

Improving ICT for ODL in the UNISA Department of Public Administration

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Abstract

The University of South Africa (UNISA) is a comprehensive open and distance learning (ODL) institution that aims to be the premier online teaching and eLearning institution of choice. This article presents a case study of the Department Public Administration in UNISA with regard for the expansion of ODL practices to improve online teaching and eLearning. The purpose of this article is firstly to recommend that the teaching and learning methods presently used by the Department of Public Administration (UNISA) should be combined with more interactive technology-enriched teaching and learning methodologies so that the department can "be ahead of the game" when it comes to online teaching and eLearning.. The significance of this study is to improve Public Administration teaching and learning by the Department of Public Administration (UNISA) through creating a virtual study environment and in ensuring the department becomes a fully fourth and fifth generation ODL provider. This includes an explanation of the blended use of Information and Communication Technology (ICT) tools such as interactive satellite-based platforms, web-based management system and social networks, as mechanisms for improving online teaching and eLearning methodologies in Public Administration.

Keywords: *Open Distance Learning (ODL), Synchronous Technology, Asynchronous Technology, Online Teaching and eLearning, Fourth and fifth generation ODL provider.*

1. Introduction

The University of South Africa (Unisa) is an open distance learning (ODL) provider which is one of the most rapidly growing fields of education in South Africa (SA). Its potential impact on all education delivery systems can be greatly improved through the development of information and communication technologies (ICT) (Prinsloo 2012). Unisa is moving towards an integration of blended, flexible and technological enhanced learning environment. ICT usage by Unisa has opened up new horizons for ODL education in South Africa.

The use of ICT merely for the provision of information and communication has not directly resulted in the Department of Public Administration (Unisa) from becoming an effective fourth or fifth ODL provider. There are approximately 22 356 students and ninety one (91) modules offered by the Department of Public Administration as at

2012. The lecturers in Public Administration (Unisa) mainly use teaching methods that are evident in a correspondence model of teaching, which are associated with print delivery and the uploading of printed material on the web-based management system (MyUnisa). Lecturers are now expected to explore new and more effective ways of improving ODL mainly through online teaching and eLearning by using ICT (Singh 2011). It is however, difficult for academics to not only keep up-to-date with the rapid developments in Public Administration, but also to continuously try to keep abreast with developments in ODL, pedagogy and technology.

According to Prinsloo (2012), Brewslo (2007:293) and Van Jaarsveldt (2011), this would enhance a more learner-centred approach to teaching, as there would be improved ways of interaction and support. Recent literature on Public Administration pedagogy strongly argues that pedagogical practices based on interactive, problem-based, technology-enriched teaching and learning are appropriate methodologies to prepare students for the increasingly complex Public Administration challenges in society (Moore, Fowler and Watson 2007); (Park and van der Merwe 2009) and (Van Jaarsveldt 2011). ICT can have a profound impact on ODL online teaching and eLearning in Public Administration (Breslow 2007:293). There would be a shift away from passive learning to more active learning pedagogies, as there would be a move away from traditional transfer of knowledge to more interactive learning (Bryan 2008: 64). Through the integration of ICT such as interactive satellite online teaching and eLearning, more effective ODL online teaching and eLearning is possible in Public Administration (Albrecht, 2006: 5); (Bryan 2008:64) and (Park and van der Merwe 2009:360).

It is argued that the Department of Public Administration should therefore find innovative ways of enhancing ODL online teaching and eLearning that are beneficial to the students, mainly through ICT. Recent studies (Wessels 2012: Unpublished Paper) have been undertaken about the Department of Public Administration (Unisa) on satellite broadcasting as a tool to promote ODL practices in the department. However, no comprehensive study has been previously undertaken of the usage of ICT in the Department of Public Administration (Unisa) to improve online teaching and eLearning. It is argued that such a study will assist the department in becoming a more innovative fourth and fifth generation ODL provider on the African continent. It will also assist in improving the online teaching and eLearning methods in Public Administration.

The objective of this article is to identify online teaching and eLearning methodologies used in the Department of Public Administration. The common challenges that hamper effective ODL by the Department of Public Administration are identified. The aim of the article is to provide recommendations to address the challenges identified, and to provide suggestions for the improvement of ODL, especially through enhancing the use of ICT by the Department of Public Administration (Unisa) to improve online teaching and eLearning. The Department of Public Administration is one of many departments in Unisa that are expected to use

ICT as an ODL tool to teach a large and diverse population of students. While this paper does not primarily discuss Public Administration, it illustrates how ICT is used by a larger Public Administration department on the African continent.

To place the study in context, a brief overview of ODL practices and trends in higher education is discussed. The University of South Africa (Unisa) as an ODL provider is delineated. This is followed by a synopsis of role of ICT as an enabler to promote ODL in universities. Thereafter, the role of Unisa and in particular the Department of Public Administration as an ODL provider is explored. The common trends and challenges hampering the effective implementation of ODL by the department are examined. This is followed by the conclusion and recommendations. This study is primarily undertaken by using a qualitative case study approach using both primary and secondary data.

2. ODL Practices and Trends in Higher Education

Open distance learning (ODL) represent approaches that focus on freeing students from the constraints of time and place, and offering flexible learning opportunities to individuals and groups of students (Prinsloo 2010). ODL is one of the most rapidly growing fields of education globally, and its potential impact on all education delivery systems has been greatly accentuated through the development of Internet-based information technologies (UNESCO 2002).

