THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY

Articulation Between
Technical and Vocational Education and Training (TVET) Colleges
and Higher Education Institutions (HEIs):
National Articulation Baseline Study Report

October 2017

SAQA
SOUTH AFRICAN QUALIFICATIONS AUTHORITY

ARTICULATION BETWEEN
TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING (TVET) COLLEGES
AND HIGHER EDUCATION INSTITUTIONS (HEIs)

NATIONAL ARTICULATION BASELINE STUDY REPORT

October 2017

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Executive Summary

1. BACKGROUND

Democratic South Africa inherited a racially segregated and unequal country. Different types of learning did not enjoy parity of esteem; qualifications were not necessarily linked to learning pathways. The South African National Qualifications Framework (NQF) was the means chosen to integrate the education and training system and to enable lifelong learning. The South African Qualifications Authority (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. 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 universities, to work. There are known transitioning barriers experienced by learners. SAQA set up the SAQA-Durban University of Technology (DUT) Research Partnership for: *Developing an understanding of the enablers of student transitioning between Technical and Vocation Education and Training (TVET) Colleges and HEIs and beyond[1]*, to investigate successful transitioning models that address the barriers.

National Policy for Articulation

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

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

The Articulation Policy sets out the legislative and regulatory framework for articulation for all institutions of learning in the country, and for South Africa's regional and international links. It supports *inter alia* 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 are aligned to these over-arching policies, and provide more detail regarding how the principles play out in the respective Sub-Framework contexts.

Current Understandings of Articulation

Articulation is currently understood in at least three ways.

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1 The words 'learner' and 'student' are used inter-changeably throughout this report. 'Learner' denotes anyone of any age engaged in learning; it is used in many NQF and progressive policies and texts in South Africa and internationally, and by many respondents in the National Articulation Baseline Study. 'Student' is often used to describe learners in TVET Colleges and HEI, and is also used by many respondents in the Study. An attempt has been made to use 'learner' as far as possible, but where respondents have used 'student', this has not been changed.

- 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 pathways[2]. 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)[3]; appropriate and timely career development advice, and the various types of support for learning needed in workplaces, amongst other aspects.

SAQA-DUT Partnership Research into Articulation

The SAQA-DUT project was designed to provide extensive information and evidence to support the implementation of the DHET's Draft Articulation Policy[4] and SAQA's NQF policy suite. It includes six 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 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) between UoTs and traditional universities, and (c) between Colleges or HEIs, into workplaces;
ii. identify and explore the potential for developing collaborative models in three types of articulation scenarios: 'developed', 'emerging' and 'latent'[5], 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.

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

3 Related articles showing how institutions can transform towards being increasingly flexible in order to support individual learning pathways (See for example Walters, 2015a; 2015b).

4 The DHET's National Policy for Articulation was promulgated in January 2017, after the survey data had been collected.

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

2. NATIONAL ARTICULATION BASELINE

The larger study of which the National Articulation Baseline survey is part combines five theoretical frameworks. The first is 'ecosystems theory' (Pillari, 2002); the second 'relational agency' (Edwards, 2010); 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 one hand, and Bhaskar's idea of identifying and 'absenting absences' on the other (Lotz-Sisitka, 2015).

National Articulation Baseline Survey Questions

Questionnaires were designed and customised 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 existing articulation arrangements associated with the institution;
   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 (transitioning) 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

The survey was conducted between August and December 2016. Given the time frame available, it was decided to focus on public entities: all 50 public TVET Colleges and all 26 public HEIs were included in the survey.

Distribution of the Survey, and Response Rates

For the HEIs, the survey instrument was emailed together with a formal invitation to participate, from SAQA's Chief Executive Officer, to the relevant Deputy Vice-Chancellors or Registrars. For the TVET Colleges, the survey questionnaires and invitation letters were emailed to the College Principals. Up to five follow-ups were made in each instance to enable the researchers to obtain the levels of clarity and detail needed. 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' and 'ecosystems' were also used.

Summary of National Articulation Baseline Survey Results and Reflections

Understandings of articulation

It was found that across the public HEI and TVET College sectors there are 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*. This absence needs to be addressed as a matter of urgency, especially in light of the 'new' 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' learning pathways.

Identifying existing articulation initiatives and success models

Around a third of the TVET Colleges reported on their existing formal articulation arrangements; half of the total number of Colleges is participating within informal arrangements (usually for links to workplaces) – these informal arrangements for some Colleges are in addition to formal arrangements – a seventh of the total number of Colleges is involved in a combination of formal and informal arrangements. Just under half of the HEIs surveyed are participating in formal articulation arrangements, and a quarter of the total number of HEIs is 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 models involving systemic and specific articulation, and the support of individual learners

At least three relatively large-scale articulation arrangements were found. All three were developed in response to provincial needs; all three involve the provincial governments concerned, and a range of learning institutions (and other entities in some cases). Each of these examples differs in terms of approach, scale, and purpose. Yet each gained traction, possibly as a consequence of turning articulation into a provincial priority. All three include *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 boundary-crossing activities in all three could potentially be replicated. The role-players involved identified the initiatives as being successful. In line with the confidentiality upheld in the research project, the entities involved are not named although they may choose to identify themselves in public forums in the near future.

Articulation models involving nodes of networked institutions (systemic and specific articulation), 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 create boundary-crossing zones.

Articulation champions

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

A second factor is the 'resourceful leadership' (Edwards, 2014) needed to forge collaborations across perceived divides. Cultivating such leaders and establishing more articulation structures should be made a requirement for enhancing the boundary-crossing needed for articulation.

The centrality of lifelong learners

In terms of what can be taken to scale, the first is a return to the centrality of the lifelong learners in articulation initiatives. In the marketing of articulation – the independent pathways of the transitioning learners and the supportive environments that enable these pathways must be placed in the foreground, as opposed to the institutions themselves being at the centre of marketing initiatives. Institutions of learning have 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. This positioning could ameliorate what is described as the 'epistemic injustice' experienced by learners by learners receiving institutional and other support in their learning and work journeys.

