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Fostering innovations in pedagogical practices: transforming distance education through a professional development programme using OERs

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Abstract

The reputation and effectiveness of distance education (DE) systems is often perceived as being worse than the reputation and effectiveness of 'campus-based' education systems. At the same time higher participation rates in higher education support the social and economic development of countries; and to increase the participation rate quickly can best be done through using DE rather than building more universities. This is the case for Myanmar where DE provision already accounts for 60% of all higher education students but is based on traditional knowledge focused curricula that is not being taught using modern pedagogies and educational technologies. This paper reports on one part of a large scale international development project (Transformation through Innovation in Distance Education or TIDE) working with at least 30 universities involved in Myanmar's unique DE provision. At the heart of TIDE is a professional development programme for over 300 academic and support staff from these 30 or more universities where they are learning about and practicing modern pedagogy and technology enhanced learning through engagement with open educational resources (OER). Thus participants are being both students, studying OER (as online courses), and, as course developers, reviewing, reworking, revising and creating de novo OER (as online or print/AV based courses). These OER are focused on the domain of Environment and Sustainable Development to help in the reform of curricula but also to give participants valuable experience in developing and reflecting on their professional skills which they in turn can help colleagues to also develop and reflect on.

Keywords: Professional development; open educational resources, open educational practices

Introduction

Distance Education (DE) has a varied history and usually serves particular purposes within the higher education (HE) sector:

> '*Open Universities is a collective term that encompasses higher education institutions that only operate a distance education model (referred to as using a single mode) rather than only, or also using, a traditional campus based education model (institutions that use both are known as dual mode rather than single mode). They use communication technologies and large scale operations, and aim to offer greater flexibility and/or openness to studying at tertiary level to largely mature adults. Not all open universities carry open in their title and many universities offer distance teaching alongside campus based teaching. Most students of open universities study part-time compared to most campus based students studying full-time. Open universities are also driven by social idealism, economic pragmatism and technological innovation and have been seen by some as disruptive innovations and necessary for the future of higher education. This is reflected in the fact that the majority are the product of national or regional government policy and planning in the last 50 years as part of the broader drive to widen participation in higher education, and doing so by providing an alternative to the existing higher education institutions and their practices.*' Lane, 2015.

Being an alternative means that DE has to work harder to make itself relevant and respected (Lane, 2013). At the same time the increasing demand for HE as required under Goal 4 of the Sustainable Development Goals ('Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all') offers opportunities for DE and Open Educational Resources (OER) to be the primary way to meet this demand (Lane, 2017). However the increasing use of digital technologies and popularity of Massive, Open, Online Courses (MOOCs) means that potentially all Higher Education Institutions can get involved in DE and/or online learning, not just 'open universities'. This paper reports on some early results of a large scale project aiming to help the DE system become more relevant and more respected within one low income country - Myanmar.

Distance Education in Myanmar

Since the time of the military government in Myanmar, arts and science undergraduate courses had been offered through 34 'day campus' Universities distributed across the country, and whilst courses were offered on campus the majority of students studied by DE and this remains the case in 2019. The 'day campus' Universities provide some pre-exam, on campus tuition to distance students, support registration and distribution of printed study

materials. English is the expected language of instruction and all DE materials are in English. Although arrangements are now changing, up until 2019 degrees arising from DE study have been awarded by Yangon University of Distance Education (YUDE) and Mandalay University of Distance Education (MUDE), and these two institutions have provided the academic oversight of the degrees, as well as creating all the study materials for the courses.

In the lead up to the first democratic elections for many years, a reform process had been launched. Through the 'Comprehensive Education Sector Review' programme a wide range of international donors became involved with a range of Ministries involved in HE in developing the 'National Education Strategic Plan (NESP) 2016-2021'[1]. NESP was finalized and launched after the election of the National League for Democracy (NLD) led by Aung San Suu Kyi (now Myanmar State Counsellor) in November 2015.

The DE system has promoted widespread access to undergraduate degrees but has been criticized for low quality and lack of relevance to the job market. With the Ministry of Education in Myanmar committed to increasing investment in HE and the opening up of the country to greater collaboration in the ASEAN region and internationally, the need for skilled and employable graduates has become ever more urgent. The importance of upgrading the DE system and taking advantage of the benefits of a rapidly growing digital infrastructure to support online learning has also become recognized.

