From Digital Leap to Epistemic Leap? The Challenge of Transitioning Two International Doctoral Programmes to an Online Mode of Delivery

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Abstract

This chapter documents the challenges of transitioning two international doctoral programmes in education to an online mode of learning and teaching delivery during the COVID-19 lockdown in the small island, developing country of Mauritius. Previously, the programmes were typically delivered using both online and face-to-face pedagogies to varying degrees at the Mauritius Institute of Education (MIE), which is the local partner of two well-established international universities, the University of Brighton (UoB) from the North and the University of KwaZulu-Natal (UKZN) from the South. The chapter's reflections focus on rapid responsiveness to maintain quality doctoral education within the restrictions of the management of the pandemic. The programmes collectively constitute a case study, with data drawn from observations and reflections of the programme leaders/facilitators at the two institutions, coupled with student feedback for one doctoral cohort. There has been a strong institutional push in all three collaborating institutions to digitise courses, including high-end doctoral programmes, based on the promise of the pedagogical revolution brought about by the increased autonomy, initiative and connectedness afforded by digital spaces. The study found that although the doctoral curriculum and pedagogies were realigned towards more online learning, the expected epistemic shift did not occur. Comparatively, the quality of interactions, which were constructed as being potentially problematic,

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proved to be an unexpected area of pedagogical satisfaction, helping to address doctoral students' isolation, anxiety and vulnerabilities. We thus posit that an online environment is not inherently more or less intellectually hospitable than a face-to-face one irrespective of the quality of its resources. Rather, what appears critical is the careful redesign of pedagogy to enable a virtual space to become a learning rather than a teaching space.

Keywords: Small island developing state (SIDS), doctoral programmes, pedagogy, lockdown, vulnerabilities, epistemic leap, digital leap

1 Introduction

The COVID-19 pandemic left no country unaffected, from the largest nations to the smallest island located in a remote part of the Indian Ocean. Borders were closed and campuses were shut down, but teaching, faculty were told, must continue (Amemado 2020; United Nations 2020). The subsequent deployment of online teaching, and its affordances and limitations, are currently the subject of a growing body of literature from a variety of contexts (Bao 2020; Lerman & Sen 2020). While there is some debate about whether emergency remote teaching can be considered as a bare bone variant of more complex online learning formats (Hodges *et al.* 2020), the experience of even a temporary shift has created opportunities to seek out-of-the-box responses to some of the intractable problems in higher education (HE) related to access and quality.

We contribute to this literature by directing scholarly interest to how postgraduate learning is being reconfigured within lockdown and post-lockdown situations via online teaching. Arguably, learning outcomes for postgraduate studies are qualitatively different in terms of the targeted intellectual habits and dispositions of autonomy and initiative, which represent an additional curricular and pedagogical challenge for the transference of learning and teaching to an online mode (Austin & McDaniels 2006). We examine the affordances and limitations presented by online teaching to enhance doctoral pedagogies based on our experiences of two doctoral programmes delivered via Zoom® and Microsoft Teams® platforms during the lockdown.

The particularity of these programmes is their small island developing state (SIDS) contextual locations and international character, which meant that they already integrated some elements of online engagement. They are run in

collaboration with two universities, namely, the University of Brighton (UoB) and the University of KwaZulu-Natal (UKZN). As was commonly the case, the COVID-19 induced lockdown presented a significant curricular and pedagogical challenge to the co-ordinators and tutors, who realigned the programme to fit into the technology-mediated learning and teaching space. Beyond the apprehensions typically associated with access, and readiness to teach and learn within this virtual space, we trouble the dominant discourse of technology holding the key to transform teaching and learning at the university (Crawford *et al.* 2020; United Nations 2020). While we are being seduced by the notion that technology offers multiple solutions to perennial issues of access, experience cautions against that technology being propped up and oversold, possibly creating a new set of risks associated with how university learners and teachers construct their role (Bao 2020; Sun & Chen 2016). We further posit that doctoral education (DE), more than undergraduate programmes, provides the litmus test for the real potential of online forms of learning and teaching, because it requires the development of more complex and enduring epistemic relations through an intensive intellectual socialisation process (Amamedo 2014; Austin & McDaniels 2006; Weidman & Stein 2003).

The chapter departs from the traditional approach of using a theoretical framework *a priori* to reading the context. Rather, it takes a practice-led stance in generating fresh understanding of how lived experiences can enhance theoretical views. It is not a-theoretical, but positions the theoretical lens *a posteriori.* The experience is lived, described and subsequently theoretically interpreted in the closing section. We offer a reflective critique drawing from the voices of two programme co-ordinators leading doctoral programmes in COVID times. One co-ordinates both programmes locally, interacting with and mediating the perspectives of two foreign institutions; the other is the programme leader for one of the external partners. Combining these perspectives offers an insightful transnational reading of how doctoral programmes have been enacted during the pandemic and what insights this experience generates for reimagining DE in post-COVID times.

2 Higher Education in SIDS: Transition to the post-COVID-19 Era

Small island developing states, also known as SIDS, are in a particular categoryof nations which formally entered international discourse in June 1992

at the United Nations Conference on Environment and Development (UN 2019). As a conceptual category in developmental studies, SIDS represents the prototype of a structurally disadvantaged country. Their official recognition drew attention to their inimical triple deficits of vulnerability, remoteness and isolation, and thus garnered support for resilience-building strategies which larger (predominantly Northern) nations provide in the form of direct assistance or through partnerships in mainly climate change management, but also in HE through the provision of postgraduate education (UN 1994).