The tracking of learner transitioning

Just over half of the Colleges and just under a third of HEIs track learners. However, the information that is tracked differs 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, including pathways that involve learners stopping in and stopping out of education, training, development and work. This reporting needs to be integrated into current supporting systems and also reflect learner experiences of articulation. The specific roles for the information management systems of the National Learners' Records Database (NLRD), Higher Education Management Information System (HEMIS) and a future TVET Management Information System (TVETMIS).

'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 is 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 the institutions, their responses enabled the research team to categorise the initiatives in terms of these three articulation scenarios (see Table 1).

Table 1: Reported articulation as seen through the lens of the three types of articulation scenarios

Types of institutions	Developed articulation scenarios	Emerging articulation scenarios	Latent articulation scenarios	Not sure	Total numbers of articulation scenarios[6]
HEIs	8	9	7	1	**25**
TVET Colleges	8	29	13	0	**50**
Total numbers of articulation scenarios	16	38	20	1	75

Developed articulation scenarios reported by HEIs, and the mechanisms that support them

Eight of the articulation scenarios reported by the HEIs were categorised as being 'developed'. It is recommended that at least three of these initiatives could be taken to scale.

Ready-to-scale-up HEI-reported developed articulation scenario

One of the 'developed articulation scenarios' involves multiple partners that include a UoT, four TVET Colleges, the Provincial Education Department, and articulation between N4-6 qualifications and both the National Diploma and B Tech Degree (which would be replaced by the Advanced Diploma in future) in Engineering and Management respectively. Over 8 000 learners have transitioned successfully.

In this articulation scenario the collective effort on the part of all signatories to the Memorandum of Agreement (MoA) that forms the basis of the articulation arrangements between the parties, demonstrates inter-agency commitment to overcoming 'boundary-making practices' and thereby supporting 'boundary-crossing practices.' The large number of transitioning learners is indicative of a 'culture of articulation'. In addition this scenario describes the uncommon articulation from the National N Diploma[7] (awarded by TVET Colleges) to the B Tech degree (awarded by the UoT involved). This uncommon articulation arrangement illustrates the extent to which the various collaborating parties are reducing the gap between learning pathway-related policy development and implementation.

Second ready-to-scale-up HEI-reported developed articulation scenario

The second HEI-reported developed articulation scenario involves 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 Production, and a Bachelor Degree at NQF Level 7, as well as (ii) part-qualifications that are linked to full qualifications for government officials.

In this scenario, the role of the SETA as a broker of 'boundary-crossing practices' between the different elements of learning pathways in the NQF is exemplified. In this instance, the learning pathways traverse the workplace, an HEI and a TVET College. The 'boundary-crossing practices' adopted in transitioning

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6 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.

7 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.

along this pathway include deliberate opportunities for access to and progression along these pathways, and to some degree, Flexible Learning and Teaching Provision (FLTP)[8].

Third ready-to-scale-up HEI-reported developed articulation scenario

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 instance, the Higher Certificate qualification and the concomitant MoA between the comprehensive HEI and respective TVET Colleges constituted the 'boundary-crossing' mechanism, designed to address the 'boundary zone' that is the locus of numerous NQF Level 5 qualifications and also the inter-section of the three NQF Sub-Frameworks.

Developed articulation scenarios reported by TVET Colleges, and the mechanisms that support them

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 qualifications and entry to Trade Tests/access to artisan training. In these instances, MoAs formalised the articulation arrangements described between each of the Colleges and the partnering HEIs. In one of Colleges, one of the workplace initiatives was mediated through a formal agreement with a SETA, while in another agreement (at the same College) a formal arrangement is in existence between a dedicated Artisan Training and Development Centre and the College. The extent to which curricula are linked to workplace requirements was not clearly stipulated.

A third College reported successful articulation between the NCV and NATED courses respectively, and employment. Here, 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.

Taking developed articulation scenarios to scale

In all, articulated pathways were reported as follows:

 a. N4-6 qualifications → workplace (vertical articulation within NQF Sub-Framework);
 b. N4-6 qualifications → National Diploma[9] → workplace (vertical articulation within NQF Sub-Framework);
 c. N4-6 qualifications → National Diploma → Advanced Diploma → the workplace (vertical articulation across NQF Sub-Frameworks);
 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 (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 (diagonal articulation across NQF Sub-Frameworks);

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8 FLTP refers to flexibility in (a) admissions criteria, (b) curriculum design, (c) curriculum delivery, and (d) student support (see Walters, 2015b).

9 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 (diagonal articulation across NQF Sub-Frameworks followed by vertical articulation);
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 numerous articulation scenarios, the following are noteworthy as approaching the 'developed articulation scenario' stage and could be taken to scale:

- interdisciplinary Post-graduate 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'[10] for 'second chance learners'.

A comment on 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 have brokered were comparable to the HEI descriptions of their formal inter-institutional arrangements. Also, where formal arrangements exist and are being implemented, articulation and learner transitioning between qualifications are taking place, and thriving. Well-articulated arrangements appear 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 are part-qualifications that are parts of a full qualification. The linking of part to full qualifications *by design* creates a boundary-crossing mechanism which enables learners to exit upon completion of the part-qualifications, or to articulate into the full qualification through Credit Accumulation and Transfer (CAT) immediately or at a later stage, by making participation in the institution of learning flexible. One HEI's description of this practice constitutes a developed articulation scenario, while another describes articulation initiatives that are emerging.

Perceptions of the extent of success or otherwise, of articulation initiatives implemented

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'.

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10 Colloquial term used within the school.

The enablers of articulation (boundary-crossing mechanisms) identified

The following seven sets of enablers or boundary-crossing mechanisms were delineated. Fuller descriptions are provided in the body of the National Articulation Baseline Report.

- The **development of collaborative relationships** in order to (1) **understand** qualifications/pro-grammes/learners across institutions; (2) **respect** the motives of the different institutions and the purposes of the different qualifications/ programmes; (3) **design and align** curricula and programmes to facilitate transitioning; and (4) **advocate** different learning pathways and **advise** learners at early and key points, as to the subjects they require in order to follow these pathways. Alignment to the **Higher Education Qualifications Sub-Framework** (HEQSF) also assisted articulation efforts.

- The **roles played by entities** other than HEIs and TVET Colleges were significant. These other entities included private colleges, NGOs, provincial structures, and employers. The **provision of sufficient work placement opportunities** was of critical importance, as were **entrepreneurship** and **'intra-preneurship'**[11] **hubs**.

