What does it Mean to Teach in the Shadow of COVID-19? A Critical Reflective Essay on the Future of Online Teaching in South African Universities

Jonathan D. Jansen
ORCID ID: https://orcid.org/0000-0002-8614-5678

Abstract

The pandemic-enforced lockdown has completely upended our understanding of what it means to teach when the lives of academic teachers and students are at stake. That shift in understanding is much more than the technical transition from face-to-face teaching to remote or online teaching. What the invisible Coronavirus has done is to make more visible the intellectual, emotional, political, remedial, and spiritual dimensions of higher teaching that seek (or rather, *should* seek) much more than the exchange of information for testing purposes and include the human connections that give meaning to education itself. The situation calls for a re-imagination of what it means to teach during a lockdown, especially in a post-COVID world that tries to recapture vital human connections across a gaping inequality and digital divide.

Keywords: digital inequality, technological innovation, online teaching, pandemic lockdown, teaching, higher education

1 Introduction

The global pandemic caused by the novel Coronavirus has up-ended our social, medical, and educational worlds. Highly infectious and deadly, schools and universities have struggled to find ways of responding that mitigate risk of illness and death among students, teachers, and staff. It is not surprising that worldwide, the most emotional and political of the debates around the re-

opening of society concerned education: the lives of children and young adults are at stake.

How and when we should re-open education facilities is a difficult question precisely because the incoming evidence is still unclear, the sample sizes of initial studies too small, the geographies of investigation too limited, and the big social science questions still unanswered (Jansen 2020b). Are children vectors for the disease? Are the costs of keeping children at home (social isolation, hunger, learning loss) greater than the risks of sending them to school? How reasonable is it to ask university students to maintain social distancing when authorities know it is difficult, if not impossible, to impose such restrictions on crowded campuses?

One response to these complex questions has been the introduction of remote online learning. If young people can learn at a distance from their educational institutions, connected via one of the many 'platform pedagogies' available (Le Grange 2020), then the critical concerns about infection, illness and death are easily resolved. If only it were that simple ....

What I want to reflect on in this essay is a question lost in the rush towards some technological resolution of the global threat to public health and education: what does it mean to teach and learn under pandemic conditions?

2 What the Pandemic suggests about the future of Education: Seven Theses

Based on emerging research and reflection in this COVID period, I wish to present seven theses regarding the future direction of higher education in a post-pandemic world, with a particular focus on South African universities. These theses emerge from my team-based research on the impacts of COVID on school education and academic work, my continuing role as an academic teacher before and during the lockdown, and my experiences as a former university vice-chancellor and advisor to funding organisations which invested in online learning in higher education in the 2020 academic year.

#1: That the single most important consequence of this extended, pandemic-enforced lockdown is the exacerbation of inequalities in the education system, with educational outcomes that will be felt for generations to come

Jonathan D. Jansen

It is already clear that the most important consequence of the extended, pandemic-enforced lockdown will be the exacerbation of inequalities in the education system and that unequal education outcomes will be felt for generations to come (see Czerniewicz *et al.* 2020). Prior to the pandemic, universities were already massively unequal in terms of their resource capacities. Then came COVID-19, and any policy veneer of 'a single system of higher education' was shattered as historically disadvantaged institutions scrambled to continue some form of education from a distance. The sheer scale of these inequalities for South Africa's public universities is captured in a 2020 ICT Survey Report of the Association of South African University Directors of Information Technology, in relation to things like readiness for online teaching, the state of learning management systems, existing collaboration platforms, and remote data connectivity (AUSAUDIT 2020).

Major funders were more likely to support 'shovel ready' institutions to scale up existing online learning infrastructures rather than those build such physical and electronic capacities from scratch; in short, the rich got richer and the poor fell further behind.