ODL is a multi-dimensional concept aimed at bridging the time, geographical, economic, social, educational, and communication distance between student and institution, student and academics, student and courseware and student and peers. ODL focuses on removing barriers to access learning, student-centeredness, supporting students and constructing learning programmes with the expectation that students can succeed. More importantly, if the Department of Public Administration in Unisa focuses fully on the above-mentioned, it will become fully a fourth and fifth generation ODL provider.

ODL comprises of five generations. The first generation of ODL is called the correspondence model, whereby the associated model of delivery is printed material. This is usually a collection of textbooks and study manuals sent to students through the postal system. The students are almost totally self-directed, as they are largely on their own. Students submit assignments through the post and receive them back the same way. According to Taylor (2001), the level of interactivity is very low because there is often a long waiting period between assignments and tutorial letters with feedback. Some communication was possible via phone, and later fax, but most students did not take advantage of this option (Taylor 2001).

Taylor (2001) explains this second generation of ODL, also known as the multimedia model, as associated delivery technologies are print (as in first generation), audio, video recordings, computer-based learning, interactive videos (disks), discussion classes and tutoring. Discussion classes and tutoring represent the

conventional view of the lecture room as a place used for learning and teaching in ODL universities. A standard lecture room, with immovable chairs all facing the lecturer, may represent a philosophy of 'pouring content into students heads' (Park and van der Merwe 2009:360). The level of interactivity is still low in the case of print, audio and video recordings, but there is a slight improvement with discussion classes, tutoring, computer-based learning and interactive videos. However, most of the communication is still one way, and true 'live' interaction is not possible.

The associated delivery technologies for third generation ODL, also known as the telelearning model, are audio-teleconferencing, video-conferencing, audio conferencing, television and radio and audiotelconferencing. Live connections and true interaction between students and instructors in real time are possible. The learning experiences are of a more interactive nature because synchronous communication is a possibility (Taylor 2001).

Taylor (2001) refers to the fourth generation of ODL is also known as the flexible learning model. The main tenet of fourth generation is teaching delivery via the internet. The associated delivery technologies with this generation are interactive multimedia online, internet-based access to World Wide Web (WWW) resources, and computer mediated communication. The learning is more interactive because both synchronous and asynchronous communication is a possibility. The students could react in 'real time', but they could also learn and interact at their own time, at their own pace. This has led to advances in distance learning (Taylor 2001).

The fifth generation is called the intelligent learning model (Taylor 2001). The associated delivery technologies with this generation include interactive multimedia online, internet-based access to WWW resources, computer mediated communication, using automated response systems, and campus portal access to institutional processes and resources. Computer systems can include many automated processes, follow individual choices and preferences of students, and remember passwords and identities. Many of the learning experiences are increasingly personalised and individualised. At the same time the computer system is able to keep track of individual student needs, preferences, successes and areas of need.

At present, the University of South Africa (Unisa) spans across five generations ODL provider. However, the Department of Public Administration (Unisa) falls across the first (correspondence model), second (multimedia model) and third (telelearning model) generations, as an ODL provider. It should however be noted that, not all tools are used from the second and third generation ODL models by the department. The department, however, has the potential to advance into a fourth and fifth generation ODL provider by improving online teaching and eLearning, especially in the usage of ICT. There is a drive to adapt a blended learning approach, where the department's largely print-based teaching is increasingly with the online components made available through the Unisa learner management system, referred to as MyUnisa. At the same time, the Department of Public Administration (Unisa) has implemented some initiatives to upgrade and include some multi-media elements, mainly as

satellite broadcasts. However, this is used minimally in the department. Out of 91 modules, satellite broadcasts were only used for approximately eight modules as at 2012. There are also constraints that exist that keep the department from advancing into fourth and fifth generation developments because mainly of poor bandwidth for internet in Africa and because of uneven unreliable access of many Unisa students to these technologies online. However, mobile technology can become largely instrumental in the creation of a virtual learning environment for the student of Public Administration (Unisa). They offer solutions for the challenges the department faces of poor bandwidth and access to technology (Park and van der Merwe 2009:359).

3. Overview of ODL in Higher Education in South Africa

Unisa is the only dedicated, comprehensive open distance learning (ODL) public provider in higher education in the Gauteng Province of South Africa. The *raison d'être* of Unisa as expressed in its 2015 Strategic Plan, is to contribute in the development of Southern Africa and Africa. The University dedicates itself to becoming "The African University in the service of humanity". Against this backdrop of this mission, the University community needs to formalize the aspirations of the University's Strategic Framework. In this statement the University unequivocally declares its firm intention to be a higher education institution in developing the fabric of the South African and African society. With this broad compass for development, Unisa committed itself to an outward-reaching role within South Africa, Africa and the global community. South Africa's key national goals include, amongst others, being part of the knowledge-driven world economy, appropriate human resource development and appropriate skills training linked to technological improvement and innovation. Unisa's mission is therefore aligned with South Africa's national goals. Unisa is also committed to the advancement of social justice with the emphasis on redress, equity and empowerment of the previously disadvantaged groups in South Africa such as blacks, women, people with disabilities, the rural and urban poor and adults who have missed out on opportunities to access higher education. The Vice-Chancellor, Professor Mandla Makhanya (2012) explicitly linked the University's aspirations of excellence and development to an international development agenda aligned with the Millennium Development Goals (MDGs). This once again confirmed the University's determination to be a significant role player in working systematically to achieve major national and international socio-economic goals, such as the eradication of poverty. Makhanya (2011) notably also alluded to the potential role that ICT could play in achieving the Strategic Vision 2015. Louw (2011) and Prinsloo (2012) indicated that information and communication and technological advances have made it possible for the University to teach more subjects to a greater number of students at a distance in SA. Unisa has therefore become a comprehensive higher education institution, offering diplomas and the full range of degrees across general, vocational and professional fields. In 2011, it enrolled approximately 280,000 students,

including some 10,000 students from the rest of Africa. The University is therefore one of the mega-universities in Africa. It also has students enrolled from different countries (Crous 2011). The most obvious solution to such huge student numbers, are the extensive use of ICT for online teaching and eLearning. The utilization of ICT can create a user-friendly virtual environment to enable all students from all communities to participate effectively in higher education (Park and van der Merwe 2009:364). One of the essential elements of an ODL provider is to make the University more accessible to all students, including those living in remote communities in South Africa, Africa and globally. The role of ICT in promoting online teaching and eLearning in an ODL university is therefore explored.

