

THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY

SAQA BULLETIN

Volume 18 Number 1

March 2019

Articulation Initiatives



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Foreword

Why focus on articulation?

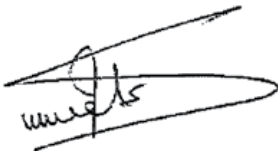
Lifelong learning, progression in learning and work, and articulation in learning-and-work pathways, are integral to the South African National Qualifications Framework (NQF) and a key part of SAQA's overall mandate. SAQA has adopted a definition of articulation that includes systemic (or qualification to qualification connections) and specific articulation which includes institutional arrangements and the learner focused connections. These foci are supported by the NQF policy suite, the White Paper for Post-School Education and Training, and the Minister's national articulation policy – all of which support the national articulation agenda. As part of overseeing the further development and implementation of the NQF, the South African Qualifications Authority (SAQA) over the years has given expression to articulation in various processes, activities and undertakings, and seeks further to strengthen its efforts in this regard. This Bulletin supports this national articulation agenda of creating a national discussion and a culture of articulation.

The SAQA-Durban University of Technology (DUT) partnership research into articulation between Technical and Vocational Education and Training (TVET), Higher Education, and beyond, is a key recent undertaking. This project included a National Articulation Baseline Study, seven in-depth case studies, and the actual collaborative activities needed to deepen articulation. The Baseline Study to identified developed, emerging, and latent articulation initiatives across the country. SAQA is committed to the taking of existing developed articulation initiatives to scale, encouraging emerging articulation initiatives, and supporting moves to unblock latent articulation initiatives.

The findings of the National Articulation Baseline Study were workshopped with participants and key NQF partners, leading to the development of two short documents, 'The way forward for articulation', and 'Articulation enablers'. SAQA then took this articulation agenda forward by applying this learning in three countrywide sectoral initiatives. We believe it is important to share some of the insights from the National Articulation Baseline Study in the form of the papers in this Bulletin. We believe it is

important to share some of the insights from the National Articulation Baseline Study in the form of the papers in this Bulletin.

The Bulletin sketches recent developments in the evolution of the thinking regarding articulation in South Africa. It includes six papers on developed and emerging articulation initiatives, and a seventh paper with insights from the only provincial articulation initiative in the country. Further, two international papers present valuable insights from the Federal Institute for Vocational Education and Training in Germany, and the United Nations Educational, Scientific, and Cultural Organisation (UNESCO). We believe that the Bulletin makes a rich contribution to the discourse on articulation and its practical implementation, in the interests of strengthening learning-and-work pathways for all. I would like to extend special thank-yous to all contributing authors for their willingness to share their articulation practices and experiences. And thank you to SAQA's Research Directorate for their work in coordinating the Bulletin.

A handwritten signature in black ink, appearing to read 'Joe Samuels', enclosed within a large, stylized, hand-drawn oval or loop.

Joe Samuels

Chief Executive Officer

South African Qualifications Authority

Introduction: Researching Sustainable Learning Pathways Towards Progression in Learning and Work

Dr Heidi Bolton and Professor Darren Lortan

This introductory note is designed to provide the context for the papers in this Bulletin. It sketches the National Articulation Baseline Study, through which the initiatives described in the South African papers in this Bulletin were made visible to the South African Qualifications Authority (SAQA) and the public entities participating in the study. It also clarifies some of the terms and concepts used in the papers in this volume, which came into common use amongst the National Articulation Baseline Study participants. The introduction goes on to sketch the in-depth case studies into articulation initiatives currently being explored in SAQA's partnership research.

SAQA PARTNERSHIP RESEARCH INTO ARTICULATION

Democratic South Africa inherited a racially segregated, unequal, unfair system. Different types of learning did not enjoy parity of esteem, and qualifications were not necessarily linked to learning pathways. The South African National Qualifications Framework (NQF) was the means chosen to integrate this system, to align it to the values expressed in the South African Constitution, and to enable lifelong learning. SAQA is mandated to oversee the implementation and further development of the NQF, and conducts research to support this work – expanding its capacity through long-term research partnerships with public Higher Education Institutions (HEIs).

Much has been achieved regarding systemic redress, access, progression, quality and transparency in the context of the NQF in South Africa. There is a major current focus, clearly expressed in the White Paper for Post-School Education and Training (PSET) (Minister of Higher Education and Training [MHET], 2013), on systemic articulation – the extent to which learners can move into and through Technical and Vocational Education and Training (TVET), Higher Education, and work. There are known transitioning barriers in this system.

SAQA set up the SAQA-Durban University of Technology (DUT) Research Partnership for research into *Developing an understanding of the enablers of student transitioning between TVET Colleges and HEIs and beyond*¹, to investigate successful transitioning models that address the barriers.

Research context: National Articulation Policy

The Department of Higher Education and Training (DHET) recently gazetted the Articulation Policy for the PSET system in South Africa (DHET, 2017). The policy creates an enabling environment to ensure *inter alia* that:

- articulation occurs within and between the three NQF Sub-Frameworks²;
- organisations work together to develop learning and work pathways; and
- support is provided for learners as they follow their individual learning and work pathways.

The National Articulation Policy sets out the legislative and regulatory framework for articulation for the DHET and other government departments; SAQA; the three Quality Councils³; education and training entities and skills development providers; employers, and learners. Via SAQA, recognised professional bodies are also included. The National Articulation Policy supports the implementation of the NQF Act, the White Paper for PSET, and the National Development Plan (NDP) – and is further informed by, and operates alongside, the suite of eight NQF policies developed by SAQA. The Quality Councils' counterpart policies for their Sub-Framework contexts must be aligned to these overarching policies, and provide more detail regarding how articulation principles play out in the respective NQF Sub-Framework contexts.

1 The words 'learner' and 'student' are used inter-changeably in this Bulletin. 'Learner' denotes anyone of any age engaged in learning; it is frequently used in NQF policy. 'Student' is often used in the TVET and Higher Education contexts. The use of these terms reflects respondent terminology in the National Articulation Baseline Study (SAQA, 2018).

2 The South African NQF comprises three coordinated NQF Sub-Frameworks, namely (1) the General and Further Education and Training Qualifications Sub-Framework (GFETQSF), (2) the Higher Education Qualifications Sub-Framework (HEQSF), and (3) the Occupational Qualifications Sub-Framework (OQSF) respectively.

3 Umalusi, the Council for Quality Assurance in General and Further Education and Training; the Council on Higher Education (CHE), and the Quality Council for Trades and Occupations (QCTO) respectively oversee the GFETQSF, HEQSF, and the OQSF.

Current understandings of ‘articulation’

The research was based on current understandings of ‘articulation’ as comprising the following.

- First, articulation can be understood broadly, as **‘systemic articulation’** or ‘joined up’ qualifications and various other elements aligned to and supporting, learning pathways. Systemic articulation is based on legislation and the steering mechanisms available to the state, such as planning and funding in the education and training system.
- **‘Specific articulation’** is based on the formal and informal agreements within the system for education and training – between institutions – as guided by policies, accreditation principles, and mechanisms like Credit Accumulation and Transfer (CAT) or Memoranda of Understanding (MoU).
- Third, articulation exists through the **addressing of boundary-making practices and the support of boundary-crossing practices** as individuals encounter ‘boundary zones’ between the different elements of learning pathways, and adopt ‘boundary-crossing practices’ in their transitioning along their pathways⁴. This support includes reducing the gap between learning pathway-related policy development and implementation; strengthening specific pathways and enhancing the opportunities to access and progress along these pathways; the quality of education and training; Flexible Learning and Teaching Provision (FLTP)⁵; timely and appropriate career development advice, and the various types of support for learning needed in workplaces, amongst other aspects.

SAQA-DUT partnership research project

The SAQA-DUT project was designed to provide extensive information and evidence to support the implementation of the DHET’s Draft Articulation Policy⁶ and SAQA’s NQF

4 The ideas of ‘boundary zones’, ‘boundary-making and boundary-crossing practices’ and ‘transitioning along learning pathways’ were taken from SAQA-Rhodes University Partnership Research reported by Lotz-Sisitka (2015).

5 Related articles showing how institutions can transform towards being increasingly flexible in order to support individual learning pathways include Walters (SAQA-University of the Western Cape [UWC], 2015a; 2015b).

6 The DHET’s National Policy for Articulation was promulgated in January 2017, after the National Articulation Baseline Study data had been collected.

policy suite. It included seven in-depth case studies, the development of a National Articulation Baseline, and building the 'relational agency' (Edwards, 2014) and boundary-addressing approaches needed for strengthening articulation in the system. The over-arching research questions were: 'What successful models exist in South Africa for learners to transition between TVET Colleges and HEIs, between Universities of Technology (UoTs) and traditional universities, and between Colleges or HEIs on one hand, and workplaces on the other? Why are these models successful? How can they be taken to scale?' The project sought to:

- i. identify, analyse and document good practice models and relationships for learner transitioning between (a) TVET Colleges and HEIs, (b) UoTs and traditional universities, and (c) Colleges or HEIs, and workplaces;
- ii. identify and explore the potential for developing collaborative models in three types of articulation scenarios: 'developed', 'emerging' and 'latent'⁷, in order to take the good practice models and relationships to scale; and
- iii. identify the nature of activities and support that institutions, staff, and learners need for successful transitioning.

NATIONAL ARTICULATION BASELINE STUDY

The larger study of which the National Articulation Baseline Study was part, combined five theoretical frameworks. The first was 'ecosystems theory' (Pillari, 2002); the second 'relational agency' (Edwards, 2010; 2014); the third 'grounded theory' (Charmaz, 2006; De Vos, 2002), and the fourth and fifth respectively, the ideas of boundary-making, boundary zones, boundary-crossing, and individuals' experiences of boundaries on the one hand, and Bhaskar's idea of identifying and 'absenting absences' on the other (Lotz-Sisitka, 2015).

⁷ Developed models were those in which there were articulation-related structures and processes, and learners transitioning through the system; emerging models were those in which articulation structures and processes were being set up; latent models were those which were functioning, and for some reason, stalled.

National Articulation Baseline survey questions

The National Articulation Baseline Study was conducted through questionnaires designed for the public HEI and TVET College groups respectively. The questions sought to:

- i. explore the understandings of articulation in the institution;
- ii. obtain descriptions of the institution's existing articulation arrangements;
- iii. obtain descriptions of the management of these articulation arrangements, and challenges (boundary-making/ boundary zones);
- iv. capture the extent and nature of the successes and enablers of articulation experienced (boundary-crossing/ addressing boundaries); and
- v. determine the extent to which the tracking of learner movements into, through and out of the institutions, was taking place.

The institutions were asked to identify and provide any supporting documentation they were able to share, and to indicate whether or not they were willing to write up, or co-write, their articulation-related successes.

Sampling and responses

The survey was conducted in 2016. Given the timeframe, the decision was taken to focus only on public entities: all 50 public TVET Colleges and all 26 public HEIs were included. Forty-nine (98%) of the Colleges and 25 (98%) of the HEIs completed the surveys.

Analysis of questionnaire responses

The results of the survey were analysed using a variety of coherent mechanisms which comprised thematic analysis, the analysis of key words following a grounded theory approach, and an analysis of the extent to which there were 'absences' in articulation, and 'presences' (models or mechanisms) that could be used to 'absent the absences' (Bhaskar, 1993; Norrie, 2010; Lotz-Sisitka, 2015). Data were considered in terms of the extent to which they described boundary-making, and enabled boundary-crossing and learner transitioning. The ideas of 'relational agency' (Edwards, 2010; 2014) and 'ecosystems' (Pillari, 2002) were also used.

Summary of National Articulation Baseline Study results

Understandings of articulation

It was found that across the public HEI and TVET College responses, there were relatively high awareness levels of *systemic articulation* (linked up qualifications and other elements that make up learning pathways in the system) and *specific articulation* (institutional/specific arrangements to enable articulation between particular programmes/qualifications, learning and work). There was less understanding of the need for institutions to be flexible in their support of learners as they transition along their particular *individual pathways*. It was found that the latter needed to be addressed as a matter of urgency, especially given the current norm of the majority of learners 'stopping in and stopping out' of learning and work as they fit work and family responsibilities into their 'staggered' (as opposed to 'continuous') learning pathways (SAQA-UWC, 2015a; 2015b; Isdale, 2016).

Existing articulation initiatives and success models

Around a third of the TVET Colleges reported existing formal articulation arrangements. Half of the total number of Colleges noted that they were participating in informal arrangements (usually for links to workplaces) – these informal arrangements for some Colleges were in addition to formal arrangements. A seventh of the Colleges reported involvement in a combination of formal and informal arrangements. Just under half of the HEIs surveyed, reported participating in formal articulation arrangements, and a quarter of the total number of HEIs was involved in informal initiatives. In short, all of the TVET Colleges reported engagement in some articulation activities, while over two thirds of public HEIs did so.

Province-wide articulation initiatives

At least three relatively large-scale articulation arrangements were found. All three were developed in response to provincial needs; all three involved the provincial governments concerned, and/or a range of learning institutions, and other entities in some cases. Each of these examples differed in terms of approach, scale, and purpose. Yet each gained traction, possibly as a consequence of turning articulation into a provincial priority. All three included *systemic articulation* elements (the alignment of programmes and pathways), *specific articulation* elements (specific agreements between institutions, for

specific qualifications), and elements of *individual learner support* in the form of extensive advocacy and/or career development advice. The role-players involved identified the initiatives as being successful. The boundary-crossing activities in all three initiatives could potentially be replicated.

Articulation models involving nodes of networked institutions, and reported as being successful

In addition to the provincial models, a number of effective *specific* articulation arrangements were reported, with each appearing to be anchored around a single institution. Some Colleges provided evidence of multiple articulation arrangements across the PSET landscape, including evidence of 'active' Memoranda of Agreement (MoA) and learner tracking into, within and out of the Colleges. Several HEIs reported articulation agreements with a number of Colleges. These arrangements effectively created boundary-crossing zones.

Articulation champions

In the good practice models described, two key contributing factors surfaced that appeared to be driving the success of the models. The first factor was the reliance on an established articulation *office*, as opposed to an incumbent *officer*. These structures were responsible for some – if not all – of the elements of articulation. They enabled boundary-crossing practices.

A second factor was the existence of the 'resourceful leadership' (Edwards, 2014) needed to forge collaborations across perceived divides.

Cultivating such leadership and establishing more articulation structures should be made a requirement for enhancing the boundary-crossing needed for articulation.

Centrality of lifelong learners

The finding that lifelong learners were placed centrally in the articulation initiatives, needs to be taken to scale if 'epistemic injustice' is to be ameliorated. In the marketing of articulation, the independent pathways of the transitioning learners and the supportive environments that enable these pathways, need to be foregrounded (as opposed to

the institutions themselves being at the centre of marketing initiatives). Institutions of learning need to be flexible in their provision of support for lifelong learners, and need to put policies, structures, processes, and resources in place to ensure sustainability in providing this flexible support.

Tracking learner transitioning

Just over half of the Colleges and just under a third of HEIs noted that they track learner progress. However, the information that is tracked differed across institutions. Systematic reporting requirements are needed to support articulation, and 'Articulation Reporting Guidelines' are needed to facilitate common understandings around tracking and consistent articulation-related reporting across the system. Learners' identity numbers could be utilised, to enable tracer studies of learner movements within and across different contexts in the system. This reporting needs to be integrated into current reporting systems.

'Developed', 'emerging' and 'latent' articulation scenarios found

In the conceptualisation of the 'articulation scenarios' model for framing the samples in the broader study of which the National Articulation Baseline Survey was part, the three articulation scenarios (categories) described were those of 'developed', 'emerging' and 'latent'. Although respondents were deliberately not asked to categorise the scenario(s) that described the articulation initiatives in their institutions, their responses enabled the research team to categorise the initiatives in terms of 'articulation scenarios' (Table 1).

Table 1: Reported articulation seen through the lens of 'articulation scenarios'

Types of institutions	Developed articulation scenarios	Emerging articulation scenarios	Latent articulation scenarios	'Not sure'	Total numbers of articulation scenarios⁸
HEIs	8	9	7	1	25
TVET Colleges	8	29	13	0	50
Total numbers of articulation scenarios	16	38	20	1	75

⁸ Some HEIs and TVET Colleges reported more than one articulation initiative, where the scenarios of the initiatives differed – the numbers of scenarios therefore do not refer to the numbers of Colleges and HEIs that responded to the survey.

Developed articulation scenarios reported by HEIs

Eight of the articulation scenarios reported by the HEIs were categorised as being 'developed' and could be taken to scale. One of these 'developed articulation scenarios' involved multiple partners including a UoT, four TVET Colleges, the Provincial Education Department, and articulation between N4-N6 qualifications⁹ and both the National Diploma and B Tech Degree (to be replaced by the Advanced Diploma in future) in Engineering and Management respectively. Collective support of a Memorandum of Agreement (MoA) supported this initiative. At the time of the research (2016), over 8000 learners had transitioned successfully.

A second HEI-reported developed articulation scenario involved a traditional rural university, TVET Colleges, a Sector Education and Training Authority (SETA), and a Provincial Education Department, and vertical articulation between (i) the National N Diploma in Animal Production¹⁰, and a Bachelor Degree at NQF Level 7, as well as (ii) part-qualifications that were linked to full qualifications for government officials. In this initiative, the SETA was the 'broker' of boundary-crossing.

A third HEI-reported developed articulation scenario involved a Comprehensive University and a number of agreements with Colleges for transitioning between Higher Certificates and National Diplomas. In this initiative, the Higher Certificate and MoA constituted the boundary-crossing mechanisms.

Other developed initiatives were also reported by HEIs.

Developed articulation scenarios reported by TVET Colleges

Eight articulation scenarios reported by TVET Colleges were categorised as being developed. From among these, two described articulation arrangements between programmes at the Colleges and those at two universities, and between the College

9 'N1-N6' qualifications are also referred to as National Accredited Technical Education (NATED), and '191 courses', after 'Report 191 on Formal Technical College Instructional Programmes in South Africa' – a report no longer in circulation as it has been superseded.

10 TVET Colleges award National N Diplomas to students who after being awarded the N4-N6 Certificates, complete an 18-month internship in an approved workplace. These N Diplomas are not to be confused with the National Diplomas offered by UoTs, which in compliance with the HEQSF framework are being phased out and replaced by HEQSF-aligned Diplomas.

qualifications and entry to Trade Tests/access to artisan training. In these instances, MoAs formalised the articulation arrangements.

A third College reported successful articulation between the National Certificate: Vocational (NCV) and NATED (N) courses¹¹ respectively, and employment. In these instances, apart from articulation from the NCV4 into a cognate NATED course, an NQF Level 4 SETA learnership supplementing an NCV4 course was the mechanism to drive articulation.

Reported articulation pathways

In all, articulated pathways were reported as follows:

- a. N4-6 qualifications → workplace (vertical articulation within NQF Sub-Framework);
- b. N4-6 qualifications → National Diploma¹² → workplace (vertical articulation within NQF Sub-Framework);
- c. N4-6 qualifications → National Diploma → Advanced Diploma → workplace (vertical articulation within NQF Sub-Framework, followed by diagonal articulation);
- d. N4-6 qualifications → Trade Tests → workplace (horizontal articulation within NQF Sub-Framework);
- e. N4-6 qualifications → National N Diploma → HEI Degree Studies, where the Advanced Diploma is replacing the B Tech Degree (diagonal/vertical articulation across NQF Sub-Frameworks);
- f. NCV4 → workplace;
- g. NCV4 → N4-6 to the pathways shown in (a)-(e) (horizontal articulation across NQF Sub-Frameworks followed by vertical articulation);
- h. NCV4 → Higher Certificate (vertical articulation across NQF Sub-Frameworks);

¹¹ 'N1-N6' qualifications are also referred to as National Accredited Technical Education (NATED), and '191 courses', after 'Report 191 on Formal Technical College Instructional Programmes in South Africa' – a report no longer in circulation as it has been superseded.

¹² TVET Colleges award National N Diplomas to students who after being awarded the N4-N6 Certificates, complete an 18-month internship in an approved workplace. These N Diplomas are not to be confused with the National Diplomas offered by UoTs, which in compliance with the HEQSF framework are being phased out and replaced by HEQSF-aligned Diplomas.

- i. NCV4 → Higher Certificate → National Diploma (vertical articulation across NQF Sub-Frameworks);
- j. Level 5 Occupational Certificate → National Diploma (diagonal articulation across NQF Sub-Frameworks); and
- k. Higher Certificate → National Diploma (vertical articulation within NQF Sub-Framework).

Among other articulation scenarios, the following were noteworthy as approaching the 'developed articulation scenario' stage and could also be taken to scale:

- interdisciplinary Postgraduate Diplomas specifically designed to include several disciplines in order to broaden articulation possibilities;
- articulation arrangements between National N Diplomas and cognate Advanced Diplomas;
- the adoption of a systemic (provincial) approach to articulation focusing on critical areas with strong potential for success; and
- an articulation arrangement between an HEI and an NGO operating as an 'matric school'¹³ for 'second chance learners'.

Regarding the alignment of the TVET College and HEI responses

It is worth noting that the TVET College descriptions of the formal inter-institutional arrangements which they had brokered were comparable to the HEI descriptions of their formal inter-institutional arrangements. Also, where formal arrangements existed and were being implemented, articulation and learner transitioning between qualifications were taking place, and thriving. Well-articulated arrangements appeared to be synonymous with well-managed arrangements.

The value of 'articulated units of learning' that are parts of qualifications

The practice of using modules, unit standards or other units of learning that are parts of qualifications by design, as part of a 'ladder of units of learning', is another scenario that could be taken to scale. The articulated units of learning found, were part-qualifications that were parts of full qualifications. The linking of part to full qualifications by design

¹³ 'Matric' is a colloquial term used within schools and beyond, in South Africa.

created a boundary-crossing mechanism which enabled learners to exit upon completion of the part-qualifications, or to articulate into the full qualification through CAT immediately or at a later stage, hence making participation in the institution of learning flexible. One HEI's description of this practice constituted a developed articulation scenario, while another described an emerging articulation initiative.

Perceptions of success or otherwise

Overall, 30 (61%) of the Colleges rated their articulation initiatives as being 'moderately successful', 'successful' or 'highly successful', and 12 (48%) of the HEIs did so. Five (10%) of the Colleges and none of the HEIs reported 'mixed successes'. The factors described as contributing to the perceived varying levels of success, as well as the attributes of the developed initiatives described, were used to develop sets of boundary-crossing mechanisms or 'articulation enablers'.

SEVEN IN-DEPTH CASE STUDIES OF ARTICULATION

Part of the SAQA-DUT partnership research included seven in-depth case studies of articulation. The purpose of the case studies was to investigate the details of the initiatives, towards elaborating successful mechanisms and practices that could be taken to scale. Amongst the case studies, were developed, emerging and latent articulation scenarios.

Case studies of developed articulation scenarios

Case 1: Engineering

Case 1 – the Engineering case – investigated a developed scenario; there was a history of articulation initiatives among the stakeholders involved. It involved role-players from TVET Colleges, a traditional university, a UoT, a professional body; students, academic and technical staff, management, and administration staff. It was located in the context of the support that Engineering faculties have received from the Engineering-related professional bodies, for the development of the new suite of qualifications recently required for alignment with the Higher Education Qualifications Sub Framework (HEQSF).

Case 1 focused on the Higher Certificate as a means to enable articulation into a UoT. It involved collaborative work towards developing a Higher Certificate in Mathematical Sciences, to be offered as an access qualification into the Faculty of Engineering and the Built Environment at the UoT. The intention was that the Higher Certificate would be offered by the Colleges as part of an MoA with the UoT, to enable articulation into the Diploma and the Degree offered at the UoT. The study explored the perceptions of management, academics and staff, regarding the extent of articulation at the level of curriculum design and development of the Higher Certificate, and the impediments and enablers of transitions within Engineering.

Case 2: Management Sciences (Hospitality and Tourism)

The Commerce case was also a developed scenario; as for Case 1, there had been a history of articulation initiatives among its stakeholders. In the Faculty of Management Sciences at the UoT involved, articulation arrangements had generally been *ad hoc* in nature, with the exception of the arrangements for the Hospitality and Tourism qualifications. In the departments in which the latter were located, there were formal arrangements that defined the articulation between the Higher Education qualifications, and the cognate NATED qualifications offered by a private College. This case explored the notion of participatory management as an enabler in the articulation arrangements between the College and UoT. Participants in this case included the CEO, management team, and relevant academic staff of the College, and the Dean of the Faculty of Management Sciences at the UoT, as well as the Heads of Department and academic staff from the UoT's Departments of Tourism; and Food, Nutrition and Consumer Sciences involved in the experiential learning and moderation of the College students.

Case studies of emerging articulation scenarios

Case 3: Child and Youth Development

Case 3 represented an emerging scenario, as the Child and Youth Care (CYC) qualifications had not incorporated in their original design, provisions for articulation. Case 3 was split into two investigations. The first covered the theoretical component of the curriculum for CYC at a UoT; the second, the practical component – given the known articulation challenges linked to what was referred to as 'Work Integrated Learning (WIL)', or 'fieldwork practice' in this Human Services Profession. Case 3 explored how

curriculum and articulation were conceptualised by the stakeholders involved, and how current systems and procedures for articulation of the CYC programmes between the UoT and professional association enabled or challenged the development of articulation arrangements. Study participants included the Director, management team, and selected academic staff of the professional association, and the Dean of the Health Sciences at the UoT as well as representatives of this Faculty involved in the curriculum design and development of the Professional Bachelor's Degree in Child and Youth Development offered at the UoT.

Case 4: Art and Design

Case 4 focused on the articulation between Arts and Design courses at a TVET College and those at a UoT. This case comprised an emerging scenario; no formal articulation arrangements existed at the time of the study, although there had been related dialogue and numerous efforts for several years. The informal arrangements that had occurred were intermittent, infrequent and often serendipitous. A process had begun, to formalise the articulation arrangements – which involved staff from the UoT, College, and industry.

Case Study 4 focused on understanding the kind of support that staff members in the College and UoT required, in order to enable successful articulation between the institutions, for Graphic Design students seeking to transition from the College to the UoT. The study also sought to develop a framework to support staff at TVET Colleges and UoTs in general, for articulation in the Graphic Design field. Participants in the study included representatives from the UoT and TVET College, including top management, Deans, Heads of Department, teaching staff and technical staff. Participants also included students at the College, seeking to transition to the UoT.

Case 5: Community Development

Community Development is an emerging profession and discipline – and while the professionalisation of the discipline is a recent phenomenon, the actual practice has a long history, including being an important part of the liberation struggle in South Africa. The South African Department of Social Development (DSD) established a Steering Committee in 2007 to develop qualifications in Community Development; the Committee proceeded to develop three qualifications at NQF Levels 4, 5 and 8. Case Study 5 focused on the consideration given to articulation and the Recognition of Prior Learning (RPL)

in the development of the programmes for these qualifications, with a special focus on the NQF Level 8 programme. The participants in Case Study 5 were key members of the DSD Steering Committee, including staff of the DSD; the Head of Department in the relevant faculty from the first university in the country to offer the four-year Professional Degree programme in Community Development; two staff members at this university responsible for administering the RPL processes, and the five students admitted through the RPL process in 2017 and 2018.

Case studies of latent articulation scenarios

Case 6: Social Entrepreneurship

Case 6, located in the Footwear and Leather Sector, represented a latent scenario as preliminary work on the development of a learning pathway from the workplace into education and training institutions had stalled. It included representatives from industry, UoTs, TVET colleges, a SETA, government departments, and two groups of mature students. The first group were mature students who were employed and wished to articulate from workplaces to formal education and training, for further skills development and the development of entrepreneurial initiatives within their places of employment. The second group were based in a community, and sought skills development for development as entrepreneurs in the community. Case 6 focused on an initiative involving the development of a Social Entrepreneurship curriculum.

Case 7: Alternative post-school initiative

Case 7 focused on a second-chance learning academy that offers opportunities to students to prepare for an Engineering-related trade, with the added feature of further education and training should learners wish to articulate into a TVET or UoT programme. Industry placements are guaranteed upon completion of the Trade Test. A significant number of the learners at the academy at any given time, experience learning disorders. The case study sample included students, staff, employers and management of the academy, two workplaces training centres, and a UoT.

Case Study 7 explored (a) factors that had enabled the development of, and impediments to, the academy's programme of training youth with learning disabilities for the workplace,

and (b) the articulation enablers and challenges regarding articulation from its courses and those in TVET Colleges and the workplace. Elements of this case fit the latent scenario, as the attempted mobility of students into TVET Colleges or a UoT had been stalled. Other elements of this case fit the emerging scenario as some mobility of academy students into the workplace/partner organisations, was occurring.

Draft recommendations from the case studies

At the time of the development of this Bulletin, the recommendations developed on the basis of the case studies, were in draft form and still under discussion. The recommendations included pointing to the Higher Certificate as a bridging device, where collaborative curriculum development was a pre-requisite for articulation. Secondly, that the development of the NCV and NATED qualifications needed to incorporate articulation-by-design from the start. Thirdly, that HEIs needed to be required to track the progress of students entering with National Senior Certificate (NSC), NCV, and NATED qualifications respectively. Fourth, that employers needed to be required to publish the numbers of learners they could train each year. Fifth, that MoA and MoU were needed to support articulation, as were clear and systematic communications regarding the MoA and MoU, between all of the stakeholders involved. Sixth, that the definition of ‘a part-qualification that is part of a whole’ needed more clarity and advocacy. Seventh, that HEIs needed to develop, and implement, their articulation policies – and to have an articulation office, and a Work Integrated Learning (WIL) Coordinator. Eighth, that public learning events were needed, to deepen the understandings and implementation of, articulation. These recommendations were to be distributed to a wider range of NQF stakeholders, for fine-tuning.

ENABLERS OF ARTICULATION (BOUNDARY-CROSSING MECHANISMS) IDENTIFIED

A series of ‘articulation enablers’ have been identified through the National Articulation Baseline Study, and the seven in-depth case studies. This series was fine-tuned, and endorsed by 100 NQF stakeholders at a NQF seminar hosted by SAQA in January 2018 for participants including the 76 organisations involved in the National Articulation Baseline Study, the SAQA-DUT Research Partners, and representatives of the NQF partner organisations (DHET, DBE, SAQA, the Quality Councils, and Recognised Professional Bodies).

Articulation Enabler 1

The first articulation enabler is the deliberate and conscious development of collaborative relationships by both HEIs and TVET Colleges in order to: (1) seek to understand qualifications/ programmes/ learners within and across types of institutions; (2) deliberately show respect for individuals and their work, in other institutions; (3) understand and align curricula and programmes to facilitate transitioning; and (4) advocate different learning pathways and provide advice to learners at early and key points, on the subject requirements of pursuing specific learning-and-work pathways. Aligning learning to the HEQSF assists articulation.

Articulation Enabler 2

A second articulation enabler comprises vigorous advocacy of the NQF regulatory framework, together with efforts by all the different role-players in the system, to understand the different parts of the regulatory system. Role-players include but are not limited to SAQA, the Quality Councils, DHET and DBE officials, public and private institutions of learning, professional bodies, provincial and national government departments and other structures, NGOs, and employers. The provision of sufficient work placement opportunities is essential, as are entrepreneurship and 'intra-preneurship'¹⁴ hubs.

Articulation Enabler 3

The establishment, commitment to, and implementation of, formal articulation agreements – in the form of either MoUs or MoAs, CAT arrangements, place reservation, RPL, and other mechanisms, is a third articulation enabler.

Articulation Enabler 4

Inclusive admission criteria – which include HEIs admitting learners with N4-6 and NCV4 as well as with NSC qualifications, providing RPL, recognising all appropriate types of learning, and admitting learners over the age of 23 who do not hold an NQF Level 4 qualification, comprises a fourth articulation enabler.

¹⁴ 'Intra-preneurship' as a concept and practice has been identified in at least one case study in the SAQA-DUT Partnership Research into articulation. Intrapreneurs are employees identified for skills development training that will include training for entrepreneurship, with the first opportunity to demonstrate and practice their enterprise, *within* the workplace. As each of these employees and their enterprises grow, a formal relationship evolves in which the entrepreneur becomes a supplier to the employer, or part of the employer's supply chain.

Articulation Enabler 5

The provision of quality teaching and learning, and seeking high learner achievement levels – where the quality of provision includes a wide range of learner support initiatives, including the scaffolding of the content of learning within and between learning offerings, is a fifth articulation enabler. Flexible provisioning of education and training is necessary – flexibility in administration systems, in learning and teaching methods and scheduling, in assignments and assessment, and in access processes¹⁵. Anyone can refer to the National Learners Records Database (NLRD) which states the minimum entry requirements for NQF qualifications¹⁶. The use of RPL is strongly encouraged.

Articulation Enabler 6

A sixth articulation enabler comprises career development advice from the very early stages of learning pathways, whether at school, TVET College, Community College, HEI or elsewhere, and most importantly at transition points. Students must be advised about ‘possible steps’ and ‘destination possibilities’.