- The **establishment, commitment to, and implementation of, formal articulation agreements** – in the form of MoUs or MoAs, CAT arrangements, place reservation, RPL and other mechanisms.

- **Inclusive admission criteria** – including HEIs admitting learners with N4-6 and NCV4 as well as with National Senior Certificate (NSC) qualifications, providing Recognition of Prior Learning (RPL), and admitting learners without these NQF Level 4 qualifications when they are over 23 years of age.

- The **quality of teaching and learning**, and **learner achievement levels** – where the quality of provision includes a range of types of learner support, and the scaffolding of the content of learning within and between learning offerings.

- **Career development advice** from the very early stages of learning pathways, whether at school, TVET College, Community College, HEI or elsewhere – and wherever there are transition points.

- **Articulation focussed on** *particular* learning pathways/fields/transition points – such as transitioning between N4-6 programmes and cognate learning programmes in HEIs, and others. It was clear to the DUT research team that the survey responses indicated the importance of **keeping the NATED** qualifications in the qualifications/programme mix.

3. CONCLUDING COMMENTS AND RECOMMENDATIONS FOR THE WAY FORWARD

There is much to be gleaned from the responses to the survey questions. The survey results also point to areas that could lead to further and more in-depth investigations. Many of the articulation-related initiatives underway are commendable, and could be taken to scale. If articulation is to gain traction within the system for education, training, development and work, the sharing of current articulation-related knowledge and

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11 '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 occurring within the workplace (in-house context for the entrepreneurial activities). As each of these employees and their enterprises grow, a formal relationship evolves in which the enterprise becomes a supplier to the employer, or part of the employer's supply chain.

expertise in the system, and the sharing of key lessons learned, is imperative. Coordinating bodies such as Universities South Africa (USAf), the South African College Principals' Organisation (SACPO), the Association of Private Providers of Education, Training, and Development (APPETD), the Department of Trade and Industry (DTI), the Department of Labour (DoL) and SETAs – in addition to the DHET, Department of Basic Education (DBE), SAQA and the Quality Councils, need to be involved in taking to scale the successful pockets of developed articulation initiatives; supporting the emerging initiatives to become developed; and identifying and unblocking the barriers that are stalling the latent ones, while systematically embarking on new initiatives. The various role-players need to work as a collective to build trusting relational agency to identify barriers and create boundary-crossing zones within which effective boundary-crossing practices can take place.

There are seven recommendations from the National Articulation Baseline Study.

Recommendation 1

The first recommendation is for the key enablers of the successful '**developed articulation models' to be identified, further investigated, and documented**. Using a holistic approach that captures the whole 'ecology' of the initiative, including the boundary-crossing mechanisms and the relational agency supporting it and key lessons learned will become a lever upon which to catapult articulation practices more widely. The claims made and the extent of the successes reported by the respondents in the study will need to be verified. This work lies within SAQA's mandate, and SAQA should lead this work as part of its long-term research initiatives.

Recommendation 2

Secondly, given that a simultaneous, explicit, systematic focus on the three different *levels of articulation - systemic, specific, and individual* – in the rich forms expressed in the findings on the whole – have potential to strengthen the opportunities for learner progression – the awareness and understandings of (a) what articulation can comprise, (b) the boundary-crossing mechanisms and relational agencies that enable articulation, and (c) of existing articulation successes, need to be shared more widely across the system. It is recommended that **national learning events (for example research seminars/colloquia/ conferences) be convened to promote system-wide sharing and learning**. The leadership in public and private HEIs, TVET Colleges and schools, Community Colleges, Skills Development Providers, employers, NGOs, national, provincial, and local government structures and other entities need to be conscientised and energised regarding the roles they could play in enabling articulation initiatives. While hosting such events falls within SAQA's mandate, the DHET needs to recognise and publicise articulation success stories and enforce wider entity participation in its Implementation Plans for the White Paper for PSET, and the National Articulation Policy.

Recommendation 3

The third recommendation is that the Implementation Plans for the White Paper for PSET and National Articulation Policy, and Guidelines for Work Integrated Learning (WIL) and Work Based Learning (WBL) specifically provide for **articulation champions** to take articulation to scale, namely:

a. to establish **articulation champions** in the form of articulation offices, officers, or other mechanisms to build capacity in institutions of learning, and provide the necessary resources to support this

function. These champions in the form of structures/individuals/networks with leaders/other mechanisms could be responsible for some – if not all – of the elements of articulation, including RPL and CAT. Their functions could include work placements; advocating learning pathways; career development advice; providing the range of forms of learner support needed – including developing supportive systems across these functions in the institution – ensuring other functioning articulation (boundary-crossing) mechanisms, and reporting on articulation, RPL and CAT;

b. build capacity for **Work Integrated Learning (WIL)/Work Based Learning (WBL) coordinators**, which need to be a human resource requirement at TVET and Community Education and Training (CET) Colleges, as they are at UoTs. These WIL/WBL coordinators will essentially serve as 'boundary workers'; and

c. develop and sustain **entrepreneurship and 'intra-preneurship' hubs** across the system.

Recommendation 4

Fourth, design a campaign to **develop collaborative relationships and communities of practice both nationally and provincially.** While SAQA is well-placed to oversee the related developmental work, the DHET needs to enforce entity participation in the Implementation Plans for the White Paper for PSET, and national policies for Articulation, CAT, and Recognition of Prior Learning (RPL). The purpose of the relational agency (collaborative relationships) would be to enhance:

a. **understanding** of qualifications/programmes/learners **across institutions and across the NQF Sub-Frameworks**;

b. **respect** for the motives of the different institutions and the purposes of the different qualifications/ programme offerings;

c. the curriculum/programme **design and alignment work** needed to facilitate vertical, horizontal, and diagonal articulation in its various forms, as well as learner transitioning;

d. **joint advocacy** of different learning pathways and advice for learners at early and key transition points, as to the subjects required to follow these pathways; and

e. the establishment and incentivisation of, and development of commitment to, **articulation mechanisms** such as Memoranda of Agreement (MoA), Memoranda of Understanding (MoU), articulation committees, CAT arrangements, RPL, place reservation, and other formal agreements. It needs to be made clear that alignment to the HEQSF and Occupational Qualifications Sub-Framework (OQSF) workplace requirements could assist articulation work.