4. The Role of ICT as an Enabler to Promote ODL

Lloyd (2005) defines information and communication technology (ICT) as specific devices or processes which collectively make up the "technology which maintains its usage in government, business, industry and in relation to tertiary and other academic courses dealing with areas such as programming, database design and expert systems." It generally relates to those technologies that are used for accessing, gathering, manipulating and presenting or communicating information. The technologies could include hardware (example computers and other devices); software applications; and connectivity (example access to the Internet, local networking infrastructure and video conferencing). What are most significant about ICT are the increasing convergence of computer-based, multimedia and communications technologies and the rapid rate of change that characterizes both the technologies and their use. The term "ICT integration" on the other hand means a range of learning environments from a stand-alone computer in a classroom, to a situation where the teaching is done by the computer through pre-packaged study material which is presented through media form, online. This highlights the important role of ICT in higher education, especially with an ODL provider such as the Department of Public Administration in Unisa.

Different stages of technology development exist (Herselman and Hay 2003). The first entry is the stage where Higher Education Institutions (HEIs) train students to use the technology; The second is the adoption stage where HEIs use technology to support traditional teaching and learning instruction; The third stage is the adaptation stage where HEIs use technology to enrich the curriculum; The fourth stage is the appropriation stage, where HEIs integrate technology and use it for its unique capabilities for teaching and learning. The fifth stage is the invention stage, where HEIs are prepared to develop entirely new virtual learning environments that use technology as a flexible tool for online teaching and eLearning. With the fifth stage, teaching and learning becomes collaborative, interactive, and customized.

In this regard, it would be advantageous for the Department of Public Administration (Unisa) to aspire to the fifth stage of technological development and

to become an effective ODL provider. There are some elements of the second stage of technological usage by the Department of Public Administration (Unisa), but in terms of collaboration and interactivity, this clearly must be developed further. However, the level of interactivity with students by the lecturers of the Department of Public Administration is minimal. More importantly, as indicated previously, the low level of interactivity could prevent the department towards becoming a more effective ODL provider. Nevertheless, it is critical to explore the role of ICT in promoting ODL in universities.

5. The Role of ICT in Promoting ODL in Universities

The increasing need for education, limitations on access to information centers, economic problems, a lack of experienced experts, and the costs of education in South Africa has brought about the development of new delivery methods for instruction to students. Rapid changes in ICT have assisted South Africa to face the issues of illiteracy and targeting students in remote areas, namely in rural communities (Kelly and Stevens 2009:1); (Prinsloo 2010). The need for widespread education and training, through an ODL provider has called for new teaching methods. Digital education by an ODL provider whereby education is delivered online could be one way to solving this problem. ODL universities require technology that provides access to information and education without limits on time or place. In such an atmosphere anyone can learn according to their individual needs and abilities.

ICT extends the possibilities of communication by collapsing distance and by compressing time in an ODL university. It does not restrict a learner or lecturer to the library and classroom or to the physical interaction with classmates. Lectures are able to communicate with the students through subject portals in university websites. Content can be put on a compact disk (CD), which in turn can be presented to the students for learning purposes. While improvements are taking place in higher education institutions, it is vital for those improvements to be efficient as well. However, the introduction of ICT can also be accompanied by increased centralisation and lack of consultation (Wessels 2011). Some argue that the more ICTs improve, the more the changes that take place in the existing modules and programs. Others argue that such changes add value to course content. On the positive note, ICTs are seen as providing tools to make ODL in higher education more efficient by reducing administrative work and assisting with repetitive teaching activities, while on a negative note, efficiency can become an end in itself at the expense of other educational values (Prinsloo 2010).

ICTs have enabled ODL universities to provide more learner-centered learning (Singh 2011). But they also depend on the educational philosophy and values of the particular system, and the educational characteristics and potential of the technologies used. There may be a connection between teaching strategies, the choice of technology, as learning and studying can take place at any time or place

and the costs of producing learning materials can be reduced compared to the production of print learning materials. This is made possible by ICTs. Learning materials and resources are essential components in ODL universities (Kelly and Stevens 2009).

ICT facilitates communication between lecturers and students, which is a necessary component in ODL (Pityana 2010). ICT distributes messages in text, still and moving images, and sound. Knowledge-generating messages may be communicated to large numbers of students, pushed by broadcasting or accessed on demand through audio and video players or Internet. As these devices change, so the quality and nature of the messages will change. Thus, new Internet devices make it possible for larger numbers of people to share a common learning experience, and enable an individual learner to have a unique personal interaction with a lecturer or with another learner, no matter where they are located. These experiences are of much higher quality than were possible before since they do not depend on physical access (Kelly and Stevens 2009).

