How the Covid-19 pandemic has changed Open Distance Learning – a curriculum perspective

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Good morning and welcome to this session - colleagues from Unisa and other institutions, some of my previous and current Open Distance Learning (ODL) masters and doctoral students who are attending – and I have to single you out, because some of us have come a long way and you are all very special to me, and you have indeed helped me to shape my thinking throughout the years. And to everybody I have not mentioned yet, welcome, and many thanks for taking the time to be part of this webinar.

I feel honoured to be part of this series on exploring education during the time of the covid-19 pandemic, and therefore I would like to thank the UNESCO Chair on ODL who is hosting this series, for inviting me. Many thanks Professor Moeketsi Letseka. You have also introduced the series with an excellent first virtual presentation. To the rest of the UNESCO Chair on ODL team members, Tumi and Musa, many thanks for your assistance and availability, much appreciated. And yes, slowly we are getting used to this way of presentations and communication – with its advantages during these unusual times, its odd moments and sometimes the frustrations that go with them.

My presentation this morning is on ways of how **the Covid-19 pandemic has changed Open Distance Learning, using a curriculum perspective.**

First, I would like to share the overview of the presentation with you: starting by first providing some information on the lens or the perspective we will be using to look at ODL, followed by the context of this presentation. Thereafter, we will focus on ODL, what it means as well as a brief look at its history, in order to determine where we currently are, and then a discussion on how the teaching and learning experience has changed because of the corona pandemic. After this reflection I'd like to leave you with a few thoughts on the way forward for ODL.

If we look at ODL, using a curriculum lens, it is important to have a common understanding or definition of what we mean by "curriculum".

Ranging from as early as the 1900s until today, there have been varied definitions for "curriculum" from theorists and authors. Although definitions might have some similarities, there are probably as many definitions for this term as there are authors and authorities in this field, and so far, I couldn't come across a universally accepted definition. Many definitions are fragmented and might refer to curriculum as a plan, a policy, (such the SA school curriculum, CAPS) or it can refer to an experience, a course of study, a system or a programme. Other definitions of curriculum are broader and more integrated, and for the purpose of this presentation, I will use the definition of Parkay, Anctil and Hass (2014), who have written widely on curriculum and define it as "**all of the educational experiences** of an educational program, the purpose of which is to achieve broad **goals** and related specific objectives that have been developed within a framework of **theory** and **research**, past and present professional practice, and the **changing needs of society**". (my emphasis).

Within this broad definition, many important aspects of the curriculum experience or journey, have been covered. Firstly, it is what it says: the educational experiences, with goals that need to be achieved. Furthermore, educational experiences are informed by theory, research and practice. The last aspect I would like to mention is the notion of a changing society – and I don't think that anybody will differ from me that society hasn't changed in our lifetime as much as it has changed in the past few months. And this change has indeed affected all spheres of life, including education.

Next, I would like to contextualise our discussion. When I started to work on this topic, I became aware of the need to contextualise it as it is impossible to talk about ODL in general. Therefore, the context of the presentation is South Africa as a developing context, with specific reference to Unisa as an ODL institution, as this is the institution I work for and it will be my frame of reference. Unisa, with a rich and long history, was established in 1873, which means that it has a long history of distance education. Unisa currently has close to 400 000 students from across South Africa, Africa and other parts of the world.

The focus of the discussion now moves to ODL

As most of us know, open distance learning refers to distance learning with a certain degree of openness – which was also discussed by Prof Letseka in the previous presentation of the series, therefore I will not go into further detail here, for now, but will refer to it towards the end of the presentation.

As reflected in its 2018 ODeL policy, UNISA recently decided to move from being an ODL institution to an ODeL institution, presuming the existence of an established culture, with the use of, and reliance on modern electronic technologies. Unisa's ODL policy also states that it combines distance education with open learning by defining ODL as "a multi-dimensional concept aimed at bridging distance and removing barriers, and constructing learning programmes with the expectation that students can succeed"

In order for us to determine what the status of current ODL, or distance education (DE) is, it is necessary to briefly look at the history of distance education and how it links to teaching and learning theories, as it forms the basis for the rest of this presentation. When referring to the history of distance education, authors and ODL experts such as Bates (2005), Peters (1994), Heydenrych and Prinsloo (2010), Taylor (2001) and Aoki (2012), have described the history of DE in terms of different generations, depending on either the technologies or the pedagogies used in different periods, or both. For the purpose of this presentation, I found the approach of Anderson and Dron (2011) most useful. These two gentlemen from Athabasca

University in Canada are experts in the field of DE and we had the privilege to host Professor Terry Anderson at Unisa during our Research and Innovation week in 2019.