In the pre-COVID-19 era, HE in SIDS was on the cusp of exciting developments. Many SIDS, including Mauritius, experienced unprecedented local demand for HE on account of its promise of international mobility for graduates and the increasing value assigned to it in terms of personal status and prestige (Jules & Ressler 2019; Mariaye & Samuel 2018). As demand in many contexts outstripped local capacity, national governments pushed to increase places in public HE institutions and to relax regulations on private provision (Motala & Kinser 2016). The twin moves of internationalisation and privatisation were thus strategised by SIDS to leverage change within their HE sectors, making it compatible with the dominant international trends in ways which were reflective of local aspirations (Mariaye & Samuel 2018). In this pursuit, online learning could offer an additional channel to improve HE prospects.

It is not hard to connect the dots as to how SIDS HE, in line with the experience of most countries in the South, will experience the aftermath of the pandemic. Already at a disadvantage in pre-COVID times in terms of resources, capacities and connectedness, access to high-quality postgraduate education is likely to be a scarce luxury given the bleak predictions about post-COVID-19 changes in HE in the North and the dominant countries in the South (Tamrat & Teferra 2020). The risk of a further slide towards low-end providers with a few high-end institutions successfully surviving or even growing through the provision of élite HE to the wealthy, looms large for the sector. Half the private institutions that depend on tuition fees are likely to close as the middle-class experiences income instability in countries like the US (Mohamedbhai 2020). This figure is expected to be much higher in SIDS, resulting in a cooling-off of the aspirations of the majority who will have to be content with provisions delivered in online mode, the quality of which is more often than not, difficult to ascertain. (This argument acknowledges that quality assurance concerns are not the monopoly of online courses.)

While sceptics point to the limited possibility of the transfer of a short-term, quick-fix of online teaching and learning resolving the long-term issues confronting HE, online HE has acquired new legitimacy due to its ability to temporarily allow teaching and learning to continue even in COVID times, as well as the decreased cost and increased variety of courses available through online teaching (Amamedo 2014). A new set of interrogations has emerged regarding the possible fallacies associated with how the COVID-19 pandemic is fast-forwarding digital transitions. In SIDS contexts, these will have to be read with the challenges of digital inclusion which goes beyond connectivity to prepare learners to use the digital leap to produce an epistemic leap (Behari-Leak & Ganas 2020). The concept of a leap involves the idea of a transition occasioned by both internal factors (logic/ reasoning) and external factors (context/ environment) and a significant change or movement. A digital leap is what is currently represented as the necessary and inevitable shift to more online delivery of HE courses, a contextual condition brought about by security, safety, practicality and efficiency concerns. The epistemic leap relates to the deep transformations which enable students to construct a more balanced, self-authoring, autonomous, critical relationship with knowledge and knowing. It is a movement away from a dependent/ compliant/ deferential/ deficit relationship with supervisors and other forms of epistemic authority. It is a leap because it requires as much an internal push as it depends on the creation of learning environments which produce enabling conditions.

2.1 The Place of Doctoral Education (DE) in the SIDS Higher Education Landscape

Doctoral education is central to the mandate of HE and critical to the achievement of the vision of a knowledge society by producing researchers capable of generating original knowledge. It has garnered much attention in the SIDS context as it is the most direct pathway to develop research capacity (Samuel & Mariaye 2014). Mauritius is a good example of the rapid expansion of post-graduate provisions as an offshoot of massification of undergraduate education with a significant knock-on effect on doctoral provisions (Mariaye & Samuel 2020).

In education, the prestige, position and potential for career promotion associated with earning a higher degree exerts no small appeal. This may largely account for the accrued interest in doctoral programmes (Cloete & Bunting

2013). More importantly, the unabashed commercialisation and privatisation of HE, which sets up degrees as products to be purchased, has led to a narrow understanding of what kinds of engagement doctoral learning entails. While it is generally known that doctoral degrees require more financial and time investment on the part of the candidate, there is an enormous cultural deficit when it comes to the nature of academic engagement required at this level (Weidman & Stein 2003) due to the unbridled marketing of postgraduate courses as commodities or mere stepping stones to career advancement. The most common preoccupation is how quickly this degree can be completed, often with the least inconvenience to the potential candidate. It appears that shortcuts to meet the requirements of even a Masters degree have been found, used and transmitted to successive cohorts of students in some cases, some-times with the connivance of faculty keen on churning out numbers to support their own career aspirations. Concomitantly, HE institutions become all too enthusiastic about producing a quantitative track record of successful postgraduate completions as part of their marketing strategies for subsequent recruitment campaigns (TEC 2013). As successful Masters students transit to doctoral education, they carry these attributes and expectations into doctoral programmes.

Mauritian HE has also become a hostage of the shopping syndrome and the performativity cultures which it embraced as an implicit part of the 'becoming a Knowledge Hub' package (Republic of Mauritius 2006). Perceptions and conceptions of DE have mutated to reflect these influences. Entry requirements for doctoral courses have been relaxed and universities have recruited beyond their supervisory capacity or hired contractual supervisors with dubious research and publication profiles, with a ripple effect on the quality of theses produced (TEC 2013). These factors have coalesced to produce a set of expectations about doctoral learning which does not match the actual requirements for success, resulting in less than 50% completion rates in the best-case scenario. Because of the labour-intensive nature of DE in terms of supervisory support and mentoring, substantial institutional resources are required to develop organisational structures and practices which support excellent, open, integrative and inclusive research environments. These include transparent rules and procedures, and up-to-date research and documentation resources, as well as mechanisms for the professional development of both supervisors and doctoral candidates (Blessinger 2016). The economics of DE is characterised by low returns on institutional investments unless institutions identify cost reduction strategies such as integrating online learning into the

delivery of doctoral programmes (Mariaye & Samuel 2018).