Recommendation 5

Fifth, advance the **collaborative models in the three types of articulation scenarios in systematic ways**. Developed articulation scenarios need to be taken to scale; emerging articulation scenarios need to be supported to further their development, and the blockages to latent articulation scenarios need to be identified and unblocked. Elements said by the respondents to contribute to articulation, such as the NQF Level 5 and other qualifications, should be prioritised. Development in the articulation scenario categories,

including of these articulation enablers, needs to feature in the Implementation Plans for the White Paper for PSET, and National Articulation Policy:

a. **developing and aligning institutional policies** with National Articulation Policy;

b. **aligning the programmes and curricula** in learning pathways;

c. **flexibility in** entry criteria (including HEIs admitting learners with N4-6 and NCV4 qualifications as well as with National Senior Certificate (NSC) qualifications, and providing RPL); and flexible administration, curriculum, and assessment systems;

d. **quality teaching and learning**, where the quality of provision includes a range of types of learner support, and scaffolding the content of learning within and between learning offerings;

e. an **emphasis on expanding work placements** including 'intra-preneurs'; and

f. **wide-scale information-sharing and advocacy** of the mechanisms that enable strong articulation initiatives (this advocacy work lies within SAQA's mandate).

Recommendation 6

Sixth, **a focus on particular learning pathways/fields/transition points** – such as transitioning between N4-6 programmes and cognate learning programmes in HEIs, NQF Level 5 qualifications which intersect across all three NQF Sub-Frameworks, and selected professional qualifications that intersect across the OQSF and the HEQSF. The findings of the National Articulation Baseline Study point to the need to revisit the intention to phase out the NATED qualifications in the qualifications/programme mix. It is recommended that these foci be included in the Implementation Plans for the White Paper for PSET, and National Articulation Policy.

Recommendation 7

Seventh, develop **systematic reporting requirements and guidelines for institutions to track and report on articulation practices** - at national level - in order to facilitate common understandings around tracking and consistent articulation-related reporting across the system. Learners' identity numbers could be utilised for this tracking, to enable tracer studies. Existing reporting systems need to be upgraded to include information relating to articulation, RPL, and CAT. Reporting criteria could include reporting in the different categories of boundary-crossing mechanisms. There are also tracking-related roles for the NLRD, HEMIS, and TVETMIS.

Articulation between Technical and Vocational Education and Training (TVET) Colleges and Higher Educational Institutions (HEIs): A National Articulation Baseline Study

1. BACKGROUND

Democratic South Africa inherited a racially segregated and unequal country. Different types of learning did not enjoy parity of esteem; qualifications were not necessarily linked to learning pathways. The South African National Qualifications Framework (NQF) was the means chosen to integrate the education and training system and to enable lifelong learning. The South African Qualifications Authority (SAQA) is mandated to oversee the implementation and further development of the NQF, and conducts research to support this work. SAQA's Research Directorate is a relatively small unit which expands 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. 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 universities, to work. There are known transitioning barriers – between Technical and Vocational Education and Training (TVET) Colleges and Universities of Technology (UoTs); between UoTs and traditional universities; and between UoTs and workplaces. SAQA has set up a long-term Research Partnership with the Durban University of Technology (DUT) *Developing understanding of the enablers of student transitioning between TVET Colleges and Higher Education Institutions and beyond*[12], to investigate good practice transitioning models that address these barriers.

National Policy for Articulation

The Department of Higher Education and Training (DHET) recently gazetted the Articulation Policy for the PSET system in South Africa (RSA, 2017). This policy provides the principles and over-arching guidelines to support the implementation of credible approaches to articulation within PSET and between PSET and workplaces, and outlines the roles and responsibilities of the DHET, SAQA, the Quality Councils[13], and providers of education and training; it also includes the professional bodies.

The policy creates an enabling environment to ensure *inter alia* that:

- articulation occurs within and between the three NQF Sub-Frameworks;

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12 The words 'learner' and 'student' are used inter-changeably throughout this report. 'Learner' denotes anyone of any age engaged in learning; it is used in many NQF and progressive policies and texts in South Africa and internationally, and by many respondents in the National Articulation Baseline Study. 'Student' is often used to describe learners in TVET Colleges and HEI, and is also used by many respondents in the Study. An attempt has been made to use 'learner' as far as possible, but where respondents have used 'student', this has not been changed.

13 There are three Quality Councils, namely the Council on Higher Education (CHE) which oversees the Higher Education Qualifications Sub-Framework (HEQSF), the Quality Council for Trades and Occupations (QCTO) which oversees the Occupational Qualifications Sub-Framework (OQSF), and Umalusi, Council for Quality Assurance in General and Further Education and Training, which oversees the General and Further Education and Training Qualifications Sub-Framework (GFETQSF). SAQA oversees inter alia the implementation and further development of the NQF, and coordinates the three NQF Sub-Frameworks.

- institutions work together to develop learning and work pathways; and
- support is provided for learners as they follow their individual learning and work pathways.

The Articulation Policy further sets out the legislative and regulatory framework for articulation for all institutions of learning in the country. Its scope includes all government departments and entities, education and training institutions, professional bodies, and workplaces in South Africa as well as the country's regional and international links. It acknowledges the cluster of policies and other documents on which it drew, and which it seeks to support, including the following:

- the National Qualifications Framework (NQF) Act No. 67 of 2008;
- the Report of the Ministerial Committee on Articulation Policy;
- SAQA Principles of Articulation;
- the White Paper for Post-School Education and Training;
- the Draft Research Report on Workplace-Based Learning;
- the National Development Plan (NDP); and
- the 2014 Addis Convention.

The Articulation Policy is further informed by, and operates alongside, the SAQA policies for:

- Level Descriptors for the South African National Qualifications Framework;
- Policy and Criteria for the Registration of Qualifications and Part-Qualifications on the National Qualifications Framework;
- Policy and Criteria for Recognising a Professional Body and Registering a Professional Designation for the Purposes of the National Qualifications Framework;
- Policy for Implementing Recognition of Prior Learning (RPL) in the Context of the NQF;
- Credit Accumulation and Transfer (CAT) within the National Qualifications Framework;
- National Policy and Criteria for Designing and Implementing Assessment for NQF Qualifications and Part-Qualifications and Professional Designations in South Africa;
- Policy for the Evaluation of Foreign Qualifications; and
- Policy for the Misrepresentation of Qualifications.