Articulation Enabler 7

A seventh articulation enabler comprises Articulation that is focused on particular learning pathways/ fields/ programmes/ transition points – such as transitioning between N4-6 programmes or NCV qualifications and cognate learning programmes in HEIs, and others. The survey results showed clearly the importance of retaining NATED qualifications in the qualifications/ programme mix. Collaboration cannot just be for the sake of collaboration – focus areas are needed. A focus on articulation from HEIs or TVET Colleges to professional designations, is also needed.

Articulation Enabler 8

The availability of critical resources, including human resources and funding, to support articulation, is an eighth enabler of articulation.

¹⁵ SAQA-University of the Western Cape partnership research into lifelong learning provides an example of this flexibility (SAQA-UWC, 2015a; 2015b).

¹⁶ The NLRD is managed by SAQA. It includes data on learning achievements; qualifications and part-qualifications registered on the NQF; accredited providers; and recognised professional bodies with their professional designations.

Articulation Enabler 9

Additional research to support articulation, where the research is documented and widely shared across NQF organisations, is a ninth articulation enabler.

WAY FORWARD FOR ARTICULATION

At the January 2018 NQF seminar hosted by SAQA for the participants in the National Articulation Baseline Study, and NQF partners, the delegates worked on, and endorsed, a statement which acknowledged that articulation can be understood in at least three ways – as noted in the opening section of this Introductory Note – and agreed to the following.

1. Encourage and promote the development and implementation of formal articulation agreements to create a culture of articulation within and across learning and work, where the formal agreements supplement NQF legislation and are aligned with this legislation.
2. Participate in the collaborative relationships needed with role-players in the DHET, DBE, SAQA, the Quality Councils, other statutory bodies, institutions of learning across the board, professional bodies, employers, organised business and organised labour, NGOs and others – to develop and sustain articulation initiatives.
3. Commit to the quality of teaching and learning, and quality scaffolding of curriculum – including quality provision, quality learner achievements, and quality learner support and career advice – to address the related system/ institutional gaps which may be hampering articulation.

In 2016, 2017 and 2018, SAQA conducted analyses of actual learner movements – as recorded in the NLRD – to show actual learning pathway trends over the last 20 years, in general, and for particular sectors. These analyses were used in a SAQA-hosted workshop for 40 decision-makers in the Early Childhood Development (ECD), Engineering, and Community Development sectors, in September 2018. The workshop was designed to showcase articulation research, analyses and developments to date; and to take articulation forward in the three sectors. The sectors were chosen because they have already made considerable efforts to deepen articulation, while particular pathways still

need to be strengthened in each context. Each sector workshopped particular pathways that need strengthening, and developed plans to take this work forward.

THIS BULLETIN

This Bulletin, in publishing papers on developed and clearly emerging articulation initiatives, seeks to showcase success cases; deepen understandings of articulation possibilities and mechanisms that enable articulation; advocate and share information on, existing initiatives towards the spread of such work, and generally support the national articulation agenda. The international papers provide valuable international insights for the national articulation agenda and beyond. It is hoped that readers of the papers will be inspired and encouraged to engage with this agenda, for the benefit of lifelong learners everywhere.

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PAPER 1

Articulation Initiative of the Cape Peninsula University of Technology (CPUT): Higher Certificate in Information Communication Technology (ICT) specialising in IT Services Management

Professor Bennett Alexander and Dr Errol Francke

INTRODUCTION AND BACKGROUND

This paper describes an articulation initiative of the Cape Peninsula University of Technology (CPUT) and three Technical and Vocational Education and Training (TVET) Colleges in the province where these institutions are located¹⁷. The TVET Colleges are the College of Cape Town, False Bay College and Northlink College. The initiative focuses on the Higher Certificate in Information Communication Technology (ICT) specialising in IT Services Management (ITSM). This Higher Certificate is a National Qualifications Framework (NQF) Level 5 qualification, and as such has both vocational and foundational curriculum outcomes. The learning programme which supports it therefore aligns with identifiable job opportunities and career pathways for its graduates. ITSM Higher Certificate graduates would probably best be employed as first-level technical support practitioners within the ICT support industry, or articulate into CPUT's ICT programmes such as the Diploma in ICT.

The articulation of the TVET students into the university sector was an important design consideration in the curriculum development of the ITSM Higher Certificate qualification. But the project also intended to redress broader challenges that confront the University of Technology (UoT) and TVET sectors.

For example, there is typically an over-subscription for enrolment into ICT programmes at universities. However, despite this enrolment over-subscription, CPUT (and probably other UoTs) continue to experience low throughput rates. It is suggested that a major reason for low throughput in ICT programmes at CPUT, has been the general under-preparedness

¹⁷ There are three TVET Colleges in the province, but False Bay College has two campuses, so the initiative is being implemented on four campuses.

of students entering these programmes. A typical response is to invest more resources in academic remediation activities, which places a financial burden on the university.

The TVET sector, unlike the university sector, typically has to contend with under-subscription for enrolment into ICT programmes. TVET Colleges furthermore have to deal with a perceived lack of prestige associated with the ICT qualifications they offer. Some Colleges seek articulation and student movement into the workplace; where articulation into Higher Education is sought, College graduates often struggle.

The aim of the CPUT-TVET collaboration has therefore been to strengthen access and articulation arrangements, and consequently allow both types of institutions to deliver more effectively on their respective mandates. This initiative sought to affirm the TVET sector not only as a provider of vocational ICT training but also to enhance its status as a *bona fide* feeder pathway into the university, thus improving the overall efficiency and effectiveness of the education delivery system.

PURPOSES OF THIS PAPER

The purposes of this paper are to:

1. sketch understandings of articulation at the CPUT;
2. describe the CPUT's articulation arrangements with the three TVET Colleges in the province;
3. discuss how the CPUT's articulation arrangements are managed in terms of policy, as well as in everyday practice – including some of the challenges experienced, and how these have been addressed;
4. explain the extent of success of these initiatives, in CPUT's view – including the main successes, and how these were achieved; and
5. describe how the students who transition into CPUT are monitored and tracked in terms of their progression through CPUT's programmes, and their success rates and levels.

UNDERSTANDINGS OF ARTICULATION AT CPUT

In the past at CPUT, articulation was mostly understood as comprising inter-institutional arrangements between CPUT and other institutions, such as the TVET Colleges or

international Higher Education Institutions (HEI). The scope and complexity of articulation and credit transfer arrangements in the last ten years have however expanded to include both inter-institutional articulation (national and international) as well as intra-institutional articulation. It could be argued that CPUT is still busy deepening its integration of the imperatives in the latest policy requirements, such as the Higher Education Qualifications Sub-framework (HEQSF)¹⁸, Draft National Articulation Policy (Department of Higher Education and Training [DHET], 2017); the Framework for Qualification Standards in Higher Education (Council on Higher Education [CHE], 2011); and the national policies for Recognition of Prior Learning (RPL), Credit Accumulation and Transfer (CAT), and assessment (SAQA, 2013; 2014a; 2014b; 2016).

CPUT's RPL and CAT policy and practice

CPUT developed an Articulation and Credit Accumulation and Transfer policy in 2016. This policy details procedures to be followed by academic departments for intra-institutional articulation and credit transfer, especially in terms of credit transfer on the basis of subject equivalence between non-HEQSF- and HEQSF-aligned qualifications. The NQF level gap between the non-HEQSF-aligned B Tech Degree (NQF Level 7) and the HEQSF-aligned Master's Degree (NQF Level 9) has been addressed, and students who have completed non-HEQSF-aligned qualifications will be able to progress to HEQSF-aligned postgraduate qualifications upon successful completion of '60 credits of bridging content'.

RPL is available for mature students seeking to enter CPUT. The RPL process involves the identification, mediation, assessment and acknowledgement of knowledge and skills obtained through informal and non-formal learning. RPL at CPUT can only be done against qualifications offered by CPUT. There are three options for RPL at the university, namely, (1) access into first-year for applicants older than 23 years; (2) exemption from certain subjects/ courses; and (3) RPL for advanced standing into post-Diploma studies.

18 Government Gazette Vol. 592 No. 38116 of 17 October 2014; Government Gazette No. 37757 of 27 June 2014; Government Gazette No. 39867 of 30 March 2016. The National Qualifications Framework (NQF) in South Africa comprises three coordinated NQF Sub-Frameworks, namely, the General Education and Training Qualifications Sub-Framework (GFETQSF), Higher Education Qualifications Sub-Framework (HEQSF), and Occupational Qualifications Sub-Framework (OQSF).

RPL for access into first year studies at CPUT

If a student has five or more years of work experience that is related to the course of study that the student is seeking to enter, and the student does not meet the academic requirements for entry into the first year of the programme, they may apply for 'RPL for access'. Each programme has particular RPL requirements, and the applications are evaluated against these.

'Exemption RPL' at CPUT

If a student has gained knowledge in specific areas through informal and non-formal learning, and this knowledge is closely related to the learning outcomes of the qualification the student is seeking to access, the student may apply for 'Exemption RPL' rather than 'RPL for access'. In this case, the student's knowledge is assessed in relation to the learning outcomes of particular subject(s)/course(s), for recognition. Based on the assessment results, the student may be exempted from some subjects/courses, but not for the entire qualification.

Differences between 'Exemption RPL' and 'Exemption Credit Transfer' at CPUT

If students have completed subjects (formal assessed learning) successfully at another HEI in South Africa, which are similar to the subjects in their intended course of study at CPUT, they can apply to have these credits transferred to their CPUT studies, and do not have to redo the subjects concerned. This process is referred to as 'Exemption Credit Transfer'.

CPUT has developed guidelines that govern the maximum number of subjects for which Exemption RPL and Exemption Credit Transfer can be granted. In terms of the 'residency clause', students must complete at least 50% of the subjects in any programme, at CPUT.

RPL for 'Advanced Standing' at CPUT

At CPUT, students may apply for RPL into 'post-Diploma courses' such as the Advanced Diploma, the Postgraduate Diploma, Masters Degree studies, and Doctoral studies – if they do not meet the entry requirements for these qualifications but have equivalent learning. This type of RPL provides for the recognition of knowledge gained at a level

higher than that needed for undergraduate qualifications. In addition to these articulation-related initiatives, CPUT embarked on a focused articulation initiative in 2016.

A DEDICATED CPUT ARTICULATION INITIATIVE

CPUT has had articulation agreements with TVET Colleges in the Western Cape Province of South Africa, for decades. The older arrangements with Further Education and Training (FET) Colleges and Technikons such as 'standing approvals'¹⁹ lapsed when the Post-School Education and Training (PSET) landscape and policy environment changed in post-1994 democratic South Africa.

The revised South African HEQSF approved by the Minister of Higher Education and Training (MHET) in 2012, resulted in the development of new qualifications designed to overcome articulation barriers caused by the former separate and parallel qualifications structures for universities and the former technikons (now UoTs). As a result, certain qualifications have been replaced by others, while new qualification variants have been introduced, in particular, in relation to the pathways for vocational and professional qualifications – in order to provide greater flexibility. The MHET has stipulated that the last date for first-time entering students enrolling in academic programmes that are not aligned with the HEQSF, is 31 December 2019²⁰.

In 2014, CPUT commenced an initiative involving offering the HEQSF-aligned Higher Certificate in ICT specialising in IT Services Management, in close collaboration with three TVET Colleges in the Western Cape Province. This work involved aligning curriculum design, delivery and assessment. Memoranda of Understanding (MoU) were signed by CPUT and the three Colleges to formalise this work. Site and programme accreditation were obtained from the Higher Education Quality Committee (HEQC)²¹, and approval from the DHET. This Higher Certificate has been offered from 2016, and the initiative continues to run.

19 In democratic (post-1994) South Africa, the race-based HEI were merged into 'Traditional Universities', Universities of Technology' (UoTs), and 'Comprehensive Universities' – the 'Technikons' became UoTs. The FET Colleges were renamed 'TVET Colleges' after the publication of the White Paper for Post-School Education and Training (PSET) (DHET, 2013). 'Standing approvals' were the set of pre-approved recognised subjects and qualifications needed for articulation.

20 This communication was made via Government Gazette No. 40123, Vol. 1636, July 2016.

21 The HEQC is the accounting authority of the Council on Higher Education (CHE), which oversees the HEQSF.

In 2016, CPUT embarked on a major courseware development project supported by the Media, Advertising, Information and Communication Technologies Sector Education and Training Authority (MICT SETA)²², to deliver a comprehensive set of textbooks and web resources in support of the Higher Certificate in ICT specialising in IT Services Management. The instructional design, authoring, evaluation and production of the courseware was supported by TABELISA (formerly known as the Technical and Business Education Initiative for South Africa). TABELISA is affiliated to CPUT and has a strong record of academic materials development.

The initiative promotes access to university-level vocational and professional ICT education by providing a learning platform that is academically specific and contextually appropriate. Four textbooks were to be developed within the MICT SETA project, namely – (1) IT Services Management, (2) Quantitative Techniques, (3) Programming, and (4) ICT Fundamentals. CPUT subsequently decided to extend the mandate and also undertook to develop textbooks in support of the other subjects in the curriculum for the Higher Certificate in ICT specialising in IT Services Management, namely, (5) the ITSM Project, (6) Business Practice, and (7) Professional Communication.

A course fee of R20,500 (twenty thousand, five hundred South African Rands) that includes courseware, is currently required for the 2018 academic year²³.

The selection process for student placement into the programme at CPUT and the participating TVET Colleges is effected via the standard operating procedures of the online application system of CPUT.

The financial model for the initiative supports cost recovery as a minimum performance standard. The TVET Colleges are entitled to 100% of the course fees collected and, 40% of the subsidy income received²⁴. CPUT is therefore not entitled to any of the course fees, but receives 60% of the subsidy income. The TVET Colleges are responsible for the collection of all class fees for those students attending their respective campuses.

22 In South Africa, Sector Education and Training Authorities (SETAs) link the demand (skills needs in workplaces) and supply (the education and training needed to produce these skills) in particular economic sectors; currently there are 21 SETAs. The SETAs report to the Department of Higher Education and Training, and also work under the auspices of the Quality Council for Trades and Occupations (QCTO) – which oversees the OQSF – for the development and quality assurance of these qualifications.

23 This fee is subject to annual increases.

24 The teaching input grant subsidy is payable to institutions by the DHET on the basis of a financial model.

MEMORANDA OF UNDERSTANDING (MoU) IN THE ARTICULATION INITIATIVE

The Memorandum of Understanding (MoU) for the collaborative offering of the Higher Certificate in ICT specialising in IT Services Management between CPUT and the respective participating TVET Colleges is renegotiated on an annual basis. CPUT is responsible for academic development relating to subject matter content and the didactics for the subject, which include learner management system training, and quality assurance. The TVET Colleges are responsible for programme delivery with due acknowledgement of the Areas of Cooperation and Sharing Information provisions of the MoU. The Higher Certificate in ICT specialising in IT Services Management currently exists only on the CPUT's Programme and Qualification Mix (PQM)²⁵; all of the students involved are registered as CPUT students, and have the same institutional access rights as those enjoyed by other CPUT students. These rights include access to the National Student Funding Aid Scheme (NSFAS), CPUT's library, and student counselling, amongst others.

The collaboration agreement between CPUT and TVET Colleges is formalised through the signing of three separate legal documents, namely, (1) a "Declaration of Intent" that describes the governance mechanisms for various specific inter-institutional transactions, (2) a "Memorandum of Understanding", and (3) an Annexure specifying the business and financial agreements for a given period. The MoU between CPUT and the TVET Colleges also covers specific aspects, such as, (1) Areas of cooperation, (2) Information-sharing, and (3) the duration, amendment and termination of the MoU.

CPUT undertakes to admit from each of the TVET Colleges participating in this initiative, a minimum of 20 students who meet the admission criteria, into its Diploma in ICT (an NQF Level 6 course). In each participating institution an academic champion is needed, who is willing to lead the initiative and drive its processes. Adequate support from the institution at a top management level is imperative. It is important for the success of the collaboration project, that it is 'championed' across the hierarchies of the collaborating institutions.

25 The PQM is the suite of DHET-approved qualifications to be offered by the institution for subsidy purposes.

Management of the MoU for the articulation initiative

The TVET Colleges are generally but not exclusively responsible for (a) the provision of academic staff to support their own sites of delivery, (b) staff development for their staff members associated with the collaboration project, (c) student support within their own traditions, (d) tutorial support towards enhancing student performance, and student development within the declared aspirations of the programme, (e) the provision of infrastructure and equipment to enable the delivery of the programme, and (f) the operational management of the programmes on their sites.

On the whole, CPUT is generally, but not exclusively, responsible for (a) all aspects of the intended curriculum, (b) training the trainers, (c) TVET College staff support, (d) academic development relating to subject matter content and the didactics of the subjects, (e) courseware development, (f) the Learning Management System, (g) assessment, (h) programme review and quality assurance, and (i) the monitoring and evaluation of the project.

SOME CHALLENGES EXPERIENCED

There have been three main areas of difficulty in this initiative. The first was a major challenge which could not have been foreseen. The 'fees must fall movement'²⁶ had a significant impact on the planned business model of the project. It is therefore imperative that the project continues to take place as it has done so far, within an environment of agility, collaboration and trust.

Second, the initial absence of relevant and affordable courseware also presented a major difficulty. The solution effected in this instance, was the CPUT-MICT SETA courseware development project in 2016, which delivered a comprehensive set of textbooks and web resources in support of the Higher Certificate in ICT with a specialisation in IT Services Management.

The third set of challenges related to the coordination of teaching-and-learning, and assessment. The equal distribution of teaching periods for each subject – across

²⁶ This movement started to appear as early as 2014, and gathered momentum in 2015, 2016, and 2017. It involved country-wide violent student protests against the payment of fees for Post-School Education and Training, as well as protests against a range of other matters. It continues to resurface.

campuses – was difficult since the four campuses operated according to different teaching-time schedules²⁷. It was agreed that the number of periods would be adjusted as long as the requisite contact time was achieved for each subject. All teaching and learning was governed by a ‘common subject guide’ that synchronised the subject matter which needed to be covered within an academic term. This approach was crucial since all of the campuses would be assessed using the same assessment instrument, in order to ensure standardisation across the offerings of the Higher Certificate at all times.

The coordination of assessments presented a further challenge in that all four campuses had to conduct the summative assessments at the same time, in a similar fashion to the well-known national Umalusi examination format for the National Senior Certificate (NSC)²⁸. This coordination was achieved through a standardised assessment schedule across all of the campuses, coordinated by the Higher Certificate Programme Leader at CPUT. Other than the synchronisation of these assessments across the four campuses, the assessment of the four credit-bearing subjects for the Diploma in ICT at CPUT had to be synchronised with the Higher Certificate assessments, because the Higher Certificate and Diploma in ICT students are assessed with a common instrument. This synchronisation was achieved by aligning the Higher Certificate assessment days and times with those of the ICT Diploma at CPUT; this was also coordinated by the Higher Certificate Programme Leader at CPUT.

ARTICULATION INITIATIVE PROGRESS TO DATE

CPUT tested the course content for the Higher Certificate in ICT specialising in IT Services Management, under the auspices of the Certificate in IT (in 2014), and then piloted the Higher Certificate on its Cape Town campus in 2015, before launching it to the TVET Colleges from 2016.

Table 1 refers to the first-time entering students who registered for the Higher Certificate in ICT specialising in IT Services Management in 2015, and graduated in 2017.

27 There are three TVET Colleges in the province, but False Bay College has two campuses, so the initiative is being implemented on four campuses.

28 Secondary school-leaving certificate in South Africa.

Table 1: Diploma in ICT registrations (2015) to graduation (2017)²⁹

Categories of registrations for the Diploma in ICT in 2015	No. of students registering	% of students registering
Total number of registrations	229	100%
Registration of either Repeating or International students	48	20,96
Registration with National Senior Certificate (NSC) ³⁰ and no Higher Certificate (First Time Entering)	165	72,05
Registration with Higher Certificate in ICT specialising in IT Services Management (First Time Entering)	16	6,99
Categories of graduates in 2017 for the Diploma in ICT	No. of graduates	% of students graduating
Total number of graduates in 2017 (of the 2015 registered cohort for the Diploma in ICT)	52 out of 229	22,70
Graduates comprising Repeating and International students	7 out of 48	14,58
Graduates who had entered ICT Diploma studies with an NSC	34 out of 165	20,61
Graduates who had entered ICT Diploma studies with the Higher Certificate in ICT specialising in IT Services Management	11 out of 16	68,75

Table 1 shows that for the cohort of students tracked, a higher proportion of those entering ICT Diploma studies with a Higher Certificate graduated in the minimum time, than that of students entering with the school-leaving certificate. Over two thirds of the students entering with the Higher Certificate graduated in the minimum time between 2015 and 2017; in contrast, 20,61% of the school-leavers (who did not do the Higher Certificate) graduated in the minimum time in this period.

Table 2 shows a summary of the statistics relating to the Higher Certificate in ICT specialising in IT Services Management from the year in which it was piloted on CPUT's Cape Town campus – in 2015 – through the inception of the CPUT-TVET College collaboration in 2016, and on to 2017.

²⁹ The Diploma in ICT is the logical articulation pathway for the Higher Certificate in ICT specialising in IT Services Management. Where the sums in the columns do not add up to 100%, it is because they represent different categories of information.

³⁰ The NSC is the senior secondary school-leaving certificate in South Africa.

Table 2: Statistics for the Higher Certificate in ICT specialising in IT Services Management via CPUT, 2015-2017

	2015 Graduates		2016 Graduates		2017 Graduates		SUMMARY 2015-2017	
	No.	%	No	%	No	%	No	%
Registrations	147		272		221		640	
Graduates	40	27,2	166	61,0	177	80,1	383	59,8
Proceeded to Diploma in ICT	39	97,5	139	83,7	143	80,8	321	83,8
	Gender		Gender		Gender		Gender	
Female	12	30,0	47	28,3	55	31,1	114	29,8
Male	28	70,0	119	71,7	122	68,9	269	70,2
	Population Group ³¹		Population Group		Population Group		Population Group	
African	25	62,5	90	54,2	94	53,1	209	54,6
Coloured	14	35,0	67	40,4	69	39,0	150	39,2
Indian	1	2,5	5	3,0	5	2,8	11	2,9
White	0	0	4	2,4	9	5,1	13	3,4

Table 2 shows that over the three year-period, a total number 383 students graduated with the Higher Certificate in ICT specialising in IT Services Management. Of these students, 321 (83,8%) proceeded to register for the Diploma in ICT at CPUT. Significantly, only 29,8% of the total number of Higher Certificate graduates in this group, were female students. The vast majority of the graduates were African students (54,6%) and Coloured students (39,2%).

Twenty students per participating TVET College campus amounting to a total of 80 students, will be admitted to the Diploma in ICT programme at CPUT in the 2019 academic year. The project leaders continue to seek the support of the ICT industry, to ensure the relevance of the training model.

31 These groupings were used in *apartheid* South Africa for the purposes of discrimination; in democratic South Africa the categories continue to be used, but for the purposes of redress.

CPUT PERCEPTIONS OF THE EXTENT TO WHICH ITS ARTICULATION INITIATIVE IS SUCCESSFUL

CPUT views its articulation initiative with the TVET Colleges for delivery of the Higher Certificate in ICT specialising in IT Services Management, as being successful. The success of the CPUT-TVET project is no doubt due to the commitment at CPUT from the Deputy Vice-chancellor: Teaching and Learning; the Assistant Dean: Faculty of Informatics and Design, and the Program Leader: Department of Information Technology, and all the TVET Colleges – from the Chief Executive Officers (CEOs) of the Colleges, to the TVET College Site Coordinators. The success is, however, equally due to the subject leaders, and lecturing and support staff that ultimately bring the project to life.

Indeed, the collaboration between CPUT and the three TVET Colleges in the region to implement this HEQSF-aligned Higher Certificate jointly, is generally viewed as a good practice example. The existence of this Higher Certificate, its MoU, its curriculum, its specially-developed learning and teaching support materials, the coordination of teaching and assessment in the programme, and the academic support provided, are all part of this success.

Students registered for the Higher Certificate in ICT specialising in IT Services Management receive tuition at the TVET Colleges but are registered as *bona fide* CPUT students; they have the same access rights as any other CPUT student and carry CPUT student cards as well as the local TVET College student card. These Higher Certificate students are nurtured entirely within the provisions of the TVET College and typically identify with the College as their 'academic home'. The success of the funding model lies in the comprehensive recognition of the services provided by CPUT and the TVET Colleges respectively, within the collaboration agreement.

The 'RPL for access', 'Exemption RPL', and 'Exemption Credit Transfer' are central value propositions in this CPUT-TVET College collaboration project. The project has been designed to facilitate access by fully aligning the Higher Certificate in ICT specialising in IT Services Management, to the Diploma in ICT. The successful Higher Certificate graduates in this initiative qualify for 60 credits of 'Exemption Credit Transfer' when articulating into this Diploma. The initiative allows for preferential admission for these top performing TVET College Higher Certificate students (the top 20 in each participating College), into the CPUT Diploma in ICT.

CONCLUDING REFLECTIONS

The CPUT-TVET College project promotes access to university-level vocational and professional ICT education by providing a learning platform that is academically specific and contextually appropriate. The Higher Certificate in ICT specialising in IT Services Management has been curriculated as an exit level qualification as its primary value. There are therefore identifiable job opportunities and career pathways for the graduates of this programme, should they wish to work as first-level technical support practitioners within the ICT support industry.

The NQF Level 5 Higher Certificate in ICT specialising in IT Services Management is also positioned as a vehicle for providing access to university education for the TVET College graduates with this qualification. The statistics from this programme hold the promise of promoting articulation success for students who often struggle to progress in such programmes.

The courseware materials developed as part of the project support both vocational and foundational curriculum outcomes. It is imperative that such materials are mindful of the possibility of educational under-preparedness, and support a developmental agenda. This under-preparedness includes but is not limited to, low English language capability, poor Mathematics capability, poor technology exposure, and poor social context for success. It is critical for the success of such articulation initiatives that this deficit profiling is not perpetuated. The potential that students have for learning, and the fact that the majority of students presenting themselves for Higher Education have already overcome major education and social obstacles, must be recognised.

The establishment of a broad support network at both local and national levels is essential for the successful implementation of collaboration projects for articulation between TVET, Higher Education, and work. This network supports the partnerships needed, the necessary ongoing curriculum reflection and refinement, and the academic and environmental development needed to support roll-out, such as the scholarships for students, the funding for infrastructure development, and other macro-, meso- and micro-level aspects.

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PAPER 2

Exploration and Analysis of the Central University of Technology (CUT), Free State: Response to the Imperatives of the Recognition of Prior Learning (RPL), Credit Accumulation and Transfer (CAT), Assessment and Articulation Policies within the Context of the National Qualifications Framework (NQF)

Mr Nkabane E.I. Mokhele

INTRODUCTION AND BACKGROUND

The National Qualifications Framework (NQF) Act 67 of 2008 mandates the South African Qualifications Authority (SAQA) amongst other responsibilities, to develop, after consultation with the Quality Councils, policy and criteria for the Recognition of Prior Learning (RPL), Credit Accumulation and Transfer (CAT), and assessment. The Council on Higher Education (CHE) and the other two Quality Councils – for General and Further Education and Training (GFET), and Occupational Qualifications – must develop and implement policies for RPL, CAT and assessment that are aligned to SAQA's policies³².

Given the centrality of RPL, CAT and assessment in South Africa, and the related lessons learned over the past 25 years since the achievement of democracy, the Department of Higher Education and Training (DHET) in 2016 and 2017 respectively, developed policy for 'the coordination and funding of RPL' (DHET, 2016), and 'National Articulation Policy' (DHET, 2017). Professional Bodies must provide for RPL in their professional contexts (SAQA, 2012; 2018), and Higher Education Institutions (HEI) must develop and implement *institutional* policies for RPL and CAT, and actively enhance access; articulation; mobility; and progression – in line with the CHE, SAQA, and DHET policies. These initiatives are aimed at promoting the NQF principles of widening access to learning for all, and ensuring the creation of equal opportunities for individuals to progress, from one qualification to another, and to professional development and work within the NQF context.

³² The South African NQF comprises three coordinated NQF Sub-Frameworks, namely (1) the General and Further Education and Training Qualifications Sub-Framework (GFETQSF), (2) the Higher Education Qualifications Sub-Framework (HEQSF), and (3) the Occupational Qualifications Sub-Framework (OQSF) respectively.

Because of the rapid growth and differentiation of HEI and programmes of learning over the last two decades, the challenges of assessing, comparing and enhancing academic quality are increasingly complex – yet the need has never been greater. In all countries but especially in South Africa, where the growth of student numbers, of academic teachers and institutions, and graduate programmes has been exponential, quality and its control and assurance have become a policy concern to increasing extents.

In order for the government to deal decisively with these challenges in a holistic way, the White Paper for Post-School Education and Training (PSET) was published (DHET, 2013b). This White Paper covers priority areas such as widening access and ensuring high quality tuition and options throughout the PSET system. The White Paper further emphasises the importance of developing an integrated and inclusive Higher Education system that promotes personal development, and graduates with attributes with potential to be responsive to the labour market, as well as graduates who are good citizens and community members. Furthermore, to ensure that the system is responsive, RPL, CAT and articulation need to cater for alternative admission requirements for those who lacked opportunities to enter, finish, or further their studies, and who have learned informally or non-formally. RPL and CAT need to support the mobility and progression of all learners in their education, training, development and work. The purpose of CAT is to provide recognition for *formal* learning so that learners can transfer credits ‘vertically, horizontally, or diagonally’ towards a qualification or part-qualification on the same or different level, between different programmes, departments, or institutions (SAQA, 2014). CAT can be used for gaining admission to HEI, or for advanced standing, or credit – in pursuit of further studies, including articulation pathways between Technical and Vocational Education and Training (TVET) (DHET, 2013b).

PURPOSE OF THIS PAPER

The purposes of this paper are to:

- sketch understandings of articulation at the Central University of Technology (CUT);
- describe CUT’s articulation arrangements with TVET Colleges, other HEI, and other types of entities;
- discuss how CUT’s articulation arrangements are managed in terms of policy, as well as in everyday practice – including the successes achieved, and challenges experienced, and how these have been addressed;

- explain the extent of success of these initiatives – including the main successes, and how these were achieved; and
- show how the students who transition into CUT are monitored and tracked in terms of their progression through programmes, and success rates and levels.

UNDERSTANDINGS OF ARTICULATION AT CUT

Management at CUT understands ‘articulation’ as including learner movements between ‘system elements’ such as TVET and Higher Education programmes. Articulation is also seen to reside in CUT’s Memoranda of Understanding (MoU) with TVET Colleges. In addition, it is understood that career advice is essential for articulation, as is joint curriculum development, the sharing of infrastructure, and other forms of collaboration.

CUT PRACTICES REGARDING RPL, CAT AND ARTICULATION

Memorandum of Agreement (MoA)

In response to the National Articulation Policy (DHET, 2017) and as a way of widening access, and strengthening student movement between TVET Colleges and CUT, the University entered into partnerships with all four TVET Colleges in the Free State Province in which it is situated. CUT formalised this relationship by signing a Memorandum of Agreement (MoA) with the provincial Department of Education (DoE), and the four Colleges, on 6 June 2013.

Purpose of the CUT-TVET Colleges MoA

CUT’s MoA serves to widen access to CUT through articulation from the Colleges to the university. It was also designed to address the recommendation in the Amended Further Education and Training Colleges Act No.16 of 2006, for broadening institutional collaborations and partnerships. CUT seeks to admit students from both the school and TVET sectors. First-year CUT students can enter the university after completing school with the required subjects and grades, and after completing National Accredited Technical Education (NATED)/ 191/ ‘N4-6’ courses at the Colleges by transferring the

credits obtained for successful learning at the Colleges³³. School-leavers with grades or admission points lower than those recommended by the university, are encouraged to complete an 'N4 certificate', or 'beyond' an N4 certificate. These studies can then be used for credit transfer for admission to CUT.

To enhance student progression between the Colleges and CUT, the MoA provides for curriculum development and the joint designing of qualifications by CUT and the Colleges; career guidance; sharing infrastructure, and other forms of collaboration. It provides for efficient CAT arrangements between CUT and the Colleges and for the Continuing Professional Development (CPD) of the College lecturers, so that they can upgrade their knowledge and skills.

Collaborative curriculum development

CUT, like other Universities of Technology (UoTs) in South Africa, offers occupational education and training programmes at NQF Levels 5-10. The Colleges provide vocational and occupational education and training programmes at NQF Levels 2-5, including the N1-N6 programmes. The Colleges also offer the National Certificate: Vocational (NCV) qualifications at NQF Levels 2-4. The 'NCV Level 4' qualification is at the same NQF level as the NATED 'N3' programmes, and the National Senior Certificate (NSC) – the main school-leaving certificate.

As part of the MoA, CUT and the four TVET Colleges have expanded their MoUs to programme level for the implementation, for example, of Human Resources Management, Marketing Management, Business Administration, and Office Management programmes. Prospective students who have completed a National N Diploma at a TVET College, and aspire to further their studies by enrolling for the B Tech in Human Resources are accepted in the same way as those students from UoTs who have completed a three-year 360-credit National Diploma. Those who completed the National N Diploma in Marketing Management are accepted for the B Tech in Marketing, on condition that they also register for the Economics II module at Diploma level. All of these enrolments are informed by the programme-specific entry requirements of achieving an overall 60% average in their respective Diploma studies. In addition, prospective students are accepted into B Tech

³³ 'N1-N6' qualifications are also referred to as National Accredited Technical Education (NATED) qualifications, and '191 courses', after 'Report 191 on Formal Technical College Instructional Programmes in South Africa' – a report no longer in circulation as it has been superseded.

programmes through RPL and CAT, depending on students' individual circumstances and the programme entry requirements.