Development of the TIDE project

Late in 2016, a new programme called 'Strategic Partnerships for Higher Education Innovation and Reform (SPHEIR)[2]' was announced by the UK Department for International Development (DFID). SPHEIR is managed by a consortium comprising British Council[3], PwC[4] and Universities UK[5] and is a major international programme focussed on support for HE transformation in developing countries.

It was against this backdrop that early in 2017, following a Myanmar delegation visit in 2016, the Open University UK, University of Manchester, Oxford University and the Irrawaddy Policy Exchange entered into a partnership arrangement with Yangon University, YUDE and Yadanabon University to develop the 'Transformation by Innovation in Distance Education (TIDE)' project proposal. The proposal was one of 9 projects selected for support by SPHEIR from a very competitive pool of over 270 applications. The TIDE project runs to September 2021 and is focused on three main streams of work:

- Enhancement of Staff Capacities for Academic, Teaching and Complementary staff
- Enhancement of Programmes
- Approaches to the strengthening of HE/DE systems

The project formally began in February 2018 and the launch workshop in Yangon in March 2018 was opened by the Minister of Education. The academic focus for the TIDE project, responding to a request by the State Counsellor has been on 'Education for Environment and Sustainable Development (EfESD)' and this guides the nature of new content being developed in the form of OER which have the potential to be delivered through new online platforms.

This paper focuses on the first stream of work: Enhancement of Staff Capacities. A separate paper (Lane and Fawssett, 2019) focuses on the second stream of work (Enhancement of Programmes) while yet another paper (Gregson, Lane and Foster, 2019) reports on the adaptive nature of the whole project design.

The Professional Development Programme for enhancing staff capacities

The enhancing staff capacities stream will eventually involve over 30 Universities in Myanmar and over 300 staff from those universities. This will be done in three overlapping cohorts, each cohort following a two year programme. The first cohort of 60 academics and 40 ICT, Library and support staff from 10 universities started in May 2018 (see Figure 1) while the second cohort of 86 academics and 40 support staff from 11 further universities started their programme in May 2019. A third cohort will commence their programme in May 2020,

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[1] http://themimu.info/sites/themimu.info/files/documents/Core_Doc_National_Education_Strategic_Plan_2016-21.pdf

[2] https://www.spheir.org.uk/

[3] https://www.britishcouncil.org/

[4] https://www.pwc.co.uk/

[5] https://www.universitiesuk.ac.uk/

although the project ends before they complete their two year programme. But, as indicated in Figure 1 it is hoped that participants from the first cohort will, on completion of their programme, subsequently help with the professional development of later cohorts (the training of trainers noted in Figure 1) and which also includes the co-development of OER dealing with environmental subjects.
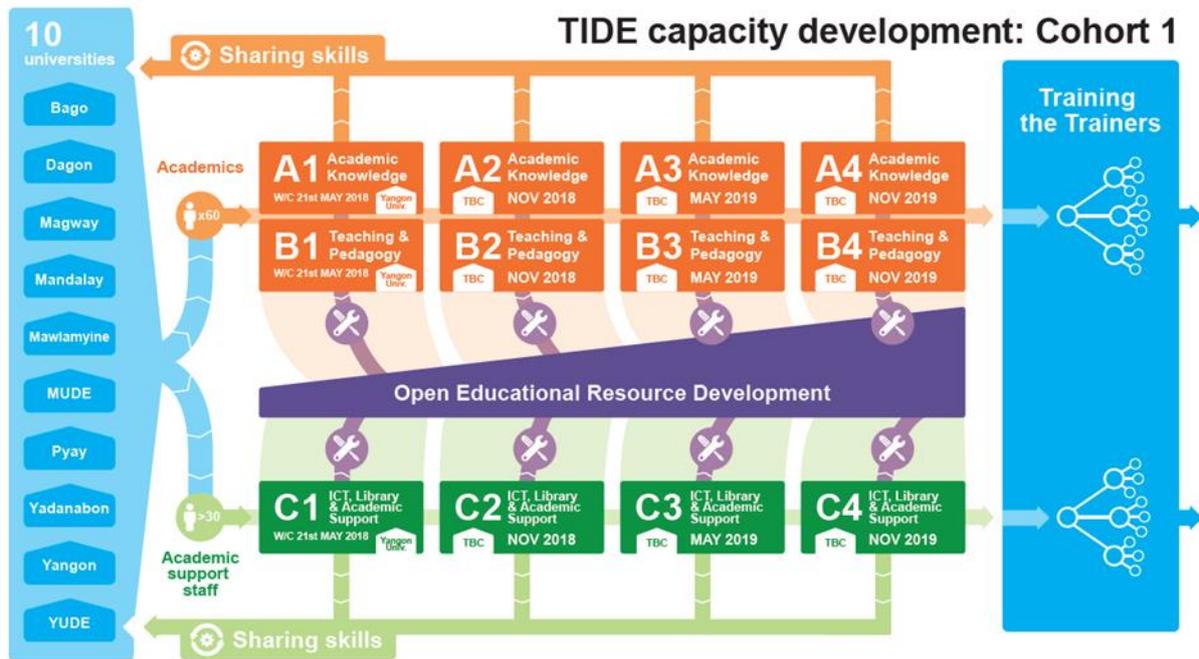