The attraction of a blended or fully online model lies in its pull factor for students. They tend to value the safety and certainty of their home environments, and of the online space, which generates less social pressure and fewer demands. Students resort to a relatively protected environment sheltered by a camera which can be turned on and off as required. However, sound online education carefully crafted by competent instructional designers has not made sufficient inroads into the strategic planning documents or practices of local HE institutions. Local research evidence on online learning has been sparse and limited to small-scale practitioner evidence generated through a growing corpus of micro survey research 'evidence', where school and HE practitioners assess themselves in relation to the effectiveness of their technology-enhanced practices predominantly at undergraduate levels. This chapter addresses this gap by offering insights into the quality of doctoral pedagogy using an online pedagogical mode. It foregrounds the need to simultaneously develop the teaching and learning engagements and contributes to debates on whether these new modes of pedagogy indeed activate the levels of high-order attributes of DE required at this apex qualification in HE.

2.2 The Nature and Purpose of Doctoral Education

Blessinger (2016: 2) claims that,

> … doctoral education is a rigorous form of advanced academic apprenticeship and learning. The central aim of any doctoral programme is to immerse and inculcate the student into the respective community of academic scholars and professional practitioners.

Doctoral work involves intellectual work for which the thesis is the main form of evidence that the candidate has mastered the requisite subject knowledge and experience (Brook *et al.* 2010). This subject knowledge is mainly acquired through self-inquiry and study guided by academic mentors. However, participants are also expected to engage with a range of educational practices such as conferences, seminars and debates to stimulate divergent thinking. Doctoral education teaching ought to include pathways to support a more layered, complex and increasingly interdisciplinary understanding of the phenomenon at hand (Nerad & Evans 2018).

At the core of DE in any discipline, lies the deep epistemic and personal transformation of the self that is effected through the process of creating new knowledge and ideas (Brook *et al.* 2010). The view that the only one who is transformed by the doctoral enterprise is the candidate in terms of worldviews, relationship with knowledge and knowing and values, is not just a frequent provocative comment made by supervisors. It is expected that doctoral curricula activate a fundamental shift in the candidate's position as a learner manifested through increased initiative, autonomy, creativity and independence of thought (constituting a dispositions-oriented shift). These are mediated through the development of the specific disciplinary and interdisciplinary knowledge, competence, and methodologies (including a skills-based component) associated with the completion of a major piece of research.

From a student development perspective, DE ought to include components which will affect the areas of cognitive-structural, psychosocial and social identity development. Chickering (in Weidman & Stein 2003) identified seven vectors to reflect students' developmental work which can be extended to their learning in HE. They are:

1. Achieving competence in intellectual areas and interpersonal relationships.
2. Managing emotions, such as learning to control negative emotions in life.
3. Moving through autonomy towards interdependence, or the ability to overcome the need for constant reassurance from authority figures, and movement from being independent to being a part of a broader community.
4. Developing mature interpersonal relationships, or generating awareness of and respect for differences in ideas and people.
5. Establishing identity, as well as a feeling of self-esteem and stability.
6. Developing purpose, including answering questions such as 'Who am I?' and 'Who am I going to be?' with intentionality in terms of vocational aspirations.
7. Developing integrity, or clarification and rebalancing of personal values and beliefs.

All seven vectors apply to DE and its pedagogy. The challenge and support that DE offers determine how successfully these developmental goals are attained. The question, therefore, is the extent to which online pedagogical modes of delivery of DE indeed activate this range of doctoral graduate targeted attributes and vectors.

3 Two Doctoral Programmes unfold during the COVID-19 Lockdown

The two doctoral programmes examined have the particularity of having integrated some forms of online learning since inception, given their internationalisation and 'at home' nature (students do not move from their home country). As in most universities, materials are accessed online and interactions are mediated by interactive platforms such as Skype. However, the intensive face-to-face block teaching sessions had to be fully delivered in an online mode.

3.1 Overview of Doctoral Programmes

The case studies brought under the lens in this chapter are two foreign doctoral programmes run in partnership with a local institution. They belong to the Doctoral College of the UoB (United Kingdom) and the School of Education at UKZN (South Africa). respectively. They are hosted within the Higher Studies Cell of the Mauritius Institute of Education (MIE) which technically plays the role of a Graduate School. The UoB offers a Professional Doctorate in Education (Ed.D.) over a minimum period of six years in part-time mode while UKZN's programme is a traditional PhD in education in full-time mode over three years. The second programme allows for candidates to shift to a part-time mode after the minimum enrolment period. The Ed.D. comprises taught components and a dissertation, while the PhD is by thesis only. Both are delivered through a cohort model on a split mode. They draw on the resources and input of both the local and the international partners with the candidate interacting with other supervisors and peers in a collaborative learning space. The candidates also interact outside the cohort seminar-led programme with a smaller team of supervisors, one from the parent and the other from the local host institution. Table 1 shows the structures of the programmes.

Table 1: Overview of two doctoral programmes offered in partnership by the Mauritius Institute of Education

	Professional Doctorate in Education (Ed.D.)	**Doctor of Philosophy (PhD)**
Programme/ model	Structured curriculum with taught components and coursework in a two-stage programme	Tried and tested model of doctoral learning based on weekend seminars

Supervisory arrangements	Joint supervision with a main and a local supervisor	Joint supervision
Delivery Mode	Dual-mode involving face-to-face inputs and online teaching and learning	Dual-mode involving face-to-face inputs and online teaching and learning
Assessment	Dissertation and Viva	Dissertation only

The UKZN doctoral programme is run through a cohort seminar model with inputs provided by facilitators over a weekend from a Friday evening until Sunday afternoon for three years. Four to six cohort seminars are held annually targeting critical phases in the doctoral learning journey from research proposal design, to fieldwork and analysis, and documenting the thesis report. Alongside the initiating doctoral seminar programme, candidates are supported by pairs of supervisors from MIE and UKZN in one-on-one supervision dyads usually managed through online email communication. Their progress is administratively supervised by facilitators who hold monitoring meetings which are mandatory for all students registered through MIE.

The Ed.D. programme is run in block intensive teaching sessions for two weeks in April, July and December. The teaching sessions are crafted around the modules designed to develop skills to review the literature, design the research from different methodological perspectives and analyse the data.