The same approach is followed for other CUT programmes that are similar to those completed at TVET Colleges, such as those for Tourism Management, Hospitality Management, and Information Technology. The N4-N6 results may be used to widen access by combining the students' results with their NSC results to enhance their 'M-scores'³⁴. Students who have completed NCV Level 4 qualifications with seven subjects/ modules are admitted into programmes, on condition that they meet the programme-specific admission requirements.

CUT has also expanded access for TVET College staff, whereby the College staff can access CUT modules similar to those which they teach. For example, two cohorts of College staff members were enrolled for the B Tech in Human Resources (HR), as well as for Office Management programmes. RPL dominates this category of admission and access to Higher Education. Academics and/or support staff who have completed for instance an N6 HR Management programme, and teach for example, in N4 HR Management programmes, are then admitted to CUT's B Tech HR programme. Support staff, including government officials employed as HR practitioners, supervisors, or administrators who have completed N6 qualifications, have been enrolled into CUT's Office Management, and HR and Marketing management programmes, depending on individual circumstances.

As the B Tech programmes are being phased out, CUT will enrol all those who completed Diplomas, into Advanced and Postgraduate Diploma programmes.

Career guidance

CUT recognises that career guidance is key for articulation. In terms of CUT's signed MoA, there is provision for career guidance whereby the university's Wellness Centre runs workshops and information-sharing sessions for new applicants, especially for those who will be going through RPL or CAT processes for alternative admission. The Wellness Centre provides guidance for all applicants in terms of their career choices and transitioning from the TVET sector. However, very few applicants participate in these

³⁴ 'M-score' is the Swedish rating score/points used for university admissions. CUT requires an M-Score/points=27 from any/equivalent NQF Level 4 qualifications, for admission.

initiatives due to lack of knowledge about the sessions, and their timing. The sessions run concurrently with the walk-in sessions with students from the schooling sector; there is a scramble for available spaces.

Shared infrastructure

CUT together with the TVET Colleges in the Free State province have embarked on promoting shared infrastructure usage. For example, the newly proposed Advanced Diploma in Technical and Vocational Teaching is being developed in view of the idea of shared infrastructure – shared physical resources such as lecturing spaces, shared support, and shared administration staff. The idea is to promote the use of shared infrastructure for lecturers and administration resources. This initiative will be implemented once the programme is fully accredited by the Council on Higher Education (CHE) and registered by the South African Qualifications Authority (SAQA).

Role of the Provincial Department of Education

The Free State provincial DoE worked closely with CUT and the four TVET Colleges to promote the articulation processes. The main DoE role-players included the provincial Minister of Education (MEC), Head of Department, and TVET College Chief Directorate. Through the collaboration of the provincial DoE, CUT and TVET Colleges, the enhanced articulation processes were initiated, the MoA were signed, and CUT and the TVET College Senior Managers could drive the processes.

Managing CUT's Articulation MoA

Since the signing of the MoA between CUT and four TVET colleges in the Free State Province, as part of managing the MoA and ensuring the effective implementation of the MoA, all parties agreed on the following three key deliverables, namely:

- activation of the MoA through programme-specific agreements;
- the establishment of Task Teams per programme; and
- the establishment of Advisory Committees per programme and per discipline.

Programme-specific agreements are mainly informed by modules for which similarities and differences are agreed, and also entail the steps taken to ensure that curriculum gaps are addressed. The Task Teams have agreed to meet as frequently as possible

during the programme conceptualisation phases. The Advisory Committees have agreed to have formal meetings, clear terms of reference, and a clear scope as dictated by the programme-specific needs and requirements. These Advisory Committees meet once a quarter and are mandated to ensure the alignment of modules and programmes, and the promotion of articulation policies and prescripts as far as possible.

The support divisions of planning, quality assurance and the academic administration of CUT, together with these divisions in the TVET Colleges, are tasked to ensure the smooth implementation of the agreed deliverables. It is also agreed that there will be an annual submission of a report reflecting the number of students admitted from TVET Colleges; how these students are progressing; the challenges experienced in promoting the articulation agenda and MoA, and how these challenges are addressed.

CUT's Admissions Policy, and articulation

CUT's Admissions Policy of 2018 provides for, amongst others, CUT's selection criteria, and RPL, CAT, and subject recognition at CUT. The parts of these aspects relevant for this paper are explained briefly.

Selection criteria at CUT

Gazetted statutory admission criteria for the Higher Certificate, Diploma and Bachelor's Degree studies inform the minimum admission criteria for CUT. A candidate must score at least 27 or more points on the CUT scoring scale for the NSC examination for admission to the university. However, admission to a particular programme is subject to the requirements of that programme. CUT uses selection criteria as prescribed by CUT's Senate, which may include consideration of school-end certificate results, English proficiency tests, general scholastic aptitude tests, results achieved in foundation courses, and/or recognition of transferred academic credit. In addition to the general admission requirements as prescribed by the Senate, an applicant must also meet the relevant faculty's or department's requirements for a particular programme. These additional requirements are also approved by Senate and are outlined in the CUT Calendar. Some Schools within the CUT's Faculties may interview certain candidates as part of the selection process. A portfolio may also be required.

Candidates in possession of TVET qualifications such as the N3, N4, N5 or N6 Certificates, as well as Higher Certificates, may qualify for admission into CUT programmes. As for the NSC candidates, these candidates must also meet the language and programme-specific requirements. Candidates who have failed the NSC or not scored sufficient points may enrol and complete the N3 certificate/qualification that comprises four subjects – at a TVET College, as per students' respective specialisations. The candidate would still require an endorsement of the results from the provincial Department of Education in line with Umalusi's system³⁵.

The admission of students who have completed NCV Level 4 qualifications, and College students who have completed National N Diplomas with 360 credits, has already been noted. CUT receives many more applications than it has places available, and the admission process is therefore competitive.

Recognition of Prior Learning (RPL) at CUT

Applicants who do not meet CUT's admission criteria as outlined, may apply for RPL in the prescribed format. RPL is the process whereby CUT makes a judgement about the extent to which accredited prior learning (APL) or accredited prior experience (APE) – both certificated and non-certificated prior learning – may be accepted in partial fulfilment of CUT's requirements for a given academic award. In exceptional circumstances, candidates may be considered for exemption from part of a programme on the basis of previous studies. Certain departments may refuse to consider any applicants for such exemption.

Subject and credit recognition

Regarding subject RPL, qualifying for the issuing of a qualification, and recognition of the qualifications of South African as well as foreign students, the holder of a CUT qualification certificate must amongst other criteria, (a) complete more than 50% of the credits of the prescribed course/modules for the qualification with CUT, and (b) complete more than 60% of the credits of the exit or final academic year of the prescribed curriculum for the qualification, with CUT.

35 Umalusi is the Council for Quality assurance in General and Further Education and Training in South Africa.

Transfer of credits

A student's achievements are recognised, and contribute to further learning, even if he/she does not obtain a qualification. In terms of CUT's CAT policy, any and all credits for an incomplete qualification may be recognised by the same or a different institution as meeting part of the requirements for a different qualification, or may be recognised by a different institution as meeting part of the requirements for the same qualification. Individual mobility between programmes and institutions is determined by curriculum requirements, and is flexible.

Candidates with special needs

Applications by students with special needs are considered on the same academic grounds as all others, but candidates are asked to discuss their likely additional requirements with CUT before registration. CUT, via the Wellness Centre, will then advise the applicant on the suitability of the campus and the learning programme, as well as the equipment and/or support available.

ARTICULATION SUCCESSES AND CHALLENGES AT CUT – AND HOW THE MAIN CHALLENGES HAVE BEEN ADDRESSED

Successes

The statistics show satisfactory success rates regarding student articulation (movement) between TVET College programmes and those at CUT including various CUT B Tech programmes such as those in Human Resources, Marketing, Tourism, and Hospitality Management. The faculty of Management Science, which hosts these programmes, prides itself with the high student success rates – throughput and graduation rates, and levels of success – in these programmes.

The eighteen months of experiential training by TVET College students before acquiring their National N Diploma is effective and very helpful in promoting articulation into CUT. Similarly, the patterns show that when compared with other students in other disciplines, the students from the TVET Colleges are better prepared and equipped to deal with university courses, and the pressures associated with academic life at university.

In terms of the SASSE-LSSE Engagement Indicator Survey results conducted in 2015³⁶, the results show slightly higher achievement above the 50% level, in practical work and Work Integrated Learning (WIL) – for the students from the TVET Colleges – than for students admitted via the NSC. This pattern is clearly promoted by, among other factors, students recruited from TVET Colleges (CUT SASSE-LSSE, 2015:18).

To re-iterate, the students recruited from TVET Colleges show more maturity in dealing with university pressures and general academic performance, than those recruited directly from the school sector.

Some challenges in implementing CUT's MoA for Articulation

According to those involved in RPL practices at CUT, there is a continued delay with processing RPL applications; the process is lengthy. The average time taken to complete applications for RPL, CAT and to some extent, the articulation from private providers, could be frustrating (CUT Assessment Procedure, 2018b).

Furthermore, there are other pressing challenges such as that of CUT modules not being sufficiently similar to those completed at the TVET Colleges – regarding the compulsory modules required for completion of a particular qualification. Typical examples are the Engineering-related modules and programmes. In the case of Engineering, it is difficult to align the content and scope of a CUT module to programmes completed by students at College level – such as the NATED 191 programmes – if articulation is not considered before the enrolment of the students.

When these challenges occur, they are difficult to manage, and as a result, students are sometimes required to enrol for corresponding and compulsory modules as per the university's programme design and structure. Students in Engineering courses then spend longer periods of time completing their qualifications.

36 SASSE-LSSE refers to the South African Survey of Student Engagement (SASSE) and the Lecturer Survey of Student Engagement (LSSE). The 2015 LSSE-SASSE Combined Report shows responses from both students and lecturers at institutions who completed the SASSE and LSSE surveys. This report contains responses from lecturers who responded to the survey based on their experiences teaching either a first year or senior course, or both types of courses.

CUT PERCEPTIONS AROUND THE SUCCESS OF ITS ARTICULATION INITIATIVES

CUT views its articulation initiatives as being highly successful, especially for the students enrolled in B Tech programmes. Given the fact that B Tech programmes are being phased out, CUT would now enrol all those who completed Diplomas, into Advanced and Postgraduate Diploma programmes.

Graduation trends for the B Tech programmes are strong. The pass/ success rates for students entering CUT with N and NSC qualifications are similar, and sometimes the pass rates of students who entered with N qualifications exceed the pass rates of those entering similar programmes from schools. This pattern is especially the case for programmes without Work Based Learning (WBL)/WIL. CUT's annual Graduation Survey clearly shows the patterns. It is thought that this pattern is due to the exposure that TVET College students have, in their 18 month WIL periods. The students entering CUT from schools are only exposed to a maximum three months or less of WIL during their Diploma or undergraduate studies.

Students with National N Diplomas complete their studies within record time, and to date, there has not been any dropping out or failure reported or recorded at CUT. TVET College students' enrolment into B Tech courses as a result of their completion of N6 + 18 months' relevant practical experience, are doing well, especially if their placements were in line with what they studied at the College. There is a clear indication of the benefits of workplace exposure.

Students who entered CUT with an NCV Level 4 qualification performed more or less at the same level as those from the school sector. Trends also show positive success rates, which could be attributed to exposure to TVET after exiting the schooling system.

CUT STUDENT TRACKING

CUT makes use of its Information Technology System (ITS) to enrol prospective students. During enrolment, students are requested to indicate their study history; this allows the administrators to distinguish between those recruited from schooling or the TVET sector. Table 1 shows a sample of students recruited from TVET Colleges between 2010 and

2018. This sample was chosen because CUT's RPL and CAT policies were introduced within this period, and CUT wanted to track trends before and after the introduction of these policies.

Table 1: CUT tracking of student numbers 2010-2018

Academic year	Students admitted to CUT from the TVET Sector	Overall numbers of students admitted to CUT, including from the TVET Sector	Percentage of students admitted to CUT from the TVET Sector
2010	825	12 583	6.56%
2011	892	12 644	7.05%
2012	1001	12 724	7.87%
2013	1205	13 303	9.06%
2014	1391	14 352	9.69%
2015	1364	14 193	9.61%
2016	1330	15 708	8,47%
2017	1518	18 185	8,35%
2018	1808	19 384	9,33%

Table 1 shows an increase in the enrolment of students from the TVET sector in 2013. It is thought that the signing of the MoA which paved the way for the formal recognition of TVET College student results, contributed to this increase. The increase occurred in the final preparatory phase of signing the MoA, a phase which included the communication of these plans, and changes in the way in which enrolments were captured at CUT.

CONCLUDING COMMENTS

CUT remains committed in its efforts to implement the national policies for RPL, CAT and articulation. As noted in this paper, CUT has achieved some articulation successes, and has particularly made some strides in learning programmes in areas such as HR, Marketing, Tourism, and Hospitality. A challenge for CUT is to promote articulation in other disciplines.

It is clear that there is growth in the numbers of students entering CUT from TVET Colleges, and CUT believes that this expansion is a result of the articulation-related

systems in place within the institution. However, these achievements do not come without challenges. There are, for example, increasing numbers of applicants from the school sector, which can lead to all-round constraints in admissions.

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PAPER 3

It is Articulation but is it Articulate? Initiatives at the Durban University of Technology (DUT)

Professor Darren Lortan

INTRODUCTION

The Durban University of Technology (DUT) like all of the other Universities of Technology (UoTs) in South Africa, has a history rooted in the evolution of Technical and Vocational institutions in the country: from Technical Colleges to Colleges of Advanced Technical Education (CATEs), to Technikons, to UoTs, and Technical and Vocational Education and Training (TVET) Colleges³⁷.

Technical Colleges initially offered theoretical training for apprentices, the National Accredited Technical Education (NATED) Certificates: N1, N2 and N3 (commonly referred to as N-courses), over a trimester of three three-month periods (Matshoba, 2010)³⁸. The related practical training occurred in designated workplaces over specified periods. Post-secondary school level NATED Certificates: N4, N5 and N6 were also introduced and offered by the Technical Colleges. Upon completion of an N6 qualification and eighteen months of workplace training, a National N Diploma was awarded.

Six CATEs were developed from existing Technical Colleges that were located near industrial hubs, to provide training for the higher level skills necessitated by the growing South African economy at the time (Du Pré, 2010). The first CATEs also offered the secondary level NATED N-courses (N4, N5 and N6) for artisan training. This new type of institution offered intermediate-level qualifications between those offered by Technical Colleges and those offered by Universities (Behr, 1984); it was located in the Higher Education sector. Student progression was particularly enabled when the CATEs offered both the N courses and National N Diplomas, because learners within these CATEs could progress between these courses (Du Pré, 2010). In addition, the curriculum

37 In addition, there are now three types of Higher Education Institution (HEI) – UoTs, traditional universities, and 'comprehensives' which offer a wide range of academic and technical qualifications.

38 'N1-N6' qualifications are also referred to as National Accredited Technical Education Diplomas (NATED) qualifications, and '191 courses', after 'Report 191 on Formal Technical College Instructional Programmes in South Africa' – a report no longer in circulation as it has been superseded.

overlap/alignment between many of the N4, N5, N6, and National N Diploma courses was considerable, enabling migration across institutional types (Matshoba, 2010).

In 1979 CATEs were designated as Technikons – institutions which initially offered three-year post-high school National Diplomas, parallel to the first three years of a university qualification (Du Pré, 2010). National N Diplomas continued to be awarded by Technical Colleges while National Diplomas were awarded by Technikons.

Initially courses at Technikons were structured as semesters of theory, followed by workplace-based experiential learning. Upon completion of three semesters of theory and three semesters of experiential learning, the National Diploma was awarded. Many of the students were employees and would move in-and-out between employment and studies, as they preferred, or as required by their employers. Unemployed students were also admitted, with experiential learning arranged through cooperative education units established within the Technikons to ensure the placement of these students into appropriate industries (Du Pré, 2010). In 1993 Technikons were granted degree-awarding status, and in 2005, they were re-designated as Universities of Technology (UoTs) (Du Pré, 2010).

Given their common history, the mobility that existed within and between Technical Colleges and UoTs on the one hand, and between these types of institutions and workplaces on the other hand, arose organically due to the evolution of these institutions and their qualifications. Mobility between these institutions occurred by design: UoTs offered exemptions and credit for National Diploma courses upon completion of cognate N-courses at a TVET College. In addition to the student movements from TVET Colleges to UoTs, student movements also occurred in the other direction. As an alternative to exclusion from the UoT, students who failed certain National Diploma courses twice, were permitted (and encouraged) to register for the cognate N-course at a TVET College, and upon completion of these courses were granted the exemption, and allowed to re-register for the National Diploma qualification. Learner mobility (across similar institutions) was enabled by the common curriculum among Technical Colleges and among UoTs – enabling Credit Accumulation and Transfer (CAT) between them.

In democratic South Africa, the new integrated education and training system was achieved through the National Qualifications Framework (NQF), which comprised three coordinated NQF Sub-Frameworks, the General and Further Education and Training Qualifications

Sub-Framework (GFETQSF), Higher Education Qualifications Sub-Framework (HEQSF), and Occupational Qualifications Sub-Framework (OQSF). The apprenticeship system was replaced by a *Learnership* system managed by Sector Education and Training Authorities (SETAs). Moves were made to replace the N1-N3 courses with the National Certificate: Vocational (NCV) at NQF Levels 2-4. The new status of the N-courses led to there being a question mark around the high-level training that companies were accustomed to Technical Colleges providing (Wedekind, 2015). Although the NCV qualifications were initially developed to replace the N1-N3 qualifications, many Colleges continued to offer both types of qualification. The intention was that the bulk of College work would be focused on the NCV, and that this work would be supplemented with skills development programmes geared towards student *Learnerships* (Wedekind, 2015). The requirements for admission to university for the holders of NCV qualifications are significantly more demanding than those for their National Senior Certificate (NSC) and N-qualification counterparts³⁹.

Remnants of the pre-1994 organic arrangements permeate current admission requirements in the General Rules of UoTs in general, and of DUT in particular. This paper presents different types of articulation arrangements currently underway at DUT, and elaborates on the value of the practice of 'supplementarity'. The paper goes on to discuss how DUT's articulation arrangements are managed, and what enables successful articulation at DUT, as a UoT context. It touches on DUT's tracking of transitioning students, and closes with a reflection on maintaining articulation in shifting policy contexts.

DUT's ARTICULATION INITIATIVES UNFURLED

Articulation was an intrinsic feature of the pre-1994 system – between educational institution types, across qualifications, and between education institutions and workplaces. Individuals (starting as employees or students) could negotiate their learning paths within a particular occupational sector. Drawing from this history, and working within the NQF context with its three coordinated Sub-Frameworks, DUT has broadly understood articulation to comprise the movement of students from one qualification offered at an institution, within a Sub-Framework of the NQF, into a cognate qualification offered at another institution (within/across another NQF Sub-Framework). The majority of student movements in this context, occurs between TVET Colleges and the DUT, or between neighbouring traditional universities and the DUT.

³⁹ The NSC is the senior secondary school-leaving certificate in South Africa.

Articulation, for the purpose of this paper, also includes the movement of students between the DUT and the workplace, as a growing number of staff within the university are beginning to include such mobility in their interpretations of articulation. The articulation arrangements/initiatives described in the sections that follow either enable access without exemption; or through a formal process of Recognition of Prior Learning (RPL) or CAT, enable the granting of exemptions for certain modules.

Some articulation initiatives at DUT

The most common articulation arrangement that occurs between TVET Colleges and the DUT is the alternate access afforded students who do not meet all of the admission requirements for a particular DUT qualification. This applies for example, to all of the National Diplomas in Engineering. The students are encouraged to register at a TVET College for a similar qualification to the one they were not granted access to at DUT, such as the N4 and N5: Mechanical Engineering. Should the students then meet certain requirements stipulated within the Handbooks of the Engineering Department offering the said qualification at DUT, they would be granted access typically with exemption for the relevant modules completed at the TVET College. Some examples of these practices, and how they are managed, are described below.

Articulation initiatives ‘from’ TVET Colleges

Civil Engineering at a DUT campus

DUT’s Department of Civil Engineering in the city of Pietermaritzburg, which offers a National Diploma: Civil Engineering, from 2017 has offered the HEQSF-aligned Diploma in Civil Engineering, an NQF Level 6 qualification. The Department is located on premises adjacent to the Plessislaer Campus of the Umgungundlovu TVET College. Each year scores of students who do not meet the admission requirements for Mathematics and/or Physical Science in the Diploma, have been encouraged to register for the Mathematics and Engineering Science modules of the N4 and N5 Certificates at the TVET College. Upon completion of these modules, and if they achieve a mark of 50% or more, students are admitted into the DUT Diploma qualification on the strength of the modules and their results. The students are also granted credit for and exemption from, the first-level Mathematics module. Each student admitted via this learning pathway is also provided

with academic support throughout their first year, and their performance is monitored and tracked. This articulation arrangement has been in place for more than a decade. The arrangement will not be affected by DUT's movement into the HEQSF-aligned qualifications (DHET, 2013)⁴⁰. The DUT's Department of Civil Engineering offers the new 240-credit NQF Level 6 Diploma in Engineering. Most of the other Engineering departments at DUT are planning to offer these Diploma qualifications from 2021.

Articulation in other Engineering departments at DUT

The approach of the articulation arrangements in other Engineering departments located at DUT's campus in the city of Durban, has been to offer applicants who do not satisfy all of the admission requirements of their particular qualifications, the opportunity to register for the full N4, N5 and N6 Certificates in a cognate qualification at a TVET College. Examples of the corresponding Diplomas include the National Diplomas in Mechanical, Civil, Industrial, Electronic and Electrical Engineering. Upon completion of the Certificates, the students are admitted to the DUT Diploma qualifications with a number of exemptions. In many of these instances, the completion of pairs of N4 and N5 modules led to exemptions for modules at DUT in the first semester, while the completion of pairs of N5 and N6 modules led to exemptions for modules in the second semester. In other words, depending on the performance of the students at the TVET College, this articulation arrangement enables exemptions for an entire first year of a qualification at DUT.

These arrangements will be affected by the migration to HEQSF-aligned qualifications, as all of the Engineering Departments will be phasing out the NQF Level 6 National Diploma, and replacing it with the 360-credit Engineering Degree at NQF Level 7. This decision was taken largely to retain the awarding of a degree, as was the case prior to the advent of the HEQSF. In the past, the path to become a professional technologist required the National Diploma and the Bachelor of Technology qualification prior to professional registration. In the new programme the path to a professional technologist requires the Bachelor of Engineering Technology Degree. Most of DUT's Engineering departments commenced after the offering of the new degree in 2018.

⁴⁰ The promulgation of the HEQSF rendered most if not all of the qualifications offered by UoTs *not aligned* to the NQF system. As a consequence, the non-aligned National Diplomas and Bachelor of Technology Degrees are being replaced by Diplomas and Degrees that are aligned to the HEQSF.

Articulation in the field of Education at DUT

DUT's School of Education, also located in the city of Pietermaritzburg, draws a number of applicants from the TVET sector for its Bachelor of Education: Further Education and Training (FET): Technology Education. Scores of these applicants are admitted on the strength of the NSC and N-course results, although no exemptions are granted for modules completed at the TVET College. The School of Education is the only Education Department in a Higher Education Institution (HEI) in South Africa which offers the Bachelor of Education: FET (Technology Education). This qualification prepares its graduates to teach in a vocational setting. The rationale for drawing students from TVET Colleges is therefore linked to the vocational backgrounds of the applicants.

Articulation in the Management Sciences at DUT

The Faculty of Management Sciences at DUT and PAX TVET College – a private TVET College based in Durban – have established an articulation initiative, in terms of which PAX College students who complete the N6 Certificate in Hotel and Catering Services are granted admission to the National Diploma: Hospitality Management, and the National Diploma:Catering Management offered within DUT's Department of Hospitality and Tourism, with exemption for some modules. DUT's Department of Food and Nutrition: Consumer Sciences, located within the Faculty of Applied Sciences, recently became an additional partner in this articulation arrangement.

Articulation initiatives 'to' TVET Colleges

In many of DUT's Engineering Departments, a form of articulation occurs from DUT to the TVET Colleges. In this process, students facing academic exclusion are encouraged to register for certain N-courses cognate to the *at risk* module(s) – which led to their exclusion status at DUT. For example, a student who has failed the Mathematics S2 module twice would be prohibited from re-registering for the module, and consequently may be excluded from the university. A student in this predicament would then be encouraged to complete the N5 and N6 courses in Mathematics – and any other outstanding N5 and N6 modules for which exemption may be granted. The intention of this articulation pathway is to provide an opportunity for students to complete the module(s) in question, via exemption and credit transfer. Students who do not satisfy the requirements for re-admission are encouraged to complete the appropriate qualification in the cognate programme at the

TVET College. For example, a student who is academically excluded from the National Diploma: Mechanical Engineering at DUT, may transfer to the N4 or N6 programme in Mechanical Engineering, at the TVET College.

Articulation initiatives with Traditional Universities

A number of students from traditional universities, through a process of credit accumulation, exemptions and transfer, articulate into cognate programmes offered at the DUT – largely in Engineering and Applied Sciences. In many instances these students also face academic exclusion from a traditional university. Up to 50% of the credits obtained at the traditional university may be exempted at DUT.

The rules governing these processes are contained in DUT's General Handbook for students, although some of the details are obscurely located in the Departmental Rulebooks, which describe more restrictions on access requirements. In this sense, from a student's point of view, the Rulebooks can be more limiting than the General Handbook. The only form of articulation where students move from DUT to traditional universities occurs at the postgraduate level, where a few students graduate from DUT and are granted conferment of status to be admitted to a cognate Masters or Doctoral Degree at the Traditional University. This arrangement has been taking place for several years. More frequently, though, the movement of post graduate students occurs in the other direction. This form of articulation is almost exclusively confined to the Faculty of Applied Sciences.

Articulation initiatives involving workplaces

Articulation into, and from, workplaces

A form of articulation from DUT into the workplace and conversely from the workplace to DUT, has been in practice for some time. These practices are not typically conceptualised as articulation. However, given the transition of learners from one site of informal learning and training (the workplace) to another site of formal learning and training (UoTs), the practice does constitute an articulation arrangement.

A significant number of Bachelor of Technology (BTech) Degrees have admission requirements that stipulate a minimum of one year of post-Diploma experience in an appropriate workplace. Typically, these degrees include learning outcomes that require the demonstration of the ability to integrate theory, practical and workplace-based exposure. Students admitted in this manner are usually employed; the degrees are offered on a part-time basis. Although the modules for these BTech programmes are delivered in the evenings, it is also possible to complete the degree full time. All of the B Tech Degrees in the Faculty of Engineering and the Built Environment at DUT are offered in this manner. They constitute a lifelong learning pathway for Engineering graduates. As these degrees are being phased out in compliance with the HEQSF, it is important that the HEQSF-aligned qualifications that are being planned to replace them, also facilitate the mobility of individuals from the workplace to ensure that DUT continues to offer lifelong learning opportunities to Engineering graduates.

Work Integrated Learning (WIL)

DUT like other UoTs, offers Work Integrated Learning (WIL) as part of the curriculum of the National Diplomas that are being phased out. The processes that are required to ensure that holders of these qualifications are adequately prepared for the workplace are onerous, and require partnerships between the university and industry to be developed and sustained.

WIL as a pedagogy is an inherent feature of the *raison d'être* of a UoT. Given the vocational nature of TVET qualifications and the growing numbers of occupational qualifications that are being accredited by the Quality Council for Trades and Occupations (QCTO), the leading role played by UoTs in general and DUT in particular, in nurturing the WIL-training nexus, should be sustained. If due and adequate attention is not paid to the impact that changes to the Post-School Education and Training (PSET) landscape as a whole may have on this nexus, one unintended consequence of these changes may be the inability to sustain partnerships across the education/training/workplace boundaries. There are already examples in existence, of the diminishing role of WIL in many of the new HEQSF-aligned qualifications being offered at UoTs in general, and at DUT in particular. One of most significant changes in the migration from the non-HEQSF-aligned National Diploma to the new HEQSF-aligned Diplomas, is the omission or reduction of WIL.

It is suggested that a summit of stakeholders be arranged by the WIL Directorate in DHET to address this oversight, and its potential consequences for the learning-and-work nexus.

Articulation enabled through ‘supplementarity’

The notion of “access and success” through “supplementarity” as contemplated in national Policy for Credit Accumulation and Transfer (CAT) (SAQA, 2014b: Clause 15a; 15d) has been a moot point at DUT. Instead of merely identifying gaps in the curricula of qualifications, or in the performance of transitioning students prior to admission, articulation could be enabled through the conditional enrolment of these students and the provision of supplementary work prior to the awarding of credits. In the example that follows, this principle is illustrated as a potential solution to a frequently-occurring problem.

The requirement for transitioning students to be granted credit for Mathematics S1 (a course offered in all Engineering disciplines at UoTs), is a course mark of more than 50% for N4 Mathematics, and also for N5 Mathematics. The requirement for students to be granted credit for Mathematics S2 (also offered in all Engineering disciplines at UoTs), is a course mark of more than 50% for N5 Mathematics and more than 50% for N6 Mathematics. Students may therefore be granted credit for Mathematics S1 and S2 and be deemed competent to be admitted to Mathematics S3, if they obtain exactly 50% for each of the N4, N5 and N6 Mathematics courses (averaging 50% across the N-courses). In contrast, students who obtain 80% for N4 Mathematics, 49% for N5 and 81% for N6 (averaging 70% for Mathematics across the N-courses) will neither receive credit for Mathematics S1 nor S2 and would therefore have to register for S1 in spite of having a significantly higher average performance than their counterparts with a 50% average. An alternative to denying these exemptions for Mathematics S1 and S2, would be to offer learners an opportunity to attempt a short module, appropriately designed to address any shortcomings in their N-course Mathematics marks. Upon passing the said module, exemption could be granted retrospectively.

Recently, DUT was afforded an opportunity to demonstrate the application of this principle of access through supplementarity in a case in which a curriculum gap was identified and remedied. When Geometry in the NSC Mathematics syllabus was only included in

the content to be examined via optional exam Paper Three⁴¹, DUT's response was to admit applicants to the Engineering programmes, on condition that learners who passed the Paper Three were permitted to register for the Mathematics S1 module. Applicants who had not completed Paper Three, were only allowed to register for Mathematics S1 at DUT if they concomitantly registered for, and passed, a six-week Geometry module. Essentially the Geometry module was offered as an ancillary to the Mathematics S1 module. This initiative demonstrates that the principle of access through supplementarity can enable articulation. The initiative was discontinued along with the discontinuation of the optional Paper Three.

There is a need to use the principle of supplementarity more widely, within and across university departments, and other education and training institutions.

Management of articulation at DUT

DUT does not have a formal university-wide Articulation Policy. The university draws on national policies including the Articulation Policy (DHET, 2017), SAQA's Recognition of Prior Learning policy (SAQA, 2013; 2016), and SAQA's CAT and assessment policies (SAQA, 2014a; 2014b), in its efforts to develop new, and sustain existing, articulation relationships with TVET Colleges. The admission of transitioning students occurs through the application of the General Rules pertaining to the admission of students, and the more limiting rules contained in Departmental Rulebooks. All of the articulation arrangements that have been described, represent an application of these rules. An area which needs to be addressed is that the application of the rules governing the admission of students transitioning from TVET Colleges, is contingent upon the interpretation of Heads of Departments (HoDs) and Deans, and their perspectives on the need for admitting transitioning students. Perceptions about the performance of transitioning students vary, as do interpretations about their impact on enrolment planning. These variations are reflected in the management by HoDs of learning pathways between the cognate qualifications of TVET colleges, and university departments.

Everyday practices vary from department to department at the university, and are often contingent upon the information available to staff and/or students involved in the

41 For a brief period in senior secondary school in South Africa, Mathematics learners wrote compulsory Papers One (Algebra and Calculus) and Two (Coordinate Geometry, Trigonometry). Paper Three which was optional, covered Probability and Euclidean Geometry.

processing of an application for exemption and credit transfer at the time of registration. In addition to the perceptions of HoDs, articulation by students is contingent upon the perceptions of academics regarding the credibility of the practice, and the serendipitous manner in which students often become aware of articulation opportunities that DUT rules afford them. Even when both staff and students are dealing with articulation in an informed manner, other impediments such as the delays in the release of official TVET results, and the maximum credits that may be transferred between institutions, may derail the articulation process.