Anderson and Dron refer to three generations of distance education based on evolving pedagogy. These pedagogies are the cognitive-behaviourist, the social-constructivist and the connectivist pedagogies of distance education. Since the three arose in different periods and in chronological order, they were labelled first to third generation, but none of these three generations have disappeared, and all three have a place to address the full spectrum of learning needs and aspirations of 21st century learners. However, the focus has shifted as new pedagogies arose.

We briefly focus on each of these generations.

According to Anderson and Dron (2011), the first generation of DE, the cognitive-behaviourist pedagogy, emerged during the latter half of the 20th century and is characterised by the thinking that learning means some behavioural changes instigated by learning stimuli. The features of this generation are typically instruction guided by the lecturer with very little interactivity and support from the lecturer. Isolated learning is a further typical feature, which leads to student freedom as there is no obligation or need to interact with either the lecturer or fellow students. The technology used during this generation are typically print packages with study materials, radio and television, and the use of postal services. This generation is linked to the correspondence model of DE with its high scalability and low cost.

Criticism of the Cognitive-behaviourist models include the fact that they do not deal with the full richness and complexity of student learning and that students are not blank slates but begin with a context and knowledge of the world and learn and exist in a social context.

These criticisms led to the rise of the 2nd generation of DE

The social-constructivist pedagogy emerged in the latter half of 20th and the early 21st centuries. The focus shifted from teaching to learning, and it originated from the works of Vygotsky and Dewey. In this generation, student-teacher and student-student interaction are emphasised, which makes it costly for an institution to adopt, as additional instructors such as teaching assistants and e-tutors are needed to facilitate learning. A further feature is localised support by means of structures such as regional centres. Two-way technologies such as the use of learning management systems are used to create synchronous and asynchronous learning, instead of transmitting knowledge. More attributes are active and collaborative learning with the lecturer as a guide.

The second generation acknowledges the social nature of knowledge creation in the minds of students – based on their prior knowledge. Success of this generation depends on the availability of the internet and supporting technologies, such as email, skype and mobile technologies.

A very interesting criticism of the social-constructivist pedagogy, as indicated by Anderson, is that the fading boundaries between DE and face-to-face models led to potential for lecturer domination, passive lecture delivery and restrictions to time and space. Although this comment was made in 2011, I suspect that this is what is currently happening with residential

universities which had to move their content online as an emergency measure during Covid-19 online education.

The third generation of DE, based on connectivist teaching and learning, is regarded as a current pedagogy as it addresses skills needed for the 21st century. It is built around networked connections and based on the students' abilities to actively participate in networked communities, such as communities on Facebook, Twitter or Instagram. The pedagogy is based on the works of George Siemens and Stephen Downes from 2005.

This generation assumes that information is plentiful, and the student's role is not to memorise information or even understand all information, but to find and apply knowledge where and when it is needed. The ability to see connections between people, ideas and concepts becomes a needed skill.

This generation is known for its built-in, centralised support. This means that student support is not regarded as a separate part of learning but is embedded in the material design (for example via links or hyperlinks) – which in turn, requires digital literacy.

There is a focus on reflection and sharing of reflections.

Unlike earlier generations, the lecturer is not exclusively responsible for defining and generating content.

Examples of technologies used in this generation are blogs, LMS, interactive forums, social media, such as WhatsApp and Facebook. Social presence is important, - during which others can observe, comment and contribute.

The focus in this generation is on student-content interaction – in contrast with the previous 2 generations which focussed on student-lecturer and student-student interactions.

Criticism in literature of this generation is lack of structure and the limited role of the lecturer. It has also been criticised as a theory of "knowledge" and not of learning (and then the question arises: whose knowledge? – which is obviously a different, but interesting debate). A recent article of Goldie (2016) refers to connectivism as a knowledge leaning theory.

In summary, I found this African proverb, which was recently shared by Ray Lema, a Congolese musician, quite applicable. The photo is from the UNESCO website, and it says: "If you don't know where you come from, you don't know where you are going" – it explains why we need to be aware of the history of DE

As I have mentioned before, all these generations of DE pedagogy have an important place in a well-rounded educational experience, and they build on one another. Connectivism is built on a constructivist model of learning, with the student at the centre of learning, connecting and constructing knowledge from learners' own history as well as external networks. Constructivist and connectivist approaches, in turn, almost always depend on the availability of content which is designed and organised according to cognitive-behaviourst models.