In view of the above, it is evident that ICT serves two roles. One role is the distribution of information. This delivery system may comprise both distribution of pre-packaged study material and transmission of synchronous or broadcast programs, lectures, and many more. The second role of ICT is the crucial component of all education, which is the interaction between lecturers and students, and, where possible, between students. In some forms of ODL, the learner interaction is practically non-existent, but in most cases it is considered important and may be provided in different ways. Often students meet together physically in groups, sometimes connected with other forms of local support, such as discussion classes. New technologies allow for the organisation of students in countries where access to the Internet is common, such as online discussion forums and on-line tutoring. This is the fastest growing approach to distance teaching since there is no conventional classroom in ODL.

ICT enables students to consult lecturers timely through email and telephone and use university portals to access information. ICT tools can be used for communication on a number of issues (Panda 2010). They can assist the learner to not only learn but also be able to apply the knowledge gained from the learning materials, be it printed or electronic learning materials. Other tools that assist students are course websites, podcasts and videos, on-line and face-to-face tutorials made possible by video or satellite conferencing, virtual libraries and printed study support materials. Although using computers and the internet is very important in ODL, it presents the students with some difficulty as not all students have the necessary skills, equipment and internet connection that are required to communicate with the lecturer and other students (Kelly and Stevens 2009). Furthermore, not all students can afford an internet connection. This will impact on the effective implementation of ICT as an ODL tool.

ODL universities attempt to: increase the quality of learning; reduce the time of attaining educational goals; increase efficiency; increase the independence of users

and flexibility of education; reduce costs without affecting quality; eliminate limitations on time and place (Amiree and Khabbazan 2009). The application of online teaching and eLearning technologies at Unisa therefore has the potential to transform the University into a world class ODL provider.

6. The Role of the Department of Public Administration (Unisa) in ODL

Similar to other higher education institutions in South Africa, Unisa has embraced ICT to include change as improvement, innovation and transformation (Czerniewics, Raje and Mlitwa 2005: 60-64). Unisa designs its modules as outlined in the 'Unisa Tuition Policy and Framework' and delivers them through print and digital media such as hard copies of study guides, audio, compact discs (CDs) and DVDs, satellite broadcasting, video conferencing and online distribution of information and online distribution of study guides that are uploaded on its web-based management system known as MyUnisa. Other initiatives to promote the usage of technology include the use of multipurpose community centers, also referred to as telecentres, mobile units and short message system (SMS) system. Therefore a blended approach to teaching and learning is evident in Unisa. Students are encouraged to use a continuum of learning opportunities that range from synchronous to asynchronous technology. In this way lecturers can improve connectivity with students through broadcasts but at the same time provide continued support, for example through online discussion forums. However, it is evident, with the Department of Public Administration its teaching is predominantly by print material (study guides and tutorial letters). The department mainly employs the correspondence model of teaching. There is also online distribution of information through MyUnisa. The study guides and tutorial letters are uploaded on MyUnisa. The use of discussion forums to stimulate discussions and satellite broadcasting mainly for communication of course content are also used moderately by the department. The SMS system is mainly used to send short messages to students on instructions on assignment and exam dates and satellite broadcast reminders.

6.1 Web-Based Learner System - MyUnisa

Unisa has recently embarked on a program to use web-based technology in online teaching and eLearning. A web-based learner system called MyUnisa was developed to improve communication between lecturers and students (Davies 2011). One can access administrative information such as biographical details, academic and assignment records, examination results and dates, and financial records. Academic information comprises study guides, tutorial letters, subject-related academic guidance, discussion groups, journal lists and recommended and prescribed books.

Unisa kick - started 2010 with new tools and rules for MyUnisa which included site stats, (which is used to monitor learner and lecturer activity on the site), and on -

screen marking, (to route and mark assignments on screen) and the creation of course sites, (where students can obtain information on their progress). Lecturers were advised to give students guidance on length of discussions and pacing through courses on the discussion forum. MyUnisa discussions are mainly held monthly by the Department of Curriculum and Learning Development (DCLD) to interested lecturers (Focus Newsletter, January 2010).

The key point about MyUnisa is that a learner can read, download and upload most material related to their specific module(s). This includes downloading assignments, and submitting them electronically. This reduces the cost, time and risk of loss associated with traditional hard copy and post, which takes weeks to process. Students can view their results and scripts much more quickly, thus improving feedback. They can also register or re-register via MyUnisa, view study material and even communicate with other students in forums related to their subject.

Some lecturers indicated that the teaching and learning experience lessens the administrative load as notices can be posted on Myopias and students can enquire and reply via email (Wessels 2011). This adds value to the teaching and learning experience for the learner which highlights one of Unisa's aims; to be a learner centred higher education institution. A lecturer's time is made more efficient by the use of technology as frequently asked questions can be posted to the University website, Myopias (Focus Newsletter January 2010).

MyUnisa is a useful tool to promote communication and delivery of information. It is also a tool for interaction between lectures and students and students and their peers. However, according to Davies (2011) interaction in Unisa is limited and could be increased to improve ODL online teaching and eLearning.

The use of MyUnisa for students in Africa remains a challenge because of limited bandwidth and Internet use in Africa. Within Africa there are also huge discrepancies between countries. For example, Sub-Saharan Africa is the most digitally isolated region in the world (Juma and Moyer 2008: 1261). The bandwidth per capita is not only 1 percent of the world average, but this region also has among the highest connectivity costs in the world. In contrast with this picture of Internet usage, the growth of mobile telephone subscribers is the highest in the world. This scenario has also been observed by learners of the Department of Public Administration (Unisa).

6.2 Multi Purpose Community Centres – Telecentres

In line with ODL principles, Unisa has signed agreements with multi-purpose community centers throughout South Africa in areas identified as remote. Registered Unisa students in South Africa's rural areas and townships can now access the internet for free for academic purpose (access to MyUnisa, the digital library and other computer-based training modules), courtesy of Unisa.

