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OFFERING TVET COLLEGE LECTURERS INCREASED ACCESS TO PROFESSIONAL QUALIFICATION PROGRAMMES THROUGH A NATIONAL OPEN LEARNING SYSTEM IN SOUTH AFRICA

Introduction

One of the highest priorities of the Department of Higher Education and Training (DHET) is to strengthen and expand the public Technical Vocational Education and Training (TVET) colleges and turn them into attractive institutions of choice for school-leavers – the cornerstone of the country’s skills development system (Republic of South Africa, 2013a, p. xii), rather than the small and somewhat neglected sector inherited from the past. Head-count enrolments at these colleges have already increased from fewer than 346 000 to approximately 800 000 over the past six years. Enrolments are expected to increase to 2.5 million by 2030 (*ibid.*, p. 13).

In order to achieve the above-mentioned goals, the DHET is committed to equipping TVET lecturers with the necessary qualifications enabling them to teach effectively in their specific context.

TVET colleges (formerly Further Education and Training colleges) have a long history of recruiting experienced and qualified workshop staff from industry, and of devising various programmes to address their lack of teaching qualifications. Some of these were short (for example, week-long) courses, especially those introduced to address this lack among the influx of new lecturers recruited in response to the staff shortage of the early 2000s, when colleges were tasked with providing practical training in addition to technical/vocational “theory”, necessitating the extensive upgrading and expansion of workshop facilities. This staff shortage was also addressed by recruiting numbers of graduates straight from the colleges to teach in the “theory” programmes, especially Mathematics and Science. Because short courses were also used to “upskill” such staff, they, like the first-mentioned group, remained professionally unqualified as educators, but in this case they also lacked workplace experience.

In 2007, after the introduction of the National Certificate (Vocational) programme with subjects such as English, Afrikaans and Life Orientation, the colleges experienced another new influx of lecturers, recruited from high schools in order to teach these subjects (there is also a long tradition of appointing qualified school teachers, as until recently there were no formal teaching qualifications designed for TVET college lecturers). These lecturers did have professional teaching qualifications, but ones which prepared them to teach in secondary schools rather than in the TVET environment. They too lacked direct experience of the workplace.

In a DHET survey reflecting these traditions and developments (Republic of South Africa, DHET, 2016) it emerged that in 2014 only 15% of lecturers in public TVET colleges were deemed to be academically *and* professionally qualified for the TVET sector. 34.5% were deemed to be academically and professionally qualified, but for teaching in schools rather than in TVET colleges; 38.6% were deemed to be academically qualified but professionally *un*qualified; and 12% were deemed to be academically *and* professionally *un*qualified¹.

The priorities, goals and systemic professionalising needs outlined above provide the rationale for strengthening the capacity of TVET college lecturers by giving them access to the new suite of

¹ Based on a sample of 73.3% of all lecturers employed in public TVET colleges (those who returned questionnaires), i.e. 5 712 lecturers out of the 7 789 lecturers employed in the colleges at the time.

accredited professional qualification programmes designed specifically for TVET lecturers, through a well-organised semi-open learning system that will enable them to complete their studies without having to absent themselves from their colleges, or travel to distant universities (many TVET college campuses are situated far from the main centres).

Furthermore, a significant challenge across South Africa's post-school education and training sector is the poor success rates of students in many of our universities and colleges, largely attributed to a *schooling* system that has yet to recover from an apartheid schooling system deliberately designed to perpetuate inequality and social disadvantage. This has resulted in low throughput rates, delayed graduation and poor retention rates, especially affecting students from socially and economically disadvantaged groups, and especially in distance education programmes.

In consequence, any intervention aimed at strengthening the capacity of TVET college lecturers, in particular those who will be reliant on online or other distance learning modalities, will need to observe high standards of teaching and learning quality, and to take seriously the following open learning principles espoused in the 2013 *Concept Note: Open Learning in Post-School Education and Training*:

- learning processes (will) centre on the learners and contexts of learning, build on their experience, and encourage active engagement leading to independent and critical thinking; and
- providers (will) create the conditions for a fair chance of learner success through learner support, contextually appropriate resources and sound pedagogical practices.