Table 1 below provides a brief summary of the different generations, and by way of comparison, might help us to have a better picture. Those of us who are teaching or studying via ODL will be able to identify with certain aspects of the different generations. And by no means is this summary a complete representation.

However, I think you will agree with me that most of our teaching and learning were (before we were confronted by the Covid-19 pandemic at least) cognitivist-behaviourist. Firstly, our technologies were not dependent on the internet as many students didn't need or have devices or connectivity. Secondly, student interaction was minimal and mostly with their lecturers, or in some cases with TAs or e-tutors. This means they mainly studied on their own. Moreover, materials were mostly pre-packaged, although they were available online and students could print them or have them printed at regional centres. Assessment was mainly done via written assignments which were sent to Unisa as hard copies or submitted via the learning management system. Examinations were mainly venue-based and written in one of Unisa's examination centres, although there has been a drive to move to non-venue-based exams in the last couple of years. With regard to the role of the lecturer, it was minimal as most materials were pre-packaged, including students' formative assessments, which were available to students once they were registered.

Although this was the general trend, there were exceptions as some modules had different designs being more student-centred with more interactivity.

Table 1: a brief summary of the three generations of DE addording to evolving pedagogies. Based on the work of Anderson and Dron (2011).

Generation	Technologies	Student activity	Content	Assessment	Lecturer role
Cognitive behaviourism	Print, TV, Radio, one-on-one communication, no dependence on the internet	Read and watch; student-lecturer	Pre-packaged materials designed by lecturers	Mainly recall, written assignments and examinations	Content creator, sage on the stage; little interactivity
Constructivism	Video-conferencing, many-to-many communication, internet, email, skype, mobile devices	Discuss, create, construct; student-student; student-lecturer	Lecturer designed materials, discussions	Essays, applications, discussions, summaries	Discussion leader, guide on the side
Connectivism	Web 2.0. social networks, combination of systems, internet	Explore, connect, create and evaluate; student-content	Self—created materials	Creation of documents, applications, artefacts	Critical friend, co-traveller

Against this background, what has changed since the pandemic hit South Africa and the world?

And yes, everything has indeed changed, including ODL. For the purpose of this presentation, we will look at some specific changes as it might have an effect on how we currently see ODL and how might be going forward.

Covid-19, the deadly disease that has to date killed more than 571 000 people worldwide and 4079 in South Africa, has affected every one of us. We are aware of the many radical changes to how we do things in all sectors in life, and education is probably one of the most affected ones, worldwide. Countries all over the world went into lockdown in an attempt to contain this virus, and since the countrywide lockdown in South Africa in March this year, everything changed, also for Unisa as an ODL institution. Fortunately, due to its nature of distance learning, it was never necessary for the institution to stop its operations.

The educational experiences I would like to single out are specifically referring to ODL at Unisa, however, most of them apply to changes in ODL in different other, specifically developing contexts. We will look at changes related to assessment and teaching and learning because these are the hardest-hit matters related to curriculum… ones that we could not have imagined a year or so ago.

Although assessment is part of teaching and learning, for the purpose of this discussion, assessment will be dealt with separately.

Assessment

1. ODL students at Unisa, who were used to get together to work on their assignments and study for their examinations at the 3 Unisa campuses and the 26 regional centres across the country with access to technology, now had to do so on their own and no social interaction was possible.

2. Although Unisa has always been an ODL University, the Covid-19 pandemic has compelled the university to reconsider some of the academic activities that still required physical application, such as the submission of hard copy assignments and venue-based exams and confine them to strictly online application. This implied that Unisa students who were used to write their semester and yearend examinations physically in one of the 426 local or international examination centres, had to suddenly learn how to complete and submit assessments online.

3. Therefore, during the May June exam period, all venue-based examinations were moved online for the first time in Unisa's history and over 1.3 million assessment submissions have been scheduled for this period. To give us some idea of the numbers, on one day only, a record number of 27 000 College of Law students wrote the online exams. The University acknowledged that it was getting into unchartered territory. And, even with thorough preparations, the experience was not without its "teething" problems, and a few examinations had to be rescheduled due to system failures. Also necessary to note, is that a draft for similar planned examinations for the October/November exam period has already been circulated within Unisa last week – including the lessons learnt and proposed costly improvements to the system. This, in my opinion, is an indication of how future examinations will be held at Unisa.