Unisa menu of services available at the telecentres includes activation and access to learner e-mail, internet research particularly for postgraduates. Unisa also provides all

students with a private email address called 'MyLife', which is unique and secure, so that confidential communication such as marks can be reliably communicated. The 'My Life' email is free to all Unisa students, and its functionality by students for the Department of Public Administration includes assignment submission and links to the SMS system. Other learner awareness initiatives comprise of SMSs' sent to students, to for example notify them about the existence of the telecentre in their immediate communities and posters that are distributed to all the Unisa regional centers. This benefit is however only for registered Unisa students.

In light of the above, MPCC are very beneficial to improve student support in Public Administration. Furthermore, students have access to computers, whereby they can download a host of information using the internet. MPCC can also connect students to e-tutors to help reduce the distance, often hundreds of kilometres, between the University and its students. The University is embarking on this initiative in 2013, and all departments, including the Department of Public Administration (Unisa) and required to implement the e-tutor system.

6.3 Satellite Broadcasting

Unisa has used satellite broadcasting as a vehicle for teaching to a wide variety of student communities in South Africa (SA). Satellite broadcast is a live or pre-recorded presentation of lectures, tutorials and training programmes to students via a television screen at remote venues across SA (Wessels 2011). Unisa, as an ODL institution, uses satellite broadcast as one of the technologies to support students across SA with the aspiration of bridging the distance between the learner and the lecturer. The use of satellite broadcast is especially relevant to students in SA studying at Unisa, as a large number of students live in rural and remote areas, and do not have contact with their lecturers or their peers. The lecturers determine subjects to be broadcast and decide in advance which topics they need to discuss with the students. The lecturers of Public Administration explain and discuss those parts in the study material with which students experience most difficulty (Wessels 2011). It is therefore important that students attend satellite broadcast sessions at their nearest satellite classroom. DVD's for all broadcasted sessions are available to assist students who have not attended and students who want to use it at later stage, for example, for exam preparation (Focus newsletter 2010). Satellite broadcasting is a useful ICT tool to improve online teaching and eLearning in Unisa and in particular by the Department of Public Administration. This is a useful intervention to improve access and efficiency by having a one-to-many multi-media communication. It is also a cost effective method of teaching as several students can be reached. Furthermore, these sessions are re-broadcasted and re-used. It consists of an on-campus studio and eight learning centres situated all over South Africa. Because satellite broadcast cannot utilize the delivery path as a return path or 'back channel', viewers can return information to the

studio only by the use of mobile technology or emails. Simple text messaging via SMS or email protocol is the obvious choice to interact with the lecturer during a session.

6.4 Video Conferencing

Video-conferencing is used by Unisa for giving lectures, conducting tutorial classes, oral examinations, group discussions, workshops and scientific demonstrations, conducting interviews; and setting up meetings. Video conferencing is a system allowing participants at different locations to view and hear each other immediately via video cameras, TV monitors and microphones by using the telephone lines. This system can be easily integrated into the ODL model with minimal adaptation to the course and is designed to support two-way video and audio communication, between students and lecturers/tutors, or between students and students in multiple locations.

Video conferencing has the following advantages. Firstly, it offers the ability to see and interact with people at remote locations without incurring expenses for example, travel, time and accommodation or other expenses associated with face to face communication. Secondly, it provides the platform to interact in a two-way audio-visual communication setup. Thirdly, students from diverse communities and backgrounds can come together to learn about one another. Fourthly, students are able to explore, communicate, analyze and share information and ideas with one another. Video conferencing is an ideal way to conduct an academic discussion or debate with geographically remote students, particularly those students outside South Africa.

In light of the above, it is evident that videoconferencing can give remote students a sense of belonging to Unisa. For instance, even if students are geographically remote, this technology can bring them 'closer' to not only the Unisa staff but also to the University as an institution. This ICT tool is a reflection of ODL in action and its learner-centeredness. It also reduced the cost of lecturers travelling and time involved in improving efficiencies. However, this online teaching and learning tool has not been popular amongst lecturers of the Department of Public Administration. It is evident only one such initiative has taken place by the department in 2010.

6.5 Social Networks

Web 2.0 includes social networking websites, blogs and wikis that create a shift in how students communicate and how lectures communicate currently and in the future will communicate with their students. Web 2.0 is a cultural advance that views the internet as a platform to create new ideas, design new teaching methodologies and provide teaching to students. Web 2.0 technology creates opportunity for more interaction, collaboration, student participation and sharing of ideas (Deloitte 2012: online) and (van Jaarsveldt 2011).

Accenture (2009: online) states that ODL universities has already seen the benefits and advantages of using technology such as Web 2.0. Web 2.0 represents a move to more interactive online teaching and eLearning. French universities are using Web 2.0 website and has created discussion forums with wikis and videos to improve learner support and online teaching and eLearning. Universities in the United States of America, Canada, Finland, United Kingdom, Italy, also use technology and social networks including blogs, Twitter, Facebook and text messaging very successfully in online teaching and eLearning. According to IBM (2012: online) virtual worlds have now come to the fore as the most interactive form of engagement available on Web 2.0. Virtual worlds is a new way of gathering students together and communicating in real time, in a customized environment, and presents new possibilities for ODL higher institutions of reaching and communicating with students. The virtual world has created a "second life" three dimensional world that has students build a virtual world which has implications and possibilities for ODL higher institutions to use virtual applications to promote online teaching and learning. "Second life" is a good place to meet, reach and leave messages for students (America gov 2012: online). With more than 12 million members "second life" is already becoming the preferred way of communication and interaction for a new generation. IBM (2012: online) stated all active Internet users have a "second life" in the virtual world. The next generation of students will demand that ODL universities function differently and provide online teaching and eLearning that distinctly meets the needs of the current reality (van Jaarsveldt 2011).