Figure 1 Infographic showing main features of the 2 year staff development programme

The Rector or Pro-rector of each participating University is responsible for selecting participants against criteria agreed by the core UK and Myanmar partners and also designates a 'focal lead' as a key contact point. The academic participants, for example, deliberately come from a range of traditional disciplinary backgrounds: Botany, Chemistry, Geology, Zoology, Geography etc. as to date environmental matters are only dealt with as part of these subjects and not as inter-disciplinary or multi-disciplinary environmental studies or science degrees. The breadth of disciplinary and departmental backgrounds also means that the scope for sharing skills from the TIDE programme can reach greater numbers, including other subjects and departments. Furthermore an existing staff rotation policy also provides opportunities for wider sharing (see Gregson, Lane and Foster 2019 for more details).

The two year professional development programme has parallel strands for academic staff and ICT, Library and other support staff. Academic staff undertake a mix of academic knowledge-led (environmental science) activities shown as row A in Figure 1 and teaching and pedagogy-led (educational practices) activities shown as row B; while the support staff undertake educational technology-led activities (OER, online learning platforms, media production and open and distance learning), shown as row C. These activities are centred on four in country residential schools (labelled 1-4 in Figure 1) accompanied by a series of intervening training and development events between these schools (namely webinars, online courses and face to face seminars). Whereas all the events deal with developing knowledge and skills, these are put into practice through another strand of activity - the co-development of OER dealing with environmental subjects – where mixed teams of academic and support staff pool their expertise and skills to produce educational materials that they will be able to incorporate into their own teaching programmes.

In summary the aim of all these events is to provide professional development in:

(1) targeted environmental subjects and
(2) open, distance and e-learning principles and practices (in the context of teaching and pedagogy more generally).

This duality is partly acknowledged in TIDE's overall subject theme of Education for Environment and Sustainable Development. Both environment as an academic subject and environment as an occupational profession are not well developed in Myanmar. A number of consultation exercises during the project proposal

development and the March 2018 Launch workshop with academics from Myanmar were used to scope out the full range of environmental subject needs as well as those given highest priority by the participants. From this broad needs assessment the chosen environmental subject focus of the first residential school and subsequent intervening activities between this the second residential school was water and pollution. The focus of the second residential school and subsequent activities was biodiversity and conservation, the third environmental health and waste management and the fourth climate change.

This duality is further acknowledged in how the activities are designed and delivered. At the time of writing the third residential school has just happened and we are yet to take a cohort through the full two year professional development programme. And as the third residential school has not been fully evaluated yet the description of activities and evaluation findings presented here covers the second residential school that happened in November 2018, and only the academic participant programme.