As the shock of the pandemic was being absorbed by institutions of higher learning, it quickly became evident that a massive mistake was made in the investment strategy of the government's Department of Higher Education and Training. In the past five years alone, a staggering amount of R11,051,908b was spent on residential infrastructure on university campuses (DHET 2020). There was good reason for this, as students demands on universities extended from tuition fees and academic support to accommodation for the growing number of poor students registered at the 26 public universities and the 50 TVET colleges spread across 364 campuses in the nine provinces of South Africa. As universities closed under the pandemic lockdown, those new residences stood out as white elephants on campuses that could not even be accessed by external parties, as in vacation periods, to generate revenue for cash-strapped universities.

Of course, this failure of this investment strategy could not have been anticipated, but imagine what could have happened if at least part of those governmental funds was spent on building technological infrastructures for online learning. It turns out that the more élite public universities did exactly that both as a matter of course, like the University of Cape Town with its impressive MOOCs programmes, but also as a matter of necessity in the wake of the historic student protests of 2015-16. When increasingly violent protests

disrupted teaching and learning, destroyed campus properties, and threatened the lives of staff and students, most universities shut down for months on end.

What is less known from that period is that those institutions which could afford to do so, made massive investments in online education so that teaching and learning could continue relatively smoothly for students registered in those institutions. From a student activist position, this move might have been seen as cynical by institutions that did not want to deal with the difficult issues being raised on fully active campuses. From a university administrator's position, such decisions allowed for the academic year to continue without disrupting the time-to-degree for students. The reality is that capacity to move online was neatly split between the historically white and black universities.

It is not surprising, therefore, that when the pandemic shut down universities, the élite institutions could switch-off face-to-face teaching and move relatively smoothly to fully online, synchronous teaching. The historically black universities were struggling with setting up emergency remote teaching and learning, and trying to distribute data to their students especially in far-flung, rural areas. The élite universities had the status or calling capacity to obtain zero-rating concessions from cellphone companies for their students, and could provide laptops to those without devices to take home with them.

Our national research on the impact of the pandemic lockdown on the academic work of women scholars shows, in sometimes heart-rending terms, the impacts of such inequalities of infrastructure on teaching and learning. Women academics worked late into the night for reasons that included the panic and demands from students, especially in the poorer universities. Some academics bought data for their students. Others worked into the early hours of the morning because students could access cheaper data after hours. Many students from poorer institutions struggled with the demands of the new technologies that were less familiar to them than to middle class students in the élite universities (Walters *et al.* 2020).

In response, our data shows, academics came under pressure from their institutions to 'leave no student behind'. If one sets aside for the moment the explicit borrowing of a policy mantra from an era of conservative politics in the USA, under the administration of George W Bush, the idea nevertheless remains to ensure that students were not academically disadvantaged by this once-in-a-century, global pandemic. That is fair, but the consequences of such

an institutional expectation when continued teaching was disrupted more than 5 months in the less endowed universities, is that academic outcomes can be even more unequal in the years to come.

#2 That the shift towards more intensive online education environments is now inevitable, and will become the norm across universities as the key component of national higher education systems

Whether we like it or not, the traditional university fashioned on the long dominant model of face-to-face teaching is a thing of the past. Emerging economies around the globe are rushing to figure out how to adjust their education systems to this new reality (Pham & Ho 2020). Of course, there will always be direct, contact teaching but it will no longer be the dominant mode for the transmission of new knowledge. There are two reasons for this. One, there is a stark warning being repeated by epidemiologists that pandemics will continue to be part of our lives as human populations. In this sense, our interconnected world has changed the future contours of our togetherness. Even as South Africa opened up gingerly through the different levels, experts talk about learning to live with the virus, and indeed other pathogens, as they emerge. Even the novel Coronavirus will not 'disappear magically' as one careless world leader likes to put it, but may remain with us in various mutant forms for years to come, just as the less infectious influenza virus never really went away following the so-called Spanish Flu of 1918.

It is, however, not only the virus that compels such shifts in the modalities of teaching and learning but also the routinization of violence on South African campuses. When it is not the élite universities like UCT and Wits, the media seldom registers the routines of disruptive violence on campuses such as at the universities of technology (UoTs), in part because these institutions are afforded lesser status in the public mind. It will become more and more critical to the future of these 6 UoTs, as they are called, to be able to switch seamlessly to online learning when violence interrupts the academic programme.

