# Curricular Innovation and Digitisation at a Mega University in the Developing World – The UNISA 'Signature Course' Project

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## Abstract

As part of the endeavor to reposition itself in the open distance and e-learning arena, the University of South Africa (UNISA) has designed and developed six modular courses (one module per College) referred to as 'Signature Courses'. The focus of these modules is on a student-centred online teaching and learning approach; extensive student online mentoring and support; and alternative online assessment practices, while also developing prototypes for fully online courses as the University advances in its digitisation objectives. This paper presents a case study of the achievements of the project thus far. It reports challenges the project has been facing and anticipates the trajectory the University will be following in the future as it moves decisively towards online teaching and learning.

## Introduction

### Background

The forces impacting on higher education curricula have multiplied and gathered momentum in recent years, with diverse socioeconomic, technological, academic, geopolitical and cultural forces all making their mark on higher education. Where higher education previously managed to stay aloof from and largely untouched by the forces of change in society, while enjoying greater autonomy in determining what was offered and how it was offered, currently the sector is facing intensified demands to contribute directly towards innovation, economic development, and competitiveness, and to produce graduates and research relevant as well as responsive to the contemporary knowledge economy.

While this reality relates to universities worldwide, it has very specific implications for universities on the African continent, which need to fulfil their mandate against the background of huge inequalities in terms of student income and development levels. Yet, these universities need to produce graduates who can compete internationally while also addressing the developmental needs of the African continent.

The challenges referred to above relate very pertinently to the University of South Africa (UNISA), which has been the first dedicated distance education institution on the African continent, with a history spanning 140 years. Due to its rich history and the relatively good standing of the qualifications it offers, the University boasts a student population of

approximately 400,000 per annum. Its size and aggregated resources at its disposal, place it in a position to make a vital contribution to development in Southern Africa, while its geographical reach enables it to support high-level capacity development on the entire African continent. In this light, UNISA aspires to position itself among the top mega universities in the world. Its vision is to differentiate itself from other top universities through its commitment to promoting social justice, development, and service to humanity.

Much of the work of giving substance and form to the Unisa vision: *the African university in the service of humanity,* centres around the very core of a university itself – its curriculum. In this regard, there is substantial consensus within the institution about its identity as a comprehensive university and leading African provider of quality Open Distance Learning (ODL) that produces excellent scholarship and research, provides excellent educational value, and fosters active community engagement. Yet as the institution gradually started to respond to the need to produce graduates who can function efficiently in the digital age, a need has been identified for academics to develop a united vision of a new brand of distance learning:  namely, open distance e-learning (ODeL).

In pursuance of this goal, , UNISA resolved to include in its curriculum a number of 'signature' courses or modules as part of a cohesive pathway towards inculcating Africanness, relevance, social responsibility and multi-, inter-, and trans-discipinarity  into in its curricula. The 'signature' course project is predicated upon the following key characteristics:

- The identification of a pedagogy and course design approach to develop and monitor quality *online learning experiences* in a distance education environment
- The design and development of six Signature Courses (one each per UNISA College) to be included in all undergraduate qualifications at UNISA.
- The design and development of innovative, authentic and sustainable online learning assessment strategies
- The establishment of a staff development programme to effectively facilitate learning in a distance learning online environment.

An overview of the project and preliminary outcomes are discussed below. The aim is to support the sharing of ideas and experience in innovation in learning for development.

# The UNISA Signature Course Project

As a first step towards implementation of the Signature Course project, each of the six UNISA Colleges had to identify one module (or course) to serve as their 'signature' course. The requirements for such modules were that they needed to be aimed at improving the undergraduate academic culture at UNISA; elevating the level of intellectual engagement; promoting social cohesion; and increasing student commitment to their own education. Of particular importance in this regard, has been a consideration of the development of metaliteracy. "Metaliteracy is a comprehensive open learning model that reimagines information literacy for social media environments and online communities in the 21st century. Metaliteracy offers a unified framework that promotes critical thinking, participatory learning, and metacognitive reflection as interrelated and ongoing collaborative practices" (Mackey and Jacobson, 2011:1).

After consultation with partners at institutions with a proven record of successful online teaching and learning, it was decided to adopt a heutagogical approach to teaching in the signature courses. It is an approach which ideally aligns itself with the development of metaliteracy as it recognises the need for flexibility, with the teacher designing the broad course framework, while the learner designs the curriculum, not just the learning process, by co-negotiating the learning with fellow students in the online environment through various forms of social media. Thus learners might read around critical issues or questions and determine what is of interest and relevance to them, discuss these topics with co-learners, thereby negotiating further reading and assessment tasks. With respect to the latter, assessment becomes more of a learning experience rather than a means to measure attainment.