According to IBM (2012: online) the virtual online teaching and eLearning world offers the following opportunities:

- A new and unique opportunity to engage with students around the world in "real time". This is particularly relevant for Unisa and the Department of Public Administration as the students are from South Africa, Africa and globally.
- A new way for lectures to observe how students interact with-and react to each other.
- A new opportunity for students from all geographical locations, to work together in solving problems and finding solutions. This is particular relevant for students of Public Administration who should be trained in finding solutions to real situations.
- An opportunity for students and lecturers to employ social networking tools for online teaching and eLearning.

IBM (2012: online) states that these opportunities found in a virtual environment can help in the exchange of information and ideas between students and lecturers and between student and their peers, making online teaching and eLearning more interactive. It is possible to create "real life" situations while in the virtual world.

However, as Unisa moves into becoming a fifth generation ODL provider, it must train its lecturers to effectively use ICT for online teaching and eLearning.

Students are encouraged in Unisa to use social networks as an academic tool for interacting with lecturers. They would be involved in a classroom network with the social network as the foundation. However, lecturers should learn to use the interface of the network. In addition, students and lecturers can be more closely connected, which in return can benefit the lecturer-learner relationship. Also on the Unisa staff website, is an important link on "Blogs". On the blog page, there are two links namely "E-connect" and "ODL". If you follow the latter you will be able to read and comment on the ODL Communiqués by Unisa. The cost of social networks is minimal. The style of communication is easily understood by students and it is a two way interactive process. Cordis (2009: online) states that in the future students and lecturers will live in a world of networks where they will be permanently connected from anywhere to all information. Information is faster and technology is cheaper thus benefiting more students. However, with the Department of Public Administration the use of social networks has been minimal. All lecturers surveyed (100 percent) only linked to e-connect and ODL Communiqués by Unisa. Lecturers did not use Facebook, Twitter and text messaging for online teaching and eLearning. The future of technology in a virtual world will require lecturers of Public Administration to teach online to meet the needs of a new generation of students. The Department of Public Administration should design its teaching methodologies to instill the necessary knowledge and skills to intellectual prepare students to become effective public servants.

7. Current State of Affairs in the Public Administration

The teaching and learning methodologies that are used in the Department of Public Administration are explored. The common challenges that hamper effective online teaching and eLearning by the Department of Public Administration are identified. The factors that hamper the Department of Public Administration from becoming a fully fourth and fifth generation ODL provider are also explored. In order to access the above current reality prevailing in the Department of Public Administration three methods were used. Firstly, a document review was undertaken using a number of reports, newsletters, Journals, documents on the Unisa website, documents Unisa's institutional repository and the Department of Public Administration's departmental reports and website. Secondly, information from a survey by the College of Economic and Management Sciences (CEMS)-Directorate of Tuition was used. The survey comprised of an unstructured electronic questionnaire that sent to a purposeful sample of all twenty five lecturers in the Department of Public Administration. Thirdly, an observation technique was used for a period of approximately three years (2010-2012) by the researcher. The qualitative methodology produces in a holistic way descriptive data about the object of a study (Wessels 1999: 389-390). The data was

collected through careful documentation and was analysed qualitatively. This was followed by a discussion of the findings.

Recent ODL improvements in Unisa, has challenged the Department of Public Administration to improve its teaching methodologies and practices. Therefore, in line with the vision of the College of Economic and Management Sciences (Unisa), of which the Department of Public Administration is part, the aim is to produce graduates who are responsible, accountable, relevant, ethical and enterprising citizens, and employees of choice in the workplace. Lecturers are required to impart knowledge, skills, attributes and values to their students to enable them to become competent and professional graduates who can make positive contributions to society, their professions and their workplace. The education, teaching, learning and assessment process must provide a foundation of values and core competencies (namely knowledge, skills and attributes). The Council of Higher Education (CHE, 2010: 21) advises that lecturers must not take an easy way out of effective and quality teaching because of large student numbers, and prepare teaching based on the need to minimize administrative work. Instead, superior teaching and learning should be implemented that is purposely executed to produce well-rounded student graduateness. Graduateness is defined as "inherent characteristics (transferable meta-skills and personal attributes) of graduates to the workplace (Focus newsletter 2011:4). For many years, Public Administration students at Unisa grapple with Public Administration theory and concepts (Wessels and Binza 2011:481). One of the challenges faced by the South African public service is that public servants cannot translate the knowledge acquired formally through universities into action in the workplace. Public Administration is defined as the study of various processes which include the development, implementation and management of government policies which result in the preservation of values of improving equality, justice, efficiency and effectiveness in order to improve the general welfare of the community which it serves (Binza 2011:166) in Wessels and Binza (2012:481). A debate took place during the 1980s in South Africa amongst academics on pioneering teaching methods which could be employed to teach Public Administration. The debate took place between the traditional school of thought, which wanted to adhere to the status quo, and an innovative school of thought, which was striving to introduce innovation and new content into the academic field and professional actions of public servants (Wessels and Pauw, 1999: 334). The new school of thought was of the belief that innovative teaching methods mainly through the use of ICT had to be introduced into the teaching processes of Public Administration at the various higher education institutions (Wessels 2012:481). This was re-iterated in 1991, during the Mount Grace Conference which was attended by academics and practitioners of Public Administration and Management. The previous teaching methods were no longer relevant to the rapidly changing needs of the South African communities where the public officials served. Unisa students do not attend regular classes. The average student therefore encounters difficulty in mastering the content of material in an

isolated learning environment (Wessels 2012:481). Unisa students could therefore gain the necessary skills, competencies and attitudes that could place them at a competitive advantage when employed, and online teaching and eLearning methodology could assist with graduateness at the end of their programme.