3.2 Moving Doctoral Programmes into an Online Teaching Mode during COVID-19

From 20 March 2020, Mauritius was in confinement for an initial period of 15 days (Republic of Mauritius 2020). The UK and South Africa were placed on similar lockdown on 23 and 27 March, respectively (World Health Organisation 2020). Given the experience of countries like China and Italy, the prospects for a return to normal conditions within the foreseeable future were dim. Higher education courses were to continue in online forms with educational activities carried out through mediums such as Zoom® and Microsoft Teams®, and staff working from home.

We describe the experience across the two programmes based on an *a posteriori* reflection on how the stages of curriculum design and engagement

unfolded. Although there were specificities to each (depending on the programme structure, staff expertise, the number of students, and the stages of students' progress in their doctoral journeys), the curriculum responsiveness of mainly the academic teaching staff could be considered as directing the new pedagogical strategies within the context of the pandemic. These are reflected below in the form of four broad stages of curriculum responsiveness. We are aware that a stage-based representation may be narrowly interpreted as linear. Consequently, the designers of the programme acknowledged the need to expand beyond this exclusive preoccupation with a teacher-driven curriculum design mode towards an analysis of what quality of experience of the doctoral journey we were activating amongst students. It is further acknowledged in this reflection that many of the elements of curriculum responsiveness blurred and overlapped over time, practice and experience. In the main, we wished to reflect on the following key points:

1. *How the transition to online teaching was effected, and the challenges faced. (The delivery mode of doctoral education.)*
2. *What these shifts meant for how we constructed doctoral engagement from the perspectives of both students and supervisors. (The goals of doctoral education.)*
3. *What these shifts represent in terms of how power is negotiated across different levels. (The outcomes of doctoral education.)*

We thus interrogate whether the delivery of DE did or should lead to a profound reconsideration of its goals. The outcomes of this transition experience argue for a radical shift from a teaching to a learning orientation in DE. This outlines four stages reflecting a widening sphere of curriculum responsiveness ranging from the institutional situational analytical planning towards an acknowledgement of how the students themselves interpreted the rollout of the curriculum of online pedagogies for the cohort programmes.

4 Four Stages

4.1 Stage 1: Situational Analysis of Programmes within a Context of Policy Alignment

The thinking and planning process for the transfer to online teaching of the doctoral programmes started well before the announcement of the lockdown.

At the beginning of March 2020, the rapid spread of COVID-19 was the precursor to the ban on travel which disallowed any face-to-face input by facilitators. However, as the lockdown took effect locally, it brought an end to any hope of face-to-face interactions at MIE. Because the doctoral programmes operated within three different government policy spaces (Mauritius, the UK and South Africa), their conversion to online modes had to be compliant and aligned to the respective macro policy. It turned out that policies and standpoints adopted by the two partnering universities ran on very similar lines embedded in an expectation of continuity in the conduct of academic affairs.

Chief among the concerns shared across both was students' access to efficient platforms and securing affordable connectivity. One significant advantage which MIE, as the host institution, had over its collaborating partners, was its long-standing strategic interest in online learning. At the inception of the postgraduate programmes in 2007, the adoption of a blended model was a pragmatic choice to connect with its collaborative partners. As a SIDS institution, international connectivities using online technological means were central to sustained cooperation in postgraduate studies. The MIE had thus made considerable headway in investing in technology infrastructure and staff capacity by equipping all staff with laptops and shifting to Microsoft Teams® as an online platform to hold meetings with a relatively large group of people. Although its use had not been optimised prior to the pandemic, it considerably eased anxiety with respect to the Ed.D. programme, as UoB colleagues also had Microsoft Teams® accounts. On registration, students had been assigned MIE email addresses which gave them access to the Microsoft Teams® platform. Apart from being a means to hold meetings and virtual classes, this platform allowed for a range of possibilities in terms of uploading files, YouTube videos, monitoring student attendance, and organising students into sub-groups for small group discussion. It offered a complete pedagogical package which allowed for various forms of interaction in an online mode, coupled with a range of possibilities for online learning. When the pandemic struck, UKZN chose to use Zoom® and afforded facilitators an unlimited package to allow for meetings of extended duration. The reading materials were sent to students by email, which was already the standard method of communication prior to the lockdown. In practice, the COVID-19 context accentuated the more deliberative integration of technological modes of interaction within the seminars themselves, rather than them being confined to post-and in-between seminar activities. Whilst often professing a preference

for direct, face-to-face modes of negotiating one-on-one supervision, students and staff had become increasingly acclimatised to a growing culture of engaging the doctoral journey through online pedagogical strategies. In some cases, students chose to supplement the online modes with direct on-site visits to the host institutions in South Africa and the UK, to more concertedly absorb the cultural ethos of DE in a foreign context.

A situational assessment followed the official go-ahead. Co-ordinators examined the programmatic requirements in terms of the knowledge and skills to be developed and the tasks to be accomplished by students as evidence of having met the learning outcomes and the assessment criteria. What had to be ascertained, was the degree of flexibility afforded by the curriculum which was to be delivered in the intensive sessions or cohort seminars via an online mode. Emergency planning meetings were organised by co-ordinators to initially take stock of the requirements of the situation in terms of the learning of doctoral candidates, programmatic requirements, technological resources and the readiness of students and tutors. Besides the taught inputs, broader issues pertaining to the management of fieldwork during lockdown also had to be addressed. The key concern revolved around whether the former models of curriculum delivery and learning outcomes could be adequately delivered exclusively via the alternative online pedagogy. The only option was to try to walk the road of an alternative.