This paper reports on a new DHET project, the Capacity Building of TVET College Lecturers through Open Learning programme, which has a four-fold developmental aim: (i) to significantly enhance the professional capacity and pedagogic competence of TVET lecturers, and to do so by (ii) building the capacity of universities to provide TVET college lecturers with accredited professional qualification programmes using appropriate open learning approaches, (iii) developing and appointing a cadre of open learning content developers, managers, support personnel and young researchers in this innovative field, and (iv) establishing a sustainable national open learning management system for post-school education and training, and in this instance, for TVET college lecturers in particular.

A segment of this system will be used to host formal professional qualification programmes for TVET lecturers which may be used either in their entirety by universities that choose this option, or as selections of component modules which universities may choose to insert into programmes of their own construction, and possibly adapt (the modules will all be hosted as open education resources licensed for re-use and adaptation).

Though still in the very early stages of development, and limited in scope, this initiating project is seen as one prototype of a large-scale open learning system that will ultimately serve the entire national post-school education and training domain in South Africa (*ibid.*, p. xv). This paper reports on the project and highlights some emerging conceptualisations, challenges and strategies for dealing with the challenges. Its purpose is to articulate these in an integrated picture of the project as it is now, and in presenting this at the Pan Commonwealth Conference, to gain beneficial international feedback in the form of constructive critical comment. This paper should be read in conjunction with Ms Trudi Van Wyk's paper on South Africa's National Open Learning System.

Open learning in the context of capacity building for TVET college lecturers

The DHET has embarked on an initially modest but ultimately ambitious programme to improve learning opportunities across the PSET sector, based on open learning principles of *flexibility of access* and, most importantly in view of the poor throughput and graduation rates, the achievement of *success* once earning opportunities are accessed. The DHET's broad open learning initiative explicitly embraces a *high quality* agenda, seeking to create the conditions for a fair chance of learner success through learner support, access to contextually appropriate resources, and sound pedagogical practices.

How does the DHET's interpretation of the concept "open learning" play out in terms of the Capacity Building of TVET College Lecturers through Open Learning programme (from here on referred to as the "Open Learning for TVET Lecturers" programme)? Open learning as the DHET sees it is not to be conflated with distance education, online learning or blended learning as modes of delivery; it is a general *approach* to education and training *based on a set of principles*, which may or may not be an *element* in each of these modes.

As such, open learning is fundamentally and primarily focused on *removing barriers* to learning, and the DHET, which is obligated in terms of its mandate to remove such barriers, sees open learning as a key strategy for doing so. For TVET lecturers, these barriers typically include the inability to take time off work to attend lectures (they are in many cases the only specialist on the staff of their college or campus qualified to teach in their particular field). They may also live and work at some distance from universities (many TVET campuses are remote from main centres). They may lack (on low salaries) the ability to meet university tuition fees, or lack the formal qualifications needed to meet admission requirements for professional degrees. Furthermore, the post-school experience of many will almost certainly have included encounters with pedagogical approaches (textbooks, lecturer notes or learning guides) that they may have found alienating, and that restricted the accessibility of learning materials and therefore acted as barriers to learning.

Every one of these issues can be addressed in one way or another by appropriate forms of open learning, and each one points to the need for the *flexible, context-sensitive and pedagogically-sound* provision of the necessary programmes for TVET lecturers². Thus the theory components of the learning programmes produced for the Open Learning for TVET Lecturers project will be made available chiefly as online packages which can be worked on at lecturers' convenience, with interactive formative assessment, and asynchronous as well as synchronous support. The practical components do not pose a significant challenge since it will be logical to provide for in-house practical pedagogic learning experience in the workshops and classrooms of the TVET colleges themselves. Workplace integrated learning (WIL) on the other hand is likely to present a challenge in localities where the scope for suitable workplace experience is limited.

In addition, open learning recognises the principle of accepting formally assessed prior learning (not necessarily academic) and workplace experience as alternatives to formal qualification-based admission requirements, and encourages arrangements for credit transfer and articulation between qualification programmes. We anticipate that provision of this sort will be necessary in the case of TVET lecturers who, for example, were recruited on the basis of their National Accredited Technical Certificate qualification and Trade Test Certificate, but lack the National Senior (final high school year) Certificate necessary to qualify for admission to university studies and thus to further professional qualifications.

² The specific programme needs of TVET lecturers are outlined on p. 5.