Enablers of successful articulation initiatives

Some of the articulation initiatives described in this paper have been highly successful; others moderately so. The Civil Engineering articulation initiative in Pietermaritzburg is an example of a successful initiative. It began as part of a Faculty-wide initiative to broaden access through articulation, and while many other such initiatives were not sustained, this one has thrived. Among the enablers of the success of this arrangement is the commitment of the leadership of the Department to the initiative, the proximity of the Plessislaer campus of the Umgungundlovu TVET College to the Indumiso campus of DUT, the support provided to students in transition and the tracking of the performance of these students over the duration of the initiative. In addition, the sustainability of the arrangement has not been threatened by the advent of HEQSF-aligned qualifications because all of the Engineering programmes to be offered on the Indumiso campus are migrating to the new 240 credit Diploma (NQF Level 6) and not the new Degree (NQF Level 7).

Another successful arrangement is the initiative between the PAX College Hospitality Studies (involving N-4 to N-6 qualifications), and DUT's Department of Hospitality and Tourism (and recently the Department of Food and Nutrition: Consumer Sciences). The primary enablers of the success of this arrangement are the commitment of the leadership of the College to the initiative, the availability of the kitchens of the DUT to PAX students, the moderation of internal PAX assessments, by DUT, and the commitment by all parties to the Memorandum of Understanding (MoU) upon which the articulation arrangement is formally based.

The absence of a number of these factors in other articulation initiatives at DUT lies at the core of their limited success.

Monitoring and tracking transitioning students at DUT

In general, transitioning students are not tracked at DUT and as a consequence, their progress across qualifications is not monitored. The only arrangement in which tracking of an informal nature has occurred, is in the Department of Civil Engineering initiative in Pietermaritzburg. Over the last five years, it is estimated that 200 students have transitioned from the TVET College; this is a conservative estimate. It is complex to assess the evidence of their success rates, throughput rates, and graduation rates.

The absence of tracking of transitioning students at DUT is due in large part to the non-capturing of TVET College articulation information in the student registration process. It is only the possession of the NSC qualification that is captured, irrespective of the formal post-school activities of transitioning students. Transitioning students are not tracked as a category.

CONCLUDING REFLECTIONS

Some of the articulation arrangements described in this paper are entrenched within the programmes that house them. While the number of transitioning students fluctuates, the developed articulation initiatives do not appear to be challenged by the movement to HEQSF-aligned qualifications, nor are they susceptible to the notion that transitioning student numbers adversely affect enrolment planning.

Other articulation initiatives are already being affected by the changes in the qualification architecture that has been precipitated by the requirements of the HEQSF (DHET, 2013). At DUT, in the Faculty of Engineering and the Built Environment, the Faculty of Management Sciences, and the Faculty of Accounting and Informatics, moves are already afoot to develop and roll out Higher Certificates (HC) that among other purposes, will serve as an instrument that is impervious to the vicissitudes resulting from shifting policy decisions. While these Higher Certificates are not the panacea for articulation challenges, they offer a long term articulation alternative rather than a short term palliative.

As UoTs continue to work on the qualifications trajectory precipitated by the HEQSF, considerable effort is going into the design and development of the curriculum of the new Diplomas and the new Degrees that will be offered. It is incumbent upon those involved in the curriculum development processes, to contemplate articulation during this transition phase. Irrespective of whether or not articulation arrangements were a feature of the old qualifications, an opportunity is being afforded UoTs to ensure that the organic evolution of articulation, cemented in our past, remains rooted in our future.

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PAPER 4

Articulation in the Evolution of the Programme and Qualification Mix (PQM) at the University of Zululand (UNIZULU)

Professor Sandile P. Songca, Professor Mncedisi C. Maphalala, Professor Antonia T. Nzama, Professor Nokuthula W. Kunene and Professor Devi D. Tewari

INTRODUCTION

This paper describes articulation initiatives at the University of Zululand (UNIZULU), with regard to how they are set up and managed, the types of arrangements made, challenges experienced, and how the challenges have been addressed. Articulation examples from the Faculty of Arts and the Faculty of Education are described graphically. An institutional articulation framework is currently being developed following the successful development and implementation of related plans, guidelines and standard operating procedures by departments and faculties. These initiatives have made an impact on advancing the depth and breadth of studies through increasingly tighter committee and student information system-based module and programme articulation controls.

Recently, the University has procured software aimed at student tracking for determining high risk modules and students at risk. The University has also invested in a Student Data Analytics system designed by the Strategic Analytics and Business Intelligence Office for managing internal and external articulation into the University's Programme and Qualification Mix (PQM) and the overall student experience. The policy-regulated processes for the recognition of modules and programmes completed at other universities, have also successfully facilitated efficient articulation into the University PQM.

BACKGROUND

There is a growing understanding and practice of articulation which is neither naïve nor innocent, taking the egalitarian and developmental strategic position to its logical implications in the student, academic staff, societal, administrative, business and industry

context of the University. The main way articulation is understood at UNIZULU is in relation to access to Higher Education, progression within the system in terms of collecting the desired knowledge and skills from various programme sources, the certification for work and/or the acquisition of higher-order skills (vertical progression) or broadening a skills set (horizontal progression), and changing a vocation or specialisation. This approach seeks to enhance access for groups for whom access was historically difficult or barred. It also seeks to enhance success for academically under-prepared students, and to enhance the societal impact and profitable livelihoods for groups which are currently economically under-represented.

This understanding and praxis idealises a pipeline which starts in the society from which the University derives its students and its mandate. It permeates the student experience at the University, desiring an impact in society that is quite specific for each student, in line with the various University offerings. In this understanding, society includes the civic, the business, and the education and training sectors. While the said understanding of articulation is alive and evolving, attempts are being made to pin it down with suitable documentation such as a policy framework, rules and regulations.

UNIZULU has a rich PQM, evolving from that of the erstwhile traditional university, and gradually taking the size and shape of a Comprehensive University. The term 'comprehensive university' may be traced back to a classification system developed by the Carnegie Foundation for the Advancement of Learning, to refer to those universities and colleges that offered a wide variety of undergraduate, and a limited range of postgraduate, Degrees.

Comprehensive Universities in South Africa are expected to contribute to meeting a range of goals which are central to the South African National Human Resource Development Strategy 2010 – 2030; access, articulation, the strengthening of applied research, and social responsiveness. These goals are expanded in Table 1 below. There is a focus for this university type, on improving articulation between the career-focused and general academic programmes, thus facilitating student mobility between different programmes. This focus is viewed as a way of skilling students, and optimising their opportunities to develop livelihoods in the broader economy.

Table 1: Goals for Comprehensive Universities in South Africa

	Goal Description
1	Increased access, in particular, to career-focused programmes with prospective students able to choose from a wider variety of programmes with different entry requirements.
2	Improved articulation between the career-focused and general academic programmes, thus facilitating student mobility between different programmes.
3	Expanded opportunities for research and the strengthening and development of applied research through linking the emerging foci of the Universities of Technology to the current research strengths of the Universities ⁴² .
4	Enhanced capacity to respond to the social and economic needs of the region in general, and of industry and civil society in particular.

For the Universities of Venda, Zululand for example, and the former University of the Transkei (now integrated into Walter Sisulu University), however, a specific objective was to make a wide range of vocational, 'Technikon-type' programmes available where they were not previously offered, in line with the human resource needs of their regions. The intention was that students would have access to a much wider range of Certificate and Diploma qualifications in work-related fields, than was previously the case⁴³.

Although there is a relatively high degree of articulation, including horizontal and vertical articulation, UNIZULU's PQM is still relatively traditional, consisting mainly of the inherited traditional university programmes. The current strategic plan of the University, however, shows a clear commitment to the transformation of its PQM towards a comprehensive configuration, more as a response to the regional and national economic needs, than as a response to the original Gibbon (Department of Education [DoE], 2004) concept which will be briefly discussed later in the paper. The strategic plan aims to contribute to the growth of the tertiary education sector and leverage off the university's rural, comprehensive character to respond to the growth opportunities presented to the University. The plan re-examines the University's current PQM, given the status of the University as a rural Comprehensive University.

42 Universities of Technology (UoTs) in democratic South Africa replaced the Technikons of *apartheid* South Africa.

43 The Higher Education landscape in South Africa was rationalised in 2002. This process merged the *apartheid*-era institutions into institutions which were consistent with the vision and values of non-racial, non-sexist, democratic South Africa.

Horizontal articulation in the current PQM allows students to complete a number of qualifications at comparable Higher Education Qualification Sub-Framework (HEQSF) levels, thus enabling students to gain a wide breadth of knowledge and skills at comparable levels of depth and complexity⁴⁴. This is usually the choice method of personal development for those who wish to have a high degree of mobility within a wider scope of industries, and those who wish to acquire the wide set of skills required to perform optimally within a set of comparable industries along a chosen career path.

Vertical articulation allows UNIZULU students to focus on a chosen field of study at progressively increasing HEQSF levels, thus enabling them to gain skills at higher levels of depth and complexity. This is usually the method of choice for the personal development of those who wish to have a high degree of focus within a narrower scope of industries, and those who wish to acquire high-level skills required to perform optimally as knowledge workers, within a chosen industry in a chosen career path. Students who aim to complete higher Degrees up to Doctorate level will normally articulate vertically, from the Bachelors Degree, to the Bachelor Honours Degree, and/or Postgraduate Diploma, and the Masters and Doctoral Degrees.

Curriculum development

The approach to curriculum development at UNIZULU includes enhancing the 'core curriculum' and the 'co-curriculum'; training workshops on curriculum development for academics; the review of the policy and regulatory environments for curriculum development and management of academic programmes; evolution towards a PQM with a Comprehensive University character; community engagement in curriculum development; and the development of an institutional articulation framework.

The desired Programme and Qualification Mix (PQM)

Given that the PQM lies at the core of the academic positioning of a university, Visser and Van Aardt (2015) developed and implemented an innovative framework for determining the viability of academic programmes using multiple criteria on a web-based system. Nel (2014) considered that deciding on a viable PQM is a complex matter that is influenced

⁴⁴ The South African NQF comprises three coordinated NQF Sub-Frameworks, namely (1) the General and Further Education and Training Qualifications Sub-Framework (GFETQSF), (2) the Higher Education Qualifications Sub-Framework (HEQSF), and (3) the Occupational Qualifications Sub-Framework (OQSF) respectively.

by many different factors, requirements and constraints, in addition to those stated in the HEQSF, including market requirements, economic viability, path dependency, articulation, mode of teaching, and university type.

The University thus decided to determine the desired PQM through a process of strategic consultation and reporting so that the target PQM is determined in a way that is aligned to the strategic plan and, on that basis, approved. The desired PQM will also be reviewed annually, again through a process of consultative review, not unlike the cyclical review of units, programmes and departments. The recommendation that the PQM of UNIZULU be reduced as it is currently too large, emanated from a special audit recently conducted by the Council on Higher Education (CHE)⁴⁵. Figure 1 shows the concept of the desired Comprehensive University of Zululand. Figure 1 needs to be read as a three-dimensional visual, with quadrants 'in front of', and 'behind', the horizontal and vertical 'x and y' axes.

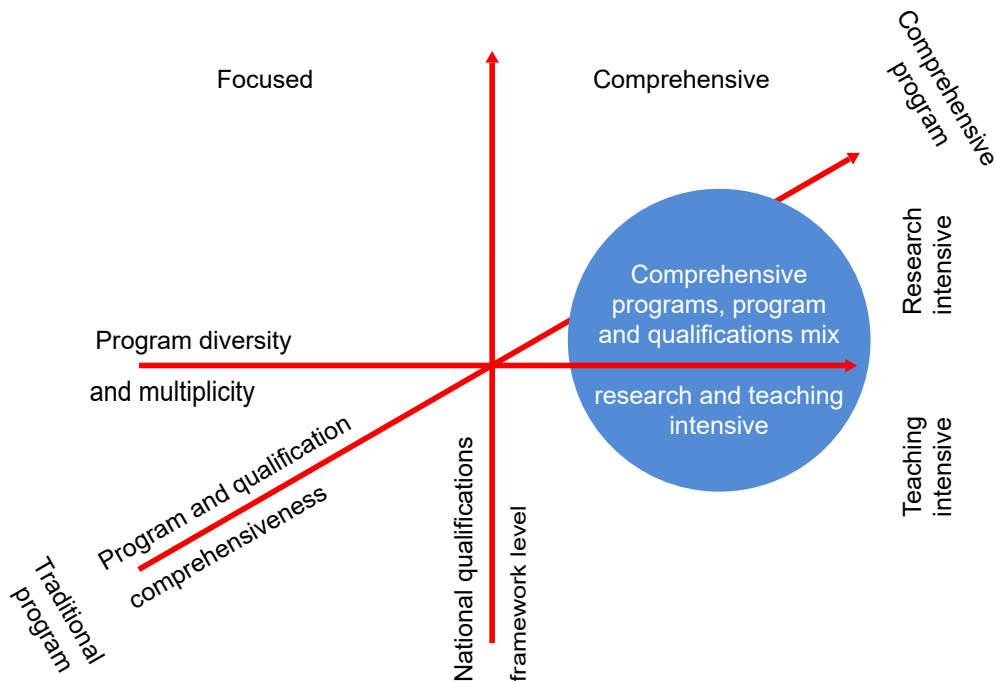


Figure 1: Concept of the desired Comprehensive University of Zululand

⁴⁵ The CHE, one of three Quality Councils in South Africa, oversees the HEQSF. The other two Quality Councils – Umalusi, Council for Quality Assurance in General and Further Education and Training, and the Quality Council for Trades and Occupations (QCTO) respectively oversee the GFETQSF and the OQSF. The three articulated NQF Sub-Frameworks make up the NQF in South Africa.

UNIZULU is developing a comprehensive character that is based on a comprehensive PQM as well as programmes and qualifications that are in themselves comprehensive. Given that the latter is arguably a new innovation in curriculum articulation, Figure 1 is used to show the positioning of this Comprehensive University innovation. There are eight 'compartments' (quadrants) in Figure 1. The top four compartments, above the plane defined by the programme diversity and multiplicity on one hand, and on the other hand programme and qualification comprehensiveness, are the spaces in which research-intensive Higher Education Institutions (HEIs) function. The lower four compartments in this plane represent teaching-intensive HEIs.

Similarly, there are four compartments on either side of the plane defined by the programme and qualification comprehensiveness line running diagonally through Figure 1, from the bottom left to the top right, and the NQF line. On the left of this plane are 'low programme diversity' HEIs while on the right of it are the 'high programme diversity' HEIs. The Gibbon definition (DoE, 2004) positions Comprehensive Universities on the right hand side of this plane.

There are also four compartments on either side of the plane defined by the programme diversity and multiplicity, and NQF-level lines, with four compartments 'behind' the page visualised as being a three-dimensional surface, and four compartments 'in front of' the page. Traditional HEIs can be positioned 'in front of the page', while comprehensive HEIs are 'behind' it.

If the three-dimensional conceptual depiction of the configuration of HEIs is shown with eight compartments as in Figure 1, with each compartment described in terms of programme diversity and multiplicity, NQF level and PQM comprehensiveness, then the 'first' compartment – at the top left, and 'in front of' the page, represents a Traditional University configuration. The Traditional University focuses on traditional academic programmes with low diversity, and a few higher HEQSF-level programmes. And accordingly, the 'eighth' compartment – located at the bottom right and 'behind the page' in Figure 1, represents the opposite: a Comprehensive University configuration where the University focuses on comprehensive programmes and a high diversity of low HEQSF-level programmes.

Using this model to depict the configuration of HEIs in South Africa, we can now show how UNIZULU is positioning itself strategically as a Comprehensive University with

high programme diversity and a wide range of HEQSF-level programmes. UNIZULU intentionally includes undergraduate and postgraduate programmes up to Doctorate level in its PQM. It is positioned on the right and ‘behind the page’ in Figure 1, and its programmes span the full range of qualifications on the HEQSF.

In this way the PQM desired by UNIZULU is somewhat aligned to Gibbon’s (DoE, 2004) concept of a Comprehensive University, not only in terms of the *goals* for Comprehensive Universities in South Africa, but also in terms of the desired *characteristics* of the South African Comprehensive University system. This system is expected to enhance diversity, student access and mobility, curriculum relevance and responsiveness, and flexibility. These characteristics were expanded by Gibbon (*ibid.*) as summarised in Table 2.

Table 2: Characteristics of Comprehensive Universities in South Africa

Characteristics	How the desired characteristics will be achieved
Diversity	Offering a wide range of academic programmes (vocational, career-focused, professional and general formative) of both Traditional University and University of Technology (UoT) types
Accessibility	Creating opportunities by means of different entry and exit points for the diversity of programmes
Student mobility	Developing strong vertical and horizontal articulation pathways
Responsiveness	Developing a suite of educational programmes and research foci appropriate to local, regional and national needs
Flexibility	Strengthening relationships with community, civic, government, business, and industry partners for local and regional development

In the case of UNIZULU, there is a growing emergence of, and entry into the PQM, of programmes that integrate the characteristics of the Traditional University and those of the UoT, with the copious infusion of a range of graduate attributes for diverse industries. In this paper, these programmes are defined as ‘comprehensive new programmes’ entering the PQM of the University. These programmes will start to emerge and are expected to characterise the University’s PQM fully after the three year programme review cycle which started in 2017, the latter of which is being used to introduce these characteristics and graduate attributes.

Examples of the new programmes with the desired characteristics and graduate attributes, that have recently entered the University’s PQM include: the new Higher Certificate in Accountancy; the Advanced Certificate in Accountancy; the Advanced Diploma in

Communication Science; the three Postgraduate Certificates in Education; the Bachelor of Science in Agriculture in Animal Science; the Bachelor of Consumer Science in Extension and Rural Development; the Bachelor of Consumer Science in Hospitality and Tourism; the Bachelor of Arts in Drama Theatre and Performance; the Bachelor of Education in Foundation Phase Teaching; and the Bachelor of Education in Intermediate Phase Teaching.

Rationalisation of UNIZULU's Programme and Qualification Mix (PQM)

At a glance, the PQM at UNIZULU might appear to have a large number of programmes on offer. However, many of the programmes on the list are actually variations of the same programme in terms of subject specialisations. The PQM consists of 161 programmes comprising two Higher Certificates, seven Diplomas, 30 Bachelor Degrees, three Postgraduate Diplomas, 33 Honours Degrees, 45 Masters Degrees, and 41 Doctoral Degrees. The number of programmes that UNIZULU offers is a function of the market demand for these qualifications, the internal institutional expertise and capacity to offer them, the manner in which they are packaged for registration with the Department of Higher Education and Training (DHET), their accreditation by the CHE and the strategic vision and mission of the university. The categories already described form a realistic basis that will be used for the rationalisation of the 161 programmes in time.

To determine the market demand for the PQM, the university is conducting market research through an electronic survey, an analysis of the applications for placement from the regional Central Administration Office (CAO) and internal data, an analysis of the current enrolment trends in each programme over the past ten years, and a multivariable profiling of first-time entering students, where the latter is also used for early detection of students at risk.

The University has concluded the profiling of the quantum, knowledge, skills, and competences of academics within the institution, and the staff recruitment successes for the various knowledge fields required for the PQM, and this will be used to indicate how likely the PQM is to be supported by suitably qualified staff, including those already employed by the University and those that are recruited for this purpose. The results of this profiling project will be used to classify programmes in the PQM into several categories in terms of how difficult it is to support them with suitably qualified academic staff.

The University will conduct an analysis of programmes for sustainability in terms of financial viability, responsiveness or relevance in terms of demand, and quality, with a view towards grouping programmes that the University considers as belonging to the same 'family of programmes', for the purposes of registration, accreditation and recording of programme cohorts. For example, instead of having several Master of Science programmes that may be highly vulnerable financially as stand-alone offerings, these programmes may be packaged under one or two Master of Science programmes that together form a sustainable group for the University to manage.

The Strategic Goal 1 of the University aims to improve governance through enhanced operations to support the academic enterprise and ensure sustainability. The first strategic objective of this goal is to have the broad spectrum of programmes characteristic of a Comprehensive University. The University aims to achieve this objective by establishing new structures to manage the new offerings; evaluating existing offerings for alignment to the University's Strategic Plan 2016-2021, and reviewing the number of learning programmes offered.

STRATEGIC ARTICULATION INITIATIVES

There are two strategic articulation initiatives of critical importance, upon which the University will embark. The first such initiative is the development of an institutional Articulation Framework that forms part of a roadmap towards the desired Comprehensive University classification. The purpose of this framework is to provide an overarching guideline on the articulation that will facilitate the development of the Comprehensive University and also the kind of articulation that will be used in maintaining optimal options for students within the comprehensive PQM.

The second strategic initiative is the development of a Teaching and Learning Community Engagement Framework aimed at providing a guide for strategic partnerships between the University and external entities, with a focus on Technical and Vocational Education and Training (TVET) colleges. One of the purposes of this framework is to provide guidance in forming partnerships that will help to sustain the University's comprehensive PQM, by providing strategic access, and the enhancement of success for students from selected Colleges. Both initiatives are still in their infancy. An important project recently initiated aims to define UNIZULU's comprehensivity, and in particular, its internal and external articulations.

UNIZULU articulation with other universities

Articulation between UNIZULU and other universities is driven by a policy and procedure-based system consisting of the content and credit appraisal of modules and programme curricula. Performance in this system is upheld by the University's departments, and recommended by the various faculty and Senate committees; it is approved upon such recommendation by Senate. In the case of modules, the equivalence of the content and credits is established internally by following this process. In the case of foreign programme curricula, additional verification is obtained from the South African Qualifications Authority (SAQA) in the form of SAQA's Certificate of Evaluation (CoE)⁴⁶, before establishing content equivalence. These procedures are regulated by several of the University's learning and teaching policy provisions.

Articulation between UNIZULU and other universities is in the exploratory stage. For example the articulation of the South African Institute of Chartered Accountants (SAICA)⁴⁷-accredited UNIZULU Bachelor of Accounting Science programme, with the postgraduate Certificate in the Theory of Accounting (CTA) programme at the University of Cape Town (UCT), is enabled by a Memorandum of Understanding (MoU) between the two universities.

UNIZULU also has an active MoU with the Appalachian State University in Boone, North Carolina, in the United States of America (USA). Through this MoU, there has been a vibrant exchange of students for the Teaching Practice components of the respective Teacher Education programmes, for some time. Two challenges with the latter include logistics and viability. The American students come to South Africa every year, but the South African students rarely go to the USA because UNIZULU's Teaching Practice module is scheduled during the annual school break in the USA, notwithstanding the unfavourable currency exchange rate. The Dean of Education at UNIZULU is developing an articulation plan to address these challenges by sourcing funding for the exchange programme, and aligning UNIZULU's Teaching Practice with school terms in the USA. Only a few students will be afforded the exchange with the Appalachian State University through this project; these students will be selected on merit. Although the Appalachian State University is rural,

46 In line with the NQF Act 67 of 2008, SAQA's mandate includes the Foreign Qualification Evaluation and Advisory Services. SAQA verifies the authenticity of foreign qualifications, and provides Certificates of Evaluation (CoE) that show the equivalent South African NQF levels of the foreign qualifications.

47 Articulation to the postgraduate Certificate in the Theory of Accounting (CTA) in South Africa requires the accreditation of the Bachelor of Accounting Science by SAICA, in addition to/alongside accreditation by the CHE.

mainly due to the great differential in national wealth between the two countries, rurality in the USA is quite different from that in South Africa. These differences lead to very different experiences of the school systems for the respective students.

UNIZULU articulation with Technical and Vocational Education and Training (TVET) Colleges

The approach to UNIZULU cooperation with TVET Colleges is characterised by two phases, namely: (a) initially establishing some form of working relationship defined by identified needs and capacity deficiencies, followed by (b) establishing formal arrangements in the form of either an MoU or a Memorandum of Agreement (MoA), or similar instrument. The Faculty of Education at UNIZULU for example, has been working with the Umfolozi TVET College, offering capacity-building workshops in a variety of areas including curriculum development, assessment, and certification. The intention is to take this work further and establish formal cooperation agreements in areas of mutual interest, including the articulation of specific programmes.

Another example is the emerging cooperation between the Department of Law in the Faculty of Commerce, Administration and Law at UNIZULU, and the Justice College which is located within the South African Department of Justice and Constitutional Development. This initiative is in the exploratory stages.

One of the reasons UNIZULU progressed slowly in this area, was the historic absence of policy on community engagement in teaching and learning to direct the engagement with other universities and TVET Colleges. Such a policy has now been developed and is currently being incorporated into the University's General Policy and Procedures for Community Engagement, before entering the Senate Committee approval process⁴⁸.

Operational articulation examples

UNIZULU has undertaken a number of initiatives to strengthen the pathways which students can pursue in line with their desired personal and professional development,

48 The purpose of UNIZULU's Policy and Procedures for Community Engagement in Teaching and Learning, which has been integrated into UNIZULU's general Policy and Procedures for Community Engagement, is to encourage all educational subject matter, knowledge fields and specialisations in the University to create, maintain and harness viable relationships with the communities identified in civil society or business/industry, government and elsewhere, for the purposes of responsiveness, relevance, and for service delivery regarding teaching and learning.

and livelihoods. These initiatives include strategic, institutional, faculty, inter-faculty and departmental developments. The University has four faculties, namely those for the Arts; Education; Science and Agriculture; and Commerce Administration and Law, with 43 programme-offering departments and two service departments (which do not offer programmes).

Students with modules and qualifications/part-qualifications obtained at other universities articulate into UNIZULU's PQM, through these initiatives and structures. The Faculty of Arts offers Diploma and Degree programmes at various NQF levels. Some departments offer three-year and four-year Bachelors Degrees ('B3' and 'B4' qualifications). Others participate in the Faculty's Dual Major Bachelor Degree Programme. Most departments offer Honours programmes (HP), Masters programmes (MP) and Doctoral (PhD) programmes. Articulation is shown in Table 3. There are ten B3 and two B4 qualifications. All the B3 qualifications articulate into Honours programmes. All of the Honours programmes articulate into the Madters programmes. Some B4 qualifications articulate into the Masters programmes, and all of the Masters programmes articulate into the PhDs.

Table 3: Programme articulation in the Faculty of Arts at UNIZULU

NQF Level	Degree		Diploma	Postgrad Diploma
10	PHD			
9	MASTERS			
8	HONS	4 year Bachelor Degree BLIS and BSW	Advanced Diploma in Communication Science	Postgraduate Diploma in Recreation and Tourism Postgraduate Diploma in Communiy Work Postgraduate in Library and Information Science
7	3 year BA Degrees		Diploma in Public Relations Management Diploma in Media Studies	

Key:

BLIS = Bachelor in Library and Information Science

BSW = Bachelor in Social Work

The Faculty of Education at UNIZULU offers the Bachelor of Education (BEd), the Master of Education (MEd), Doctoral Degrees (PhD and DEd), the Postgraduate Certificate in Education (PGCE), the Four-year Teachers Diploma (FYTD), the Post Graduate Diploma

in Education (PGDE) and the Advanced Diploma in Education (ADE). Articulation amongst these qualifications is illustrated in Table 4.

Table 4: Programme articulation in the Faculty of Education at UNIZULU

NQF Level	Degrees	Diplomas	Certificates
10	PhD/D Ed		
9	Master of Education		
8	Bachelor of Education Honours Degree	Post Graduate Diploma in Education	
7	Bachelor of Education Degree or other Bachelor's Degree (BA, B Sc, B Com) plus PGCE	Advanced Diploma in Education	Postgraduate Certificate in Education (PGCE)
6		Four-year Teachers diploma	
5			

The setting up and management of programmes at UNIZULU

The UNIZULU Teaching and Learning Strategy⁴⁹, national⁵⁰ and institutional policy⁵¹ require that curriculum development must specify a variety of vertical and horizontal articulation pathways and articulation with the world of work through industry and community engagement initiatives, such as teaching practice, Work Integrated Learning (WIL) and Workplace Based Learning (WBL). The Teaching and Learning Strategy, and the policy and regulatory landscape for articulation and related issues at UNIZULU, is currently being reviewed and developed to meet the level required for the strategic articulation ideals of the university. For example, UNIZULU's Policy and Procedures for the Shelf Life of Modules was developed recently as a response to a CHE national review, which led to the accreditation of UNIZULU's Bachelor of Law by the CHE, and the accreditation of the

49 UNIZULU's Teaching and Learning Strategy, for example, insists that a comprehensive approach that allows for articulation between courses of study, must be developed. Knowledge and skills gained at the lower NQF levels, need to lead to logical and rapid progression to higher level programmes as well as movement across the PQM, while allowing students the ability to acquire sufficient breadth through horizontal articulation, or depth in a chosen profession through vertical articulation.

50 Criterion 1 of the CHE Criteria for Programme Accreditation requires that policies and procedures should be in place to ensure that programmes articulate with others.

51 UNIZULU's Policy and Procedures for the Shelf Life of Modules, for example, states that departments need to maintain the internal articulation requirements of courses and programmes of study, where the modules feature as articulated core modules or electives.

University's Bachelor of Accounting Science by SAICA. In addition, UNIZULU's Teaching and Learning Strategy was recently revised to incorporate articulation. A comprehensive review of a number of other University policies, including the Policy and Procedures for Programme Management, and the Guidelines for Curriculum Review, was concluded recently, embedding the articulation imperatives described.

Extensive consultative workshops on the University's Policy and Procedures for Programme Management, and the Guidelines for Curriculum Reviews, were conducted in preparation for the three-year review cycle (2017-2019) for UNIZULU departments, programmes, units, courses and modules. There were 43 programmes reviewed in 2017, with a further 63 and 55 scheduled for review in 2018 and 2019 respectively.

Articulation in UNIZULU's faculties has been set up through the development and Faculty Board approval of the articulation frameworks such as those shown in Tables 3 and 4 above, in the context of these strategic policy and regulatory review initiatives. Each Head of Department is responsible for the application of the articulation framework. The management of internal articulation within each programme can be performed automatically through the Student Management Information System. This system records the progression of students in terms of modules already passed, and the programme rules that are programmed into the system, so that the internal articulation outcome is either 'pass and progress to the next level', 'fail and repeat outstanding modules in the programme', or 'failed and excluded on grounds of insufficient academic progression'. These internal programme articulation arrangements are new and still have teething problems. Some of the initial problems include the offering and management of courses and modules required by more than one programme across departments and faculties, like Mathematics, Economics and Business Management. A debilitating problem is the system's structural academic alignment with the HEQSF, especially in terms of the alignment to new programmes. The problem of the system specification of progression and related rules initially encountered in 2017, has largely been resolved. However, 2019 has been earmarked as the year of full implementation, in which all of the problems mentioned have to be resolved.

Multidisciplinary programmes

Some UNIZULU programmes are multidisciplinary; in these programmes students often have to take modules from different departments within the faculty, or from different faculties. For example, students enrolled for the Bachelor of Arts in Development Studies take some modules in the Faculty of Arts, and some in the Faculty of Commerce. Students enrolled for the Bachelor of Arts in Environmental Planning take some modules in the Faculty of Arts, and some in the Faculty of Science. Currently, although faculties do not have specific and formal arrangements, it is fully understood that all of the University modules are offered for all registered students in all programmes, whether core or elective, and this practice is fully catered for in the institutional programme enrolment planning.

CHALLENGES AND SOLUTIONS

Several challenges have been experienced with the articulation arrangements at UNIZULU. Ad-hoc solutions have been put in place while the situation is being addressed, and the institutional framework is being prepared to cater for all scenarios. Some examples of these challenges are discussed in this paper, including that of the articulation between the Diploma and Bachelor of Arts Dual Major, multidisciplinary programmes, and the lack of articulation bridges to higher degrees.

Articulation between the Diploma and Bachelor of Arts Dual Major

Challenges are experienced when students do not want to follow the prescribed linear articulation progression from the Bachelor of Arts with a teaching subject, to the Postgraduate Certificate in Education. An example is when students who have completed the three-year undergraduate Diploma programme want to enrol for a Bachelor of Arts Dual Major with the intention to register later for the Postgraduate Certificate in Education. The problem has been solved with the Faculty of Education, so that students get good advice in terms of the combinations of modules for which they should register in their Bachelor of Arts Dual Major, in order to complete and qualify for the Postgraduate Certificate in Education.

Challenges regarding multidisciplinary programmes

Due to the multidisciplinary nature of some programmes, students are at times affected when a department reviews its programmes, as this can lead to some modules being moved from one level to another, or being discarded altogether. The only solution is to encourage departments that are sharing modules, to keep communication channels open and to join forces during reviews. This approach has begun to be practiced in earnest, in the current three-year review cycle already noted.

Lack of articulation bridges to higher degrees

In some instances, there is a lack of opportunity to articulate to further studies. UNIZULU's Department of Anthropology Degree, for example, does not have an Honours Degree which would cater for students who have completed a Dual Major with Anthropology as one of the major subjects. Thus, students who want to study Anthropology can do so only via the three-year Bachelor of Arts Dual Major Degree programme, with no possibilities for pursuing more advanced studies in this area.

Another example is that in UNIZULU's Department of Sociology, which has a Bachelor's Degree in Industrial Sociology but does not have further articulation possibilities. In this example, the Programme Review Panel identified the challenge, and expressed their view in the Draft Review Report. The Department of Sociology is currently working on the Improvement Plan that will address the challenge. To create the missing articulation bridge, the Department has applied for accreditation for the Honours and Masters Degrees in Industrial Sociology. Both programmes have been approved by the internal structures of the University, and the University Council.