The outcomes of these deliberations led the programme leaders to kickstart the process of redesigning the programme for the cohort seminar. The UKZN programme chose to maintain its plenary seminar format with a new variant of some input from supervisors based both locally and abroad. Further written outputs were expected to be produced by students during the seminar itself, which could then be harvested into plenary discussions. The UoB programme ran over a more extended period, dispersing programme interventions over time rather than the compressed intensive blocks. The programme leaders saw this as an opportunity for more reading space between the meetings.

4.2 Stage 2: Resource Identification to Ease Curricular Conversion

The shift to online teaching demands careful consideration of the materials to be used to engage students in their home environment since they would not have face-to-face access to peers. Resource identification for the different

topics and themes was carried out drawing from existing online resources already available within the online institutional libraries, available stock of open access resources in the form YouTube videos, podcasts, and recordings of academic events such as seminars and conferences. These were assessed for their relevance to the curriculum of DE in terms of level.

While 'ready to use' or 'ready to convert' materials were not available for every session, the facilitators had sufficient experience, skills and confidence to design some teaching resources from scratch, especially using PowerPoint Presentations which would assist in plenary meetings. These became additional resources created within the exceptional context of the COVID-19 pandemic, which would become permanently available as online resources upload on the institutional websites. Facilitators for the Ed.D. programme created fresh presentations for online teaching in plenary sessions while the UKZN programme lead converted seminar presentations available on YouTube into a resource for teaching the module on a literature review. A repository of online video resources has been curated within the University and UKZN's Teaching Learning Online Portal[1].

4.3 Stage 3: Activating a Doctoral Pedagogy in an Online Learning and Teaching Environment

The most critical stage was to effect the required transition to produce a doctoral learning experience which reflects the kinds of interactive horizontal pedagogy that is typically deployed in the face-to-face mode. Generating the same degree of student engagement was a challenge we took on in both programmes knowing full well the exploratory nature of our shared pedagogical journey. For one, a programmatic delivery move was to introduce collaborative teaching for the plenary session, adding an element of variety in style, content and presentation. The feature of dialogue among tutors was intended to provide a model which students would be required to emulate either in conversation with tutors, but more so, we hoped, among themselves. We understood such multi-level interactivity to be characteristic of doctoral pedagogy enacted within a virtual space.

The decision for the other programme was to move to a flipped classroom pedagogy with course materials being introduced outside the classroom

[1] http://utlo.ukzn.ac.za/utop.aspx

space before the session (McLaughlin *et al.* 2014). The intention was to create more space for student discussion in peer groups which may or may not be tutor-mediated. This was a considered decision with attendant pedagogical risk to give more power and autonomy to students. Cohort meetings represent an organisational challenge given their compressed nature which usually produce highly structured and organised models of doctoral learning, where all aspects of the programme are decided collaboratively and predominantly by tutors. Assigning an increased measure of autonomy to students also implied that tutors had to be comfortable relinquishing some control of the direction of classroom discussion and at times being comfortable moderating the discussion rather than leading it.

Such a move may appear to be 'something that we normally do' or tacitly accepted as a given for tutors in the field of education. Yet our professed pedagogical expertise also means that we grow comfortable in the routine and habit of assuming that we know how students would negotiate their understanding of a concept or an issue. While we often operate in a 'reflection in action mode' within the immediate classroom context, planning online teaching involved 'reflection on action' requiring facilitators to make explicit their values, beliefs, and worldviews about knowledge and how these were to be negotiated in a doctoral programme.

The additional change we brought about was to require students to put together a reflective account of what they had discussed with their supervisors and how this feedback would be integrated into their cohort learning and their research work. This level of synthetic engagement was set as a central learning outcome.

4.4 Stage 4: Student Engagement with a Doctoral Curriculum in Online Learning and Teaching Mode

In this section, our reflections are based on only the UKZN doctoral programme. The student experience of the professional doctorate is currently being documented through an independent research project.

4.4.1 Isolation and Anxiety of Doctoral Students: The Virtual Antidote

Any reservations which facilitators may have harboured regarding online

attendance were quickly dissipated during the first session. The internet connection was of appreciable quality, given government instructions to the primary provider to increase connectivity speed without any added cost to users. For the most common package used, the increase in speed was from 10 MB to 20 MB. The high internet penetration of 80% on the island did much to mitigate the risk of programmatic isolation for students. There was, however, one exception who chose to self-isolate due to lack of confidence in the security conditions offered by Zoom®. Because all the students are working teachers and education professionals who are self-financed, the differential access to teaching caused by inability to purchase highly-priced internet connection packages that was experienced in primary and secondary education, was not an issue. Given this privilege, most students welcomed the opportunity to connect with the cohort and to mitigate the uncertainty that the lockdown created regarding their data production activities.

The online teaching experience spanned three days for the UKZN programme and registered 95% attendance for both local tutors and students. Comparatively, the online attendance rates were higher than the face-to-face attendance for both plenary and breakaway sessions on Zoom®. While there were some minor technical glitches relating to connectivity and operating on the platform, the online classes were held as per the proposed programme.

The transfer to an online mode of programme delivery went a long way in ending the isolation of doctoral students who connected again with a community of peers. While they remained connected throughout their journey through their own private WhatsApp groups, being in a formal space supported by facilitators and supervisors who could provide answers to many of their questions regarding the continuity of the doctoral journey, assuaged their anxiety.

4.4.2 The Nature of Online Interactions: Operational vs Conceptual Vulnerabilities

Given the questions and comments by students, the sessions spilt over the allocated time. Online conversations were well balanced with students predominantly occupying the space either voluntarily or when solicited by the facilitators, who ensured that all students were asked to express their views. The resource used to trigger debate was a YouTube seminar presentation on the literature review, which the students had to view and use to develop their

literature review chapters. While a few referred to specific concepts and ideas discussed and the metaphor used in the online resource, the majority could not articulate a stance which was personalised, or specific enough to provide evidence that key concepts were understood and ploughed back in advancing their conceptual understanding of the purposes of a literature review and the processes involved in building a literature-embedded argument. The pedagogical appeal of a resource which overcame the traditional weakness of a 'reading' resource as suiting only one learning style, proved inadequate in evoking a more epistemically committed response. Their reflections indicated shallow conceptual and theoretical engagement. Resources, whether in written or multimedia form, were primarily processed as sources of information which needed to be immediately applicable.