The Quality Councils' counterpart policies for their Sub-Framework contexts are aligned to these over-arching policies, and provide more detail regarding how the principles play out in the respective Sub-Framework contexts. The Articulation Policy also strengthens the enabling context for the quality assurance and transparency-related work currently being done by SAQA and the Quality Councils.

Current Understandings of Articulation

Articulation is currently understood in at least three ways. While these understandings were used to categorise the responses in the National Articulation Baseline, it was also expected that the Baseline responses would help to flesh out these understandings.

- 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 pathways[14]. 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)[15]; appropriate and timely career development advice, and the various types of support for learning needed in workplaces, amongst other aspects.

SAQA-DUT Partnership Research Into Articulation

The SAQA-DUT project was designed to provide extensive information and evidence to support the implementation of the DHET's articulation policy development. It includes inter alia six in-depth case studies, the development of a National Articulation Baseline, and the actual development of 'relational agency' (Edwards, 2014) needed for strengthening articulation networks, and articulation, across the system.

The research attempts to answer the following broad question: 'What good practice models exist in South Africa for learner transitioning between TVET Colleges and HEIs, between UoTs and traditional universities, and between Colleges or HEIs, and workplaces? Why are these models successful? How can they be taken to scale?' The project seeks to:

i.   identify, analyse and document good practice models and relationships for learner transitioning between (a) TVET Colleges and HEIs, (b) between UoTs and traditional universities, and (c) between Colleges or HEIs, into workplaces;
ii. identify and explore the potential for developing collaborative models in three types of articulation scenarios: developed, emerging and latent[16], 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.

It was imperative to establish the National Articulation Baseline, in order to obtain a clear picture of developments that are already underway, in order to support and expand these initiatives. Prior to the National Articulation Baseline, reports of successful articulation initiatives across most of the provinces in the country had been presented at various fora, but in most cases these developments had been presented as isolated case studies, or discussed anecdotally. However, it was known that several challenges had been addressed innovatively, and that some of the work had been very successful. It was important to identify the nature and the scale of this work, in order to build on it.

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

15 Related articles showing how institutions can transform towards being increasingly flexible in order to support individual learning pathways (See for example Walters, 2015a; 2015b).

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

National Articulation Baseline

Theoretical framework and approach

The larger study of which the National Articulation Baseline survey is part combines four theoretical frameworks. The first of these frameworks is 'ecosystems/Ecological Systems Theory' (Pillari, 2002). The second set of ideas relates to the concept of 'relational agency' (Edwards, 2010), and the third, to 'Grounded Theory' (Charmaz, 2006; De Vos, 2002). The fourth comprises the ideas of boundary-making, boundary zones, boundary-crossing, and individuals' experiences of boundaries, together with Bhaskar's idea of identifying and 'absenting absences' in this case, in learning pathways (Lotz-Sisitka, 2015). The approach adopted in the study – was that of 'action learning research' (Zuber-Skerritt, 2001).

National Articulation Baseline Survey

Two questionnaires were designed and customised for the public HEI and TVET College groups respectively. The questions sought to:

i.   explore the understandings of articulation in the institution concerned;
ii. obtain descriptions of the nature of articulation arrangements within the institution, and between it and other entities;
iii. obtain descriptions of the management of these articulation arrangements, including the identification and management of the associated challenges (boundary-making/ boundary zones);
iv. capture the extent and nature of the successes and enablers of articulation experienced by the institution (boundary-crossing/ addressing boundaries); and
v.   determine the extent to which the tracking of learner movements into, through, and out of, the institutions (transitioning) was taking place.

The institutions were asked to identify and provide any supporting documentation they were able to share, where this existed, as well as learner data in the instances where learner movements were tracked. Lastly, institutions were asked to indicate whether or not they were willing to write up, or co-write, their articulation-related successes.

Sampling

The survey was conducted between August and December 2016. Given the over-arching period allocated for the SAQA-DUT articulation research, and the limited time period available for the National Articulation Baseline Study, it was decided to focus on public entities for the Baseline, and as wide as possible a range of public and private HEIs and colleges; Non-Governmental Organisations (NGOs); employers and others, for the six in-depth case studies. All 50 public TVET Colleges and all 26 public HEIs were thus included in the National Articulation Baseline Study.

Distribution of the survey, and response rates

For the HEIs, the survey instrument was emailed together with a formal invitation to participate, from SAQA's Chief Executive Officer, to the relevant Deputy Vice-Chancellors or Registrars. For the TVET Colleges, the survey questionnaires and invitation letters were emailed to the College Principals. It was necessary to ensure that the highest academic office at each institution dealt with the survey, or delegated

it to an appropriate person, recognised to be responsible for articulation arrangements at the respective institutions, in order to obtain the detailed information needed.

Follow-ups were conducted to ensure that the information provided in each questionnaire was complete and clear; up to five follow-ups were made in each instance to enable the researchers to obtain the levels of clarity and detail needed. The follow-up and participatory research methods employed, and the general willingness to participate in articulation across the board contributed to an unusually high response rate. Forty-nine (98%) of the 50 public TVET Colleges submitted completed surveys, and 25 (98%) of the 26 public HEIs also did so.

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 (barriers) and enabled boundary-crossing and learner transitioning (articulation). The ideas of 'relational agency' and 'ecosystems' were also useful in the analysis (See Section 2 below for more detail).

Structure of this Report

This report presents the results of the National Articulation Baseline Study. Section 1 has sketched the background to the research. Section 2 provides more specific detail regarding the research problem investigated, and the theoretical approach followed. Section 3 presents the methodology, research design, and sampling. Section 4 expands on the approach followed in the analysis. Section 5 presents the results and analysis of the results, while Section 6 reflects on these aspects. Section 7 provides concluding comments and recommendations, and Sections 8, 9 and 10, the references, appendices, and acronyms respectively.

2. THE CHALLENGES INVESTIGATED

Articulation within and between education, training, development and work is a national imperative that features consistently in the related legislation. The goal of strengthening relationships between education and training institutions and between these institutions and workplaces is clearly laid out in the White Paper for Post-School Education and Training (MHET, 2013). However, widespread implementation of legislative imperatives by institutions and workplaces is needed. A number of boundary zones exist across the field, and notwithstanding legislative gains, boundary-making practices persist.