HOW ARE ARTICULATION INITIATIVES WORKING?

Except for the cases mentioned, faculty articulation initiatives currently in place are viewed as being successful, because students are able to progress seamlessly through NQF levels. The degree of success, however, varies from student to student, as students do make course or module enrolment mistakes from time to time. Given that there is no mechanism to ensure that articulation pitfalls are avoided, and are predicted per student after course and module registration, a small number of students are unable to progress

or graduate as anticipated, either due to unforeseen outstanding modules, or inappropriate electives. Some of the enabling factors for the success of articulation initiatives are discussed in a later section of this paper. It does remain necessary, however, for the broader institutional articulation framework to be concluded, to cater for the foreseeable articulation needs of students, either vertically or horizontally

The main articulation successes and enablers

UNIZULU's main articulation successes include the management of student cohorts for most of the programmes in the four faculties. Faculties are required to report on cohorts annually, as part of the faculty PQM report, and to reflect on delayed student progression and the causes thereof. To enhance this initiative further, software has been procured for cohort analysis, and the determination of high-risk modules, and students at risk.

Another success is the satisfactory throughput of students from all programmes, as shown in Table 5. There has been productive recognition of programmes and modules obtained by students at other universities. The University furthermore celebrates the development and implementation of the Faculty Articulation Frameworks such as those shown in Tables 3 and 4 above. The number of successful articulation pathways that have been established, led to productive self-development, and high-impact contributions by students in their industries (and involved between 38-48 individuals in 2017). The Bachelors Degree-to-PGCE articulation, for example, continues to have a high impact in the teaching industry, through the production of 'scarce skills' teachers with sufficient Further Education teaching subject depth.

There is a highly successful and formalised practice for admitting students to higher degrees at UNIZULU which requires that Senate recognises the status of the pre-requisite qualification as being equivalent to those qualifications that articulate to the desired higher degree in the Faculty Articulation Framework. The degree concerned is evaluated by the faculty concerned, and accepted as being equivalent by Senate, through its structures set up for the purposes of admitting the particular student in each case, to the higher degree. For Degrees obtained at other universities outside South Africa, the process is aided by the confirmation of equivalence through SAQA's CoE.

Table 5: Headcount of graduations at UNIZULU in 2017

Graduation Type	Target	Actual
Undergraduate qualified	1 948	3330
Postgraduate qualified	441	866
Total graduates (undergraduate and postgraduate)	2 389	4196
Success rate	80%	86%

What enabled these successes

One of the enabling factors for UNIZULU's articulation initiatives, involved working closely with the University's Quality Assurance Unit. Another was the sense of ownership of the programmes, by the Heads of Departments. In the case of multi-disciplinary programmes, working closely with the service departments also contributed to many of the articulation successes. Additionally, the broad-based policy and regulatory landscape for the recognition of modules and programmes, contributed to the efficient external articulation into the University's PQM. Further design and development of the strategic policy and regulatory framework in the area of articulation, is expected to yield more successes.

Other developments: Student tracking

Tracking is understood here to mean the tracking of students in order to determine students at risk – which is done through the identification of these students by each and every lecturer, and a subsequent discussion of the intervention strategies at the Faculty Teaching and Learning Committee, and Faculty Board meetings. It is also understood to refer to the tracking of graduates after they complete their studies, mainly with a view to understanding their destinations and ultimate impact in society as well as the development of their livelihoods. Many faculties do not track the students who have graduated, as the University does not have the tools and mechanisms to do so. Some departments have been undertaking tracking in their own capacity and for their own interests, and specifically also for determining and establishing the demand for their programmes. Due to the current lack of tools for tracking graduates, the relevant statistics cannot be provided at this stage. However, there are plans in place to invest in an internet-based software tool for tracking graduates after graduation for a variety of purposes.

The university has also invested in a Student Data Analytics System designed by the Strategic Analytics and Business Intelligence Office for student tracking. The system collects data from a large variety of sources, including the feeder schools, Umalusi, student application forms and an entry questionnaire administered during registration. It continues to collect such data throughout students' tenure at the University, and where feasible beyond their tenure, as *alumni*. The system determines students at risk before the risk becomes a reality, and continues to monitor student risk throughout students' tenure at the University, using a variety of variables beyond just student performance. Some of the variables include, but are not limited to, student attendance in teaching and learning activities, library visit logs, student health and well-being, and participation in co-curricular activities such as sporting codes, music and debates. It has already proved to be a valuable tool for the First Year Experience⁵², student support services, the Teaching and Learning Centre, and academics.

REFLECTIONS

The significance of ensuring that horizontal and vertical articulation allows students greater flexibility in terms of access, or progression, and building the confidence of students and the broader community, in UNIZULU offerings, cannot be overstated. Programmes with clear articulation pathways allow students to articulate easily and efficiently through the system, and reduce or eliminate the 'bulge phenomenon' which is often problematic in tertiary institutions in South Africa⁵³.

There is a need for formal arrangements between faculties that share modules, to address the problems that ensue due to curriculum changes or review. The need for an institutional articulation framework cannot be overstated. This is currently being developed using institutional articulation data, departmental and Faculty Articulation Frameworks of the type shown in Tables 3 and 4, and institutional articulation rules.

The policy-regulated system of the recognition of programmes and modules completed elsewhere, aided by the establishment of equivalence by SAQA, is efficient in providing

52 The First Year Experience initiative at UNIZULU was approved and implemented for the first time in 2016. Some of the concepts were presented as part of a keynote lecture at the 2018 South African National Resource Centre First Year Experience Conference (Songca, 2018).

53 The bulge is the unsustainable proliferation of students who have gone beyond their permissible academic tenure, in terms of the academic exclusion rules of the University.

external articulation into the University's PQM. The University urgently needs to revive its partnerships with TVET Colleges, and to develop articulation contracts so as to sustain the pipelines articulating to strategic University of Technology-type career-focused programmes, as this would enhance the Comprehensive University PQM. Many students have followed the University's articulation arrangements to attain highly sought-after qualifications. For example, students seeking employment as teachers have made extensive use of the articulation between the Bachelor qualifications with teaching subjects at exit level, and the Postgraduate Certificate in Education.

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PAPER 5

Optimising Pathways into Higher Education: The Challenge of Institutional Restitution, Epistemic Justice, and Community Transformation in the Faculty of Theology, University of Pretoria (UP)

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INTRODUCTION AND BACKGROUND

South Africans have inherited a grossly divided and unequal past. This is evident in, amongst others, the economic inequality, spatial fragmentation and vastly different forms of access to good quality education.

Although the dream of many is to find pathways into Higher Education, this is an elusive dream for most people in South Africa. Yet, in the society in which we find ourselves, Higher Education still remains an important – and sometimes the only – pathway into certain professions or futures. We therefore need to combine two imperatives: optimising access into Higher Education; whilst at the same time deepening the ongoing transformation of Higher Education Institutions (HEI).

South Africa's divided and unequal past is highly evident in the unequal landscape of faith-based practitioners. This paper describes optimised pathways into Higher Education, presenting one case at the University of Pretoria (UP), in the Faculty of Theology: the case of Christian religious practitioners. The paper considers possible successes and ongoing challenges.

The purposes of the paper are (a) to provide a specific example of an articulation initiative at UP, and (b) for the example, to describe the articulation arrangements between UP and other types of entities, including some of the challenges experienced, how these difficulties have been addressed, and the consequent successes.

AN EXAMPLE OF AN ARTICULATION INITIATIVE AT UP: THE CENTRE FOR CONTEXTUAL MINISTRY IN THE FACULTY OF THEOLOGY

The Centre for Contextual Ministry at UP, also referred to as the Centre in this paper, is located in the Faculty of Theology at the University (De Beer and Van Niekerk, 2017). For many years, in collaboration with Enterprises@UP⁵⁴, the Centre has offered short courses (lasting from three days to two weeks), and one-year courses for people who are actively working in communities as Pastors, Faith-based Practitioners or Community Workers. Almost 1,000 students per annum receive Certificates for courses they complete through the Centre. The challenges have always included the alignment, articulation and accreditation of the courses.

Increasingly, we asked whether the challenges were always 'real', or whether they had to do with the baggage of institutional histories; failure to innovatively implement what was enabling – and allowed – in the Higher Education policy framework; institutional, intellectual and denominational prejudices; and hierarchical institutional management practices which failed to discern learning pathways 'from within' and 'from below', in contextually appropriate ways.

Over the past few years, the following have become abundantly clear.

- The Centre offered Certificates (of attendance) to between 750 and 1,000 students annually, who were then unable to use these Certificates to access Diploma or Degree courses at UP or other universities. Accreditation and articulation remained elusive.
- The students participating in the Centre courses possessed a wealth of experience and knowledge, often not found in textbooks. We thus denied ourselves the gift of their knowledge as possible sources of our own epistemic expansion and transformation.

⁵⁴ Enterprises@UP runs training and short courses, and provides research and advisory services, at users' own costs. It was set up by UP to allow for Continuing Education that is tailor-made for specific professional contexts.

- The Higher Education policy regime required and allowed for more innovative and flexible learning pathways, but institutions were not always adequately implementing what was theoretically possible, and an ethical imperative.
- The academic arrogance of some, and narrow disciplinary boundaries practised by others, mitigated against flexible and innovative approaches to learning pathways, and migration between disciplines.

Later in this article, we describe some of the developments that are now assisting us to overcome the above challenges.

The elusive dream of educational justice

Although this article focuses on Higher Education, educational exclusion already occurs at lower levels in the system, and at birth for some. Thesnaar (2014) makes these disconcerting observations when reflecting on schools in the rural areas of the Western Cape Province in South Africa. Thesnaar (*Ibid.*) notes that only 10% of learners in these areas make it to school Grade 10, and of those who make it to Grade 12, only 10% pass successfully. Thus, one of 100 learners entering school, will successfully pass Grade 12, and only a small percentage of these learners will be able to access university⁵⁵.

The backlog in terms of access to quality education is a national crisis. Activist Non-Governmental Organisations (NGOs) such as Equal Education, and others, are committed to addressing this challenge. What is required, is a comprehensive overhaul requiring substantive investment. Recent years have seen immense turmoil in universities, spearheaded by the #FeesMustFall movement, which was preceded by the #RhodesMustFall movement, and followed by #OutsourcingMustFall and, at least at the University of Pretoria, #AfrikaansMustFall⁵⁶.

Spaull (2017) noted that in these protests, the students 'rejected the *status quo*', and that their protest action was not only aimed at addressing 'the principles that govern universities, but ultimately the principles that govern the country'. Spaull (*Ibid.*) suggested

55 This general trend is generally known to apply to the rest of South Africa as well.

56 This wave of student protests, while not the first in the country, came to the fore between 2014 and 2017. The students protested against a number of things, including but not limited to, demands for free education and decolonised curricula, gender and language discrimination, and the outsourcing of certain types of university posts.

that the student movement went to the root of the problem by challenging assumptions at three levels, namely, *who* should go to university, *what* universities should look like, and *who should pay* for university education.

The student activism resulted in the appointment of a Presidential Task Team, and the commitment to an additional R17 billion to boost fee-free Higher Education in the country. These developments are important for redressing past exclusions and injustices. However, cynically speaking, one could argue that the emerging or future middle-classes and corporate leaders have brokered a deal for the one percent of people who will gain access to universities, while the remaining 99% are still excluded. Spaul (Op.Cit.) rightly notes that thinking that the various incarnations of the student movements are primarily about universities is a mistake: '#RhodesMustfall was not about a statue — it was about reclamation and power and history'⁵⁷. The student protests incarnated on university campuses, but were about much more.

Similarly, the challenge today is not only about who should pay fees, but also about who should own the land in the country⁵⁸. The discontent and anger about the 'pay-to-play' market system in the country — where only those who can pay for quality, get it — is as much about private hospitals and schools, as it is about universities. The true contested space at South African universities is about the principles that order South African society, and about reimagining a different reality (Spaul, 2017). Without universities and their management – together with government, the private sector and broader civil society sharing the dream of the student movements for reordering our society fundamentally – little will change.

Three perspectives, namely those of 'epistemic (in)justice', 'moving from community engagement to engaged communities', and 'institutional restitution', are discussed in the sections that follow.

57 The #RhodesMustfall protests started with the student desecration and removal of a public sculpture of Cecil John Rhodes at the University of Cape Town (UCT) – and spread to the desecration of other public sculptures around the country, that were viewed as representing colonial culture. The protests were however aimed at a range of deeper issues, as already noted.

58 There is currently a movement, and initiatives, in South Africa, to return land 'taken from the local people by past colonial powers'.

Epistemic (in)justice

Even if people can access universities, they might encounter an experience of being profoundly dismembered (De Beer, 2013; Ndlovu-Gatsheni, 2016). If one's own experiences, narratives and contexts are seldom validated or retrieved as sources of knowledge and wisdom, one might experience – in oneself, at university, and in one's own socio-cultural contexts – estrangement, and one might struggle to find meaningful integration. When this alienation occurs, it is a result of epistemic (or cognitive) injustice, which is a failure to acknowledge varied sources of knowledge as being equally meaningful and necessary in the development of knowledge systems.

With reference to Tiyo Soga, the first Black Minister to be ordained in the history of Christianity in South Africa, Velle (2016) speaks of genocide, epistemicide and spiritualicide as being the results of 'conquest, colonisation and the Christianisation of Black people in South Africa.' When seeking to optimise access to Higher Education Institutions, without recognising the ways in which epistemic injustice occurs, the danger of perpetuating such epistemicide and spiritualicide today are indeed very real.

Instead of the 'welcoming of new epistemologies' (Leibowitz, 2017), university education often reproduces the same epistemic injustices that exclude indigenous and local knowledges. University education generally fails to encourage multiple forms of knowledge that exist, both in terms of the content covered, and the pedagogical approaches followed.

For Van der Velden (2006:12), "cognitive justice is a normative principle for the equal treatment of all forms of knowledge". Leibowitz (2017), building on this idea, suggests that a democratic approach requires dialogue between diverse knowledges. Without such dialogue, she argues, social justice and inequality will remain, as the challenges which exist, require an 'ecology of knowledges' and 'the availability of new knowledges' (De Sousa Santos, 2014, in Leibowitz, 2017). When knowledges are excluded, they can become 'museumified' (Visvanathan, 2002) which, consequently, leads to their epistemicide (De Sousa Santos, 2014).

For the sake of humanity and the planet, epistemic justice is required, as it would bring to bear on some of the world's greatest challenges, and validate different knowledges (Leibowitz, 2017), or "the plural availability of knowledges" (Visvanathan, 2016:4;8). Epistemic justice is the humble recognition that any single source of knowledge is

incomplete, and filled with ‘absences’ – and recognising the need to invite those knowledges which we do not yet have (De Sousa Santos, 2014). The mere transformation of the student body in the Faculty of Theology at UP over the past ten years, provides sources for potential transformations through epistemic multiplicity.

Leibowitz (2017) makes a helpful distinction between institutional access, epistemological access, and epistemic justice. She argues that institutional and epistemological access are not necessarily the same. She references Morrow (2007) who distinguished between having access to a Higher Education Institution (institutional access), on the one hand, and being able to access the knowledge therein (epistemological access). However, Ballim (2015) argues that using the concept of ‘epistemological access’ is a ‘colonialist’ notion as it suggests the primacy of knowledge taught inside the university, over the possible sources of knowledge that students may bring with them.

In response, it is suggested that for current educational models to be more equitable and transformative, there is a need to consider the concept of epistemic justice (Leibowitz, 2017). Epistemic justice means the democratic, hospitable and radical invitation of diverse knowledges, to be accessed and shared equally with each other, in the pursuit of new knowledge.

From community engagement, to engaged communities

The paper now moves to the idea of engaged communities⁵⁹. This idea might seem, at first, to be disconnected from the preceding sections of the article, but engaging communities involves epistemic justice.

With the exceptions of some transformational and liberating engagements between universities and communities, much of what is paraded as community engagement, seems to be a marketing ploy to show that the university concerned, has not ‘lost its soul.’ Financial and other investments into communities, and engaged scholarship, are almost non-existent. Communities and their leaders seldom have an opportunity to evaluate as equal partners, the impact of the university’s engagements. Many local communities have complained about being used as ‘experimental laboratories’ which are frequented by students and lecturers, year after year, whilst their own circumstances remain unchanged.

⁵⁹ Universities in South Africa are required to run ‘community engagement’ projects; the guidelines for these projects are broad and allow for a wide range of engagement projects.

In an article entitled 'Whose knowledges shape our city?', De Beer (2014) noted that a number of local instantiations of neighbourhoods – also frequented in some cases by universities – which possess their own leadership, knowledge bases and experiential wisdoms, are seldom acknowledged in the process of knowledge generation by the university involved. Communities are engaged to deliver the pre-packaged knowledge gained in university classrooms, without building long-term, equal and reciprocal relationships for knowledge transfer in the context of building solidarity together. Collaboration in this way, would ensure community-centred teaching and learning, research, and the validation of the engaged communities as classrooms in which diverse individuals could locate themselves. The student in deep solidarity not firstly as a teacher, but as a student of life, could, in conversation with local communities and their leaders, produce new knowledge in the liminal spaces between academy and society. Under these circumstances, instead of universities 'delivering goods' to communities, communities could be given opportunities to teach the universities.

Deep solidarity at the Centre for Contextual Ministry at the University of Pretoria (UP)

In the Faculty of Theology at UP, deep solidarity might mean taking the socio-ecclesial contexts and personal journeys of students seriously, and locating theological reflection in contexts similar to those of the students, in order to overcome some of the limitations and challenges linked to exclusion. The neighbourhoods around some of the campuses of the University of Pretoria could for example, be regarded as 'classrooms' for theological work. Engagements could combine visions of social and epistemic justice, in the transformation of curricula and local communities at the same time.

What would the teaching of professors in the Faculty of Theology look like, if we had to teach our classes in spaces where the bulldozers move back and forth to displace vulnerable people? What would it look like, if we had to speak ethics or read the sacred texts, under the trees in a town or suburb from which we could see asylum-seekers queuing for a space in the sun, and the basement of a run-down building, where substance abusers and vulnerable women try to survive?

The majority of students attending the courses at the Centre in the Faculty of Theology at UP, do not represent the churches which traditionally dominated curricula in terms of

content and commitment, at the University. The students represent rather, those whose knowledges have not been 'invited to the table.' The students serve and care in the harsh contexts of urban townships and informal settlements on the periphery of the city or in deep rural contexts. They engage the powers that harm fragile lives in inner city neighbourhoods.

Traditionally the students' voices and struggles were unheard in the corridors of universities. By deliberately centering the Centre's teaching, learning and research in the students' communities, three possible outcomes are envisioned, namely:

- the University would be conscientised continually, and would be forced to reflect further, on its role in democratic South Africa;
- the voices and struggles of the communities would transform academics and students alike; and
- in the process of individual and institutional transformation, the University could learn how best to participate as a partner in local community transformation processes.

Institutional restitution

The possibilities outlined, relate to institutional restitution. Universities in South Africa have a responsibility to participate in actions that will redress past injustices. This injunction is particularly true for those institutions – such as UP – which benefited from the unjust pre-democracy structural relations, and mediated education only for the privileged few. The task of institutional restitution is profoundly important, as a long-term commitment, if we are to avoid deeper, unmanageable fractures in our society.

Swartz and Scott (2013) speak of a new conceptual model for understanding restitution as 'a process towards effecting justice' in contexts where harm has been done. These authors deliberately reconceptualise restitution outside its narrow government-led, legal or political applications, in order to invite broader society – both institutions and individuals – to consider ways of contributing to social transformation in spaces 'fragmented by injustice-fomented inequality' (*Ibid.*).

Historically, the Faculty of Theology at UP trained only 'white leaders', and for a long time only men, and only those who were predominantly Afrikaans-speaking, in the Reformed

Tradition. The majority of past scholars in the Faculty thereby contributed theologically, towards sanctioning and sustaining *apartheid*, including segregated churches. Today the Faculty has the responsibility of considering its role through the lens of institutional restitution, and of redressing the structural harms of the past.

The paper next discusses the practical case of the Faculty of Theology and its Centre for Contextual Ministry. Why the three prior perspectives preamble?

From exclusion to diversified learning pathways

Since we have framed the lack of accreditation and articulation of the Centre's teachings as an injustice, we have embarked on a search for innovative possibilities to achieve fair offerings. Through the creation of a professional body for Christian religious practitioners, strategic internal and external alignments, and the more intentional revision and design of curriculum, the Centre will soon be able to offer all of its courses in ways linked to accreditation and articulation, through the Recognition of Prior Learning (RPL), Credit Accumulation and Transfer (CAT), and Continuing Professional Development (CPD).

As noted, the Centre has 750-1,000 students per year, doing the basic short courses, and the one-year courses. Seventy-five percent (75%) of the Centre's students participate in the basic courses – usually having more basic prior qualifications themselves – and 25% in the one-year courses. The latter group of students usually has on average, at least three years of tertiary education. The Centre is now implementing innovative solutions to optimise access to Higher Education through five different pathways, each of which is discussed in the sub-sections that follow.

Pathway 1

Enterprises@UP has been set up by UP to allow for Continuing Education that is tailor-made for specific professional contexts. Over the years it has allowed the Centre to develop and present flexible, responsive, and context-based courses, offered in decentralised venues. The Centre provides the academic quality control, and engages lecturers to teach in different communities. Since 2017, the Centre has been running two annual lecturer retreats for Centre lecturers, to ensure that they comply with basic values and standards in terms of curricular content and pedagogical methods.

Some years ago, Dr Hannes van der Walt was a co-worker in the Centre for Contextual Ministry. He identified the necessity for a professional body for Christian religious practitioners, to assist in regulating education and training, and facilitate learning pathways appropriate to the unique disciplinary context. What started in embryo form between the Centre for Contextual Ministry and Bible Media in Wellington in the Western Cape Province of South Africa, has developed to become a responsive professional body that is independently registered, and recognised by the South African Qualifications Authority (SAQA)⁶⁰. It is known as the Association of Christian Religious Practitioners (ACRP).

The ACRP has pioneered the establishment of two qualifications through the Quality Council for Trades and Occupations (QCTO), and SAQA. These qualifications allow practitioners of Ministry to earn, once enrolled with an ACRP-recognised training provider, certification for their studies at NQF Levels 2 and 5 (ACRP, n.d.).

The Centre is aligning its basic courses to SAQA's qualification requirements at NQF Level 5, and is currently entering into a Memorandum of Understanding (MoU) with the professional body, to serve as an intermediary institution and training provider, in line with the professional body requirements.

All of the students at the Centre will be encouraged to become affiliates of the ACRP in order to benefit from the professional services offered by the ACRP. These services include defining and assigning professional designations, determining training standards or qualifications for the different designations, determining a broad framework of minimum professional requirements, providing RPL, providing or facilitating CPD, and providing or facilitating bridging programmes.

These developments mean that the 15,000 students on the Centre's database, who completed courses through the Centre over the past years, would have immediate access to these professional services, once they become formal affiliates of the ACRP. Not only would the ACRP be able to offer all the courses done through the Centre, for both RPL or CPD purposes; it will also be recommended to students, that they take courses with the Centre, for bridging purposes to complement what is outstanding in their portfolios. Through its RPL services, the ACRP is able to ascertain the appropriate levels at which potential students can enter into undergraduate programmes at UP.

⁶⁰ In line with its mandate, SAQA recognises professional bodies which meet the requirements of its policy for registering professional bodies. This policy ensures that recognised professional bodies are in line with the values in the Constitution of democratic South Africa and its system for education, training, and development.

In the past, some of the most challenging obstacles were that the University did not necessarily see learning-and-work pathways as part of its mandate; economic reasons were sometimes cited in that the Centre's students were viewed as 'not contributing to the profit-bearing units' in Enterprises@UP⁶¹; and the absence of a professional body, the benefits of which are only now being realised.

Pathway 2

By being a recognised training provider of the ACRP, offering bridging opportunities for students wanting to expand their portfolios, the University is positioned as a key player in optimising access and learning pathways, even for people who might later end up in formal education elsewhere.

The University might not regard this work as its core business, but the Centre's initiatives contribute to (a) centering the University in communities; (b) the transformation of communities inside and beyond the University, in the pursuit of epistemic justice through encountering diverse knowledges and voices, and (c) the work of institutional restitution.

The University has a mandate to serve those in different industries and professions. The 'industry' of the Centre involves those working as religious practitioners in churches, faith-based organisations, and communities generally. We can serve these practitioners well only if our offerings are contextually transformed by, and in response to, the challenges they deal with on a daily basis.

Pathway 3

The Centre runs six one-year programmes, focusing on Missional Leadership; Urban Transformation; Pastoral Care and Counselling; Narrative Pastoral Care; Youth Ministry; and Personal and Corporate Coaching. All of the participants in these programmes already have the equivalent of Bachelor or Honours degrees in diverse disciplines, including some disciplines outside Theology.

Through the Faculty Committee for Teaching and Learning, the Centre has been able to establish clear articulation lines from these one-year programmes into different postgraduate studies. All six programmes are offered through five one-week intensive

61 That the Centre's courses were not 'profit bearing' was never suggested by Enterprises@UP itself.

face-to-face engagements over the course of the year, and combine self-study, lectures, mobile classrooms, contextual immersion, four assignments and/or presentations, and a fifth integrative paper.

Students who already hold Bachelors Degrees in Theology can use these qualifications as the coursework towards an Honours Degree, obtaining credits for the work done, and complementing these credits with a paper in Practical Theology, and a research essay. If students already hold Honours Degrees in Theology, they do the coursework as for a taught Masters Degree; what remains is a mini-dissertation on the students' topics of specialisation.

At times, students who are allowed into a preparatory programme for their Doctoral studies, have opted to participate in one of the six courses, in order to structure their own preparatory work for their Doctorates.

For students with an equivalent to a Bachelors Degree in a discipline outside Theology, credits can be obtained into the Centre's Postgraduate Diploma, allowing students to do only two of six papers, and an integrative research essay. This pathway facilitates mobility between disciplines, and credit transfer from one programme to another.

Pathway 4

The Postgraduate Diploma in Theology at NQF Level 8 was established some time ago, to provide access to Theology, for people coming from various other disciplines. The Postgraduate Diploma provides broad exposure to different Theological disciplines. Students who complete this qualification can progress to register for a Master of Theology programme. This pathway facilitates mobility between different disciplines in a grounded and robust manner.

Pathway 5

In addition to the four pathways noted, UP has policies and systems in place that assist in admitting prospective students, who do not meet the formal or statutory requirements for entrance, but who demonstrate appropriate knowledge and skills for admission to a specific programme. Where the first four pathways are not appropriate, and staff at the Centre are convinced of a student's aptitude, this alternative access route can be followed.

Building relationships for collaboration

From the discussion on the five pathways being implemented at UP, it should be clear that the Centre has made some progress towards ensuring access, accreditation, and articulation. All of these aspects are facilitated through both intra-institutional and inter-institutional relationships.

The most important of these relationships includes the long-standing collaboration between the Centre for Contextual Ministry in the Faculty of Theology, and Enterprises@UP, which has enabled innovative and tailor-made Continuing Education offerings. Synergies are increasingly being fostered between these Continuing Education options and the mainstream curricula in the Faculty of Theology. The emergence of the ACRP, formalising and standardising Theological education nationally, and connecting diverse training providers, has contributed to the developments in Theological education. The Centre's relationships with qualified Theological educators, Practitioner-Theologians, and training organisations assist in offering courses where the Centre lacks internal capacity.

One area in which there are still significant obstacles, is the education of faith-based Community Development Workers. The reality is that a large percentage of Community Development Workers in South Africa work for faith-based organisations, without having had adequate training. Unless the relevant government departments, professional bodies and qualification authorities regulating Community Development develop flexible learning pathways, bridging the disciplinary gaps between Theology, Social Work and Development Studies will remain an area of challenge, and an untapped opportunity.

CONCLUDING COMMENTS

Diverse learning pathways are made available through the specific foci of the Centre and its collaboration with the ACRP, optimising access to Higher Education in Theology, and beyond. Van der Walt (2015) stressed the necessity for diversification in Theological or Ministerial Education, if the training challenges for Christian Pastors or Ministry Workers in South Africa are to be overcome. The commitment of the Centre is to Theological education broadly, and even if students decide to further their Higher Education elsewhere, the Centre would have contributed to learning pathways that might not have existed before.

Wheelahan (2009) speaks of the aim of learning pathways as being to enhance access and opportunities – for all, and especially for people previously excluded from the system – thereby contributing to ‘equity and social inclusion’. The commitment of the Centre is to do likewise.

The diverse learning pathways described in this paper, were ‘revealed from below’, through the challenges of different practitioners hoping to further their education. The learning pathways also developed from below, through practitioners organising a professional body voluntarily, in the absence of government regulation or University initiatives. At the same time, the learning pathways were forged through the insistence and resilience of those formally excluded.

The Centre seeks to practice institutional restitution, epistemic justice and community transformation through mediating diverse pathways. In some ways, this approach is expressed and experienced through those participating in the courses, and is expressed more concretely, through optimising access. In some ways, it remains a vision that would not be realised without intentionality and rigour, both in deconstructing the past, and imagining and embodying the new.

There are an estimated 200,000 Christian Pastors in South Africa, of whom only five percent have had any form of training (De Wet, 2017). Through optimising access for the kinds of students enrolling for courses at our Centre for Contextual Ministry, not only do we provide institutional access, but we are offered the gifts of epistemic diversity and contextual rootedness which we – by virtue of being a University – often lack. These students offer us the opportunity to embrace epistemic hospitality and find a sense of epistemic justice, as the students are all located in local communities where they often engage in the work of local community transformation.

Through contextually and epistemologically appropriate courses, the Centre seeks to empower students for reflective and transformative action. In order to have an opportunity to be the students’ partners in community transformation, the Faculty of Theology needs a reframed and expanded mandate and agenda. Already, in the Centre, many of our students consider their own local contexts as classrooms for action, reflection, dialogue and research, and the University as a partner in their endeavours. In this way, new knowledge is developed at the interface between academy, church and society.

In closing, the authors reiterate that the Centre seeks to optimise access to Higher Education through five diverse learning pathways. Its approach is the expression of a commitment to institutional restitution, a desire to witness a deeper sense of epistemic justice, and an expressed solidarity to broker between the University and communities in need of socio-economic transformation.

The Centre for Contextual Ministry in conjunction with Bible Media in Wellington paved the way for what has become the ACRP, the first professional body of its kind, for religious practitioners from a wide range of Christian churches and Ministry organisations. This body now provides professional services, serving as a bridge between the thousands of Pastors and Christian Ministers who lack formal education, and Theological training institutions.

In alignment with the professional body, the Centre will open up possibilities for many Christian Pastors and Ministers to find creative learning pathways into undergraduate Higher Education options. Through innovative synergies between the Centre courses and postgraduate programmes in the Faculty of Theology at UP, we also facilitate articulation, credit transfer and mobility between disciplines at postgraduate level.

The immediate challenge is to liberate Theology from its own ecclesial captivity and the false perceptions that people – including institutional leaders – have of what Theology should be doing, or not doing.

As we consider optimising pathways into Higher Education, those previously excluded need to help us to transform our concept of the public University. Instead of being a reproducer of dominant knowledge, we need to imagine the University as space holding multiple knowledges hospitably – to deepen expressions of epistemic justice; to imagine radical forms of societal justice; and to embody such in collaboration with local communities.

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PAPER 6

The Articulation Initiatives of Two Technical and Vocational Education and Training (TVET) Colleges: Gert Sibande TVET College and Port Elizabeth TVET College

Dr Heidi Bolton, Mr Neelan Govender, Mr Andrew Matima

INTRODUCTION AND BACKGROUND

This paper focuses on the articulation initiatives of two Technical and Vocational Education and Training (TVET) Colleges in South Africa, namely, Gert Sibande and Port Elizabeth TVET Colleges. Each of these Colleges participates in a number of articulation initiatives. The purposes of the paper are to sketch the understandings of articulation at the two Colleges, and their articulation initiatives. The paper notes how these articulation arrangements are managed; some of the challenges experienced, and how the difficulties were addressed. The paper also touches on the extent to which the Colleges assess their articulation initiatives as being successful, and the reasons for these views. Lastly, the paper points to the tracking of transitioning students and related issues, and closes with some reflections.

GERT SIBANDE TVET COLLEGE: ARTICULATION INITIATIVES

Understandings of articulation at Gert Sibande TVET College

At Gert Sibande TVET College, articulation is understood in terms of student progression. For example, College graduates meet the minimum requirements to enrol for a Higher Certificate/Diploma/Degree qualification at a Higher Education Institution (HEI) – a University or a University of Technology (UoT). Graduates with the National Certificate: Vocational (NCV) can meet the minimum requirements to enrol for a qualification pitched at a higher National Qualifications Framework (NQF) level and offered by the TVET College itself, such as National Accredited Technical Education (NATED) or N4-N6

Report 191 Programmes⁶². The graduates can also progress into workplace-based and practical-oriented programmes such as the Artisan Development Programmes.