While students did not articulate any sign of being aware of their epistemic vulnerability as evidenced, they expressed their concerns about fieldwork and ethics, and alternative online methodologies for gathering data dominated students' queries. Priorities tended to reside within the realm of the operational dimensions of 'doing the study' rather than the kinds of knowledges (their epistemic propositional content) carved through the pandemic context that they were likely to confront. The nature of this perceived vulnerability was quickly overcome by familiarising students with the ethical clearance processes to be completed online and by allowing them to develop their autonomy in seeking, using and acting on e-information for administrative purposes. Developing this particular aspect of doctoral students' autonomy and initiative has been a challenge.

However, the experience during the lockdown proved to be different if the swift response to instructions by a large majority of students is any indication. In coping with their uncertainties about sustaining their studies under COVID-19 times, the students' preoccupation with prag-matic matters initially trumped the philosophical dimensions. The pedagogical challenges for the facilitators were about how to shift the discourses from the operational to the conceptual endeavours of doctoral studies. The seminar became a journey of releasing inhibitions. The 'coerced' pedagogy of online teaching and learning thus became a means to activate a more concerted effort to elevate the discourse about the purposes of doctoral studies.

Supervisors in the seminar were relatively uninhibited in their interactions. The MIE supervisors had, for the most part, been holding regular online classes via the Microsoft Teams® platform as part of their engagement

with undergraduate and postgraduate courses. The fact that the programme was designed to integrate one supervisory session to be fed back into the proceedings created a space for alternative voices to be included within the experience. Alternating plenary, supervisory and small group discussions worked effectively from the perspective of students who could develop an immediate conversation with supervisors about an identified issue. Moving from the more public space of the plenary when perspectives are more generalised to the more personalised discussion of the small group appeared to have worked well as evidenced by students' focused input in the plenary session.

4.4.3 What Doctoral Students Seek? Certainty, Autonomy and Initiative

Feedback on the online learning experience for students came by way of individual responses communicated to the programme administrator by email. To ensure anonymity and confidentiality, all identifying features was removed from the submissions before being forwarded to the programme co-ordinators. Summatively, the student experience focused on the convenience of the online teaching, possibly seeing this format as becoming the new 'normal'. Students' comments spanned every aspect of the pedagogy used, with positive ones focusing on the space provided to articulate issues, and the variety of inputs from a range of perspectives from facilitators and supervisors, as well as the learning resource proposed in the form of a YouTube video.

Even though learning and teaching were transferred in an online mode, the students' feedback remained generically appreciative of the 'richness' of the debate, the multi-perspectival nature of comments by supervisors and the realisation of how much more investment they need to make in terms of time and effort. They predictably appreciated the convenience of online teaching, and the quality of inputs by facilitators when these provided clear answers to their questions which for the most part related to operational issues in terms of 'how-to' rather than 'why'.

While the compulsion to use technology in more creative ways enhanced students' managerial autonomy, it did not fundamentally trigger a change in the ways in which they position themselves in relation to knowledge and knowing. The resource used for the flipped class offered additional audiovisual stimulation and more possibilities in terms of bringing together

complex ideas in an analytic and synthetic way. Nevertheless, students' intellecttual reflexes rarely reached a level beyond the mundane cursory curation of information which could be immediately useful. Because they privileged questions which had, according to them, a closed-ended response and which originated from an immediate problem they faced, their sense of autonomy and initiative was not challenged.

5 What Do These Shifts Mean for How We Construct Doctoral Engagement in an Online Mode?

The emergency shift to online teaching in the wake of the COVID-19 pandemic will have a number of repercussions for how universities choose to manage the twin concerns of efficiency and performativity. Arguably, there may be a move to co-opt online teaching to satisfy universities' commercial appetites and sustain the existing business model, but management still needs to get around staff resistance to seeing online teaching as a sustainable pedagogical option. Putting classes on Zoom® is not an indication that transformation has occurred. There may be a host of reasons why peaks in attendance were registered. Firstly, confinement meant that students were available. Secondly, confinement generated anxieties around the completion of doctoral work, which made the opportunity to connect with a community welcome. Thirdly, curiosity about participating in a new learning environment which is also convenient, may account for some accrued interest. Caution should be exercised in using these indicators as proxies for the success of online teaching.

While supervisors may have shared some of these reasons for engagement in an online mode, there was added curiosity about how teaching could be deployed and what new roles they needed to assume in an online mode. Easier accessibility to students and the appeal of connecting in a more personal way with them are possibly added motivation. It appeared that human interactivity, an aspect of online teaching which evoked the most substantial reservation among supervisors, became a source of appreciative surprise. Online interaction between students and supervisors was reported as being less formal, affording a degree of connectedness and intimacy which mirrors the quality of face-to-face interaction. The convenience of supervisor and student setting up appointments unfettered by organisational constraints in terms of times and space, appeared to have gone a long way in producing an adequate level of online engagement.

The key issue which online teaching put to the test was whether it showed a possibility to imagine a different engagement with knowledge and how we relate to others (as in text) and in dialogue in the process of coming to develop meaningful understanding. For DE, such a question is fundamental in guiding programmatic development.