Regarding attempts to strengthen articulation between the TVET Colleges and HEIs, and between both of these types of institutions and workplaces, the Human Resource Development Council for South Africa (HRDCSA, 2014:4) states that: "TVET Colleges are currently grappling with a number of challenges. Where pathways are concerned, some of the specific challenges include:

- a lack of clarity regarding the existing pathways, in respect of:
  - entry routes (into a College); and
  - exit routes (out of a College), whether it be to higher learning, employment or self-employment.

- inadequate articulation between qualifications as well as programmes, which span more than one NQF Sub-Framework, which leads to dead ends for learners.

- The programmes and qualifications in the Colleges are currently considered to be too complex to administer, difficult to understand and often poorly quality-assured. It is believed that a review of all programmes is required."

Although these boundaries, boundary zones, and boundary-making practices are prevalent, there are, however, a number of articulation arrangements amongst TVET colleges, HEIs, and workplaces, that are being implemented effectively (HRDCSA, 2014). The present investigation seeks to understand the mitigating factors (boundary-crossing activities and initiatives, including boundary-crossing mechanisms) that promote such good practice/articulated learning pathways where these exist. Good practice articulation models for learner transitioning within and between TVET Colleges, HEIs, and workplaces are explored in the current research, to determine why these models are successful and how they may be taken to scale.

As noted in Section 1, the National Articulation Baseline Survey specifically set out to:

- explore the understandings of articulation in the institution;
- obtain descriptions of existing articulation arrangements associated with the institution;
- obtain descriptions of the management of these articulation arrangements, and challenges (boundary-making/ boundary zones);
- capture the extent and nature of the successes and enablers of articulation experienced (boundary-crossing/ addressing boundaries);
- determine the extent to which the tracking of learner movements into, through, and out of, the institutions (transitioning) was taking place; and
- analyse and document good practice articulation models, mechanisms and relationships for learner transitioning between (a) TVET Colleges and UoTs, (b) UoTs and traditional universities, and (c) institutions of learning and workplaces.

Theoretical Framework and Approach

The larger study of which the National Articulation Baseline Study is part combines five theoretical frameworks. The first of these frameworks is 'ecosystems/Ecological Systems Theory' (Pillari, 2002). The second set of ideas relates to the concept of 'relational agency' (Edwards, 2010), and the third, to 'grounded theory' (Charmaz, 2006; De Vos, 2002). Bhaskar's ideas of identifying and 'absenting absences' (in Lotz-Sisitka, 2015), together with the ideas of boundary-making, boundary-crossing, and mechanisms for boundary-crossing (Ibid.) are useful for addressing articulation gaps. Each of these frameworks is outlined briefly in the interests of user-friendliness. The approach adopted in the study – that of 'action learning research' (Zuber-Skerritt, 2001) is also explained.

Ecosystems Theory

According to Bronfenbrenner (1989:188): "Ecological systems theory is an approach to the study of human development that consists of the scientific study of the progressive, mutual accommodation, throughout the life course, between an active, growing human being, and the changing properties of the immediate settings in which the developing person lives, as this process is affected by the relations between these settings, and by the larger contexts in which the settings are embedded."

The ecosystems perspective is used to highlight the interactional patterns within and between TVET Colleges, HEIs, and workplaces (institutions, staff, learners) and the educational and skills training environments that contribute to the creation of boundaries or enablers of articulation and integration.

Relational Agency

Relationship-building within and between the TVET Colleges, HEIs and workplaces, requires deliberate effort. This necessitates that the design and approach of the current research sustains the relationship building process. Edwards' (2010; 2014) concept of 'relational agency' is useful for understanding and strengthening relationships.

Four ideas are central to relational agency (Op.Cit.). The first idea is that relational expertise involves additional knowledge and skills over and above specialised core expertise. Second, relational expertise involves understanding and engaging with the motives of others. It allows the expertise (resources) offered by others to be surfaced and used. Third, relational expertise is useful vertically (in authority hierarchies), but it is also relevant for horizontal collaboration across practices at similar levels in authority hierarchies. Lastly, relational expertise respects history, but is focussed on the common knowledge created through shared understanding of the different motives of those collaborating, and going forward together.

These ideas have been used in the research to provide guidelines for how constructive, cooperative relationships within and between the institutions studied, could be formed, maintained and sustained to support learner transitioning within and between Colleges, HEIs and workplaces, specifically within the three articulation scenarios (developed, emerging and latent) described in Section 3 below. The study seeks to understand the extent to which motives of the institutions, staff and learners promote or hinder articulation, integration, and joint work.

Grounded Theory

Charmaz (2006:440) states that "Grounded theory refers to a set of systematic inductive methods for conducting qualitative research aimed toward theory development. The term grounded theory denotes dual referents: (a) a method consisting of flexible methodological strategies and (b) the products of this type of inquiry. Increasingly, researchers use the term to mean the methods of inquiry for collecting and, in particular, analysing data. The methodological strategies of grounded theory are aimed to construct middle-level theories directly from data analysis. The inductive theoretical thrust of these strategies is central to their logic. The resulting analyses build their power on strong empirical foundations. These analyses provide focused, abstract, conceptual theories that explain the studied empirical phenomena."

Given that grounded theory (Charmaz, 2006; De Vos, 2002) is developed and provisionally verified through systematic data collection and analysis, the grounded theory approach is useful for aligning theory to the South African context, regarding articulation, lifelong learning and integrated learning pathways – based on data from the study.

Boundary-Making, Boundary Zones, Boundary-Crossing

Research (Lotz-Sisitka, 2015) has shown that articulation, conceived in terms of learning pathways, requires engagement around and with the 'boundary-making' activities in systems and enabled by social agents. These activities can lead to 'boundary zones' across which each learner needs to 'transition',

a process in which the learners need support in terms of 'boundary-crossing practices'. This support includes reducing the gap between learning pathway-related policy development and implementation; strengthening specific pathways; enhancing the opportunities to access and progress along these pathways; the quality of education and training; Flexible Learning and Teaching Provision (FLTP); appropriate and timely career development advice, and the various types of support for learning needed in workplaces, amongst other aspects.