Articulation initiatives of Gert Sibande TVET College

Gert Sibande College has a variety of types of articulation arrangements. The College has Memoranda of Understanding (MoU) with Tshwane University of Technology (TUT) and also with the University of South Africa (UNISA) for the articulation of College students into academic programmes at these HEIs. The College's Skills Academy is accredited through the Quality Council for Trades and Occupations (QCTO) to operate as a Trade Test Centre for Electrical, Fitting, Welding, and Plumbing, for the National Artisan Moderation Body (NAMB), and for Bricklaying and Carpentry for the Construction Education and Training Authority (CETA). The College has also signed Service Level Agreements (SLA's) with the Energy and Water Sector Education and Training Authority (EWSETA) and the Manufacturing, Engineering, and Related Services Sector Education and Training Authority (MERSETA) for the articulation of its graduates into Artisan Development Programmes.

The MoU with UNISA enables Gert Sibande College to offer the Higher Certificate in Accounting Sciences at NQF Level 5. The MoU was signed in September 2013. Students register at UNISA but receive tuition at the College. Thirteen sessions of contact were allocated and each session was allocated seven hours and 15 minutes. Gert Sibande College receives 40% of the Department of Higher Education and Training (DHET) subsidy, and UNISA 60%. The lecturers are appointed by the College, based on the requirements set by UNISA. The University conducts monitoring visits to the College ensure the quality of the offering. Students are funded through the National Student Funding Aid Scheme (NSFAS) and if the funds are insufficient, various other funders are approached, such as SETAs and companies from industry.

As a Trade Test Centre, the College provides training and identifies employers for trainee placement for the completion of the Trade Test. The SLA's with EWSETA and MERSETA provide for the funding needed in this instance. The specific number of students enrolled for the programmes, is based on the funding available. The College offers the training, and identifies employers for the students to complete the training.

62 'N1-N6' qualifications are also referred to as National Accredited Technical Education qualifications, and '191 courses', after 'Report 191 on Formal Technical College Instructional Programmes in South Africa' – a report no longer in circulation as it has been superseded.

Challenges and how the difficulties have been addressed

Challenges are experienced where there are no formal agreements in place, and when the formal agreements are not upheld. There are still instances where qualifications from the College are not recognised by HEIs; the existence of the MoU and joint work entailed under the auspices of these MoU help to ensure articulation pathways for the College students. The College needs to make a dedicated effort to establish further MoUs with HEIs.

Arrangements between the College and workplaces for the placement of students for workplace training remains an ongoing area of work. The College has to make a dedicated effort to approach workplaces to arrange articulation programmes. Opportunities are also created through the assistance of the DHET. Formal partnerships with the SETAs assist. Senior officials from DHET visit industries to establish partnerships. These partnerships are supported by the funding received through the SETAs to conduct the training.

An additional challenge is that many companies where students need to be placed for workplace training as part of their artisan training, are not acquainted with the NCV qualification. This could be addressed through engaging the workplaces, with senior officials from the College and the DHET discussing the NCV so as to create awareness of the programmes offered by the College, and how they fit into the workplace. Continuous involvement of stakeholders in the activities of the College is required. Strong marketing and communication campaigns are also needed on an ongoing basis.

Lastly, funding remains a challenge in many instances, since many students cannot afford or obtain the fees for further studies.

Articulation successes

Gert Sibande TVET College views its articulation initiatives as being moderately successful. Within the Gert Sibande-UNISA agreement, the College offers the one-year Higher Certificate at NQF Level 5 in Accounting Sciences: in 2017, 16 of 17 students were successful in the exams. A total of 13 distinctions were obtained for a total of 48 subjects enrolled.

An outstanding example of articulation involving the NCV qualification emerged in 2010, when a top-performing student from the College completed his NCV Level 4 in Office Administration, and was not accepted when he sought to enrol for a Diploma in Business Management at one of the Universities. After an intervention by the Chief Executive Officer (CEO) of the College, the student was accepted. He completed his Bachelor of Technology Degree at the University of Johannesburg (UJ) in 2014. In 2015, he was awarded a Mandela Rhodes scholarship to study towards a Master of Technology Degree in Operations Management at UJ's Engineering Faculty, and was conferred the degree with distinction in 2017. Simultaneously, in 2015 he studied via correspondence for a Postgraduate Diploma in Management at North West University (NWU), which he completed in 2016. While studying he lectured in Business Management at UJ, from 2015 to 2017. He has also represented the University, in international forums for Entrepreneurship. After receiving another scholarship in 2017, he left the University to pursue a Master of Science Degree in Business Management Entrepreneurship at Oxford Brooks University, which he just completed at the time of writing this paper.

Another example of success involving the NCV, is the student who completed his NCV Level 4 Marketing qualification in 2011, and in 2015 obtained his Bachelor of Commerce Degree in Marketing with the Management College of Southern Africa. During his time as a student at the College, he graduated with a total of 16 distinctions for 21 subjects written.

The College through the assistance of the DHET, has approached the National and Provincial Departments of Health (Mpumalanga Province) in order to consider top performing NCV Level 4 Primary Health graduates for Higher Certificate and Diploma studies at a Nursing College.

Regarding the College's Artisan Training Programme, the first cohort of 23 Electrical students in 2015 was trained with the assistance of the EWSETA, which provided the funding. The students were placed at various companies such as Kone Cranes branches in Gauteng, and the Western Cape and Eastern Cape Provinces; Molare in the Lekwa Municipality; and Meadow Feeds, for their workplace training.

An SLA was signed with MERSETA for the second intake of 21 Electrical students and 10 Fitting students in the Artisan Training Programme. The College secured funding from the National Skills Fund (NSF) for its Artisan Development Programmes for three years from 2017. A further 183 students were placed in artisan training initiatives through the

Agricultural Sector Education Training Authority (AgriSETA), MERSETA, and the Chemical Industries Education and Training Authority (CHIETA).

Student tracking

Students who transition between programmes at Gert Sibande College are tracked via the Management Information System (MIS) of the College. The College's Academic Board determines the admission criteria for students transitioning within the College; these criteria are stringent in order to ensure student success rates and levels.

The records for transitioning students – such as the NCV Level 4 students transitioning into their Trade Tests, and others – are meticulously kept, and include information on the students' placements and performance in workplaces. The College also utilises its graduation ceremonies to gather data on students' progress after leaving the College. A challenge is that although graduates are always requested to inform the College of their further studies/job placements after they leave the College, these records are patchy as students do not always do so. Where the College is directly involved in the arrangements, the records are complete.

Table 1 below shows the numbers of students who transitioned into the particular types of programmes, between 2011 and 2017, based on the College MIS.

Table 1: Destinations of transitioning students per programme type, 2011-2017

Business Studies Report 191 N4 – N6	Engineering Studies Report 191 N4 – N6	Universities/UoTs	Trade Tests
480	204	21	183

PORT ELIZABETH TVET COLLEGE: ARTICULATION INITIATIVES

Understandings of articulation at Port Elizabeth TVET College

At the Port Elizabeth (PE) TVET College, articulation is understood in terms of the pathways followed by individuals, as they enter into, and transition from, the College. At the College there is a special focus on one hand, on enabling access to the College for learners from Community Education and Training Colleges (CETCs), and on the other

hand supporting College students as they seek to access Higher Education after their College studies.

Two articulation Initiatives of PE TVET College

According to Sections 43(3) and 43(4) of the Further Education and Training (FET), Act 16 of 2006 – and the FET Colleges Amendment Bill of 2012 – TVET Colleges can provide Higher Education and Training programmes. UNISA granted PE TVET College the non-exclusive right to facilitate student registration for two Higher Certificates, and to provide such students with administrative, tuition, and academic support. An MoU was developed between both institutions for the two NQF Level 5 programmes, namely, the Higher Certificate in Banking, and the Higher Certificate in Accounting Science.

The PE TVET College also has a collaborative partnership with Nelson Mandela University (NMU), to support student progression.

Partnership with UNISA

The partnership between UNISA and PE TVET College has proved to be beneficial for both parties. The following roles and responsibilities were agreed.

Tuition

PE TVET College provides administrative, tuition, and general support in accordance with the policies and regulations set and approved by UNISA. The College commits to face-to-face learning facilitation that is of an acceptable standard as determined by UNISA. The College ensures that the tuition and academic support of each module takes place within 120 notional hours, where this includes time spent on formal teaching, assessment, and preparation for assessment.

Academic staff

The PE TVET College, at its own cost and risk, appoints lecturers, tutors, mentors, and other such academic staff as may be required to provide the necessary tuition and academic support in terms of the Agreement. All academic staff are required to possess at

least a relevant tertiary qualification in the field in which they teach. The College ensures that the curriculum vitae of such staff are provided, and are approved by UNISA.

The University provides distance education training, and assistance, for lecturing staff – on aspects such as student admission requirements, academic support, counselling and career guidance, as well as quality assurance and other academic requirements. Furthermore, the academic staff of the College are permitted to access and use the UNISA Library Service if they join as individual members, and work in accordance with UNISA Library Service rules.

Commitment to quality

PE TVET College is committed to quality service and ensures that specified realistic and quality service levels are maintained at all times in accordance with UNISA's quality assurance requirements.

Assignments and year-marks

In line with the Agreement, all theoretical and practical assignments are set and marked by UNISA. Furthermore, UNISA determines all student year-marks for the purposes of admission to examinations, unless a specific arrangement is made for PE TVET College to mark the assignments on behalf of UNISA. The University provides the College with the assignment and year-marks of students registered under the Agreement, as soon as they are available.

Examinations

All requirements for student admission to examinations are determined by UNISA. The University sets, marks, supervises and controls all of the examinations for the programmes covered by the Agreement, and also determines the dates and venues thereof, in accordance with the University's policies, examination rules and regulations. This includes providing appropriate examination venues and invigilators for all of the UNISA-registered students. In addition, UNISA provides for the College, a list of final examination results for all the students registered under the Agreement, once these are available.

Study materials

All registered students are provided with the study materials for the courses for which they are registered. UNISA ensures that these materials are delivered timeously. The content of the course material is determined by UNISA, which ensures compliance with the quality assurance requirements of the regulating bodies concerned.

Registration and admission requirements

UNISA determines the requirements for admission to study in programmes and qualifications covered in the Agreement, in accordance with its own admission policies. Student applications for registration, together with all the supporting documentation, the assembly of which is facilitated by PE TVET College, are submitted online by the College via the UNISA website, unless UNISA requires, in writing, that such applications be forwarded to it in another manner.

Subsidies

The institutions of the registered students accrue a subsidy from the DHET in terms of Section 38(1) of the Higher Education Act No. 101 of 1997. UNISA and the PE TVET College share this subsidy in a ratio of 60:40 (60% to UNISA; 40% to the College), and ensure that the funds are used to support the implementation of the Agreement.

Marketing

UNISA develops a general marketing strategy with a common message and generic approach, and then focuses on the specific programme details, and the specific targeted students in mind. The University then adds links on its website, to the different Colleges which offer the various modules covered in the Agreement. This strategy comprises a long-term approach. The Internet, social media, print media, and other advertising is done by the PE TVET College.

Management of the partnership with UNISA

The UNISA-PE TVET College partnership is managed by a Steering Committee which consists of representatives from both the College and the University. The Committee

includes Academic Managers, Human Resource Managers, Financial Managers, Marketing Managers, Student Support Services, and Information Technology (IT) Services. The Committee meets twice a year to review challenges that both parties might experience.

PE TVET College experience with UNISA

The PE TVET College considers it a privilege to offer Higher Certificate programmes on behalf of UNISA. The College's lecturers have benefited from training across a range of teaching and learning activities. Students have also benefited; they would not otherwise have been able to study for a Higher Education qualification at a University. UNISA has also made it possible for these students to progress from the higher qualification to a national Diploma or a Degree. Through these programmes students have also benefited from financial support.

A number of students have shared their experiences of the UNISA-PE TVET College initiative. One of these students was amongst the first batch of enrolments for the Banking programme. Prior to this, the student had struggled to progress academically for a very long time, due to financial constraints. The student was of the view that the opportunity to study was so valuable, that they would "hold onto it like it was gold". The National Skills Fund (NSF) was a funder and helped to alleviate the financial pressure. The student valued the opportunity that this partnership provided extremely highly, and believed that the least they could do, was to pass well, as the cohort of students had access to resources such as facilitators, textbooks, and facilities including computer laboratories and study groups.

One of the challenges faced by some of the students, was late registration that took place towards the end of the semester. As a result, these students were not aware of the prescribed textbooks that had to be purchased. The librarian assisted however, and secured all the prescribed material and also ensured that it was available in the Resource Centre on campus. While this helped some of the students, it was a challenge for many others, as they had to be physically at the campus to use the prescribed material. Many of the students reside far away from the campus and experience problems getting to and from it. These realities ultimately impacted negatively on student results.

One student described the overall experience as being very good and acknowledged the NSF as a sponsor, and PE TVET College for bringing the programme together. The student commented that the opportunity of having a UNISA experience while being at a TVET College, was very uplifting. The student graduated with *Cum Laude* and stated their intention to study further, because they “have been given a stepping stone by this programme”.

Achievement for first and second enrolments in 2017

With regard to the UNISA partnership, for the 2017 academic year there were 130 subject enrolments, with a 60% subject pass rate and a further 40 subject distinctions.

Partnership with Nelson Mandela University (NMU)

The PE TVET College has a partnership with the Nelson Mandela University (NMU), that is largely based on a collaboration agreement. Under this agreement, students who have passed the cognate National Accredited Technical Education (NATED) programmes, can apply to NMU for further studies.

In addition, students who do not obtain the necessary points in their final National Senior Certificate (NSC) examinations, to access particular study programmes at NMU, are referred by the University to the PE TVET College, to do Business or Engineering subjects, as appropriate. Passing these subjects carries more weight for students seeking to study at NMU, and they are thus able to score the necessary points to access particular programmes at the University.

The PE TVET College and NMU also collaborate for the purposes of research.

Port Elizabeth TVET College: Extent of success?

The PE TVET College views its articulation initiatives as being successful. For the College, the success drivers, and qualities that form the backbone of the successes, are:

- a relationship of trust between the institutions;
- strong strategic leadership;
- strong stakeholder engagement;

- the philosophy that for every challenge, there is a solution;
- exceptional teamwork from both UNISA and the College; and
- a Project Management Framework in which all key aspects are clearly outlined.

CONCLUDING REFLECTIONS

Both of the TVET Colleges featured in this paper understand articulation in terms of the systemic connections between qualifications, inter-institutional agreements, and most of all, transitioning learners who need to be supported. Both Colleges have multiple articulation arrangements. Where qualifications such as the Higher Certificate are being offered collaboratively across institutions, curriculum development has been collaborative and articulation has been designed 'up front' between the qualifications involved. The Colleges' articulation initiatives are diverse, each presenting possibilities for learning and work, and for alternative access and progression.

The paper shows that there are articulation routes for College graduates seeking admission to Higher Education, and into and from the NATED programmes, NCV qualifications, workplaces, and Trade Tests. There are also articulation initiatives for student movement into the Colleges. There are clear roles for SETAs, the DHET, and the NSA.

Articulation agreements exist, but are being implemented unevenly across the system. It is hoped that the good practices evident will inspire other Colleges – and all of their types of partners – to further articulation initiatives. Articulation is a mind-set – it is about doing differently to focus on the students, and to enhance their mobility in learning and work.

A culture of articulation needs to be established between *all* TVET Colleges and Universities in the country. A national steering committee should be established, with the aim to create an enabling framework for articulation as part of quality Post-School Education and Training in South Africa. Such an initiative would be in line with other articulation practices across the Western world, between Higher Education Institutions, and TVET Colleges.

PAPER 7

The Role of the Cape Higher Education Consortium (CHEC) in Articulation Initiatives in the Western Cape Province of South Africa

Dr Sharman Wickham

INTRODUCTION

The content of this article was initially presented at the South African Qualifications Authority (SAQA)-hosted National Qualifications Framework (NQF) seminar on articulation held in Gauteng in January 2018. It begins with an introduction to the Cape Higher Education Consortium (CHEC) and its purpose and approach or 'model', before focusing on CHEC's role in the area of articulation. In doing so, the paper draws on the experience of academic staff from the University of Cape Town's (UCT) Higher Certificate in Disability Practice Programme to illustrate both the possibilities and the challenges when articulating students from Technical and Vocational Education and Training (TVET) Colleges to University programmes. The conclusion looks ahead to CHEC's planned project on 'dual-track' education and training – one where articulation possibilities will be considered *in advance* rather than raised after programmes have already been implemented.

CAPE HIGHER EDUCATION CONSORTIUM (CHEC): PURPOSE, APPROACH, PARTNER

CHEC was established twenty-five years ago to promote collaboration amongst the four public Higher Education Institutions (HEI) in the Western Cape, namely the Cape Peninsula University of Technology (CPUT), Stellenbosch University (SU), UCT, and the University of the Western Cape (UWC). As indicated on its website, CHEC aims to establish the Western Cape as a strong Higher Education region which, through systemic inter-institutional cooperation and academic programme collaboration, will be:

- distinctively responsive to regional, national and international developments in the knowledge economy of the 21st century;
- sensitive to historical realities in promoting equity across its institutions; and
- cost-effective, and of high quality.

Initially, the areas of CHEC's inter-institutional collaborative work focused on the Cape Library Consortium (CALICO), the Publishing Liaison Office (PLO) and two training programmes: Creating the Leading Edge (middle management training modules), and Quality Teaching in Higher Education (a regional development programme). Over the years, several communities of practice were established in response to the needs of the Universities (e.g. the Regional Expensive Equipment Programme where staff from all four Universities meet annually to discuss their applications for funding from the National Research Foundation [NRF]).

Communities of practice may be understood as being groups of people who share a concern or a passion for something they do, and learn how to do it better as they interact regularly (Wenger-Trayner and Wenger-Trayner, 2015). As a facilitating and coordinating body, CHEC had adopted the community of practice 'model' to bring practitioners together to dialogue, plan and implement initiatives that serve its mission and vision. In this work, CHEC foregrounds the importance of sharing ideas and practice across all of the HEI in the Western Cape.

During the past decade, two additional drivers have been influential in shaping CHEC's work. Firstly, CHEC has given greater emphasis to collaboration with 'external partners', particularly the Western Cape Government (WCG) and the City of Cape Town (CCT). For example, joint research partnerships encourage academic staff to align their research projects with government priorities, and to share the findings of these projects with wider audiences beyond the academy.

The second driver is that of the *White Paper for Post-School Education and Training* (Minister of Higher Education and Training [MHET], 2013). This White Paper highlights the need for post-school institutions "to break out of the silos in which they have developed and – with the assistance of our Quality Councils and regulatory bodies – to contribute to the creation of a *single, coherent and integrated system* of post-school education and training" (2013:3). In addition, the Paper indicates that "one of the most important measures of (the institutions') success will be the extent to which they articulate with the rest of the post-school system" (*Op. Cit.*). The value of universities working with TVET Colleges continues to be foregrounded in more recent draft policies, including the Draft National Plan for the Post-School Education and Training Sector (PSET).

CHEC'S ROLE IN ARTICULATION INITIATIVES

CHEC's role in articulation initiatives in the Western Cape has been closely linked to both its purpose as stated in the introduction above and to the 'model' it has adopted in all its areas of work.

While this collaborative work has been intermittent, and the meetings held less frequently and focused than those with other partners, CHEC has provided opportunities for discussions between staff from the Universities and TVET Colleges in the Western Cape. These dialogues have highlighted shared concerns and identified possible areas for joint projects. Almost always, they have identified the issue of articulation as a critical initiative.

CHEC TVET Conference, March 2015

An example of a collaborative event was the March 2015 CHEC-TVET Conference held at Northlink College. This was viewed as an important event opened by Professor Crain Soudien, the then-Chair of the CHEC Board, together with Mr Zozo Siyengo on behalf of the Department of Higher Education and Training (DHET), Western Cape Region.

The conference report records the identification of a number of thematic areas for follow-up work in smaller workshops, including one that would "map and track the human resource pipelines in selected areas (from National Accredited Technical Education [NATED] or [N] Level 2, up to doctoral [PhD] level), in order to better understand both the current opportunities open to students, and the gaps in provision and blockages in learning pathways experienced by the students. It was agreed that this exercise would assist in enhancing understandings of both systemic 'blockages' and existing successful partnerships" (CHEC, 2015:np).

The conference had agreed that a Joint Planning Group be established to take forward the recommendations included in the conference report.

Joint Planning Group meeting, July 2015

A few months after the conference, in July 2015, Margaret Jones of Northlink College raised an issue at the Joint Planning Group meeting. Ms Jones explained that three of the

six TVET Colleges in the Western Cape were piloting the flagship National Certificate: Vocational (NCV) programme in Public Health (At that time, the programme was being offered at 12 Colleges nationally). This was a three-year programme offered at three NQF levels (Levels 2, 3 and 4), with exit points at each level. Including three 'fundamental' courses and four 'core' courses, it was designed for those students who did not have backgrounds in the sciences and who wanted to pursue careers in health and related fields⁶³. In addition, it was designed to cater for Community Care Workers who were then pursuing qualifications to provide basic service delivery. None of these latter qualifications were recognised for articulation into Higher Education.

Following related research undertaken, the curriculum for the NCV had been developed further, with the intention that the qualification would provide access to career development opportunities at NQF Level 5. The first cohort of students had enrolled for the NCV2 course in 2013 and were due to complete at the end of 2015.

Ms Jones and her colleagues went on to explain that despite networking and information-sharing meetings having been held since 2012, the programme was still not yet well-known amongst the Universities. This, together with the lack of second-language options, meant that students' applications to the Universities were being rejected. In addition, the 'regulation gaps' between the national and provincial Departments of Health had exacerbated the problem in that openings for the NCV Public Health graduates had not been well-established. It was clear that both students and staff were concerned and frustrated, and it was agreed that a special meeting would be held to address the issue.

Special meeting for NCV programme in Public Health, October 2015

Prior to the special meeting held in October 2015, CHEC suggested that preparations include the circulation and scrutiny of the guidelines for each of the core courses in the NCV Public Health programme. In addition, the Colleges circulated the results of an 'alignment process' where the content of the programme (particularly the 'Human Body and Mind' course) was compared to that in the National Senior Certificate (NSC) Life

63 'Fundamental' refers to the Language and Mathematical components; 'core' refers to the essential (mandatory) subject-specific requirements.

Science course⁶⁴. No particular instructions were given for these preparatory processes and it is likely that the various institutions followed their own sets of definitions and criteria – some of which may have been intuitive rather than clearly articulated. Finally, through the University representatives in the Joint Planning Group, invitations were extended to additional University staff to attend the meeting and consider the ‘match’ between the programme and their own current offerings.

The minutes of the special meeting record that while not all of the Universities were able to undertake a ‘matching exercise’, staff members from the University of Cape Town (UCT) had done so successfully. Professor Therese Lorenzo from the Department of Health and Rehabilitation Services, confirmed the alignment between the NCV Public Health programme and the criteria for and content of the Higher Certificate in Disability Practice offered at UCT.

Preparation for the development and delivery of the Higher Certificate in Disability Practice had begun in 2012 in conjunction with the provincial Department of Health. A 120-credit full-time course, it is interdisciplinary, covers all therapies, and includes theory and practice block sessions. UCT employs RPL-assessment practices in its selection processes, and was keen to increase the intake of students in this programme.

While Professor Lorenzo and her colleague, Ms Anthea Hansen, were able to report at the October meeting that there would be support for late applications, they needed to undertake a number of activities to ensure that there was an increased awareness of this initiative. These activities included visits to relevant TVET Colleges and the late scheduling of National Benchmark Tests (NBT) for the applicants⁶⁵.

The result was that of the 23 students enrolled for the programme at UCT in 2016, ten were from TVET Colleges. Another five TVET College graduates enrolled in the 2017 cohort. At the time of the CHEC interview with the UCT staff in 2018, the 2018 enrolments were not yet confirmed.

64 The National Senior Certificate (NSC) is the school-leaving qualification in South Africa, which is obtained after successful completion of the 12 years of schooling.

65 UCT conducts NBT Tests when considering the admission of students to study in its programmes.

REFLECTIONS AND LESSONS

This section of the paper reflects on the challenges and successes reported and the lessons learned, regarding the UCT initiative.

Challenges and successes reported

When asked to reflect on the challenges they experienced in the process described in this paper, the UCT staff interviewed by CHEC researchers foregrounded the fact that NQF Level 5 is 'not the core business of the university' as a major challenge. This meant that they were entering 'unchartered territory' as the University systems were not set up for Level 5 students. For example, the online application system is difficult to navigate beyond a certain point if you are a TVET College graduate. One of the UCT staff members interviewed reported that some of the applicants had made contact with her for assistance; it is possible, however, that some potential applicants just gave up at this point. Similar challenges faced TVET College graduates when applying for funding. Here again, UCT staff reported having had to source external funding for TVET College applicants.

UCT staff members themselves reported experiencing challenges in reflecting on equivalence, and utilising the NBT results in their selection processes. Furthermore, a lack of understanding of the TVET College programmes, and the skills that the Colleges target and develop, perpetuated certain negative perceptions held of TVET students and graduates, and these perceptions then provided obstacles for those staff members willing to champion their cause.

Had it not been for the enthusiasm of the then-UCT representative, Ms Judy Favish, who attended the Joint Planning Group meeting in July 2015, and Professor Lorenzo who was then invited to attend the October meeting, this narrative and its good results might not have happened. It is also important to note the enthusiasm and support Professor Lorenzo received from the then-Dean of Health Sciences, Professor Marion Jacobs, who worked with the Department of Health and the Department of Higher Education to ensure that the programme was accredited.

Despite the challenges noted, the UCT staff interviewed reported that the TVET graduates had proved to be 'really good students' – they were described as 'mature, interactive,

engaging' and had achieved 'good results'. They had grown during their studies, been employed and 'gone on to make a difference' on the ground. The benefits were not limited to the individual students and those in their workplaces; the students' own children's eyes had been opened to the possibilities of studying at a university.

UCT staff interviewed also reported that they are exploring the possibility of extending their relationships with other Colleges (possibly by including the delivery of the theoretical components of particular qualifications at the Colleges, and providing a train-the-trainer course).

Lessons learned

In reflecting on the lessons learned through the writing of this paper, it is important to note the following.

- Communities of practice such as those utilised in the CHEC 'model' provide opportunities for members to voice concerns, identify issues for investigation, and collaborate in developing solutions.
- Champions at various levels in the institutions involved in articulation initiatives, are required to find innovative ways of dealing with articulation opportunities and ensuring the development of new career pathways.
- Careful preparation is required before meetings of University and TVET College staff to ensure that articulation opportunities may be identified, e.g. mapping current provision, comparing programmes, developing criteria and guidelines.
- Rather than dealing with articulation in an *ad hoc* manner and after the implementation of programmes, it is important to plan learning and career pathways with articulation opportunities *ahead* of programme implementation.

LOOKING AHEAD TO 2019

CHEC continues to encourage both formal and informal relationships between the Universities and the TVET Colleges in the Western Cape. For 2019, CHEC has identified

an exciting, concrete, collaborative pilot project on 'dual-track' education and training. The 'dual' or 'dual-track' model is believed to promote both throughput rates and graduate employability by providing students with increased opportunities for workplace learning.

While the conceptual and operational frameworks for this project are still being developed, it is likely that the thematic areas of digital analytics and complex problem-solving skills will be foregrounded. Importantly, the development work will include different levels of study, and qualifications for a variety of employment destinations. In this way, articulation possibilities will be carefully considered and planned for *in advance*. A key element of the work will be the development of lecturers' capacity to undertake 'dual track' teaching and learning programmes.

CHEC's 'dual-track' project will provide opportunities for participants to better define and 'map', learning outcomes at different levels, namely the knowledge and skills expected at these levels. In addition, the project will interrogate theory/practice relationships by exploring the ways in which particular concepts introduced in the classroom are translated into procedures and practices in the work environment – and *vice versa*. The insights gained in the pilot project will then be shared more broadly in the effort to build a single, coherent and integrated system of Post-School Education and Training in South Africa.

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PAPER 8

Learning Pathways: International Trends in Articulating Vocational and Post-Secondary Education

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INTRODUCTION

Today obtaining higher-level skills and qualifications is becoming an increasingly common expectation among young and older people, including those from Technical and Vocational Education and Training (TVET) or practitioner backgrounds. These expectations reflect increased ambitions for further personal and professional development, social recognition and mobility, as well as the labour market demands for higher-level skills, and a need to upskill and reskill throughout life. Clear and flexible learning pathways are necessary to ensure that all individuals have the necessary skills to enter the labour market. They are also essential to keep the skills of the workforce up to date and adapted to the changing economic conditions and opportunities that will facilitate the transition to sustainable economies and societies. Several emerging trends are brought to bear on the relevance of such learning pathways. These trends include the development of new occupations and skills and the rapid transformation of existing ones, the explosion in knowledge and technology, the shift to an information and knowledge-based society, and new ways of organising the workplace in an increasingly integrated economy (World Economic Forum, 2018).

More specifically, there are various reasons why establishing learning pathways is becoming an increasingly important and relevant policy issue globally. In the context of supporting lifelong learning, clear and effective pathways are essential so that individuals may continue to acquire the necessary new skills and knowledge throughout their working lives, fulfilling both personal and professional ambitions. At the same time, the rapidly changing skills needs of the labour market mean that people increasingly need to learn new skills and/or gain new or higher qualifications throughout their working lives. Such reskilling or upskilling needs are met better when clear learning pathways are in place that facilitate transitions from one level or type of training or education to another or from working life into learning and *vice versa*. Clear pathways can furthermore address issues of inequality and foster social mobility, as they can allow access to further and higher

learning for a wider group of people, including those with different types of disadvantages. Strong pathways can also lower the costs of further studies, allowing those from less affluent backgrounds to pursue further learning, and removing artificial barriers, such as the unnecessary repetition of course material.

Strong pathways may also help to increase the attractiveness of TVET tracks, by removing the perception that these tracks lead to 'dead-ends' with no possibility for further development. TVET programmes have typically been designed so that they can provide skills for a specific trade or occupation; these skills are often not easily transferrable to different learning or occupational contexts. Given the changing skills requirements and student aspirations noted, this feature of TVET programmes can make them less attractive to potential students.

The international community has been paying attention to these developments and, as a result, the need to develop flexible and clear learning pathways is reflected in the Education 2030 Agenda and Sustainable Development Goals of the United Nations Educational, Scientific and Cultural Organisation (UNESCO, 2016a). These goals explicitly stress the issues of access to, and participation in, TVET and higher education in a lifelong learning perspective. The Incheon Declaration⁶⁶ recommends the promotion of 'quality lifelong learning opportunities for all, in all settings and at all levels of education', as well as the provision of 'flexible learning pathways and recognition, validation and accreditation of the knowledge, skills and competencies acquired through non-formal and informal education' (UNESCO, 2016a).

The UNESCO recommendation concerning TVET, which was revised and adopted in 2015, also emphasises the importance of developing pathways and facilitating transitions between secondary, post-secondary and tertiary education. It recommends further, that education establishments and authorities should collaborate to facilitate transitions (UNESCO, 2016b).

This paper examines the challenges in establishing effective learning pathways, and the measures and good practices adopted by different countries to address these challenges. It provides guidelines that may assist policy makers in implementing related relevant reforms.

66 Accessed at <http://unesdoc.unesco.org/images/0023/002338/233813m.pdf>, 12 November 2018

TYPES OF LEARNING PATHWAYS

For the purposes of this paper, we examine closely three types of learning pathways: (a) from initial TVET into post-secondary/higher education; (b) from post-secondary, short-cycle TVET into higher education; and (c) from the labour market, formal or informal learning, (back) into education or training. Each of these types of learning pathways concerns different groups of people with different priorities, ambitions or aspirations and, as a result, different factors need to be considered when it comes to reflecting on their policy implications.

Initial TVET graduates wishing to progress into post-secondary or higher education, at International Standard Classification of Education (ISCED) Levels 4-6⁶⁷, may be motivated by the prospect of better job opportunities and social recognition resulting from further studies and qualifications. These aspirations have grown, reflecting the increased need in the labour markets of both developed and developing economies, for higher level skills.

Short-cycle, post-secondary level programmes of a primarily vocational or professional nature have been increasing in some countries in recent years. The diversity of institutions that offer such programmes has also been growing: in addition to the more conventional research-focused universities, post-secondary higher institutions now include a variety of public and private providers, known under different names, such as Applied Universities, Polytechnics, Community Colleges, or University Colleges (Altbach, Reisberg and de Wit, 2017). These institutions typically provide programmes of between six months and two years if pursued full-time, often with a natural progression pathway to a full, Bachelor's-level university programme (ISCED 6). Sometimes, however, the increased diversification may also create obstacles in the learning pathways available to students and graduates, resulting for example, from limited information or guidance regarding the learning and employment outcomes of such short-cycle programmes.

The last type of pathway concerns not only young people, but also adults of any age who wish to further their skills, or acquire new ones in view, for example, of a prospective career change. These types of pathways are particularly important in the context of

67 Since 2011, there have been eight ISCED levels: ISCED Level 4 comprises 'Post-Secondary Non-Tertiary Education'; ISCED Level 5 comprises 'Short-Cycle Tertiary Education'; ISCED Level 6 comprises 'Bachelor Degree or equivalent'; ISCED Level 7 comprises 'Masters Degree or equivalent', and ISCED Level 8 comprises 'Doctoral Degree or equivalent'.

countries with large informal sectors in their economies: individuals working in the informal sector need support mechanisms that can allow for the recognition and certification of the skills they have gained at work or other contexts of their lives, so that they can progress to further learning.