In driving a reflection of the nature of doctoral engagement and how the experience of online teaching triggered deep reviews about how supervisors and facilitators envisage this process, we focus on two overlapping competencies in DE and online learning. The first is intellectual autonomy, and the second is the social nature of knowing and learning. Doctoral education programmes bring both synergistically together by cultivating intellectual hospitality either through supervisory mentoring (constructed as 'thinking with') or by setting up communities of inquiry through cohort models (Austin 2006). According to Dewey (Brook *et al.* 2010), intellectual hospitality is built on intellectual discipline and comprises of 'openness, respect and courage of mind'. These are not only skills which can be 'taught' but dispositions which require some form of personal nurturance and identity work. How do current doctoral programmes factor these 'soft' aspects into their design? How is this associated with enabling students to embrace an approach that appreciates that their thesis is not the only product, and that doctoral learning is a self-transformative journey? The transition to online teaching and the flipped classroom is often misrepresented as a space where students automatically develop those dispositions aided by stimulating learning materials which are somehow expected to generate a miraculous shift (Butcher & Sieminski 2006). Alternately, the assumption is that tutors embrace spontaneously new styles of teaching, abandoning their previous understandings and perspectives because the online learning train has left the station.

Doctoral education programmes would gain much from formalising such identity work through students' writing at the very initial stages of their journey (Brook *et al.* 2010). It may not be writing for thesis production purposes. We have not sufficiently explored how a more open-ended conception of writing at different stages of doctoral study individually, collectively, for creative, argumentative, narrative, disruptive purposes in formal, playful, unabashed ways can support progression in reinventing how students and teachers relate to knowledge and knowing (Aitchison 2009).

More importantly, while intellectual autonomy is a set learning outcome, the methods to achieve this are not an individual project (Mc Alpine

& Asghar 2017). Technology is often misrepresented as serving to create a collegial and shared space for learning by encouraging students to communicate. The assumption that anything which is instructionally designed as a collective task is of an inherently pro-social nature, is a dangerous one. The habits of connecting and relating which are predominant in social media are reductionist rather than expansive; the fact that technology encourages the curation of information for task-based purposes, does not serve the purpose of intellectual hospitality (Butcher & Sieminski 2006). As supervisors already accustomed to practices of establishing intellectual connectedness, there is the risk for us taking these habits for granted. Hence they may slip out of our awareness or generate, in some cases, incomprehension as to why students are not 'naturally' taking to it when they have so many technology-mediated resources at their disposal.

Transiting to online teaching highlights the danger of being seduced by the idea of a flipped classroom relocating responsibility onto students and creating greater awareness of the need for autonomy. Whether in a face-to-face or online mode, doctoral curricula have to assist students in progressively negotiating the social, intellectual space of the class. Students are expected to weave their own stories into the collective (Brook *et al.* 2010; Austin 2006). This issue, which can drive our desire for academic and pedagogical revitalisation, is also inscribed in how power is represented, negotiated and claimed within programmes at individual and institutional level.

6 Designing Doctoral Curricula in Times of Uncertainty in the Post-COVID-19 Era

Dealing with the COVID-19 lockdown situation and the ensuing online teaching was an experiment, which many hope is a short-term measure to ensure the continuity of courses. However, the value of this experience for designers of DE extends well beyond experimentation. The figure below illustrates our interpretation of the experience of running doctoral programmes in an online mode. Based on our observations, conversations with students and supervisors, and written student feedback, we reflect on two competing positions of postgraduate learning in general and doctoral learning in particular.

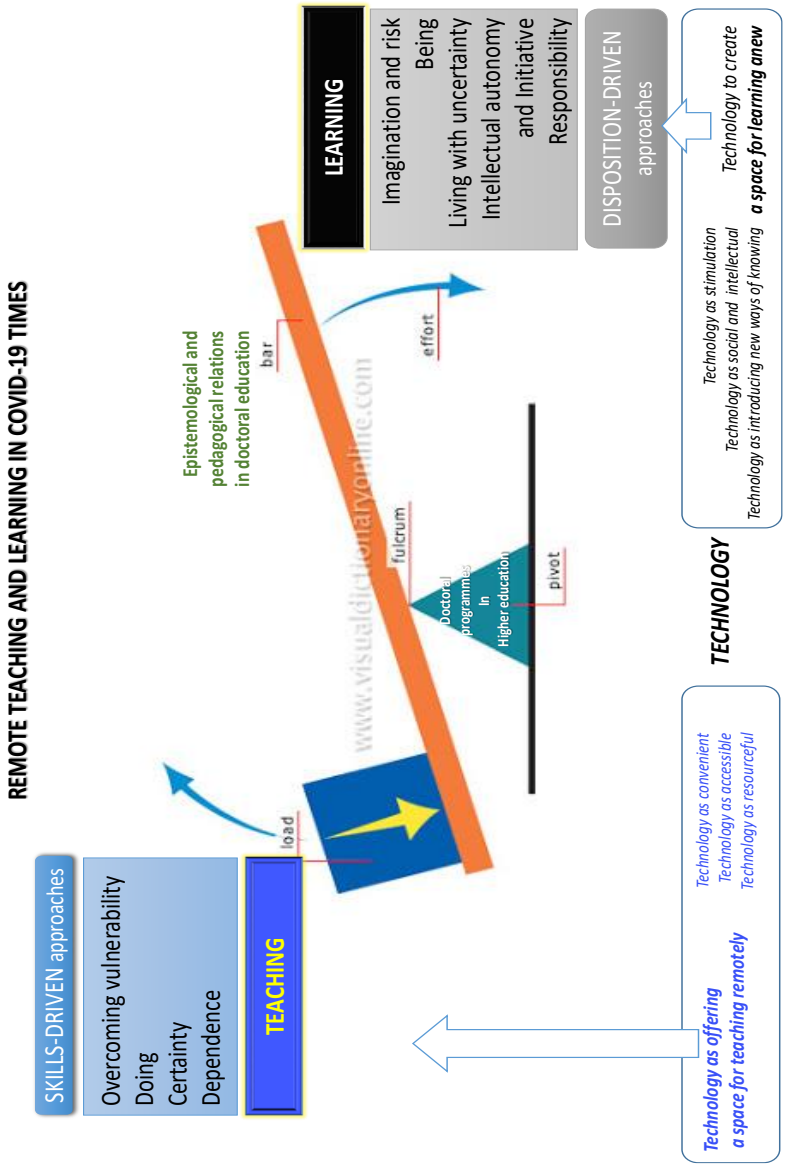

Figure 1: Online Learning and Teaching in COVID-19 Times – The Fulcrum Metaphor

As indicated, we contrast two approaches to DE: a skills-based approach vs a disposition-driven approach. We posit that the triple technology selling points which universities have bought into, namely, access, convenience and a resource-rich learning environment, do little to move the practice of DE towards a disposition-driven approach which seeks to develop autonomy, responsibility, initiative, and comfort with risk and uncertainty.