The department has approximately 23 000 student, registered for different degrees and diplomas. The ratio of the number of lecturers to the number of students is approximately 1:800. There are number of challenges hampering the effective implementation online teaching and eLearning by the Department of Public Administration (Unisa). This prevents the department from becoming a fully fourth and fifth generation ODL provider. These are mainly the non-connectivity of students to the internet and computers and the lack of infrastructure in remote rural areas in South Africa and Africa. The main constraint that keeps the Department of Public Administration (Unisa) from fully advancing into becoming a fully fourth and fifth generation ODL generator is mainly of poor bandwidth for internet in African countries. It is also evident that there is uneven unreliable access of Department of Public Administration (Unisa) students to these technologies online. Guri-Rosen (2009:113) indicates that there are infrastructural gaps between the developed and developing world, as fewer students have access to a personal computer in developing countries, especially in Africa. The students of Public Administration, especially in remote locations in Africa, such as Zambia are affected by this challenge. These students are therefore dependent on institutional resources. Unisa should therefore be aware of how the digital divide affects accessibility to students and the implications of the attainment of academic success. It is also critical for Unisa to pay attention to the human and social systems that must also change for ICT to have an effect. Content and language, literacy and education, and community and institutional structures must all be taken into account if meaningful access to new technologies is to be provided (Warschauer 2002: 49). This is the main factor that hinders the proper implementation of ICT in online teaching and eLearning by the Department of Public Administration. This also prevents the department from fully becoming a fourth and fifth generation ODL provider. However, the Department of Public Administration has the potential to become a fourth and fifth generation ODL provider, provided that the University addresses common problems hampering effective implementation of ODL and improves its ICT strategy in remote countries, especially in Africa.

The research reflects that the lecturers of the Department of Public Administration (Unisa) use a blended teaching approach for teaching and learning; namely through the correspondence model of teaching via print, meaning generic study material and tutorial letters. Multimedia (such as satellite broadcasts approximately 5% percent), video-conferencing (approximately 1%), and MyUnisa are mainly used for online communication (approximately 85%). Lecturers also answer telephonic and e-mail enquiries on course content (100%. Lecturers and assistant markers also comment on written assignment submitted by students (100%). The Department of Public Administration (Unisa) communicates with its students predominantly via print media

(Wessels 2011:84). The concern raised, is how can the lecturer teach a "skill" only through printed study material? This was a challenge to the lecturers of Public Administration, as the practitioners expected the students to complete their programmes and be ready to work in the public sector.

Nonetheless, online teaching and eLearning is dependent on ensuring connectivity of the students (Wessels 2012). This means that the technical infrastructure (for example, ISDN lines, electricity, and Internet service provider connections) that facilitates the delivery is not always available to students (Pityana 2010). According to approximately 50 percent of the lecturers surveyed in the Department of Public Administration, there are accessibility problems by at least 10 percent of their students, especially in remote locations. These lecturers indicated that teaching and learning would therefore not effectively happen for these students. It could be argued that a similar scenario would be, as if no course materials had been delivered to students.

Nevertheless, the 5 percent of lecturers indicated that students felt that they benefitted from satellite classes. Satellite classes assists in bridging the distance between students and lecturers. These classes took place in real time at the location convenient to the student. Even though it encompasses the lecturer sitting in front of the camera, there have been a way of having a two-way communication, for example, via emails and SMS's and information is received through the facilitators at the venues. Students in remote locations have also benefit from this teaching method. DVD's on the satellite classes are then posted to all students who are registered for the module. According to Wessels (2012) satellite classes contributed to an increase of 30 percent pass rate of approximately 30 percent of the modules in the Department of Public Administration. During the session the lecturer can determine the number of students attending the live broadcasts at the various regions. To ensure interactivity the lecturers pose questions on the content. The students respond via SMS from their own cellphones. Feedback is received from students via an evaluation form to indicate the student experiences. The feedback from the evaluation forms indicate at least 10 percent of the students surveyed where positive about the quality of learning and their experience of satellite broadcasting. Given the literature, numerous references were made to the positive effect of satellite broadcasting can have in a student's learning. Satellite broadcasts are therefore seen as a positive tool to provide support to Public Administration (Unisa) students. The live satellite broadcasts are mainly available in eighteen regional Unisa offices in South Africa or to only those selected. However, the students in the rest of Africa and globally do not benefit from the live satellite broadcasts due to lack of connectivity. However, they do benefit from the DVDs posted to them on each satellite session. There are other challenges such as attendance registers which are not sent timeously to the lecturer from all regional centres to assess attendance. The facilitators are not always present in classes to send the stats to the studio. The attendance is minimal as DVD's are sent to all students. There is no direct access to the lecturer. Not all students get a chance

to ask questions. Not all students can attend satellite classes due to work responsibilities and this takes place during office hours. Not all students can watch the DVD as they may not have access to a DVD player or a computer. Furthermore, the technologies used by the Department of Public Administration in Unisa to facilitate teaching and learning have *limited interaction possibilities* such as digital media (DVDs), online distribution of content and information via MyUnisa and the departmental website. The associated delivery technologies used mainly provide information and are tools that are used by the lecturer to communicate with the learner. Despite, discussion classes being held with students twice a year, many of the learning experiences are not personalised and individualised. Furthermore, only about 20 percent of registered students attend discussion classes. The computer system in the Department of Public Administration is unable to keep track of individual learner needs, preferences, and areas of need. The survey revealed that technologies that are asynchronous such as wikis, blogs, social networking facilities and e-portfolios are not used by the department. There is no personal platform and social networks that are used by lecturers in the Department of Public Administration. The lecturers surveyed indicated that some students of Public Administration don't join Facebook pages because of privacy issues. They also indicated that there are also cost implications such as paying for using the internet and downloading information. Neither are there television, radio, newspapers, DVDs, CDs and podcasts that are used. However these technologies can be used effectively to support online teaching and eLearning in the Department of Public Administration.