Self-direction in the way learning is applied above is not new and has been an important humanistic theme that can be followed through the philosopher Heider.  Tenets of it has also been reported in phenomenology (Rogers, 1951), systems thinking (Emery and Trist, 1965), double loop and organizational learning (Argyris & Schon, 1996), learner managed learning (Graves, 1993) and knowledge management (Davenport & Prusak, 1998). The thrust that underscores these approaches is a desire to go beyond the simple acquisition of skills and

knowledge as a learning experience, instead they emphasize a more holistic development in the learner of an independent capability (Stephenson & Weil, 1992).

The second step towards the design and development of the signature courses was the identification of a theme for each of the individual College's signature courses. In this regard, the requirement was to identify a College-related theme that addresses a topic of grave importance to the College, while also encouraging students to become caring, ethical and responsible leaders with a commitment to service and appreciation for the vision and values of a broader society. While College agreement on such themes posed to be quite a challenge, the following themes were ultimately decided upon:

- College of Agriculture and Environmental Sciences: *Environmental awareness and responsibility*
- College of Economic and Management Sciences: *Sustainability and greed*
- College of Education: *Being a professional teacher*
- College of Human Sciences: *Language through an African lens*
- College of Law: *Social dimensions of justice*
- College of Science Engineering and Technology: *Ethical ICTs for development solutions*

The third step in the process was to identify an academic in each of the Colleges to design, develop and teach the course. Such willing champions were supported by a design team consisting of a project coordinator, curriculum specialists, graphic artists, systems-administrators and ICT staff.

During the process of designing and developing the course, the design team resolved that in order to reap the optimum benefits of the heutagogical model that had been decided upon, it was necessary to appoint knowledgeable co-workers or 'teaching assistants' to support academics with the facilitation of learning and the grading of student work. Such teaching assistants would then work under the guidance of the academic, who designed the course and devised the assessment strategies. Within the context of the UNISA mass access environment (with class sizes ranging between 100 and 22,000 students), students would upon registration be divided into groups of 30. A teaching assistant would then be assigned responsibility for six groups of 30 students (a total of 180 students per teaching assistant).

In order to uphold standards of teaching, the UNISA Centre for Professional development was engaged to design and develop a dedicated staff development programme to train academics as well as teaching assistants to effectively facilitate learning in an online environment. The training programme for academics consists of a two day contact session followed by a three week online course. Seeing that it was envisaged that teaching assistants would be recruited from around the globe, the programme for teaching assistants consists of a six week online course, whereby teaching assistants incrementally learn to navigate Unisa's Sakai-based learning management system (LMS) through which the signature courses are delivered.

It was envisaged that disadvantaged students who have little or no access to the internet would experience particular challenges in taking and successfully completing the signature courses online. Consequently, the signature course team resolved to make the courses available on UNISA digi-bands. Such digi-bands consist of a rubber wrist band with a memory stick uploaded with sophisticated software. These digi-bands hold all of the needed course materials that are used online (application software for document and multimedia programs as well as email and web browsers). It includes the full spectrum of learning materials that are the basis of the signature course — syllabi, written assignments, tests, quizzes, discussion forums, resources, etc.

The central feature of the digibands technology is to enable the student to work offline. Once a digi-band is plugged into a computer, students can undertake the necessary work in the learning programme, and are only required to go online periodically at an internet destination of their convenience (e.g., UNISA regional computer labs) in order to synchronise their work with the institution's LMS and to interact with peers and teachers. The acquisition of this technology was crucial to circumvent the particular challenge of limited internet access for large numbers of rural and semi-rural students, and urban students not served by broadband access. Although the technology is not without its problems, it presents an opportunity for our students to take a mighty leap into the digital future by undertaking a fully online course, and being impelled to familiarise themselves with ICTs, which support and enhance their learning.

By November 2012 the scene was set for Unisa to launch its signature courses. Seeing that the initiative was also aimed at ultimately transforming the institution's print-based ODL teaching model into an online ODeL model of teaching and learning, various initiatives were

launched to notify prospective Unisa students of the online nature of the courses. Such initiatives also alerted students to the increased need to have access to a computer to be able to successfully participate in the learning process on hand through the signature courses.

# Preliminary Outcomes

It was with much trepidation that the Signature Course design teams entered the 2013 registration period. While the teams were convinced that they could not have done more in terms of conceptual planning, academic design and systems changes, they were acutely aware that the success of the project depended on the number of students who enrolled for and participated successfully in the courses. Table 1 below reflects registrations per College during the first semester of 2013.

Table 1: Signature Course registrations: 1st semester 2013

| Signature Course Registrations: 1st Semester 2013 | |
| --- | --- |
| **Module Code and Title** | **Registration Numbers** |
| AFL1501: *Language through an African lens* | 4900 |
| BPT1501: *Being a professional teacher* | 4648 |
| EUP1501: *Ethical ICTs for development solutions* | 20133 |
| GGH3708: *Environmental awareness and responsibility* | 91 |
| SJD1501: *Social dimensions of justice* | 809 |
| SUS1501: *Sustainability and greed* | 3024 |
| **TOTAL** | **33,605** |

As can be seen in Table 1, a total of 33,605 students registered for the fully online Signature Courses. Student responses were mostly positive. Feedback acquired from students has indicated that they find the courses 'amazing', 'interesting', 'stimulating', 'fresh' and 'innovative'.  Based on the student numbers, a total of 336 teaching assistant contracts were entered into. More than satisfactory work was done by the majority of the teaching assistants (98%) who were evaluated.