November 2018 residential school

Using the focus of biodiversity and conservation, a programme of environmental subject led and educational practice led activities for the residential school was developed by the UK partner Universities (Manchester, Open and Oxford) using a brief 1-2 page description of each proposed activity including its learning outcomes. This programme consisted of four environmental subject led activities (Creating serious games for education [CSGE], Habitat loss, fragmentation and population biology [HFPB], Why genetic diversity matters for conservation [GDMC], Social research methods - Local communities and field conservation [SRM]) over three sessions delivered by two academics (as tutors) each from Manchester and Oxford Universities; one educational practice led activity (Enhancing the quality of our teaching [EQT]) over three sessions delivered by one academic from the Open University; and three single session activities (A review of completed OER quality checklists [ROQC], Constructive Criticism of Educational Resources [CRER], Identifying how an educational resource could be adapted for use in Myanmar [AER]) led by Open University staff that involved both academic and support staff in their teams and were the culmination of the Phase 1 OER Development activity (see Table 1 for the scheduling of these activities during the residential school).

Time	Monday Day 1	Tuesday Day 2	Wednesday Day 3	Thursday Day 4	Friday Day 5
Session one – joint sessions between academic and support staff	Opening Ceremony and Plenary reviewing lessons learned	ROQC (5 groups of 2 universities)	CRER (5 groups of 2 universities)	(AER). (5 groups of 2 universities)	Plenary reviewing OER development activities
Session two to four – academics rotate in 5 groups of 2 universities through five activities	Group A: EQT Group B: CSGE Group C: HFPB Group D: GDMC Group E: SRM	Group A: EQT Group B: CSGE Group C: HFPB Group D: GDMC Group E: SRM	Group A: EQT Group B: CSGE Group C: HFPB Group D: GDMC Group E: SRM	Group A: EQT Group B: CSGE Group C: HFPB Group D: GDMC Group E: SRM	Group A: EQT Group B: CSGE Group C: HFPB Group D: GDMC Group E: SRM

Table 1 Programme of activities for academic participants in November 2018

As was also the case for the first residential school, linkages between these two activity strands were made, such that the academic subject tutors were encouraged to be innovative in how they taught their subject while all tutors leading the educational practice activities were environmental subject experts and used environmental teaching and/or environmental distance teaching materials as part of their activities.

The 60 academic participants were split into five groups of 12, 6 from one university and 6 from another university in each group, to make the group sizes manageable, particular for those activities with a practical element within them. Each group rotated through the 5 days of activities covering session 2 to 4, thus each doing them in a different order. The first session of each day were joint ones between the academics and the support staff and involved either whole school plenaries or team based activities related to Phase 1 of the OER Development activity (the practical integrating strand noted in Figure 1).

Participant handbooks in English were provided two weeks in advance and Burmese versions provided at the beginning of the week on a USB stick. These handbooks had summaries of the activities and copies of the slides (and notes) to be used for each activity. In some, but not all, activities, both the English and Burmese language slides were projected side by side. A number of Burmese nationals were recruited to help with real time interpretation and translation.

Evaluation findings (to date)

There is a monitoring, evaluation and learning plan for the SPHEIR programme as a whole and a similar one for TIDE in particular that is linked to their respective Theories of Change. After 16 out of 44 months this work is at still at an early stage and also covers all aspects of TIDE. What is presented here are early findings related to the second residential school as an example of some of that work.

Evaluation of the individual activities by participants

An evaluation sheet was distributed to participants at the end of each activity and collected in to try and cover all groups of participants. This evaluation sheet had three closed questions with scales and two open questions. The scales for the closed questions ran from 1 (not at all) to 5 (a lot). The mean scores for each activity are shown in Table 2.

Question/activity	EQT	CSGE	SRM	GDMC	HFPB	ROQC	CRER	AER
How familiar were you with the content of this activity?	3.6	4.2	3.9	3.6	3.5	3.4	3.9	4.1
How well did the activity meet the stated learning outcomes?	4.0	4.3	4.6	4.2	4.0	4.0	4.2	4.1
How much will this you're your personal academic practices?	4.2	3.7	4.6	4.3	4.0	0.0	4.2	4.1

Table 2 Evaluation scores for each activity at the November 2018 residential school

In general the scores are consistently very good across all the activities (as they were for the May 2018 residential school). The highest scores also seem to be have been given to the questions on meeting the learning outcomes and helping practices, the lowest often to familiarity. The latter is unsurprising given the varied subject background of participants. Open question responses, of which there were not many, were also generally very positive with few under the 'What did you least like about this activity?' question.