#3 That the ability to switch-on and switch-off online learning in a blended model of education is what will distinguish

successful and less successful universities in a post- COVID-19 world

There is little indication that the historically disadvantaged universities in South Africa have the leadership or the vision to make a decisive shift towards online learning as a primary feature of their instructional platforms. The tradition of face-to-face teaching is well-established at these institutions and their pressing priorities are simply to stay afloat financially and respond to the basic material needs of their students. It would require a massive mind shift for leaders whose priorities are institutional survival, not institutional revisioning towards a new world of teaching and learning.

With brand new residences in place, there is no government funding for a completely different kind of infrastructure that transforms these institutions into medium or high-tech facilities for teaching and learning. There is also very little private sector interest in providing that level of investment for these disadvantaged universities, and there is no base of alumni on which to draw for such a technological revisioning of poorer universities. One remote (sic) possibility is turning those residences into high-tech centres so that when future lockdowns happen, students could learn from their dormitories. The problem in the historically disadvantaged institutions (HDIs) is that there are too many students to enable such accommodation while using the norms of social distancing. The problem for university authorities is that in the case of routine protests and especially violent protests, the students are still on campus.

Regardless of these institutional contusions, the universities that do emerge strongly from this pandemic are those that significantly increase their capacities for fully online learning as part of a completely new vision for higher education.

#4: The precise form of newly configured higher education systems will within and across national contexts depending on the imagination of university leaders, the resources available to them, and student demands and expectations

In their thought-provoking new book, *The low density University*, Kim & Malloney (2020) offer fifteen different scenarios for the future of higher education, including students in residence learning virtually, block plan enrolments, low-residency options and going fully remote. It is unclear what

path the élite universities will follow, but there are some important considerations that might well shape those decisions.

The current business model of 30,000 or more students on campus every day, is clearly not sustainable. The old arguments from government, that South Africa already has 'a single dedicated higher education institution' (that is, the University of South Africa or UNISA), is a pre-pandemic defensive posture that no longer holds water in a digital world that will transform modes of teaching and learning in *all* universities. In any event, it is now clear that UNISA is coming apart at the seams because of massive over-enrollment without the administrative capacity to handle those student numbers and, crucially, without the digital innovation that should have marked this large monstrosity as a distinctive feature of the higher education system.

Smart universities will recognize that a growing component of their delivery model for higher education will require offering fully online learning to more and more students. The UCT MOOC (Massive Open Online Course) initiative is an example of how to generate significant revenues for particular student markets while maintaining a small, vital undergraduate programme in a research-intensive university. The élite institutions will, however, come under pressure for expanding online education to the residential programmes.

However, in South Africa as in other countries, undergraduate education for students is not simply about accessing knowledge: it is about enjoying the experience of residential life and learning as one of the attractions of 'going to university' in the first place. There is therefore a cultural expectation that comes with the undergraduate education experience that goes far beyond the formal curriculum arrangements in different fields of study. This partly explains the inability of authorities to control and contain under-graduate student behaviour when universities started to re-open in places like the USA; to lockdown in a room, to maintain social distancing, and to define the experience as one of 'going to classes' is completely at odds, especially with what undergraduate students believe 'going to university' is about.

It is about breaking free from the constraints of high school, participating in initiation rites (completely stamping out this undesirable behaviour is a failed cause), connecting socially with friends and strangers, and simply having a good time. Making precise epidemiological arguments about the etiology of COVID-19 simply demonstrates how studies of human behave-our (the social sciences and humanities) fell critically behind the necessary research on the biomedical and health aspects of the disease (Jansen 2020b).

Clearly, universities have options to design the higher education experience in ways that take account of both the socio-cultural expectations of undergraduate students as well as the academic pursuits that come with studies towards a degree especially when lockdowns threaten. Such options could include an intensive first-year experience, block teaching which alternates contact teaching and online learning, and a reduced academic calendar year (Kim & Malloney 2020).