The most illuminating observation by students was about the effect of the signature courses in removing the distance from distance education, since they have a readily available personal online mentor. There were some complaints, too. Student complaints centred on insufficient numbers of computers at the Unisa learning centres, given the exponential demand triggered by the Signature Courses. Some of the digibands, the copying of which was outsourced, were corrupted, causing frustrations for students. At crucial times, due to the exponential demand for capacity on the ICT systems of the University, system overload was experienced, leading to slowdown of connectivity and upload and download times.

Teaching assistants also experienced the project as highly successful. Their remarks include the following:

"Having gone through all my groups I think technologically there can be no looking back, this project is incredible".

"To think that thousands of students, mostly South Africans, are going to get to grips with this thought process, mostly successfully, gives me hope for the future!"

"I am sometimes described as a cynical person but I have to say that when I sit back and think about what is happening here I just feel like this is the silver lining to what could have been a terribly dark cloud."

"This is so EXACTLY what our country needs - rather than more people shouting unintelligibly at each other".

One of the unexpected benefits of the Signature Courses is that plagiarism is easily detected. In the light of students working in groups of 30, fellow students, Teaching Assistants and lecturers respond immediately to plagiarised work. One student has captured the impact of this practice by saying: 'I have to think for myself instead of repeating what other students say'.

In spite of the online character of the Signature Courses, and the particular difficulty that students without their own devices or access to the internet had, the majority of students remained online and active throughout the 1st semester of 2013. Student performance (expressed as a percentage of those who passed of those who had written) is shown in Table 2 below. It is believed that such results could be vastly improved as students, Teaching Assistants and academics master the art of online teaching and learning.

Table 2. Signature Course student performance: 1st semester 2013

| Signature Course Student Performance: 1st Semester 2013 | |
|---|---|
| **Module Code and Title** | **% Passed** |
| AFL1501: *Language through and African lens* | 58.22% |
| BPT1501: *Being a professional teacher* | 48.33% |
| EUP1501: *Ethical ICTs for development solutions* | 56.49% |
| GGH3708: *Environmental awareness and responsibility* | 52.10% |
| SJD1501: *Social dimensions of justice* | 47.99% |
| SUS1501: *Sustainability and greed* | 58.22% |

About 7,500 students have relied on the digi-bands to do their courses. These are largely students in rural areas and students who have been incarcerated. While such students would normally have been excluded from online learning initiatives, the digi-bands allow them to access to their course material and activities without need for continuous internet connectivity.

## Lessons Learnt

The Signature Course project has not only been a massive learning journey for the project team but also a genuine paradigm shift for many of UNISA's key portfolios.  The institution

could not have anticipated three years ago, when the Signature Course Project was in its infancy, the scope and scale of the change the institution was about to experience.

Since the six courses are designed for full online delivery and according to heutagogical principles, they may be regarded as a portent, paving a new pathway for Unisa's teaching and learning in the future. As fully online modules, they are may be regarded as a significant innovation for Unisa's teaching and learning and mode of delivery in the following manner:

- Academics have become aware of the pedagogical implications of open distance e-learning (ODeL).
- There is a decisive shift towards truly student-centred teaching and learning
- As eTutors become gradually accepted as adjunct lecturers, Academics are experiencing a discernible shift in their work responsibilities and tasks.
- Assessment is changing radically from one or two assignments per semester to weekly learning tasks which are fully interactive and graded by teaching assistants.
- Students are adjusting to become self-organized and participatory learners, engaging in weekly online tasks in order to accumulate credits towards their final mark.

As the Signature Courses will be compulsory for all undergraduate students registering at Unisa for the first time as from 2013, it is estimated that about 200,000 students will have acquired the digital competencies promoted in these courses when they obtain their first certificate, diploma or degree during the period 2013-2020.

# Conclusion

The first year of the implementation of the Signature Courses has demonstrated unequivocally that innovative online courses can be developed, and implemented within an eighteen month period – the time span from initial conception to design, capacity development, compliance with internal regulatory prescripts, mobilisation of the necessary ICT capacity, recruitment and training of teaching assistants, to completion by the students. Aside from the clear benefits of helping marginalised students leapfrog into the digital age, for the future, it has been demonstrated that UNISA has the necessary capabilities and infrastructure to develop high calibre online courses and develop and present these in an acceptable period of time. The experience has also helped identify problems and challenges of broadband infrastructure, accessibility to devices, and cost effective internet access, which are the fundamental pre-requisites for the University to go fully online over the next decade, as it has signalled in key strategy documents.

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