OVERCOMING THE OBSTACLES TO LEARNING PATHWAYS

We identify below three types of obstacles that may be blocking the transition from TVET to post-secondary education.

- The first type of obstacle is partly a result of the recent growth and diversification in the post-secondary education sector experienced in many countries and the resulting fragmentation and complexity in the system. Education and training and qualification systems, especially at post-secondary/tertiary level, have become less transparent both to learners and employers. In India, for example, the number of TVET institutions has grown rapidly, but without clear progression pathways for their graduates into higher level programmes (Young and Allais, 2013). In Peru, some universities award credit to TVET graduates, but the arrangements are *ad hoc*, which means that students cannot know in advance of starting a particular programme, how much credit they will be able to transfer, and to which programme or institution the transfer will be effected (McCarthy and Musset, 2016).
- The second type of obstacle is related to the lack of appropriate support for further learning for those with non-traditional, academic backgrounds. TVET programmes do not always foster the development of the foundation or study skills required for further academic learning, placing their graduates at a disadvantage when it comes to the successful completion of a higher level study programme. So although in some countries those with an upper-secondary vocational qualification meet the entrance requirements for a post-secondary or higher-level programme, the actual proportion of those who enter and successfully complete such programmes, is very low. For example, in France, only six *per cent* of those who hold a Professional Baccalaureate, and 16 *per cent* of those with a Technological Baccalaureate, successfully complete undergraduate Degree programmes. The success rates of those with General

Baccalaureates amount to about 50 *per cent* (MENESR-SIES, 2016). Similar outcomes are reported in other countries, such as Egypt (Alvarez-Galvan, 2015) and Lebanon (Vlaardingerbroek and Hachem E-Masri, 2008).

- A third set of obstacles is due to features in the provision of post-secondary and higher education itself. For example, the high tuition costs of studying at many higher education institutions often act as deterrents, particularly for those from disadvantaged backgrounds. Higher education programmes are often organised around timetables that are incompatible with the lifestyles of older adults who may wish to return to study, and who need to combine studying with work or family responsibilities. To remove such barriers, higher education institutions need to be committed to the creation of pathways for students who are older or who have non-standard academic qualifications. This is, however, not always the case; in fact, in some countries or institutions, the opposite may be true, i.e. those with TVET backgrounds may be unwelcome (Vlaardingerbroek and Hachem E-Masri, 2008).

The challenges outlined above have been addressed by governments and institutions through different sets of measures. In what follows, we discuss some of these measures and their impact drawing where relevant, on specific examples and case studies from different countries.

IMPROVING TRANSPARENCY

Education systems have used several tools to promote transparency in individual programmes and their learning outcomes for the different actors in the system: students, training providers and employers. National Qualification Frameworks (NQFs) are tools that are becoming increasingly popular among many countries around the world, with over 150 countries currently in the process of developing or implementing an NQF (UNESCO, UNESCO-Institute for Lifelong Learning [UIL], the European Training Foundation [ETF], and the European Centre for the Development of Vocational Training [CEDEFOP], 2017).

Qualifications frameworks are designed to group individual qualifications from across the education and training system along a set of levels, e.g. from Levels 1 to 10. Such a framework can facilitate pathways, as it allows students or employers to gauge the level

of a particular qualification and compare it against others in the system. To facilitate in particular, transitions from TVET to post-secondary or Higher Education programmes, qualifications frameworks need to include both TVET and general academic qualifications. Such overarching frameworks are increasingly being developed and implemented in a diverse range of countries, including most European countries, Australia, Malaysia, Mexico, Namibia, South Africa and New Zealand (CEDEFOP, 2017; UNESCO *et al* 2017). However, only some of these frameworks include both general and TVET qualifications at all levels. For example, in Germany, although tertiary TVET qualifications (ISCED Levels 6 and 7), are treated as being equal to their academic qualification counterparts in terms of level, do not always allow access to general tertiary programmes at the next level (CEDEFOP, 2010). In such cases, NQFs can institutionalise barriers between TVET and Higher Education, rather than overcome them (Field and Guez, 2018).

Agreements regarding the rights of access to programmes and the credit recognition of graduates are often established bilaterally at the institutional level, i.e. between individual education or training providers. For example, in Japan, a credit transfer programme encourages universities and junior colleges to exchange credits with professional training colleges (Sawano, 2015). Although such credit transfer arrangements can facilitate pathways, they also require a great deal of administrative work on the part of the institutions involved, and therefore rely on their commitment to the process. In Israel, although in theory universities may grant credit for prior vocational qualifications under a national protocol, in practice few universities do so (Musset, Kuczera and Field, 2014).

Recognition of Prior Learning (RPL) can help individuals with skills acquired outside the formal system, to gain access to post-secondary education. The UNESCO Institute for Lifelong Learning (UNESCO-UIL) defines 'recognition, validation and accreditation of learning outcomes' as: 'a practice that makes visible and values the full range of competencies (knowledge, skills and attitudes) that individuals have obtained in various contexts and through various means in different phases of their lives' (UNESCO-UIL, 2012). RPL can be a powerful tool for recognising the qualifications and skills of migrants, and allowing migrants to integrate into the labour markets of their host countries. It is also particularly important in countries with large informal sectors in their economies, and which, as a result, have many individuals who have gained skills and experience in an informal way, such as in informal apprenticeships. For example, in Kenya the Trade Testing system, provided by the National Industrial Training Authority (NITA), allows those who have acquired skills through informal apprenticeships to have these skills certified

at one of three levels. Forty five thousand (45 000) trade test passes were administered in 2015 (Field and Guez, 2018). In France, the recognition of professional experience (*validation des acquis de l'expérience*, [VAE]) is an individual right, established by law in 2002. VAE allows an individual to obtain part of or a whole qualification, based on his or her professional experience and upon validation by a panel of academics and/or professionals. The qualification obtained in this way, is the same as that which would have been obtained through academic study (Chaparro, 2012).

All of these tools, namely NQFs, credit transfer, and RPL, work on the basis of using learning outcomes as a 'common currency' that facilitates transparency, and allows for comparison between different types and levels of qualifications or programmes. Implementing approaches which place emphasis on learning outcomes, rather than on the more traditional 'seat time' and curriculum models, is challenging both technically and politically (CEDEFOP, 2017).

Finally, quality career guidance at all levels is vital for progression. Such guidance can help students, prospective students and graduates to understand and better navigate their way through the complexities of education and training systems, and make informed decisions regarding their further learning and employment options, particularly when backed by reliable labour market data. For example, in Scotland career guidance and labour market information is offered at institutions at various levels, including at Colleges, local authorities and JobCentres; and through different means, including a dedicated website, by telephone or face-to-face. Skills Development Scotland coordinates and acts as a strategic leader of these services, which involve multiple stakeholders, schools, colleges, local authorities and employer representatives (Kuczera, 2013).

BUILDING BRIDGES TO POST-SECONDARY EDUCATION

TVET students and graduates face barriers to continued learning at higher levels, not only when it comes to accessing relevant programmes, but also in successfully completing them. In some countries, although those with TVET backgrounds do have access to post-secondary or higher level programmes, including at Bachelor's level, few take up this option, and even fewer manage to complete such programmes successfully. To prepare TVET graduates for post-secondary education, some countries or institutions have introduced 'bridging' programmes or hybrid tracks that allow students to complete

TVET and general qualifications at the same time, thus facilitating their access to post-secondary education.

Bridging programmes can take many forms and may be at national, local or institutional level. In some countries flexible, 'add-on' programmes may be pursued following the completion of a vocationally-oriented track, ensuring that students acquire the skills and qualifications that will enable them to enter higher education, if they so wish. For example, in Estonia upper-secondary TVET graduates who earn at least 60 credit points in general subjects can continue to higher education, or can spend an additional year taking such subjects to prepare for higher education. In Colombia, some technical and technological institutes offer a preparatory cycle enabling students to progress to higher level programmes (Organisation for Economic Cooperation and Development [OECD], 2016). However, it is worth noting that in some countries, only a very small proportion of students make use of such add-on or bridging options (Field and Guez, 2018).

Some 'hybrid' programmes in upper secondary education allow students to pursue their general studies at the same time as completing a TVET programme, offering both general and TVET qualifications. In Brazil, for example, an 'integrated' programme at upper secondary level combines general and vocational course content in the same school. In a parallel model, ('concomitant') students pursue two complementary programmes, one vocational, and one general, simultaneously but at different schools (Almeida *et al* 2016).

Finally, some countries have established 'hybrid' institutions that straddle the divide between upper- and post-secondary levels. A very successful model is that of the Japanese KOSEN Colleges of Technology. These colleges provide Engineering and Technical Education over five-year programmes that combine upper secondary and junior college education, for students from the age of 15. Graduates of KOSEN Colleges can either then transfer directly to the third year of a university programme in Engineering, or move directly into the labour market. KOSEN graduates represent 10 *per cent* of all graduates of Engineering departments in post-secondary institutions in Japan (Field and Guez, 2018).

FILLING THE GAPS IN POST-SECONDARY PROVISION

Strengthening pathways from TVET into post-secondary education, including higher education depends of course not only on the engagement of TVET stakeholders, but also on that of the post-secondary and higher education communities. But, although the benefits of enhancing progression pathways are obvious from the viewpoint of upper secondary TVET and TVET graduates, they are not always that clear from the point of view of higher education. In fact, given the autonomy that these institutions enjoy in most countries, they may sometimes resist opening up to young people or adults from TVET or practitioner backgrounds. So one major challenge has to do with encouraging or providing incentives to post-secondary institutions to open access to a wider range of students. Such widening of access could enlarge the pool of talented students that such institutions are able to attract, and having a TVET background is certainly not a signal for low ability. At the same time, governments in many countries are actively pursuing measures to widen participation in higher education as a means of promoting social mobility and equity, and higher education institutions are keen to be perceived as vehicles of such mobility. Measures for widening participation in higher education, although not directly targeting TVET students, may indirectly benefit them, as they are more likely to come from less-favoured backgrounds (UNESCO, 2017; Field and Guez, 2018).

Financial barriers are a major issue, and the measures that can be put in place to overcome them do not concern just TVET graduates but all potential students from less affluent backgrounds. A range of measures to address this issue has been implemented by countries around the world. In a recent policy paper, UNESCO (2017) recommends a combination of tuition fees with means-tested grants and loans to concentrate on making public financial aid available to disadvantaged groups.

Post-secondary institutions can also facilitate the participation of adults returning to study by providing more flexible provision, such as part-time, modular or evening courses, or distance-learning provision, making use of the enabling power of new technologies. Initiatives such as Open Universities have been established in several countries to enable the participation of older adults, including those without formal qualifications, in tertiary or higher education. The Open University of China is one successful example, currently welcoming over 3.5 million students. It has created a credit bank system, whereby students can accumulate and transfer credits across different learning programmes, and can apply for certificates when they have reached enough credits (Ally and Bainbridge, 2015).

POLICY IMPLICATIONS AND CONCLUSIONS

The issues and challenges related to the establishment of clear learning pathways need to be addressed in the context of country circumstances. Countries vary widely in terms of the stage of their economic development, their education and training systems, and their labour markets, so they will engage with the pathways issue with very different priorities in mind (Field and Guez, 2018).

For countries with highly fragmented systems or with complex systems of governance, the priority may be to develop and adopt measures that will improve system transparency and navigation by stakeholders. Tools such as comprehensive qualification frameworks based on learning outcomes and good systems of career guidance can be effective in addressing the challenges relating to transparency.

Many countries, particularly less developed ones, have a large proportion of individuals working in the informal sector, and who may therefore have acquired their skills informally, possibly also having gaps in their formal education. In such cases, developing mechanisms for RPL that will allow informally acquired skills to be recognised, is very important. Such mechanisms will assist such individuals to acquire formal qualifications, and support their progression to further learning.

Many countries experience high drop-out rates from school, and uncertain transitions from school to work. For those countries, designing and implementing VET programmes with a focus on workplace and practical experience, should be a priority. Such programmes need to be able to engage young people from diverse educational backgrounds by offering them opportunities to build on skills they may already have acquired in the informal sector, while ensuring that they develop the foundation and core academic skills that will enable them to advance to further learning throughout their lives.

Finally, it is important to recall that effective learning pathways will always require, as a pre-condition, a high-quality TVET system. High-quality initial TVET will offer both occupational training and workplace experience on the one hand, and, on the other the general education, foundation and transversal skills necessary both for employment and further learning. High quality TVET will naturally attract talented students who will be more likely to aspire to further learning, and also give post-secondary and higher education institutions the confidence that potential entrants with TVET backgrounds

have the necessary skills and knowledge for more demanding coursework. High-quality initial TVET should also serve the goals of inclusion and equity, by being accessible and supportive of students from a wide range of backgrounds, including disadvantaged students. An equitable TVET system will ensure that opportunities to benefit from the formal pathways of further learning are open to all.

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PAPER 9

Federal Republic of Germany – Articulation in Education and Training

Dr Volker Rein

INTRODUCTION NOTE

Many articulation regulations, models and practices in education in the Federal Republic of Germany that facilitate permeable and connective learning and career pathways have been developed and implemented during the last decades. This article first provides an overview on the state of play and trends in German Education and the legal prerequisites for articulation in vocational and academic education. In the second part of the paper, essential conceptual and instrumental developments to promote the comparability and articulation of learning achievements are presented and elucidated.

STATE OF PLAY AND FRAMING TRENDS IN THE GERMAN EDUCATION AND TRAINING SYSTEM

Germany has one of the highest levels of attainment in upper secondary education. Most of the citizens attain upper secondary education and a large proportion of students follow a vocational track. Some 86% of the country's 25-64 year-olds have obtained at least an upper secondary qualification (compared to the Organisation for Economic Cooperation and Development [OECD] average of 75%). Vocational qualifications are common in Germany. Nearly one in two (48% of) upper secondary students is enrolled in a pre-vocational or vocational programme that combines school education and company based training (OECD average is 46%). Most 25-64 year-olds in Germany (55%) have attained a vocational qualification at either upper secondary or post-secondary level (OECD average is 33%). Based on current patterns, in 2012 an estimated 53% of young people in Germany are expected to enter academically-oriented tertiary ('tertiary-type A') programmes in their lifetimes, up from 30% in 2000 and closer to the OECD average of 58% (compared with 48% in 2000). An estimated 31% of young people in Germany are expected to graduate from academically-oriented tertiary programmes in their lifetimes, up from 18% in 2000 (OECD, 2014).

Knowledge-based jobs in the main occupational areas of manufacturing as well as primary and secondary service areas are increasing and across education sectors, the trend towards Higher Education is continuing. This trend is encouraged by the increased permeability and the wide range of graduation options in the individual school types predominantly in Middle Schools and High School variations (including Gymnasiums)⁶⁸. Against this background, the proportion of trainees with Higher Education entrance qualifications is increasing. It recently accounted for 28% of all newly-concluded apprenticeship training contracts. At the same time, the trend towards Higher Education is reflected in the establishment of new Higher Education Institutions (HEI), and in an increasingly differentiated Higher Education landscape with a very diverse range of courses on offer. The fact that in the majority of cases students complete a Master's degree after their first academic degree is also an indication of the trend towards Higher Education (*Autorengruppe Bildungsberichterstattung, 2018*).

THE LEGAL FRAMEWORK

The articulation of previous learning achievements to educational programmes in Vocational and Higher Education in Germany is regulated by law as shown in the following sections.

Vocational Education and Training

The legal requirements for crediting previous learning achievements in initial and continuing Vocational Education and Training (VET) are laid down in the Federal Act for VET (*Bundesministerium für Bildung und Forschung [BMBF], 2005*) only with regard to the possibility of articulation. Accordingly, a different, relevant vocational training can be credited to the respective vocational training course, taking into account the vocational skills, knowledge and abilities acquired in the process. The articulation requires the joint application of the trainees and apprentices to the competent authority (e.g. Chambers for Industry and Commerce). If the application is made in advance, it is possible to credit the relevant previous vocational learning achievements against further vocational training. There are no other generally binding implementation provisions for the crediting of previous learning achievements in VET.

⁶⁸ A Gymnasium in the German education system is the most advanced of the three types of German secondary schools, the other two being the Realschule and Hauptschule. The Gymnasium strongly emphasises academic learning.

Academic Higher Education

On the basis of the Lisbon Convention agreed by the European Higher Education Ministers for the European Higher Education Area, the recognition of competences in Germany acquired at HEI to continue studies in other study programmes, is defined as follows. Articulation may relate to individual learning units or entire degrees, with the emphasis on the identification of significant differences in competence acquisition. Accordingly, recognition may only be refused if an essential difference is established, and this can also be documented by the university (BMBF and *Kultusministerkonferenz* [KMK], 1997).

There are no other generally binding implementation provisions for the articulation of previous learning achievements at HEI due to the autonomy of the HEI laid down in the Constitution of Germany. In the current legal context, in the area of crediting, there is no legal regulation for skills and abilities acquired outside Higher Education. At the level of the federal states, the respective Higher Education Acts allow up to 50% of the required learning performance of a degree programme to be credited. In order to implement such recognition, HEI must incorporate the relevant regulations into their study and assessment regulations (Loroff *et al* 2011).

GERMAN CONCEPTUAL AND INSTRUMENTAL DEVELOPMENTS TO PROMOTE THE COMPARABILITY AND ARTICULATION OF LEARNING ACHIEVEMENTS

To promote quality, the comparability of qualifications, and the permeability of education pathways, the stakeholders of all education and training sectors in the European Union (EU) have agreed since the late 1990s to design education and training programmes based on competences and learning outcomes. The Europe-wide induced competence-oriented shift to learning outcomes has qualitatively upgraded the ongoing national discourse on permeable education and training systems and pathways in Germany (Wolter, 2013).

The EU Education Ministers agreed (EU, 2008) on the competence-oriented European Qualifications Framework (EQF) across all education and training sectors, which should promote the transparency between VET qualifications and academic Higher Education qualifications as well as the permeability between both the education and training sectors. Germany followed with the development and the implementation of a national

qualifications framework – the German Qualifications Framework (GQF) – for lifelong learning, to achieve the same objectives (BMBF, KMK, and the *Arbeitskreis Deutscher Qualifikationsrahmen* [AK DQR], 2013). Based on the Maastricht Declaration (2004) of the EU Education Ministers, the GQF was developed as a national extension to the EQF.

The GQF defines for the first time the central category of ‘competence’ as a holistic capability to act which is relevant for both the academic and the vocational education sectors. In its structure of requirements, the GQF describes professional and personal competences on eight levels, using the dimensions of knowledge and skills as well as social competences, and autonomy. All GQF levels should be attainable through various educational pathways, including vocational training. In principle, the GQF has an orientation function. Reaching a certain level of the GQF does not automatically entitle you to access the next level. Since 2014, the applicable GQF level has to be indicated on new qualification certificates (Rein, 2017).

In the recent years, further essential instrumental developments have supported both the comparability and articulation of competence-oriented learning outcomes. The Federal Ministry of Education and Research initiated and supported special programmes for the validation and recognition of informal learning, for the development of a credit transfer system in VET, and for the recognition of professional competences in academic study programmes. These approaches provide an orientation for relevant practices but they are not mandatory.

Validation and recognition of informal learning

In the education sciences, various concepts have reference to informal learning such as self-directed learning, tacit knowledge, implicit learning and work-process learning, which can take place in or outside institutionalised frameworks. In Germany, informal learning is promoted as part of lifelong learning through various educational policies and practical measures. Its recognition is promoted in particular, by formative methods such as ‘competence balances’, which document competence matches in different programmes, and portfolio credential documentation.

In Germany, the phases of an appropriate validation procedure include identification, documentation, evaluation and certification. The instruments for presenting evidence include tests and examinations, interview-based and declarative methods, observation,

simulation and evidence obtained through practical situations. The *Occupation Choice Pass* and the *Profil Pass* are examples of credential documentation instruments introduced nationwide as part of articulation procedures. In the GQF, competences acquired through informal learning are to be included on an equal footing, but this is only possible in certified form (Gutschow, 2019).

‘DECVET’ – Credit Transfer in Vocational Education and Training

The aim of the BMBF pilot initiative ‘DECVET’ was to improve the permeability between the subsystems of VET via credit transfer procedures. The VET policy objective of DECVET was therefore to develop and test procedures and models for describing, recording, evaluating, documenting, transferring and crediting learning outcomes within the German VET system. The basic constitutive element of the development and testing work in DECVET is the vocational concept and its objective of acquiring vocational capacity to act. The instruments developed and tested in the DECVET pilot initiative are intended to make a significant contribution to promoting permeability, transparency and mobility within the German VET system. The DECVET trial focused on four typical points of access and transitions in VET:

- transition from vocational training preparation, to apprenticeship training;
- transition within the dual vocational training system with regard to common qualifications across vocational profiles in a vocational field;
- transition between dual and full-time school-based vocational training; and
- access from dual initial VET to further VET.

Structural elements of DECVET

Each of the access points and transitions has specific characteristics and requirements that have been taken into account in the development and testing work done in the DECVET pilot initiative. The DECVET initiative was based on a cross-interface structural concept, which was the basis for the development and testing work in the pilot projects. This structural concept has proven to be efficient and transferable in all pilot projects, for the development of permeability-enhancing credit transfer procedures. The structural concept comprises the following elements:

- descriptions of learning outcomes and the development of learning outcome units for different educational programmes;
- equivalence comparisons to determine the degree of agreement (equivalence) in the learning outcomes of the programmes studied (curriculum coverage analysis);
- the recording and evaluation of learning outcomes in competence assessment procedures; and
- the development of articulation systems.

The procedures for the articulation of learning achievements from one VET context to another, some of which have been developed and tested on the basis of this standardised structural concept, have made it possible to provide evidence of equivalent learning outcomes between the subsystems of the German VET system. It is thus possible to clarify the possibility of crediting learning outcomes between the subsystems of VET, with the involvement of the actors involved in VET. The procedures developed in the DECVET initiative could contribute in future, to better understanding between the actors of the VET subsystems, and to strengthen the mutual trust and cooperation between the respective learning locations. The proof of the equivalence between different VET qualification offerings can contribute to their linkage.

Establishing equivalences

Equivalence comparisons are used to determine the degree of agreement (equivalence) in the learning outcomes of the programmes examined (curriculum coverage analysis). The determination of the depth and breadth of the equivalence of the learning outcome units or the complete training occupations of an occupational field, forms the basis of the recommendations for the articulation of learning achievements. The equivalence comparison is based on the curriculum coverage analyses of the learning outcome units, which refer to the contents and requirements of the applicable regulatory instruments (in particular training framework plans and framework curricula).

Recording and evaluation of learning outcomes in competence assessment procedures

Learning achievements must be proven if they are to be credited. DECVET has developed and tested procedures for this purpose. In accordance with these requirements, learning

outcomes were recorded in the DECVET initiative, for example from action-oriented situation tasks, operating orders, project tasks with presentation and technical discussion, simulation tasks, or knowledge tests. The instruments and procedures used to determine learning outcomes are performance- and task-oriented and serve to document the acquisition of learning outcomes at different learning locations.

It has been shown across all of the DECVET pilot schemes, that it makes sense to combine different assessment methods in order to ensure that the examination results achieved are meaningful. For the determination of learning outcomes, the procedures and combinations of different recording methods are to be applied, and the tests' theoretical criteria of neutrality (objectivity) and reliability, guarantee quality (BMBF, 2012).

ANKOM – Articulation of occupational competences to Higher Education study programmes

The *Anerkennung beruflicher Kompetenzen auf akademische Studiengänge* (ANKOM) initiative was launched by the BMBF in order to foster transitions between VET and Higher Education. The initial phase of funding concentrated on the development of models to serve as vehicles for the overall or individual recognition of VET qualifications for Higher Education study. These articulation procedures have now been introduced in increasing numbers of HEI.

Educational and labour market policy background

The permeability between vocational and academic education and training has been a major issue for decades, and is an urgent educational problem. In the 1960s, there were specific needs in the labour market (e.g. for teachers or engineers) which led to measures to open access to Higher Education. In the 1980s and early 1990s, more and more educational policy options were discussed, such as the equivalence between vocational and general education, not least with a view to VET.

One of these options was to link vocational training and access to Higher Education. In the 1990s in particular, this approach led to almost all federal states in the country – albeit in very different forms – taking measures to open access to Higher Education for qualified employees. Not all of these were successful in quantitative terms. The proportion of first-

year students with VET backgrounds enrolled in programmes in German HEI, has been less than 1% for years. Three prerequisites to change this situation have been identified, as follows.

- Access to Higher Education for people with vocational qualifications who do not have a school-based Higher Education entrance qualification, must be opened up further; in a number of federal states there are already regulations that can serve as models for others.
- New study models – such as part-time, preferably project-based Bachelor's Degree programmes – allow an improved interlinkage of professional activity and academic studies.
- Further education part-time programmes are much more likely to be studied by working people than traditional full-time study courses.
- Access barriers and study times could be further reduced by crediting vocational skills.

In 2009, the Standing Conference of the Ministers of Education and Cultural Affairs of the Federal States in the Federal Republic of Germany provided new impetus with its decisions regarding access to Higher Education for applicants with professional qualifications who do not hold university entrance qualifications from school, as follows (Loroff *et al* 2011).

- Master craftsmen and holders of comparable federal or state Continuing Education qualifications receive a general Higher Education entrance qualification.
- Graduates with at least two years of VET with an affinity to the desired course of study in an HEI receive a subject-specific university entrance qualification if they can prove at least three years of professional experience and successfully complete an aptitude assessment procedure.
- The individual federal states may adopt more far-reaching regulations. After one year of successful study, such country-specific Higher Education entrance qualifications are recognised by all federal states for the purpose of further study in the same or similar study programme.

Overview of ANKOM articulation procedures

It has been shown that the application of the various articulation methods is not dependent on the type of university and discipline. The decision for, and the introduction of, a certain credit transfer system exists. It is clear from the prevailing university culture, that the trust in quality and the level of VET is reflected in, among other things, the acceptance of the idea, and the differentiated educational offerings for different target groups. In ANKOM, 'general articulation procedures', 'individual articulation procedures' and 'combined credit procedures' have been developed, which are based on the system of the GQF with respect to the equivalence-comparison of learning outcomes. The following descriptions have been adapted from Loroff *et al* (2011).

General articulation procedure

Learning outcomes or bundles of learning outcomes (e.g. partial examinations) are assessed within the framework of an equivalence test, with regard to their eligibility for crediting towards certain programmes, and are then credited within the framework of a flat-rate crediting procedure. This form of crediting is not person-specific. The general articulation procedure normally refers to formally acquired learning outcomes as documented in degrees and certificates.

The target groups in general articulation processes, are applicants who have formally obtained a vocational qualification that is recognised throughout the Federal Republic of Germany, within the VET system. General articulation means that each holder of the advanced training qualification is credited with certain modules, which have been determined in the course of a competence-oriented equivalence test for the desired qualification, without further examination of the applicants. Should the areas of equivalence concerning one of these qualification programmes change somewhat, the examination must take place again. For this purpose a mutual information obligation is agreed.

General articulation has the advantage over individual crediting because it requires less time and administrative effort than does individual crediting. Legal liability is offset by the corresponding resolutions of the university Audit Committee and the university Supervisory Board of the relevant study programme. After a potential candidate's application for an equivalency test at the relevant competent body (e.g. Chairperson of the Audit Committee of the study programme; Examination Office), the further education degree and modules

to be credited will be determined on the basis of the relevant documents (e.g. final certificates), and the competence equivalence list. The individual university lecturers and traditional administrative process are no longer involved.

An application for non-formally acquired learning outcomes is conceivable if the corresponding non-certified learning programmes are relatively widespread and well-documented. As a rule, the general articulation of informally acquired competences is not possible in a learning outcome-oriented manner and can only take place in exceptional cases (e.g. crediting professional practice towards an internship within a degree programme). In the case of standardised work processes however, it may also be possible for competences acquired informally, to be credited on the basis of learning outcomes.

Individual articulation procedure

In the individual articulation procedure, learning outcomes are specifically documented for each candidate seeking accreditation, and assessed with regard to their creditability in an equivalence test. The procedure can refer to learning outcomes acquired formally, non-formally and informally. A typical method for individual procedures is the portfolio: a collection of different formal and informal items which document the achievement of specific learning outcomes. The individual learning outcomes presented in the portfolio by means of various certificates, are checked for their equivalence with the corresponding study modules in the desired qualification. The process may also include an interview between the 'credit candidate' and the teacher responsible for the study module against which credit is desired.

In the case of individual crediting, the person making the credit application, and his or her individually existing learning achievements, are tested for equivalence individually. The purpose of this process could be to receive credit for the knowledge and skills acquired in VET or the workplace, or to transfer credit from another HEI. It is common university practice. In most cases, the university lecturer responsible for the relevant module or course, is responsible for checking the eligibility for credit, and his or her judgement forms the basis for the decision of the Examination Board of the course. If the vote of this Board is positive, the result is credited to the institution's Examination Office individually, for the corresponding parts of the study programme concerned.

Combined articulation process

The combined articulation procedure includes individual and general approaches for crediting learning outcomes. The combined procedure makes it possible to exploit the existing crediting potential more extensively than in the purely general or individual articulation procedures. Compared to the purely individual procedure, the combined procedure is more efficient to implement. The combination of the general and individual elements of a credit transfer procedure makes it possible for learning outcomes acquired by students both formally inside a university, and informally outside it, to be credited as equivalences of the required study and examination credits in the university.

With the introduction of a general credit transfer system, a two-stage procedure is advisable in some disciplines. The first step is to carry out several individual procedures (individual case examination) to establish equivalences between the Continuing Education qualification and the Higher Education degree. This often lays the foundation for trust in the equivalent intersections between the two education sectors, on which the second step rests. The second step involves evaluating the recurring positive test results, the equivalences, with a view to 'flat-rate acceptance' which can be converted to a general articulation.

CLOSING COMMENTS

The suitability of the different articulation methods described in this paper depends on the requirements of their specific application purposes.

Individual procedures require intensive implementation work. For universities or study programmes in which only a few credit cases are expected in any given instance, a purely individual credit procedure could therefore be an economically feasible solution. A further advantage of individual procedures is that they can in principle be applied universally to any combination of vocational and Higher Education learning outcomes.

General procedures are suitable where there is a high degree of affinity in terms of the content between the target degree programme on the one hand, and the regulated continuing VET qualifications on the other. The greater the number of expected credit cases in any given instance, the more likely it is that the expenditure for the credit

procedures will be offset or exceeded by the considerable rationalisation effect per individual credit decision.

Combined articulation procedures consisting of general and individual components are of particular interest to HEI which distinguish themselves by offering courses for non-traditional, occupationally educated and experienced education seekers. This approach requires strategic decisions by the universities, to develop appropriate regulations and other measures to attract occupationally experienced target groups.

Whatever articulation approach is applied, it is clear – through the willingness of institutions to engage, and the need for lifelong learners to be able to cross the education sectors – that there is an ongoing need to deepen articulation procedures in the various systems.

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CLOSING REFLECTIONS

Looking across the Papers in this Volume

Ms Yuraisha Chetty and Dr Heidi Bolton

South African Qualifications Authority (SAQA) Bulletin 2018(1) shares valuable insights from various national and international articulation initiatives. The national articulation initiatives first became visible to SAQA in all their detail, through SAQA-Durban University of Technology (DUT) partnership research into articulation between Technical and Vocational Education and Training (TVET), Higher Education, and beyond. The SAQA-DUT research comprised the National Articulation Baseline Study, seven in-depth case studies, and strengthening actual articulation in the system. The two international papers by invited special guests who share pertinent international perspectives, follow the South African papers in this volume. Included are contributions from South African Universities, Universities of Technology (UoTs), Comprehensive Universities, TVET Colleges and the Cape Higher Education Consortium (CHEC) – the only provincial articulation structure in South Africa – and the international perspectives from the United Nations Educational Scientific and Cultural Organization (UNESCO) and the Federal Institute for Vocational Education and Training (BIBB) in Germany. These articles enable the sharing of insights and experiences from a range of education and training stakeholders and structures. This Bulletin, in publishing papers on developed and strongly emerging South African articulation initiatives, and the papers providing international articulation insights, seeks to continue to support and strengthen the national articulation agenda.

The **Introduction** to the Bulletin, by Bolton and Lortan, provides the overarching context for the papers in this volume. It outlines how ‘articulation’ is understood in the country, and the dimensions of the national articulation agenda. It provides a synopsis of the SAQA-DUT partnership research, clarifying various terms and concepts commonly used amongst the National Articulation Baseline Study participants, and sketching the seven case studies, and articulation work currently underway. It points to the value of the insights in the international papers, and closes by elaborating the articulation enablers developed on the basis of the articulation-related research to date.