#5 Smart universities will have to devise ways in which to overcome the inherent limitations that digital education imposes on our understandings of what it means to teach

I am no Luddite. In fact, I love the high-level functions of the different online platforms for teaching and conferencing in real time. But screen teaching does not work for those of us who believe that this profound act is much more than the instructional delivery of important information. Teaching is indeed more complex and more fascinating than handing out 'notes' in preparation for the coming examinations. With the pandemic lockdown, I became more conscious of what I was in fact doing in the course of teaching education policy to aspirant teachers.

For me, teaching is, in the first instance, *an intellectual activity*. I give no 'notes' and as my Postgraduate Certificate in Education (PGCE) group just discovered, if you are not in the class, you cannot pass the course. It is in the process of a rich exchange of ideas between the professor and the students, that knowledge is created, debated, shared, and evaluated. It is an intellectual engagement that challenges a student's most cherished ideas about the school curriculum: spoiler alert - the school curriculum is not always about children. Screen teaching in an intense, fast-moving 50-minute lecture where half the students have switched off their videos (for better connectivity), diminishes teaching as an intellectual pursuit.

Teaching is *a profoundly emotional activity*. Faced with a few hundred students, I rely on all my senses when I teach. I not only see but hear, feel, and touch as I move around the lecture room. As I lead a discussion of government policy on corporal punishment, I notice a student whose eyes start to tear up. It is quite possible that he is recalling a harsh experience with *lyfstraf*. This is a cue for me to soften the tone, to slow down the pace, and as I walk past the young man, to place a brief, reassuring hand on his shoulder. With screen

teaching, I cannot see or hear or touch, especially when the pre-class instructtion is to 'mute' (what an unfortunate word) yourself.

Whether a teacher realizes it or not, teaching is an inescapably *political activity*. You either teach to confirm students' prejudices or you unsettle their taken-for-granted assumptions about school and society. For example, our new book*, Who gets in and why* (Jansen & Kriger 2020), is an account of the politics of admissions in the élite schools of the southern suburbs. I ask the students, 'What explains white flight when black enrolments reach a tipping point?' My teaching requires active participation and so I can see the discomfort of some white students. A few of the responses are awkward and rattle the rest of the class: '…maybe the black students are too noisy or disruptive?' I need to settle the class as I feel on my skin the ripples of discontent flowing across the auditorium in the form of murmurs. At least the student is honest and that is a starting point for a discussion on racism. Shut down the comment, and there is little chance for teaching social justice. Ignore the murmurs, and the racial insult sticks. Keeping both sides in a difficult conversation on race and admissions requires that I see, hear and feel the class. Behind a screen, such teachable moments cannot be grasped.

Teaching is a *remedial* activity, given our unequal and divided past. All students are disadvantaged by a rote-learning, examination-driven, inquiry-starved school system. A nod, a frown, and eager hands shooting up all over the place are vital behavioral cues about who 'gets it' on a slippery concept like a 'theory of action' in policy analysis, and who does not. With my eyes on all students in a 360-degree view of the class, I can make instant decisions such as redirecting, reinforcing and reconnecting learning based on what is visible to the academic teacher. It is a complex act, teaching, for if I move too fast, I lose some students, but if I move to slow, you can sense the boredom. A screen does not give me those vital data points in real time to (re)adjust my teaching.

And finally, teaching is a *spiritual activity*. Students (sure, not all of them) come to class to connect, to be inspired, to be heard, and to sense hope. Teaching is intended to bring out the best in students, to point to something beyond themselves. Now imagine a gallery of muted students on your screen and try to inspire those dark blocks from a little room in your attic.

