour. With your permission, it will be tape recorded in order to allow me to engage fully in the interview. I will transcribe the interview immediately after it has taken place, and then keep the tapes in a safe place under lock and key.

Please be informed that your name will not appear anywhere in the study, and that your anonymity will be upheld in all written and other accounts arising from the research. There are no risks at all in participating in the study.

Participation in this study is by invitation and is completely voluntary. Should you agree to participate, you may withdraw at any time for any reason and your withdrawal will not prejudice you in any way whatsoever.

Thank you very much for considering my request.

Yours sincerely

Phuzuk'mila Simon Maphanga

(Student Number 479905)

Consent form

Please tick the boxes below and return to the interviewer. You will then be asked to respond to the questions.

I give my consent to being interviewed as part of the study conducted by Phuzuk'mila Maphanga

I acknowledge that:

[ ] I have read the information sheet

[ ] I am aware that my participation is voluntary

[ ] I know that my decision to participate and to withdraw if I so choose will not prejudice me in anyway

[ ] I understand that my identity will not be revealed in any report of the interview findings

Name of participant:…… Date:……

Signature:……..

Appendix 9

Wits School of Education

27 St Andrews Road, Parktown, Johannesburg, 2193 • Private Bag 3, Wits 2050, South Africa

Tel: +27 11 717-3064 • Fax: +27 11 717-3100 • E-mail: enquiries@educ.wits.ac.za • Website: www.wits.ac.za

Student number: 479905

Protocol number: 2011ECE116**C**

29 July 2011

Mr. Phuzuk'mila Maphanga

P O Box 199

MATSHAPHA

M202

Dear Mr. Maphanga

Re: Application for Ethics: Master of Education

Thank you very much for your ethics application. The Ethics Committee in Education of the Faculty of Humanities, acting on behalf of the Senate has considered your application for ethics clearance for your proposal entitled:

Factors affecting the adoption and implementation of online learning at the Institute of Distance Education in Swaziland.

The committee recently met and I am pleased to inform you that clearance was granted. The committee was delighted about the ways in which you have taken care of and given consideration to the ethical dimensions of your research project. Congratulations to you and your supervisor!

Please use the above protocol number in all correspondence to the relevant research parties (schools, parents, learners etc.) and include it in your research report or project on the title page.

The Protocol Number above should be submitted to the Graduate Studies in Education

Committee upon submission of your final research report.

All the best with your research project.

Yours sincerely



Matsie Mabeta
Wits School of Education

(011) 717 3416

Cc Supervisor: Dr. S. Cohen (via email)

Appendix 10

UNIVERSITY OF SWAZILAND

Tel.: Matsapa 518 4011, 518 5108
Tlx.: 2087 WD
Fax.: 5185276
Tlgrm: UNISWA

Kwaluseni Campus
P\Bag Kwaluseni
Swaziland
Southern Africa

The Ethics Committee
University of the Witwatersrand
Wits School of Education
Johannesburg

18 May 2011

RE: AUTHORISATION TO CONDUCT EDUCATIONAL RESEARCH IN THE INSTITUTE OF DISTANCE EDUCATION UNIVERSITY OF SWAZILAND - PHUZUK'MILA SIMON MAPHANGA

We have been requested by Mr. Phuzuk'mila Simon Maphanga to provide clearance to enable him to conduct an investigation at the Institute of Distance Education, University of Swaziland. We have been advised that the title of his investigation is; *Factors Affecting the Adoption and Implementation of On-line Learning at the Institute of Distance Education in Swaziland.*
Mr Maphanga is an employee of the University of Swaziland (Institute of Distance Education), currently on study leave at the University of the Witwatersrand, with the full support of the management of the Institute.

The area of investigation is of great interest to the Institute and we believe that successful conduct of the project and recommendations arising from it would be relevant and beneficial to the future operations of the Institute. We therefore have no hesitation in giving him the authorization to proceed with his investigation.

I hope you will find this in order.

Thank You.

Yours Faithfully

Charles Osei-Abankwah
Acting Director
Institute of Distance Education

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