Paper 1, by Alexander and Francke, describes a specific articulation initiative of the Cape Peninsula University of Technology (CPUT) and three TVET Colleges in the Western Cape

Province of South Africa. The initiative pertains to the NQF Level 5 Higher Certificate in Information Communication Technology (ICT) specialising in IT Services Management, which is a CPUT qualification, but is taught at the Colleges. This qualification has been curriculated as an exit level qualification as its primary value, but is also aligned to CPUT's Diploma in ICT to facilitate the access and transitioning of top-performing graduates in this qualification, into CPUT. Despite a few challenges, indications generally show this initiative to be a successful example of the promotion of articulation, which augers well for the project as a whole, and for the national articulation agenda, given the potential to take the project to scale. The paper concludes with the authors highlighting the importance of establishing a broad support network, and strong collaboration, at institutional, local, and national levels, to implement successful articulation initiatives between TVET Colleges, Higher Education Institutions, and work.

In **Paper 2**, Mokhele describes a formal partnership, since June 2013, between the Central University of Technology (CUT) and all four TVET Colleges in the Free State Province of the country, which serves to broaden and facilitate access into CUT from the Colleges, through articulation arrangements. Mokhele notes that CUT has achieved particular articulation successes in learning programmes in areas such as Human Resources, Marketing, Tourism and Hospitality Management. His paper reflects statistics which show satisfactory success rates in relation to student movements between TVET College programmes, and those at CUT – including movements into various CUT Bachelor of Technology (B Tech) programmes in the aforementioned disciplines. Despite various challenges, it is believed that the expansion in the numbers of students transitioning into CUT from the TVET Colleges can be attributed to the articulation-related systems in place at CUT. Overall, it appears that the partnership between CUT and the TVET Colleges holds much promise for the continued promotion of access through successful articulation arrangements. As for the CPUT initiative elaborated in Paper 1, this initiative has potential to be taken to scale across the country.

Lortan, in **Paper 3**, highlights articulation initiatives at DUT and, amongst other things, sets about describing articulation initiatives involving the transitioning of students from TVET Colleges into DUT, as well as from DUT into TVET Colleges; articulation initiatives with traditional Universities, and articulation into and from, workplaces. The most common amongst various other articulation arrangements underway at DUT, is one which affords alternative access for students who do not meet all of the admission requirements for a particular DUT qualification, for example, the National Diplomas in Engineering. These

students are encouraged to register for, and complete, the N4 and N5: Mechanical Engineering programmes at a TVET College, and would normally be granted access into DUT's Diplomas with exemptions for the modules completed at the TVET College. Lortan points to the value of the practice of 'supplementarity' which is elaborated in the paper, and the need to use this principle more widely within and across university departments and other education and training institutions. Reflecting on this practice, it seems that ongoing dialogue on enhancing access and success through 'supplementarity' should be a key feature of conversations about strengthening and promoting articulation across the board.

Paper 4, by Songca, Maphalala, Nzama, Kunene and Tewari, draws our attention, within the broader context of articulation, to the evolution of the Programme and Qualifications Mix (PQM) at the University of Zululand (UNIZULU), a Comprehensive University. The University is aiming to cater for a wider range of offerings across the spectrum of NQF levels, to give expression to its comprehensive character. Amongst other things, the paper provides examples of programme articulation in the Arts and Education faculties. From a strategic point of view, the authors highlight that the University is in the process of developing an articulation framework, which is intended not only to provide and maintain optimal opportunities for students to transition within the comprehensive PQM, but also to provide a guideline on the articulation that will enable the development of the comprehensive character of the University. The paper notes the importance to UNIZULU, of reviving partnerships with TVET Colleges, and developing articulation contracts to facilitate student movement into Technikon-type⁶⁹ and career-focused programmes. The authors report that many students follow the articulation pathways put forward by the University – with notable success. UNIZULU's efforts towards broadening its PQM certainly bodes well for affording its students a more diverse range of qualification options and articulation pathways.

De Beer and Boshoff, in **Paper 5**, situate their discussion of articulation arrangements at the University of Pretoria (UP) within the broader context of educational justice, lending insights into a particular case in the Centre for Contextual Ministry in the Faculty of Theology. As reported, this Centre has a notable number of students pursuing the Centre's basic short courses (which run from three days to two weeks), and one-year courses, offered to people actively working in communities as Pastors, faith-based

⁶⁹ Universities of Technology were developed in democratic South Africa, to replace the pre-democracy Technikons, which, while having highly articulated systems, were race-based in line with national policies at the time.

practitioners, or Community Workers. In the past, upon completion of the courses, students were unable to use their 'Certificates of Attendance' to access Diploma or Degree courses at UP or other universities. The authors frame the erstwhile lack of accreditation and articulation of the Centre's teachings as an injustice, and elaborate in detail on various solutions to facilitate access into Higher Education – the latter in the form of five different pathways, elaborated in the paper. The authors, amongst other things, also highlight the establishment of a responsive professional body – the Association of Christian Religious Practitioners (ACRP) – which has introduced two qualifications through the Quality Council for Trades and Occupations (QCTO). These qualifications allow practitioners of Ministry to earn certification for their studies at NQF Levels 2 and 5. An interesting development to note is that the Centre is aligning several of its courses to the NQF Level 5 qualification, and is entering into a Memorandum of Understanding (MoU) to serve as an intermediary institution and training provider within the professional body context. As explained by the authors, this development creates opportunities for Christian Pastors and Ministers to find innovative learning pathways into undergraduate Higher Education options. The authors additionally highlight efforts to ensure synergies between the Centre's courses and postgraduate programmes in the Faculty of Theology. Reflecting on initiatives underway, it seems clear that the articulation arrangements in the Centre and developments through the ACRP, hold promise for further strengthening articulation in the area of Christian Ministry.

Paper 6, by Bolton, Govender and Matima, describes the articulation initiatives of the Gert Sibande TVET College and the Port Elizabeth (PE) TVET College. Gert Sibande College, has articulation arrangements with the University of South Africa (UNISA), and Tshwane University of Technology (TUT), which enable the articulation of students from the College into academic programmes at these Higher Education Institutions (HEIs). The 2013 MoU with UNISA enables Gert Sibande TVET College to offer the Higher Certificate in Accounting Sciences at NQF Level 5. Students register at UNISA but receive tuition at the College, with each institution receiving a particular percentage of the Department of Higher Education and Training (DHET) subsidy. Furthermore, it is noteworthy that the College's Skills Academy is accredited by the QCTO to function as a Trade Test Centre for Electrical, Fitting, Welding, and Plumbing, for the National Artisan Moderation Body (NAMB), and for Bricklaying and Carpentry for the Construction Education and Training Authority (CETA). As reported by the authors, the College has signed Site Level Agreements (SLAs) with the Energy and Water Sector Education and Training Authority (EWSETA) and the Manufacturing, Engineering and Related

SETA (MERSETA) for the articulation of College graduates into Artisan Development Programmes. Apart from some challenges, Gert Sibande College has enjoyed some particular articulation successes – which the authors elaborate in the paper. On the other hand, the PE TVET College has an MoU with UNISA, which enables the College to offer the NQF Level 5 Higher Certificate in Banking, and the Higher Certificate in Accounting Science. Furthermore, this College pays particular attention to facilitating access to the College, for learners from Community Education and Training Centres (CETCs), and provides support for College students who want to pursue Higher Education after their College studies. Reflecting on the experience of both Colleges, it is evident that the successful and supportive articulation arrangements that these Colleges have with UNISA, amongst other diverse College articulation activities, augur well for the continued strengthening and promotion of articulation.

In **Paper 7**, Wickham focuses on the role of the Cape Higher Education Consortium (CHEC) in articulation initiatives in the Western Cape Province. She introduces us to CHEC's role in promoting collaboration amongst the four public HEIs in the Western Cape, and points to the facilitating and coordinating role of CHEC. It is explained that CHEC has adopted the 'community of practice model', which aims to bring practitioners together to engage with each other – with a view to discussing, planning and operationalising various initiatives to achieve CHEC's mission and vision. For this work, CHEC encourages the sharing of ideas and practices across all of the HEIs in the Western Cape. These dialogues have, amongst other things, provided opportunities to discuss shared concerns and identified possible areas for collaborative projects – and in these dialogues, the issue of articulation has strongly featured as a key initiative. The National Certificate: Vocational (NCV) Programme in Public Health is a particular example of one of the initiatives, which is elaborated in the paper. This initiative resulted in alignment between the NCV Public Health programmes offered at various TVET Colleges in the Province, and the criteria for and content of, the Higher Certificate in Disability Practice offered at the University of Cape Town (UCT) – with some College students enrolling for the UCT programme in 2016 and 2017. It would be interesting to keep abreast of developments in this area and see trends over time. Wickham, amongst other key lessons described, draws attention to the importance of planning learning and career pathways with articulation opportunities *ahead* of programme implementation – rather than *after*. Infusing articulation considerations into the design and development of curricula is an ongoing topic of debate and discussion at relevant NQF fora – and in our view, this matter should continue to be foregrounded. CHEC's 'dual-track project' is

an exciting new development – and it will be interesting to hear more about this project in the near future.

Paper 8 is the first of two international papers providing relevant international insights into articulation. In this paper, Ananiadou, Field and Chakroun examine three types of learning pathways: (a) from initial TVET into post-secondary/Higher Education; (b) from post-secondary, short-cycle TVET into Higher Education; and (c) from the labour market, formal or informal, (back) into education or training. Within the context of describing various challenges and measures in place to address these transitions, the paper highlights the importance of promoting transparency in individual programmes, and their learning outcomes – and points to NQFs as one such tool that is gaining increasing popularity among various countries. It is reported that over 150 countries are currently in the process of developing an NQF – a stark indication of the growth in NQFs across the world. The authors point out that only some frameworks include both general and TVET qualifications at all levels – and this, in our view, is worth noting as part of monitoring future developments in NQFs across the world. The paper also points to credit transfer arrangements, Recognition of Prior Learning (RPL), and quality career guidance as other tools which promote transparency. The paper highlights the importance of building ‘bridges’ to post-secondary education, where for example, some countries or institutions have introduced ‘bridging’ programmes or hybrid tracks that allow students to complete TVET and general qualifications at the same time, thus enabling their access to post-secondary education. CHEC’s emerging ‘dual track’ initiative mentioned in Paper 7 may mirror this practice in some ways. The practice equips TVET graduates for post-secondary education. In terms of ‘filling the gaps’ in post-secondary provision, Paper 8 draws attention to, amongst other things, the importance of post-secondary institutions providing flexible study options such as part-time, modular or evening courses, or harnessing various technologies to enable distance education provision. Several studies in South Africa also underscore this point. In discussing various policy implications, the authors highlight, amongst other things, the importance of having an equitable and high-quality TVET system – and emphasise the latter as a pre-requisite for effective learning pathways.

Paper 9, by Rein, rounds off the Bulletin by highlighting articulation in Education and Training in the Federal Republic of Germany. It provides an overview of trends in German Education, and the legal requirements for articulation in vocational and academic education, and describes conceptual and instrumental developments that promote

the comparability and articulation of learning achievements. Rein elaborates on credit transfer in Vocational Education and Training (VET), and discusses the 'DECVET' pilot initiative, which aims to improve mobility between the sub-systems of VET through credit transfer procedures. He highlights five structural elements of DECVET, one of which is the development of articulation systems, and discusses the establishment of equivalences and the recording and evaluation of learning outcomes in competence assessment procedures. Regarding the latter, Rein draws from experiences across all of the DECVET pilot schemes, which point towards combining different assessment methods to ensure that examination results achieved are deeply meaningful. The paper also discusses the articulation of occupational competencies to Higher Education, and draws our attention to the 'ANKOM articulation initiative' – which has resulted in the development of 'general articulation procedures', 'individual articulation procedures' and 'combined credit procedures' – all of which are explained in more detail by Rein. It is noted that the suitability of the different articulation procedures depends on the requirements of their specific application purposes.

The **intention** is that the papers in this Bulletin will contribute to a deepening of the understandings of articulation, and to articulation conversations and practices, and the expansion of articulation initiatives. It is hoped that readers of the Bulletin will find the papers useful, and draw on the insights and experiences shared, towards further strengthening and promoting articulation in education, training and work.

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DR HEIDI BOLTON

Dr Heidi Bolton is the Research Director at the South African Qualifications Authority (SAQA). Her responsibilities include SAQA's long-term Research Partnerships for National Qualifications Framework (NQF) implementation and further development in South Africa, and assessing the impact of the NQF; research-related development work, and research capacity development in the NQF system. She has overseen seven long-term SAQA

Research Partnership projects that focused on assessment, the Recognition of Prior Learning (RPL), work and learning pathways for sustainable development, Technical and Vocational Education and Training (TVET) College lecturers, Lifelong Learning, learning pathways, and articulation between TVET, Higher Education, and work, respectively. Her work has included overseeing and co-researching SAQA's 2014 and 2017 NQF Impact Studies, and leading or co-developing policy for assessment, RPL and Credit Accumulation and Transfer (CAT), amongst others. Dr Bolton was previously Senior Researcher at Umalusi. She led Umalusi's 2008 Maintaining Standards project – research which compared standards in the transition from the old pre-democracy system with its Senior Certificate (matric exams) to the first National Senior Certificate (NSC) exams linked to the new outcomes based National Curriculum Statements. The analytical tools from this project continue to be used in Umalusi's Maintaining Standards research, which includes academic and vocational curriculum analyses. Dr Bolton has also worked as a publisher of school and TVET textbooks; lectured curriculum theory, and previously taught school and adult learners for many years. She holds a PhD in the Sociology of Education from the University of Cape Town (UCT) in South Africa. She can be contacted via hbolton@saqa.co.za or saqaresearch@gmail.com or +21(0)84 869 5678.

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DR BORHENE CHAKROUN

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Development Specialist. He is now Head of the section in charge of Technical and Vocational Education and Training (TVET) at the United Nations Educational, Scientific, and Cultural Organisation (UNESCO). He has conducted a range of policy reviews and skills systems diagnoses in different contexts. He has authored and co-authored various articles and books in the field of skills development. Much of his most recent work focuses on global trends in reforming skills systems, and the global agenda for skills development in the context of the 2030 Sustainable Development Agenda. He can be contacted via b.chakroun@unesco.org

MS YURASHA CHETTY

Ms Yuraisha Chetty has worked in various capacities in the field of Higher Education since 2001. Her key involvement has been in the area of institutional research, a specific area of Higher Education management aimed at providing evidence-based support to guide and inform the operational and strategic planning of universities towards institutional effectiveness. Work undertaken focused on the core university functions of teaching and learning, and research, and involved qualitative and quantitative research, analysis and report writing; research proposals; environmental scanning; briefing reports; policy analysis; and benchmarking studies, amongst other activities. She worked in a senior capacity at the University of the Witwatersrand (WITS) for eight years in the Institutional Research Unit of the Strategic Planning Division, before joining the University of South Africa (UNISA) as the Director of Institutional Research, a post she held for seven years. Ms Chetty worked as an independent consultant with Neil Butcher and Associates for almost a year, primarily working on a large-scale and internationally funded quality assurance project involving public and private Higher Education Institutions in the Southern African Development Community (SADC) region. She is currently the Deputy Director for Research at SAQA. In this capacity, she is involved in, amongst other things, providing high-level research support for SAQA's research projects and events towards National Qualifications Framework (NQF) implementation and further development in South Africa, and assessing the impact of this NQF – and is involved in research-related development work, and research capacity development in the NQF system. Ms Chetty has published accredited articles and book chapters and serves as a reviewer for some journals. She can be contacted via YChetty@saqa.co.za

PROFESSOR STEPHAN DE BEER

Professor Stephan de Beer is Director of the Centre for Contextual Ministry in the Faculty of Theology at the University of Pretoria (UP) and teaches Diaconate and Community Development in the Department of Practical Theology. As an urban Theologian, his passion is to reimagine Theological education and formation that will foster a generation of African urban leaders committed to flourishing cities. He works extensively in the interface of the academy, church and society, connecting faith to local issues of social justice. Stephan can be contacted via stephan.debeer@up.ac.za and +27(0)12 420 2000.

DR SIMON FIELD

Dr Simon Field is a leading expert on the comparative analysis of country skills systems. Over the last two years, as an independent consultant, he has been working with the Organisation for Economic Cooperation and Development (OECD), the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the International Labour Organisation (ILO), the Gatsby Foundation, and other bodies. As the leader of the OECD's flagship programme of work on VET over a decade, he led reviews of skills policy in more than 25 countries throughout the world, and was the lead author of the OECD's two main publications on VET policy (*Skills beyond School*, and *Learning for Jobs*), as well as many country reviews. He was also the lead author of the OECD's report on equity – *No More Failures*. He holds a PhD in Philosophy and Social Policy from the University of Cambridge, and an M Sc in Economics from Birkbeck College, London. He was born and brought up in Belfast in Northern Ireland. He can be contacted via simonfield100@gmail.com

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MR NEELAN GOVENDER

Mr Neelan Govender is the Acting Deputy Principal: Academics at Gert Sibande TVET College. He joined the College in 2004 and has served as a Lecturer, Education Specialist, and Senior Education Specialist. From 2010-2018 he served as Campus Manager at the Standerton Campus of the College. In March 2018 he was appointed as Acting Deputy Principal: Academics. He can be contacted via neelan@gscollege.co.za and +27(0)82 0888 659.

PROFESSOR NOKUTHULA W. KUNENE

Professor Nokuthula Kunene is currently the Dean of the Faculty of Science and Agriculture at the University of Zululand. Professor Kunene has worked as a teacher and also as a Livestock Specialist assisting rural farmers in improving the production of their farm animals. She studied towards her PhD at the University of KwaZulu-Natal; her area of specialisation is in Animal Breeding and Genetics. Professor Kunene has been involved in research into characterising indigenous animals, indigenous poultry, Nguni cattle, and Nguni sheep. As Dean, Professor Kunene has found student development to be one of the most important objectives for the University of Zululand. She has been working on trying to improve the graduate attributes of students by engaging in various co-curriculum activities and workshops. Professor Kunene plans to continue with this project until a culture of informed graduates has been created in the Faculty. She can be contacted via KuneneN@unizulu.ac.za or 035-902-6648.

PROFESSOR DARREN LORTAN

Professor Darren Lortan is the Head of Department of Mathematics at the Durban University of Technology (DUT). He has worked with the TVET sector since 2004 as Project Co-ordinator of the TVET/Higher Education Regional Articulation Project, which was completed in collaboration with the Bronx Community College (United States of America), and was funded by the Ford Foundation (2004-2012). He is the principal investigator in the SAQA-DUT Articulation Research Partnership (2016-2020). He oversees the Local Hub of the Knowledge for Change Consortium, an initiative of the UNESCO Chair in Community Based Research and Social Responsibility in Higher Education, and is a member of the Board of the International Association for Research

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PROFESSOR MNCEDISI C. MAPHALALA

Professor Mncedisi Maphalala is the Dean in the Faculty of Education at the University of Zululand. He taught for ten years in two different schools serving as Head of Department, and Deputy Principal. He previously worked at the University of the Witwatersrand (WITS) as an institutional researcher in the Strategic Planning Division, and the University of South Africa (UNISA) as Associate Professor. He was Visiting Scholar at the College of Education at the University of North Dakota in the United States of America. Professor Maphalala is an established researcher who has edited two books and two journal special issues, and published 17 book chapters, and 21 research articles, in accredited journals. Professor Maphalala has presented research papers at various local conferences as well as international conferences such as those in Hawaii, Austria, Hong Kong, India, Namibia, Kenya and Botswana. His research interests include curriculum studies, the assessment of learning, teaching practice, and the Scholarship of Teaching and Learning. He currently serves as the Deputy President of the Southern African Society for Education (SASE) which has organised annual conferences in Southern African Development Community (SADC) countries since 1971. As a postgraduate supervisor and mentor, he has supervised to completion, four Masters and five Doctoral candidates. As an academic citizen, Professor Maphalala has participated in a number of academic activities outside the University as an external examiner, conference session chair, panelist in academic discourses, National Research Foundation (NRF) reviewer, and keynote speaker. In addition, he has conducted a number of large scale commissioned research projects for external organisations such as the South African Institute of Distance Education (SAIDE), and the Human Sciences Research Council (HSRC). Professor Maphalala was recently appointed to serve on Umalusi's Research Forum, a Sub-Committee of the Umalusi Council. He can be contacted via MaphalalaM@unizulu.ac.za or +27(0)35-902-6348/3347.

MR ANDREW MATIMA

Mr Andrew Matima is the Articulation Co-ordinator at Port Elizabeth Technical and Vocational Education and Training (TVET) College. He is also the Head of Department

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MR NKABANE E.I. MOKHELE

Mr Nkabane Mokhele is the Head and Deputy Director: Quality Enhancement at the Central University of Technology (CUT) in the Free State Province of South Africa. Quality Enhancement (QE) is a unit within the broader Institutional Planning and Quality Enhancement Section (IPQE). CUT's IPQE section falls under the Deputy Vice Chancellor who is responsible for teaching and learning. As part of the institutional support, the QE unit is mainly responsible for internal academic programme audits, and supporting divisional reviews. The unit also takes a lead in the quality assurance of programme accreditation. For programme accreditation, the unit works hand-in-hand with the Curriculum Unit, which falls under Centre for Innovation, Learning and Teaching (CILT). All programme accreditation processes are recorded and implemented by the Academic Administration (AA) section which falls under the leadership of the University Registrar. The AA ensures the maintenance of the academic structures, and the implementation of the approved Programme and Qualification Mix (PQM). The CUT paper in this Bulletin was compiled in consultation with the Deans of the Faculties; their inputs were mainly based on the implementation of the Memorandum of Agreement (MoA) with the Technical and Vocational Education and Training (TVET) Colleges in the Free State Province of South Africa, and on reports from the Advisory Committees and the Task Teams established as part of the MoA between CUT and the Colleges. Mr Mokhele can be contacted via nmokhele@cut.ac.za, or +27(0)51 507 3054, or +27(0)83 2444 250.

PROFESSOR ANTONIA T. NZAMA

Professor Antonia Nzama is currently the Acting Dean of the Faculty of Arts at the University of Zululand. She has extensive experience in teaching at a tertiary institution. She joined the University of Zululand in 1990 as a lecturer in the Department of Curriculum studies, in the Faculty of Education. She later joined the Faculty of Arts, where she continued as Lecturer, Senior Lecturer and Head of Department: Recreation and Tourism. Her activities included, amongst others, teaching at both undergraduate and postgraduate levels, as well as supervising Masters and Doctoral Degree students. She later became Deputy Dean for Teaching and Learning in the Faculty of Arts where she now serves as an Acting Dean. She can be contacted via NzamaA@unizulu.ac.za or +27(0)35-902-6720.

DR VOLKER REIN

Dr Volker Rein is an education specialist in education and training system policy development, including for the skills requirements in Germany, the European Union (EU) and the United States of America (USA). On behalf of the German Federal Ministry of Education and Research (BMBF) he is working as a Senior Research Associate in the Department of Professional Learning and Teaching at the Federal Institute for Vocational Education and Training (BIBB) in Bonn, Germany.

Dr Rein has long-term experience in research and development work, as well as in advisory work on competence-oriented qualification standards and transparency instruments (qualifications frameworks [QFs], Recognition of Prior Learning [RPL], credit transfer, *etcetera*) in Germany and in the European Union. In this regard Dr Rein has been involved in the implementation of the Bologna Framework (European Higher Education Area [EHEA]) at university level (Free University Berlin) and in the development and testing of the German and the European Qualifications Frameworks for Lifelong Learning (in terms of formal, non-formal and informal learning outcomes) since 2004. He represented the BMBF in the European Qualifications Framework Advisory Group and in the Expert Cluster 'Recognition on Learning Outcomes' at the European Commission. In this field his special focus in research and development has been on the intersection of, and the compatibility potential between, Vocational Education and Training (VET) and Higher Education, with reference to competence and proficiency. In this respect he has contributed to the European Centre for the Development of Vocational Training

(CEDEFOP) activities around the promotion of learning outcomes in the EU, and to the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) World Reference Levels, to connect regional qualifications frameworks globally. Dr Rein also advised the Lumina Foundation for Education in the development of the USA Degree Qualifications Profile for Higher Education in 2010-13, and contributed to the development of a Credentials Framework for the USA that addresses both degree and non-degree credentials in terms of the general construction and descriptor compatibility for VET and Higher Education credentials, in 2013-15. Prior to his work in education and training, Dr Rein worked as a social anthropological researcher and advisor in development programmes in Southern Africa and in Cape Verde. He holds PhD and MA Degrees in the Social Sciences from the Free University of Berlin. He can be contacted via rein@bibb.de

MR JOE SAMUELS

Mr Joe Samuels has been the Chief Executive Officer (CEO) of the South African Qualifications Authority (SAQA) since 1 March 2012. He holds a BSc (Hons) and an MPhil degree from the University of the Western Cape (UWC) in South Africa. He is a specialist in Educational Policy and Education Change, Qualifications Frameworks, Standards Setting, Quality Assurance, and Adult and Community Education. He has worked in a medical laboratory, as a teacher, and Physiology lecturer at UWC, and for 10 years before joining SAQA, as the Coordinator of Continuing Education Programmes at the Centre for Adult and Continuing Education (CACE) at UWC. He was the Director for Standards Setting and Development at SAQA before being promoted to the position of Deputy Executive Officer, a position he held for seven years before being promoted to the CEO position. He has been working at SAQA for the past 21 years.

Mr Samuels has organised and participated in many national and international seminars and conferences where he has delivered various papers *inter alia* on National Qualifications Frameworks (NQF), the generation of qualifications and standards, quality assurance in education and training, the integration of education and training, human rights and the NQF, and NQFs in the Southern African Development Community (SADC) region, on the African continent, and globally. Recently he served as the chairperson of the United Nations Educational, Scientific, and Cultural Organisation (UNESCO) Drafting Team for the Addis Convention, a document on the recognition of foreign qualifications

that allows for the movement of learners, academics and workers across borders, that was adopted by 54 African States in December 2014. He served as an Expert on the UNESCO Panel of Experts for development of the Global Convention for the Recognition of Qualifications in Higher Education and for Level Descriptors.

Mr Samuels serves on the councils of the Council on Higher Education (CHE), the Quality Council for Trades and Occupations (QCTO), Umalusi: Council for Quality Assurance in General and Further Education and Training, the National Skills Authority (NSA), and the board of SAQA. He has served on various committees and task teams including those for the Recognition of Prior Learning (RPL), Worker Education, and others. He is the Deputy Chairperson of the UWC Alumni Association in the Gauteng province. He can be contacted via jsamuels@saqa.co.za

PROFESSOR SANDILE P. SONGCA

Professor Sandile Songca is currently the Deputy Vice Chancellor: Teaching and Learning at the University of KwaZulu-Natal (UKZN). He served as Deputy Vice Chancellor: Teaching and Learning at the University of Zululand (UNIZULU) between 2016-2018. He previously served at Walter Sisulu University (WSU) as Deputy Vice Chancellor: Academic Affairs and Research, and prior to that, he was Executive Dean: Science, Engineering and Technology at Walter Sisulu University. He is a board member of the Eastern Cape Information Technology Initiative (ECITI). He has a PhD Degree in Inorganic Chemistry with a medicinal slant, from Queen Mary and Westfield College, University of London, and has extensive experience in this area, spanning over 20 years. He is a full Professor and his research interests are Amphiphilic Porphyrins for Photodynamic Therapy, Nanotechnology, Superparamagnetic Iron Oxide-Gold Core-Shell Nano-Particles, Instrumental Techniques, Laboratory in Science Teaching, and Human Geophagia. He has attracted more than R50 million in research grants, read over 70 conference papers, published over 60 articles, and supervised to graduation, 25 postgraduate students. He can be contacted via SongcaS@unizulu.ac.za or +27(0)35-902-6773.

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Acronyms

AA	Academic Administration
ACRP	Association of Christian Religious Practitioners
ADE	Advanced Diploma in Education
AGRISETA	Agricultural Sector Education Training Authority
APE	Accredited Prior Experience
APL	Accredited Prior Learning
BA	Bachelor of Arts
B Com	Bachelor of Commerce
B Ed	Bachelor of Education
BIBB	<i>Bundesinstitut für Berufsbildung</i> (Federal Institute for Vocational Education and Training, Federal Republic of Germany)
B Tech	Bachelor of Technology
BMBF	<i>Bundesministerium für Bildung und Forschung</i> (Federal Ministry of Education and Research, Federal Republic of Germany)
B Sc	Bachelor of Science
CACE	Centre for Adult and Continuing Education
CAO	Central Administration Office
CALICO	Cape Library Consortium
CAT	Credit Accumulation and Transfer
CATE	College of Advanced Technical Education
CCT	City of Cape Town
CEDEFOP	European Centre for the Development of Vocational Training
CEO	Chief Executive Officer
CERI	Centre for Educational Research and Innovation
CETA	Construction Education and Training Authority
CETC	Community Education and Training College
CHE	Council on Higher Education
CHEC	Cape Higher Education Consortium
CHIETA	Chemical Industries Education and Training Authority

CILT	Centre for Innovation, Learning and Teaching
CoE	Certificate of Evaluation
CPD	Continuing Professional Development
CPUT	Cape Peninsula University of Technology
CTA	Certificate in the Theory of Accounting
CUT	Central University of Technology
CYC	Child and Youth Care
DBE	Department of Basic Education
DCEO	Deputy Chief Executive Officer
DECVET	Credit Transfer in Vocational Education and Training (Federal Republic of Germany)
D Ed	Doctor of Education
DHET	Department of Higher Education and Training
DoE	Department of Education
DSD	Department of Social Development
DUT	Durban University of Technology
ECD	Early Childhood Development
ECITI	Eastern Cape Information Technology Initiative
EQF	European Qualifications Framework
ETF	European Training Foundation
EU	European Union
EWSETA	Energy and Water Sector Education and Training Authority
FET	Further Education and Training
FLTP	Flexible Learning and Teaching Provision
GFET	General and Further Education and Training
GFETQSF	General and Further Education and Training Qualifications Sub-Framework
GQF	German Qualifications Framework
HC	Higher Certificate
HEI	Higher Education Institution
HEICTA	Higher Education Information and Communication Technology Association
HEQC	Higher Education Quality Committee
HEQSF	Higher Education Qualifications Sub-Framework
HoD	Head of Department
HR	Human Resources

HSRC	Human Sciences Research Council
ICT	Information and Communication Technology
ILO	International Labour Organisation
IPQE	Institutional Planning and Quality Enhancement
ISCED	International Standard Classification of Education
ITSM	Information Technology Services Management
KMK	<i>Kultusministerkonferenz</i> (Ministers of Education and Cultural Affairs, Federal Republic of Germany)
LSSE	Lecturer Survey of Student Engagement
MEC	Member of the Executive Council
M Ed	Master of Education
MERSETA	Manufacturing, Engineering, and Related Services Sector Education and Training Authority
MHET	Minister of Higher Education and Training
MICT SETA	Media, Advertising, Information and Communication Technologies Sector Education and Training Authority
MIS	Management Information System
MoA	Memorandum of Agreement
MoU	Memorandum of Understanding
NAMB	National Artisan Moderation Body
NATED	National Accredited Technical Education
NBT	National Benchmark Test
NCV	National Certificate: Vocational
NDP	National Development Plan
NGO	Non-Governmental Organisation
NITA	National Industrial Training Authority
NLRD	National Learners' Records Database
NMU	Nelson Mandela University
NQF	National Qualifications Framework
NRF	National Research Foundation
NSA	National Skills Authority
NSC	National Senior Certificate
NSF	National Skills Fund
NSFAS	National Student Funding Aid Scheme
NWU	North West University
OECD	Organisation for Economic Cooperation and Development

OQSF	Occupational Qualifications Sub-Framework
PERSA	Programme for Emerging Researchers in South Africa
PE TVET	Port Elizabeth Technical and Vocational Education and Training College
PGCE	Postgraduate Certificate in Education
PGDE	Postgraduate Diploma in Education
PhD	Doctor of Philosophy
PLO	Publishing Liaison Office
PQM	Programme and Qualification Mix
PSET	Post-School Education and Training
QCTO	Quality Council for Trades and Occupations
QE	Quality Enhancement
RPL	Recognition of Prior Learning
RSA	Republic of South Africa
SADC	Southern African Development Community
SAICA	South African Institute of Chartered Accountants
SANRC	South African National Resource Centre
SAQA	South African Qualifications Authority
SASSE	South African Survey of Student Engagement
SETA	Sector Education and Training Authority
SLA	Service Level Agreement
SU	Stellenbosch University
TABEISA	Technical and Business Education Initiative for South Africa
TUT	Tshwane University of Technology
TVET	Technical and Vocational Education and Training
UCT	University of Cape Town
UJ	University of Johannesburg
UMALUSI	Council for Quality Assurance in General and Further Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNESCO-UIL	UNESCO Institute for Lifelong Learning
UNISA	University of South Africa
UNIZULU	University of Zululand
UoT	University of Technology
UP	University of Pretoria
USA	United States of America
UWC	University of the Western Cape

VAE	<i>Validation des acquis de l'expérience</i> (Recognition of Professional Experience, in France)
VET	Vocational Education and Training
VTE	Vocational and Technical Education
WBL	Work Based Learning
WCG	Western Cape Government
WEF	World Economic Forum
WIL	Work Integrated Learning
WITS	University of the Witwatersrand
WSU	Walter Sisulu University



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