4. As a result of timed open-book examinations, exam papers had to be adapted accordingly because online open-book examinations have to be set differently from closed book venue-based exams. While the latter might contain recall questions, open-book examinations test students higher-order thinking skills such as applying, synthesising and evaluating the information.

5. In order to support students to do the online assessments, several student support measures were put in place, for example,
   - Systems and applications were developed where students were now able to use their cell phones to scan their work and upload the material to send to the Unisa system,'
   - Also, online videos to support students on how to prepare, log on, upload documents, security and honesty issues etc. have been made available on several platforms.

Next, we will discuss more changes related to teaching and learning, and not surprisingly, all of these changes relate to access to technology.

Data:

Besides zero-rated university websites during lockdown as required by the government, on 15 May an initiative was launched during which students received 30 Gigabytes of data for free for two months (for the June and July exam periods). The provision of data was the result of a partnership between Unisa and one of the big internet service providers. The reason for the data was to assist students to prepare for and to write their exams.

Laptops or devices:

To assist students to work online, all students who received bursaries from the National Student Financial Aid Scheme (NSFAS), have received laptops. Additionally, on 21 June the French embassy donated 25 laptops to Unisa students most in need.

The digital divide:

While Unisa is an ODeL institution, there are many of students who are dependent on the university's onsite resources such as access to electricity, reliable Wi-Fi and a conducive studying environment. The Covid-19 pandemic laid bare the digital divide and the inequality between students within the same institution, with some being far better equipped and experienced than others.

As an example, a first-year Diploma in Law student recently stated "I have been struggling with everything, mostly because in my home I don't have electricity. Added to this is a poor network connection. Consequently, I wrote one of my examinations at a mountain which is 3 km away from my home. I am frustrated as I am unable to afford to rent a place in town where I can get access to electricity and a good network connection. Recently, I had to write my examination late as the network connection was slow".

This is not a situation unique to Unisa as local and international media reported challenges of internet access not only to South African students, but also to those on the rest of the continent. Similar reports were published of such challenges in developed countries such as the United States.

Study materials:

Although study materials such as study guides and tutorial letters are available electronically on the university's learning management system, most prescribed textbooks are not as only a few textbooks are available as e-books and some might have been too costly for students to afford them. In order to address the need for additional learning support materials, lecturers had to provide alternatives to students to support them in preparing for their examinations.

These are just a few obvious changes related to teaching and learning that Unisa as an ODL institution had to deal with during these abnormal circumstances. The question we then must ask after more than 100 days of lockdown, is what the lessons are that we have learnt, and where should we go from here?

Although no one cannot predict the long-term impact of COVID-19 on higher education and specifically on ODL, we need to continuously reflect on our practices and on the lessons learnt because of the impact of COVID-19. And I would like to mention a few:

1. Firstly, we have learnt that ODL, despite its nature of distance education, has also been severely affected and has not only been faced with challenges, but also had to make big, sometimes emergency changes to save the academic year and to support its students.
2. Secondly, we have learnt about the digital divide within and between universities. And students' frustrations in this regard.
3. We have learnt that we are able to adjust, to be innovative and achieve many things we have never thought would have been possible.
4. We have learnt how crucial business partnerships are for survival.

5. Lastly, perhaps most important, is that we have learnt that ODL will never be the same. We have already changed, and this might only the beginning.

Upon this reflection, what is the way forward?

For ODL to be effective during the rest of the Covid-19 era - and afterwards, institutions should have several measures in place.

1) Firstly, if this is not in place, is an upgrade of the technological infrastructure to support the transition to a fully online environment. This will require substantive capital investment by institutions and as I have noted, just a week ago, Unisa put a proposal on the table in this regard. Systems have to be able to fully support online teaching and learning.

2) Secondly, because of lessons learnt during the Covid-19 period, ODL has to rethink its understanding of openness.

One aspect of it is openness in admissions and registrations. At Unisa, for example, the delays in postgraduate admissions and registrations due to the lockdown, led to a more open approach and some qualifications have been opened for the rest of the year, which is a first for the institution and a step in the right direction. Opening registration periods might also lead to on-demand assessments, which means that a student who registers can, after a minimum set period, apply for examination when he or she is ready. This is a practice not new to some models of open education. Furthermore, on-demand examinations will avoid an overload of the system when high numbers of students have to write online examinations on the same day.