On the other hand, open learning is also focused on the *quality* of the education and training that learners have access to. In some senses this emphasis on quality is an extension of the access principle, placing the learner at the centre of the teaching and learning process, and building accessibility into the very design of programmes, courses and learning materials. In providing learner support (in-text, online or face-to-face), sound open learning practice takes full cognizance of the individual learner's context. This focus on the learner extends to the design of learning text, graphic material and experiential activities, where these elements are re-thought with the learner and his/her context in mind, and are imaginatively constructed to eliminate the barriers commonly created by alienating presentation. Open learning course design also has the concerted aim of developing the skills associated with self-directed learning, including acquiring the confidence to drive and sustain one's own learning.

Finally, open learning's emphasis on extending access to educational opportunity has the potential to contribute to cost reduction once economies of scale come into play (allowing for the high initial cost of installing technological infrastructure and developing high-quality courses and materials). This benefit to provider institutions, or to the State, is less of a motive in the instance of the Open Learning for TVET Lecturers programme, as enrolment numbers, especially for specialised elective modules, will be unlikely to approach anything like the anticipated levels of TVET student enrolment. However, for financially hard-pressed universities, the possibility of adapting materials without copyright costs, and the avoidance of having to expand physical infrastructure to accommodate new programmes, hold some promise of containing the cost of providing these new programmes.

The Capacity Building of TVET College Lecturers through Open Learning Sub-Programme

The project which is the focus of this paper, the Open Learning for TVET Lecturers programme, forms part of the DHET's larger open learning project, and as such is integrated with a slightly earlier-conceived sister project, the National Open Learning System for Post-School Education and Training Programme. The latter programme is focused on the development and establishment of a national open learning system (NOLS), and initially, the installation on this platform of a limited range of courses aimed at technical and vocational education students – mainly in TVET colleges, and in time in the newly-established community college sector. In addition, the NOLS programme has particular responsibility for analysing legislation relating to open licensing, and for introducing and promoting the use of open education resources (OER) in PSET.

The Open Learning for TVET Lecturers programme, on the other hand, focuses on building capacity in, and working with, the *university* sector to develop and manage professional qualification-bearing programmes aimed at the lecturing *staff* of TVET colleges, rather than at TVET students. Since the universities have a long history of teacher education, the capacity-building referred to focuses chiefly on designing courses and materials specifically geared for lecturers working in the TVET and Community Education and Training (CET) colleges (offering modules such as Teaching, Learning and Researching in TVET), and in managing and designing programmes for open and flexible learning modalities. Ultimately, the goal of the programme is to enhance significantly the professional capacity and pedagogic competence of TVET and CET lecturers, many of whom have occupational qualifications and expertise but lack any, or at least adequate, teaching qualifications, or on the other hand, have occupational qualifications but lack both teaching qualifications and practical workplace experience or expertise (see p1).

The two Open Learning programmes share a joint Project Steering Committee as well as certain key elements and tasks:

- generating policy, and planning;
- building the NOLS as a functional, post-school national learning management system and platform to host the programmes which fall within their respective ambits;
- promoting the understanding and use of OER and open licensing;
- advocacy of open learning across the PSET institutions of South Africa; and
- fostering the development of two national Open Learning professional networks: a network of open learning course developers and materials designers, and in time, a network of technology-supported learning centres around the country.

In addition, the Open Learning for TVET Lecturers programme will also focus on fostering a national network of universities providing undergraduate and post-graduate programmes, at this stage for TVET college lecturers, through flexible and open learning modalities, while the NOLS programme will promote something similar for TVET colleges. In all cases, funded efforts are planned to build professional capacity and expertise among these stakeholders.

In the case of the Open Learning for TVET Lecturers project, the initial programmes to be developed, piloted and installed include two programmes from the suite of new qualification programmes outlined in the 2013 *Policy on Professional Qualifications for Lecturers in Technical and Vocational Education and Training*. These are the 360-credit initial Diploma in Technical and Vocational Teaching, and the 120-credit post-graduate/post-diploma Advanced Diploma in Technical and Vocational Teaching. The former, initial diploma is offered to prospective TVET lecturers, or as a three-year-equivalent initial in-service professional teaching qualification for lecturers who are in possession of an approved and recognised, but lower-level, technical and vocational qualification. The latter, advanced diploma is a one-year-equivalent professional teaching programme which serves as a “capping” qualification enabling someone who already possesses a bachelor degree or diploma to become professionally qualified as a TVET lecturer.