A significant feature of what participants liked about <u>academic subject led activities</u> related to the practical skills or hands on elements, as shown in these selected comments from the open questions on what they most or least liked about the activity:

'Viewing the map' (GDMC)

'Calculating the evolutionary significant unit' (GDMC)

'Designing a project how to estimate population growth' (HFPB)

'General knowledge for survey methods' (SRM)

In some case comments touched upon how the activity was taught:

'*Teaching with gaming is the best teaching'* (CSGE)

'*Teaching methods such as calculation, draw diagram and group work'* (GDMC)

There was a similar picture for the <u>educational practice-led activities</u> although with a bit more emphasis on learning about particular topics

'Learning the processes of case study and composing case study concerning to QA and QE' (EQT)

'Thinking about our previous teaching style to modify to have effective an efficient classes in our university' (EQT)

'Points to consider when you are adapting educational materials' (AER)

This is not surprising since these latter topics are likely to be less familiar to the participants as not all have been involved in developing DE materials or in teaching DE students.

Overall participants valued the November 2018 residential school as much as they valued the May 2018 residential school and gave the impression that they better understood what TIDE is trying to achieve and what they are expected to do.

Finally, although a general invitation was made to participants to provide feedback on the residential school as a whole there was no formal mechanism for gathering such feedback (something we have added for the May 2019 residential school).

Evaluation of the residential school by tutors

All tutors got to see the evaluation sheets for their activities and were asked to reflect on them and on their impressions of the residential school itself, the participants and aims of TIDE.

First, it is clear that most new tutors, despite written and oral briefings, were finding it difficult to appreciate the full context of TIDE, how the different elements fitted together and how they might relate their individual activity to the other activities in the residential school and to this wider context for the benefit of participants:

'There was a fair bit of information that did not reach me or xxxx before we got there. Some improvement in teaching supplies would also be a good thing, especially whiteboards or flip boards (though it worked fine the way it was, it would just be slightly smoother). It might also be neat if each teacher included a slide on how their topic fits in with the topics taught by the other teachers (many of them turned out to be well connected).'

Second, in contrast, tutors were complimentary about the school and some of the changes made from lessons learned from the previous residential school:

'Thank you so much for a wonderful experience! I'm really grateful. As for feedback, mostly I think everything worked really well. It's clear that you have ironed out much of the kinks from previous experience! The number of people in each group worked well, duration of each session worked well, and interpreters were definitely crucial!'

Third, circumstances led to last minute innovations that turned out very well when one tutor (for CSGE) could not travel to Mandalay and he ran his activity remotely from the UK with the help of an assistant in Mandalay:

'It was truly an amazing experience, thank you for this opportunity. I enjoyed the session very much and certainly I could see the smiles of the participants as they engage in the lessons and create their games. I also wanted to thank xxx, our fabulous translator and xxxx for giving one session and helping out with mine.'

This second residential school for the first cohort of Myanmar academics was planned and developed building on the lessons learned from the first residential school. All the evidence gathered indicates that the programme of activities was well received and that participants were better understanding the place of the residential school in the context of all they would be doing and all that TIDE was attempting to do overall in relation to developments in Myanmar.

However, while this makes everything sound positive there were other lessons learned from this second residential school from our overall evaluation synthesizing all feedback sources:

1. We still need to be mindful of participants' workloads and to explain clearly what they will be doing and what is expected of them.

2. We need to continue to address the variable language abilities using translations and interpreters.

3. We need to think further about the range of evaluation methods used in future residential schools and for TIDE activities in general in order to track impact.

Concluding remarks

TIDE involves working with a large and growing number of beneficiaries all of whom see TIDE as an important project. Success depends in part on engaging effectively with at least 300 staff from at least 30 universities who will hopefully become the pioneers and advocates for wider professional development of university staff. A professional development programme was designed with input from all core partners and needs assessment surveys. TIDE started working with 100 staff from 10 universities in 2018 and that number has now increased to 226 staff and 21 universities in 2019. The project is still at an early stage and this paper has only been able to provide very early and very preliminary findings.

A particularly promising development that was evident from the first residential school was a desire amongst both core partners and university leaders with knowledge of TIDE, to cascade TIDE training received to academic and support staff within their universities. Participants from seven of the ten first cohort universities have, on their own initiative, been conducting such cascading training, and through this creating the scope for wider impact.

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