Another aspect of openness is open content. The current economic climate as well as the unavailability of textbooks I earlier referred to, reiterated the need for the implementation and development of quality open educational resources (OERs). They do not only have the potential to replace full textbooks, but additionally provide a wide range of resources exist such as assessment worksheets, shorter texts for courses, videos, lab exercise guides, and more. Different platforms for the use and development of OERs exist, such as OERAfrica and OERu. The call for OERs is not unique to ODL, as national and international media have also made similar requests in the past few months.

3) Thirdly, all ODL students need adequate internet connectivity. Without this, no meaningful online activities can be undertaken. Although the agreements with large internet service providers to provide free data to students during the lockdown was a massive initiative, and these should indeed be applauded, this is not enough. A more sustainable solution is needed and ongoing partnerships with service providers and businesses are necessary. Students should simply not have to pay for data for their studies. Also, zero-rated university and other relevant websites for studies are needed for students to study and to access information they need to be successful.

4) Fourthly, related to the matter of internet access is the provision of devices. To have a device to study online is no longer a luxury or the privilege of some students, it has become part of every student's right to education. Although ODL institutions have made good progress, also because of Covid-19, no student should be left behind. For instance, in South Africa not only NSFAS students should be assisted with devices, but all students should have access to mobile devices such as laptops or tablets. In a recent report from UNESCO on education in a post-Covid 19 world, it calls for a global public discussion on the expansion of the right to education in this regard.

5) In the fifth place, quality interactive programmes are needed to ensure that, in line with social-constructivist and connectivist learning approaches, students can learn, can interact, can create and reflect in a social environment - with build-in student support. Simply put, there's much more to effective online teaching and learning than just transmitting information and sending students pre-packaged materials. The most important element of successful online learning – or any learning for that matter – is the level of student engagement. While some have raised concerns that ODL might be inferior to face-to-face learning, multiple studies have found that this simply isn't the case; it is the quality of course design and instructional methods that have the biggest impact on student outcomes.

   Those of us who have been working in an ODL environment for some time know that online distance education courses require detailed planning to ensure students have the tools, the content, and resources needed to remain engaged and motivated, meaning lecturers have the opportunity to experiment and familiarise themselves with the pedagogy of ODL in a fully online environment.

6) Lastly, because of Covid-19, ODL operates in a vastly different and an increasingly competitive environment. It is no longer regarded as a separate or alternative mode of delivery but has become the norm. Residential universities might not have been prepared for online distance education, and implemented emergency remote teaching, which might serve as a quick fix in the short term. However, it is becoming clear that digital learning is now part of the so-called 'new normal'. Also, to assist lecturers to teach online, they have adopted their own coping mechanisms and many webinars and courses are currently available from institutions and platforms such as Future Learn and Google for Education. Although these short term solutions are not adequate, it might serve as the beginning of more appropriate and formal courses ans qualifications.

   Many higher education institutions in South Africa have offered parallel qualifications from their distance education units which might become more popular after the Covid-19 era. The competition is not restricted to South African institutions. In a recent opinion piece in the New York times, for instance, the author advices universities and colleges to create parallel online degrees for all their core degree programmes. By doing so, this author argues, universities could expand their reach by thousands, creating the economies of scale to drop their costs.

   The above tendencies mean that ODL institutions must take the lead in quality, sustainable online teaching and learning to stay relevant in an increasingly competitive environment. ODL institutions are no longer the sole providers of distance education. Although Covid-19 has given rise to many opportunities to OdeL, it means that these opportunities need to be grabbed and moulded to get all the positive outcomes.

Conclusion

I thought a quote from Charlie Mackesy, an illustrator from Oxford University Press, was a suitable to end this webinar. The boy states: "We are out of our depth", and the horse replies: "Just breathe   and hold on". We have shown that we were in fact able to breath and hold on, even if times were sometimes very tough. And this is what we should keep on doing …

In conclusion:

ODL had to make some huge changes because of Covid-19, although they were a bit unexpected from some corners because of its nature of distance education. This pandemic

has created an opportunity for ODL, with the inclusion of blended and hybrid approaches, to promisingly become the new normal of higher education. The pandemic has also shown us that putting in place measures is indeed possible and can make ODL a preferred mode of study for students who have to live in a complex after Covid-19 world where 21st century skills are needed. The next generation's education is our responsibility. Finally, this means that ongoing debate on different levels by all stakeholders in ODL is needed and I hope this presentation has contributed in this regard.

I thank you.