Aside from the open learning focus on flexibility of access and on quality, in what other senses will the TVET lecturer programmes be “open”? As a principle-based concept, open learning presents an ideal or goal rather than an absolute, all-or-nothing imperative. Thus there are degrees of openness: not all the envisaged programmes or courses to be implemented within the Open Learning for TVET Lecturers programme will be fully “open”: there are specific admission criteria for all of them, and in some cases work-integrated learning may need to be located other than where the lecturer is situated. Furthermore summative assessments will need to be conducted on set dates, at set times and in some cases in central venues rather than when and where the learner chooses. Nevertheless, the courses and programmes for TVET lecturers will, in addition to the characteristics described on page 3:

- be as strongly supported as possible (both in the design of the materials themselves and in terms of synchronous and/or asynchronous tutorial support and peer interaction), and
- incorporate a strong and creatively designed element of self-directed learning and self-managed formative assessment.

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Expressed in its simplest terms then, the overall *theory of change* that underpins the Open Learning for TVET Lecturers programme is as follows:

If an efficient and effective open learning management system is put in place, and if the necessary understanding, commitment and capacity to offer professional education through open learning is successfully developed in the participating universities, then, given certain critical supporting factors, this will improve the professional capacity of TVET and CET lecturers, not just as technical or vocational experts in their respective knowledge fields, but also as professional lecturers capable of providing high quality tuition and learner support, including contributing to quality learning resources that may be shared across institutions.

The crucial supporting factors³ referred to include:

- *advocacy* aimed at achieving increased understanding of open learning, recognition of its potential, and high levels of commitment;
- inter-sectoral, inter-institutional and individual *collaboration* in and sharing of course design, materials production, and the management and administration of open learning;
- the use of *open licensing and open education resources* to overcome barriers in the form of licensing fees and royalties that have made the acquisition of good quality learning materials expensive and time-consuming for providers, and difficult for many learners; and
- the development of open learning-oriented networks of (i) PSET provider institutions, (ii) course developers and materials designers, and (iii) technology-enabled learning support centres.

The theory of change outlined above in its turn forms an integral part of the theory of change which underpins the DHET's larger open learning project.

There is of course an important *caveat* to this condensed statement – it is a well-established and extensively researched fact (Foucault, 1981, 1987; Fullan, 1993) that such linear assumptions of progress are utopian and prone to disappointment if allowance is not made for the many economic, political and other contingencies that beset policy implementation, the unforeseen consequences of actions, processes and structures set in motion by policies themselves, and the behavioural variables and competing priorities of the institutions and individuals involved. As Michael Fullan (2003, p. 22) succinctly puts it: "... don't expect reforms to unfold as expected." A failure to give full weight to contingency, and to the complexity of the context in which policies are implemented and innovations unfold, has often resulted in stalled reforms and attempts at transformation, in South Africa and elsewhere. The DHET is well aware of this, and of the challenges we face in introducing what we see as ultimately far-reaching changes in post-school education and training. In consequence, it is understood that sustained and co-ordinated interventions will be required at many levels (*cf.* Mason, 2008, p. 42), especially targeting areas where innovation stands the best chances of success or where the impact may be greatest, and taking into account even those factors that may appear trivial, until open learning in PSET develops a life of its own and begins to sustain itself.

Challenges

The following are some of the systemic difficulties which the open learning project is aimed at addressing, and which are likely to continue posing significant challenges for some time to come:

³ These factors will be elaborated on in the final section of this paper.

- Misconceptions: a lack of understanding and acceptance of open learning, especially as distinguished from distance education and online learning; the perception on the part of institutions that open learning is merely “business as usual”, or primarily a key to profitability; misperceptions of open (and distance) learning as being necessarily inferior to more traditional campus- and classroom-based education (partly a legacy of poor quality distance education in the past); and the inappropriate use of digital learning for correspondence-type distance education.
- Likely resistance on the part of university academic staff to a shift towards the use of open licensing and open education resources, and to producing online or open learning material, which is time-consuming but draws no recognition in terms of the current funding formula or promotion structures.
- Currently there is relatively little distance education provision on the part of public colleges; consequently, experience in catering for and managing open and distance learning and more flexible modes of delivery is generally lacking in PSET outside certain universities. Though a number of *private* colleges have long histories of DE provision, most of it conforms to the transmission/correspondence model.
- Where occupationally-oriented programmes have been offered in distance education mode by TVET colleges, programmes have tended to be theoretically-biased, and to underplay practical components. This is at least partly a consequence of the difficulties involved in finding suitable workplace settings for work-integrated learning (WIL), including employers willing to facilitate WIL, for rural, non-campus-based learners.