While it was not expected that respondents to the National Articulation Baseline Study would use these terms, the researchers in the study analysed the responses in terms of the concepts of boundary-making, boundary zones, and boundary-crossing or transitioning.

Absenting Absences

The SAQA-Rhodes University research into learning pathways (Lotz-Sisitka, 2015) focussed on 'system elements' and as well as the 'voiced experiences' of those constructing learning pathways. The researchers used Bhaskar's (1993) Dialectical Critical Realism to understand the absences or gaps in occupational categories and the learning pathways associated with occupations. The research also drew on Norrie (2010) who described change as the 'absenting of absences, as well as the absenting of the structural constraints that keep an absence in place' – in other words, removing the structural constraints that serve to perpetuate these gaps. Bhaskar (Op. Cit.) noted that absences can be found in one context (for example the absence of articulation arrangements), but that the 'absence' in one context can be present elsewhere (for example, in another context robust articulation exists).

Following Bhaskar (1993), Norrie (2010), and Lotz-Sisitka (2015), it is suggested that it is possible to learn from one context to effect transformation in another context. In other words, absences in articulation in one context could be addressed by understanding and engaging with the elements of, robust articulation in another context – in order to learn from situations where articulation is enabled and to attempt to replicate these practices in other situations where there are gaps or challenges hampering articulation.

It was intended that the National Articulation Baseline Study would be used to support such work by identifying absences in articulation in one context (as described by respondents) that may be addressed by engaging with the elements of strong articulation in another context (as described by respondents in that context). For example an understanding of the robust articulation arrangements and practices that were described by three province-wide initiatives, may lead to the exploration of the elements necessary for 'absenting the absence' of such initiatives in other provinces.

Action Research

The larger study of which the Baseline Study is part adopts an Action Learning Research approach (ALR). ALR implies a process of people interacting with one another (McNiff and Whitehead, 2002) and is a practical way of looking at the current articulation and integration practices and relationships between TVET Colleges, HEIs, and workplaces in order to assess the strengths and challenges in these practices and relationships. This approach is also a means to strengthen the practices and relationships, as ALR is a powerful methodology for building, reflecting on, and theorising relationships (Ibid.). It involves a spiral process of action, reflection, and improvement.

Through this approach, the study attempts to explain the how and the why of enabling and challenging

relationships of articulation and integration between TVET Colleges, HEIs and workplaces. Action Research is evidence-based so that the necessary action for change in the desired direction may be taken (Op. Cit.).

As an approach, Action Research is a critical collaborative enquiry that is reflective, accountable, self-evaluating and participative and geared towards social change, facilitates learning, builds knowledge and informs practice (McNiff and Whitehead, 2002). The development of 'relational agency' (Edwards, 2010; 2014) is facilitated through this approach by organising and empowering key participants to come together to engage around the issues identified in the research, and collaboratively to plan, implement and evaluate interventions/activities.

The study is guided by the following principles of Action Research (McNiff and Whitehead, 2002).

1. Participation of sample groups in problem-solving and decision-making.
2. Encouraging self-reflection and reflection on action; processes of dialogue and connectedness to the whole or bigger picture of education and training.
3. The relationship between participants is that of a subject-subject partnership and not a hierarchical one of 'researcher' and 'researched'.
4. Data-gathering is done by the participants themselves. Action research involves learning in and through action and reflection. Encounters and relationships with others are viewed as opportunities for learning and growth.
5. The Action Research values of integrity, social justice and respect guide the research processes.
6. The Action Research approach creates spaces of tolerance to negotiate differences.

The Baseline Study of articulation within and between TVET Colleges, HEIs and workplaces was a necessary initial step in the Action Research process. It was known that a number of effective articulation arrangements exist. The Baseline Study sought to determine the nature of these initiatives, with a view to taking them to scale.

3. METHODOLOGY, RESEARCH DESIGN, SAMPLING

The over-arching study of which the National Articulation Baseline Study is part utilised an 'articulation scenarios' model for framing the samples for the study. The aim of the survey was to establish the extent of existing articulation initiatives across the country, and the concept of articulation scenarios proved useful for characterising the survey responses. It was not however useful for in-depth analysis: the fluctuating nature of the three types of articulation scenario meant that constructive analysis would require more in-depth information regarding the various stakeholder relationships, programmes and qualifications, for which the information was provided by respondents. The three types of articulation scenarios used are described as 'developed', 'emerging' and 'latent'.

Developed Articulation Scenario

A *developed articulation scenario* is deemed to be one in which learning programmes include systems for articulation and the integration of different learning pathways. Systemic and structural factors shape learning pathways in certain ways, but agents (the individual learner; educators, or other corporate agents) may shape the pathways in certain ways too. The view is taken that learning pathways are more broadly constituted than encompassing the education-training and work transitions; learning pathways are infinitely complex in their constitution and possibility. Lotz-Sisitka (2015) notes that learning pathways have been

understood in terms of macro-level (systemic) enablers, or in terms of agentive (individual learner) actions, but that pathways need to be understood as comprising both of these levels of elements. In the present research, an essential ingredient for progression is seen to be the official recognition of learning that allows learners to transition to further stages of learning. Pathways can thus be viewed as 'a series of learning platforms' (Kirby Report, 2000:77).

In a developed articulation scenario, these systems and the necessary learner-support mechanisms aspects are already in place, and have been functioning for some time with transitioning learners.

Emerging Articulation Scenario

An *emerging articulation scenario* is one in which programmes are currently being, or have been recently developed, in which the systems for articulation and the integration of learning pathways have been considered from the inception of the initiatives, and in the roll out of these programmes. As the system emerges, aspects of articulation – such as how the curriculum for a proposed qualification being developed is aligned to cognate qualifications already in existence within and across different institutions – start to develop. Emerging articulation scenarios involve at least one 'platform' that is being developed or has recently been developed. This platform may be a new qualification, or the formation of a new profession, or the commencement of the implementation of a new articulation agreement. As long as one learning platform is new, or is part of an arrangement involving a novel approach to enable progression, the articulation scenario is categorised as 'emerging'. A sustained emerging articulation scenario that leads to sustained learner throughputs leads organically to a 'developed articulation scenario'.