#6 That the feverish excitement about the digital transformation of universities will mean little to the HDIs unless the problems of digital inequality are resolved

Most students, whether in school or university, will not benefit from the migration towards online learning in the minority of élite institutions inside developing economies. The tech-evangelists would have us believe that there is a brave new world ahead of us, but this means little in for majorities left behind in schools (Jansen 2020a) and universities (Czerniewich *et al.* 2020). The Vice-Chancellor of the University of Pretoria is correct in his assessment:

> Most universities do not have the human and financial capacity to respond to these changes given that they have not been adequately funded for decades. Many face an existential crisis if governments do not include them in the stimulus packages meant to reverse the impact of COVID-19 (Habib, Phakeng & Kupe 2020).

What is the future of South African universities on the wrong side of the digital divide? There are two scenarios likely to unfold. One possibility is that the government and private sector works together to make massive investments in building the technological infrastructures of the lower half of the university system; it was a point made repeatedly by the former Vice-Chancellor of Wits University, Professor Adam Habib.

Government cannot do this alone given the state of the economy and the significant redirection of public funds towards 'free higher education' for student majorities in the historically black universities. The private sector will not make this scale of investments on their own outside of a public private partnership for the simple reason that the returns, whether social or financial, are likely to be unattractive in institutions that are chronically unstable. This is, therefore, the unlikely scenario.

A much more likely scenario is that the digital divide increases with the historically black universities stuck in the world of contact teaching and routinely closing and opening because of pandemics and protests; at the same time, the élite universities streak ahead with the innovations, reach and efficiencies afforded through continued investments in, and expansions of, online teaching and learning. The historically black universities are already in a state of inertia, some would even say, moribund, as far as innovations in

teaching and quality in research are concerned. The failure to connect (sic) to the digital transformations on campuses will place them even further behind in delivering on their primary mandate, which is undergraduate teaching.

This does not mean that registrations and graduations cease. It simply means that the ordinary functions of universities will be maintained at a basic level of operations while these institutions sit out the new waves of technological innovation. Once again, calls will be made for a bold policy intervention that installs differentiation in policy between teaching colleges (the current set of HDIs) and research-based universities, even though differentiation in practice is already a reality. Once more, the political reaction will be fierce with arguments that such decisions would be racist given the institutions being targeted; government ministers will back down swiftly even as higher education differentiates itself.

#7 That 'the next big thing' in online learning would be the development of technological innovations that enable effective teaching in fields like the clinical sciences and professions such as teaching

As the lockdown eased in South Africa, some students were allowed to go back to university, such as those who work in laboratories and, even earlier, medical students. The reason, of course, is that we do not as yet have innovations that enable us to do the teaching practicum - as one example - from a distance. And yet, this should not be difficult. It requires in the first place a mind shift that deals with the reality that in a lockdown, schools close down for children at more or less the same time as universities close down for students. Such a shift has other positive elements such as being able to teach from a distance in ways that reach children in deep rural areas and not simply the ones in urban centres, where most universities are located and where most students prefer to do their practical teaching.

With or without lockdown, it is an important next step in technological innovation to imagine and realize the teaching practicum as simply another step in the development of high-tech responses to teaching. It will, of course, require students in one facility adequately equipped with a combination of reflective mirrors and microphones, to enable the online device(s) to capture a whole 'classroom'. It will also require a third-person viewer capacity for the assessor to be able to observe both the student teacher teaching and how the

class responds. A life sciences teacher doing a dissection in class or a chemistry teacher showing students how to perform a simple titration requires moving cameras for wide-angle observations by the teacher education specialist. The parallels in the clinical sciences or the artistic fields would, of course, have their own inventions through newer and smarter technologies.

3 Conclusion

COVID-19 has been devastating for public health; upwards of one million humans are officially recorded to have died as a result of the disease by the end of September 2020. And yet the pandemic has had one major upside: it has forced higher education institutions to completely rethink what it means to teach in a changing world. It is certainly not hyperbole to hear a world thinker make the point that:

> Just as the First Industrial Revolution forged today's system of education, we can expect a different kind of educational model to emerge from COVID-19 (Kandri 2020).

In consequence, the very idea of teaching is at stake.

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Jonathan D Jansen
Department of Education Policy Studies
Faculty of Education
Stellenbosch University
jonathanjansen@sun.ac.za