Figure 1 illustrates that pedagogical and epistemological relations are out of sync because current understandings of online teaching construct it as a space for teaching online when this virtual interactive space is one for learning anew. We draw from the metaphor of a fulcrum/lever to use the idea of pressure, pivot, load and effort as representing the process of realigning the doctoral curriculum in the context of the lockdown.

In this metaphor, the **placement of the fulcrum** is central to the whole process. If the fulcrum is too far away from that which is to be lifted, the advantage of the lever decreases. Similarly, if technology, which has been constructed as the supporting pivot for enacting the doctoral curriculum online, is placed nearer to teaching than to learning (what needs to be lifted), its effectiveness decreases. However, if the fulcrum is displaced towards the right nearer to learning, its effectiveness increases.

Conceptions of how technology can be co-opted in postgraduate education remain entrenched in the belief that refining the performance of teaching translates into better learning. Many postgraduate practices remain front-led by enthusiastic programme leaders who predominantly use PowerPoint modes of communication. The pedagogical belief is that there are spaces for discussion and input by the learners/students. However, this rarely disrupts the notion of the tutor or supervisor as the bringer of almost ready-made knowledge to the table.

What are the dangers to DE if technology is incorporated in delivery programmes without more in-depth consideration of how it can contribute to the seven vectors (as discussed in section 4 above) of student development? Firstly, it will intensify the current quality issues confronting DE even in face-to-face mode (Nerad & Evans 2018) which remain unaddressed. The issues relate to adequate socialisation (Weidman & Stein 2001) into the expectations of being a doctoral student through the creation of adequate curricular experience. Secondly, universities' digital ambitions to transit to dual-mode with a percentage of courses being offered in blended mode, are likely to be precipitated. This expanding repertoire of delivery modes is likely to put

pressure on faculty to become instructional designers for doctoral curriculum. Such re-curriculation responsiveness is often adopted in a fast-tracked mode without the required quality assurance guarantees. Thirdly, superficial adoption of alternative technological pedagogical modes paraded as a form of institutional resilience in the face of adversity may activate a performativity enterprise. Institutions may divert attention towards keeping the figures rolling in terms of doctoral recruitment through the lure of technological connectedness between students and the institutional structures. This may secure enrolment (and possible graduation) numbers to accrue subsequent funding. However, these practices may raise questions about whether DE seminar programmes, including the quality of supervision, indeed create the intellectual habits and personal characteristics required to make a sustainable contribution to research and scholarship.

The kinds of online doctoral curriculum which are now being envisaged in a post-COVID-19 era must integrate a substantial element of digital socialisation with the already existing exigency of scholarly socialisation. This may be formalised in terms of stand-alone modules or collective/individual activities which prospective students must complete before their proposal is accepted (Aitchison 2009). Within programmes, deliberate space must be created to promote collective learning. This space could be predominantly virtual.

7 Conclusion: Post-COVID-19 Prospects for Doctoral Curriculum Designs

The COVID-19 pandemic has prompted a reality check of human ambitions for certainty and stability. It has brought into the open several fallacies that hitherto shaped our understanding of the world, one of which is our ability to control our environment. Nevertheless, it has also revealed how initiative, resilience and imagination could be safeguards against despair, anxiety and vulnerability. In repairing our environments, institutions, societies and relationships post-COVID-19, we need more than ever leaders and people with knowledge who can also create new ways of knowing and relating to a world characterised by volatility and vulnerability.

While this remains the fundamental reason why DE came to be, its curriculum designers look to the future with an equal measure of hope and despair. Despair is activated from varied sources: at the turn that HE appears

to have taken, entangled in new conditions of funding, recruitment and accountability to industry (Nerad & Evans 2018); at the declining quality of graduate skills and its ripple effect on postgraduate recruitment and outputs (Cloete & Bunting 2013); at the internal management conflicts which appear to tear HE institutions apart as faculty tries to reconcile competing demands, and at the public outcry against HE in general in the wake of increasing graduate unemployment worldwide (Nerad & Evans 2018).

We are offered technology as a ray of hope to alleviate a number of these systemic issues which have plagued universities for decades. Among these is the sacrifice of teaching quality to faculty's research portfolios. Technology offers possibilities to enhance pedagogy that is already of good quality, but it cannot compensate for poor curricular designs or randomly constructed pedagogies. While sceptics of technology are quick to hold on to this argument, they also over-celebrate the power of face-to-face pedagogy as the sole method of achieving doctorateness, while being unable to produce evidence or solid logical argument to support the view that face-to-face pedagogies indeed activate deep professional growth of doctorateness in ways that online learning cannot. For want of a better one, our standpoint must remain one of openness to the affordances that each mode of pedagogy offers, but this must not be the main preoccupation drawing us away from the real question: what pedagogies, enacted in either virtual or face-to-face modes, improve doctoral student engagement, support skills development (particularly writing), encourage participation in a community of practice, and create the conditions for an epistemic leap to occur? Whether this epistemic leap is to be leveraged through a digital leap, is in our view a very secondary question as, for the moment, the answer is likely to be more ideological than scientific.

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