Emerging conceptualisations, and strategies for dealing with challenges

In conclusion, the following are some of the more important conceptualisations that have so far emerged from the project, in all cases with strategic implications for addressing the challenges outlined above:

- The broad Open Learning for TVET Lecturers project is employing a multi-pronged approach, including setting up three collaborative networks (of provider institutions, materials developers, and learner support centres) which are intended to take the open learning initiative forward beyond the conclusion of the planned first phase encompassed by both the NOLS programme and the Open Learning for TVET Lecturers programme. In addition, the latter programme *strategically* combines the needs of both university and TVET sectors, addressing the urgent need for the professional development of TVET lecturers, and the need to win support among the universities for the notion of open learning, the increasing use of online learning technologies, and the adoption of open education resources/open licensing.
- Promoting the use of open education resources (OER) and open licensing options which allow for the adoption, adaptation, use, re-use (usually for non-commercial educational purposes) and distribution of educational resources *with acknowledgement*, but without the imposition of licensing fees. This practice will enable significant savings for financially hard-pressed universities through sharing programmes and courses that can also be adapted to respond to the needs and contexts of different types of lecturers.
- A complex brand of ongoing, educative advocacy, nuanced somewhat differently for university academics, management, and TVET lecturers but based on the principle of “making the Open Learning road by walking it together”, encouraging collaboration and participation rather than top-down, distributive strategies, and forging communities of practice. This advocacy is variously aimed at a deepening understanding of, and correction of misperceptions about, the

nature of open learning, and at winning institutions and individuals over to open learning ideals and the exciting opportunities for access to learning which they offer. Another element of this educative advocacy is the series of case studies of open learning initiatives, to be commissioned and published as part of an envisaged knowledge series by both open learning programmes.

- Embracing the principle of collaboration and sharing (of facilities, expertise, and materials) as a virtue rather than merely as a necessity. In fact, the DHET expects institutional providers to collaborate in sharing infrastructure, learning resources and staff capacity in order to improve access, quality and cost-effectiveness of provision (Republic of South Africa, 2013, p. 49), particularly in a time of economic constraint.

Not only will this produce financial savings; it will also introduce synergies into the system which will inevitably enhance the experience of working in open learning as they enrich teaching and learning by bringing many minds and talents to the creation of courses and course materials. In their book *Complexity and Education*, Davis and Sumara (2006) outline a number of conditions conducive to the emergence (sometimes exponential) of learning (including institutional learning), creativity and “self-organising” adaptation. Among these are the extent of *neighbour interactions* (p.142); the *internal diversity* of elements or agents that constitute a system (p.138), enriching and extending the range of possible responses to circumstances; and on the other hand the extent of *coherence* in the system, allowing “the collective to maintain a focus of purpose/identity” (p.147). The connection here should be clear.

- Acknowledging the limitations as well as the opportunities offered by ICT, and *appropriateness* as a key principle in selecting technology and innovative online methods. A lack of sufficient bandwidth and other technical constraints in some of the more remote TVET college campuses mean that course developers may need, at least initially, to make alternatives available (possibly even print-based) for course elements that are bandwidth-hungry, or to make such course elements optional rather than crucial to course completion.
- Just as ongoing quality checks are vital in ensuring high quality, and responsiveness to the learner’s needs and context in open learning programmes and materials, both open learning projects are mandated to conduct regular monitoring and evaluation, and to conduct mid-project and end-of-project impact studies. While it will be too early at the end of the three-and four-year initial programmes to conduct assessments of the impact of courses and modules on learners and registered students, especially in terms of employability and placement, these will be deferred until later in favour of impact studies based on how the innovations have affected providers (institutions and individuals), including both universities and TVET colleges.

It is hoped that these conceptualisations and strategies will contribute to creating an enabling environment for the principles of open learning to take firm root across South African PSET, and that at the next Pan-Commonwealth Forum we will be able to report on a thriving relationship between participating universities and TVET colleges, a body of college lecturers steadily growing in their professional capacity as teachers, and a cadre of university-based and other course and materials developers well-versed in open learning design and building an international reputation for excellence. [4 289 words, excl. title]

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