On a different note, it can be argued that students in a face-to-face setting have (often immediate) access to lecturers during the lecture or afterwards. Residential students have mostly, immediate access to resources found in the institutional and departmental libraries. These students are also networked with one another and have the privilege of being in contact with peers who are doing the same modules as they themselves have registered for. Fifty percent of the lecturers surveyed in the department indicated that at least eighty percent of their students of the Department of Public Administration (Unisa) are however excluded from immediate access to lecturers, library-based resources and peers. The survey revealed that students of the Department of Public Administration (Unisa) therefore need different types of support than students in residential settings such as face to face discussion classes and on-line discussion classes. The students' chances of success are also hugely impacted by non-academic factors in their personal lives, example their health, predispositions, attributes, locus of control, and non-academic factors on the side of the institution, example on-time delivery of study materials, and organisational efficiency.

Ninety percent of the lecturers surveyed indicated that in the Department of Public Administration (Unisa) the main means of communication to students on is the delivery of study materials and tutorial letters. However, it is only when students receive the materials that they can start learning. Failure to produce and dispatch

materials on time is non-delivery of the program by Unisa, which is sometimes the case with students (Pityana 2010; Prinsloo 2010).

According to the Unisa teaching policy all academics are expected to explore new and more effective ways of online teaching and eLearning especially with the use of ICT. According to sixty percent of the lecturers surveyed in the Department of Public Administration (Unisa), it is however difficult for academics to not only keep up-to-date with developments in their field of expertise, but also to continuously try to keep abreast with developments in ODL, pedagogy and teaching.

Given that the vast majority of students of Department of Public Administration are working, a lower success rate is evident (Report-Department of Public Administration 2012: 1). There is, however, evidence of the Department of Public Administration of the throughput of different cohorts of students, that only a small proportion, and in some cases an alarmingly small proportion of students in their undergraduate qualifications actually complete their qualifications within the prescribed time period (DISA 2011). A number of other factors could also be responsible for low throughput in the Department of Public Administration, including; inadequate learner support, allowing access to programmes to students without the necessary background to succeed and insufficient online teaching and eLearning methodologies. Other challenges include the tutor systems not being fully functional in the Department of Public Administration (Unisa) and in those regions where it is functional, not all tutors are trained (Van Heerden 2012). Furthermore, it was evident that there was minimal communication between the lecturer and tutor.

Nonetheless, the quality of students coming into the Department of Public Administration falls hugely outside the control of department, as college requirements are used to admit students. Prinsloo (2010) argues that, although many lecturers at Unisa may feel that University should not allow underprepared students into the system, Unisa as the only dedicated comprehensive ODL institution in South Africa and the largest one on the African continent 'cannot afford to close its doors'. Prinsloo (2010) pointed out that, what could be done is for Unisa to have control over, how it allows these students to Unisa. The new admission requirements therefore mean that no learner will be refused entry at Unisa if they meet the minimum requirement. In spite of that, Unisa should ensure that appropriate students are admitted to Public Administration programs, and that teaching, learning, assessment and support systems are good enough to provide students with a reasonable chance of success. The Department of Public Administration (Unisa) should therefore make an extra effort to ensure learner throughput and success. It could be argued that ICT can play an effective role in improving learner support, online teaching and eLearning in Public Administration. This in turn could ensure improved learner throughput and success. This may also assist the Department of Public Administration becoming an effective fourth and fifth generation ODL provider.

8. Conclusions and Recommendations

The Department of Public Administration (Unisa) plays an important role, especially in providing ODL education in SA and beyond. However, its potential to become an effective ODL provider is not yet fully realised. The evidence suggests that Department of Public Administration (Unisa) has some elements of a third generation ODL provider with the use of different digital media such as satellite broadcasting, SMS and MyUnisa to provide information and communicate to students. ICT is not effectively used by the department for online teaching and eLearning.

Furthermore, the move towards a more technologically enhanced University has created challenges for the Department of Public Administration, impacting on the effective implementation of ODL. In this regard learner connectivity and accessibility and ICT training for students should be addressed. ICT does not reach all Public Administration students across SA and beyond, as all students do to have access to the internet and a computer. Accessibility is critical so that students can take full advantage of the Department of Public Administration (Unisa) online services. However, it is argued that the Department of Public Administration (Unisa) ought to address the challenges hampering effective ODL implementation. In so doing, there would be tremendous potential in Department of Public Administration becoming a fourth and fifth generation ODL provider. Furthermore, if fully exploited, ICT has a greater potential of meeting the needs of Department of Public Administration students than traditional print mode of delivery. Therefore the expansion of ICT usage and the penetration of ICT, especially in remote rural communities, will go a long way in using ICT for online teaching and eLearning and ensuring that Department of Public Administration (Unisa) becomes a full fourth and fifth generation ODL provider.

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