Latent Articulation Scenario

A *latent articulation scenario* is one in which programmes were developed with the intention of including systems for articulation and the integration of learning pathways in their design, but where these systems were either implemented and then suspended, or were never implemented at all. In some instances, the implementation of these planned articulation activities and initiatives have been continually delayed or deferred. The realisation of planned initiatives may be subsumed by other more pressing imperatives, or by simply being deemed insufficiently strategic. This stalling of articulation arrangements usually followed a change in one or more of the articulation role players. The inevitable suspension of the associated learning pathway leads to a *latent articulation scenario*. The difference between a *latent articulation scenario* and a non-existent one is that evidence of the contemplation of the intent to develop articulation initiatives can be found in the former. An emerging articulation scenario (or a developed articulation scenario) that is not sustained, or that terminates by mutual agreement (or for other reasons) can lapse into a latent scenario.

Survey Design, Sampling, and Implementation

Sampling

The survey was conducted between August and December 2016. Given the over-arching period allocated for the SAQA-DUT articulation research, and the limited time period available for the National Articulation Baseline survey, it was decided to focus on public entities only for the Baseline, and as wide as possible a range of public and private HEIs and colleges; Non-Governmental Organisations (NGOs); employers and others, for the six in-depth case studies. All 50 public TVET Colleges and all 26 public HEIs were thus included in the National Articulation Baseline survey.

The decision was taken to include all of the public HEIs and TVET Colleges in the sample, because firstly, each of the individual institutions is unique in character, and has embarked on different articulation initiatives. To select the institutions based on institutional type, would potentially have skewed the results. Secondly, the sample was sufficiently small to enable follow-up with all of the respondents.

Distribution of the survey, and response rates

For the HEIs, the survey instrument was emailed together with a formal invitation to participate, from SAQA's Chief Executive Officer, to the relevant Deputy Vice-Chancellors or Registrars. For the TVET Colleges, the survey questionnaires and invitation letters were emailed to the College Principals. It was necessary to ensure that the highest academic office at each institution dealt with the survey, or delegated it to an appropriate person, recognised to be responsible for articulation arrangements at the respective institutions, in order to obtain the detailed information needed.

Email and telephonic follow-ups were made around the submission dates. Follow-ups were conducted to ensure that the information provided in each questionnaire was complete and clear; up to five follow-ups were made in each instance to enable the researchers to obtain the levels of clarity, detail, and supporting documentation needed. The follow-up and participatory research methods employed, and the general willingness to participate in articulation across the board contributed to an unusually high response rate. Forty-nine (98%) of the 50 public TVET Colleges submitted completed surveys, and 25 (98%) of the 26 public HEIs also did so.

Prior to the distribution of the questionnaires, the National Articulation Baseline initiative as well as the broader SAQA-DUT project were launched publicly, at a two-day workshop at DUT in July 2016. The extent of the interest in this event and project was higher than anticipated. Delegates from across the province and country attended. Furthermore, 'as a body' they requested that articulation meetings be hosted monthly – something not planned for in the project. After some discussion, it was agreed that the group – including interested others – would meet three to four times a year, at venues around the country. The articulation events would be hosted by HEIs, Colleges, and other entities, on a voluntary basis. Since the July 2016 launch, seminars have been hosted in October 2016 (by PAX College), by DUT in December 2016 and by SAQA in February 2017. An NQF Conference is planned for September 2018, and Cape Peninsula University of Technology (CPUT) has offered to host the sixth articulation event.

4. APPROACH TO ANALYSIS

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). The ideas of 'relational agency' and 'ecosystems' were also useful in the analysis.

Thematic Analysis

In Thematic Analysis (Creswell, 2013), pre-determined themes are selected based on the relevant literature or previous research pertaining to the analysis. In the National Articulation Baseline, the predetermined themes of 'systemic', 'specific' and 'individual' articulation extracted from the literature and policies already discussed were used as initial analytical themes. The responses received were analysed to assess the

extent to which they revealed understandings of articulation as (1) comprising mainly system elements; (2) as referring to specific initiatives and/or relationship-building and/or mechanisms, and/or (3) as involving the support of the 'individual' as s/he adopted boundary-crossing practices in relation to the system/ institutional boundary-making practices, as s/he transitioned along his/her their learning and work pathways. This support could include things like implementing articulation-related policies; enhancing quality for the purposes of articulation, Flexible Learning and Teaching Provision (FLTP); appropriate and timely career development advice, and learning and development support in the workplace, amongst other aspects.

The responses were also categorised as 'developing', 'emerging' or 'latent', and analysed in terms of the degree of 'relational agency' implied.

Systemic, specific (inter-institutional), and individual articulation

Systemic articulation

The National Policy and Criteria for Credit Accumulation and Transfer (CAT) (SAQA, 2014:3) define articulation as the process of forming possibilities of connection between qualifications and/or part-qualifications to allow for the movement of learners through formal education and training system and its linkages with the world of work, with an emphasis on learning pathways. This conceptualisation is in line with what Lotz-Sisitka (2015) describes as 'systemic articulation'. As noted in Section 1 of this report, 'systemic articulation' refers to a 'joined up' system incorporating qualifications and various other elements aligned to and supportive of, learning pathways. The qualifications in the 'joined up' system in systemic articulation require a demonstration of their alignment to, and support of learning pathways. Otherwise, the qualifications or part-qualifications play little or no meaningful role in systemic articulation (they are dead-end qualifications). Some of the responses received fall into the category of 'systemic articulation'.

Specific articulation

When analysing the responses to the questionnaires, it was important to look for instances of systemic articulation, as well as 'specific articulation' - the articulation achieved through arrangements between institutions (See also Section 1 of this report). Specific articulation refers to the structuring of qualifications to allow progression, with or without intra- or inter-institutional agreements for Credit Accumulation and Transfer (CAT). It is necessary to distinguish between the types of learner progression referred to in the structuring of qualifications. On one hand, the progression of learners may refer to the process that starts with admission to a qualification and ideally concludes with graduation. On the other hand, learner/student progression (a phrase used interchangeably with 'learner/student mobility') could also refer to inter- or intra-institutional 'transitioning.' Learners transition for example, between departments or institutions, and between schooling and PSET or the world of work, between PSET and the world, and within PSET and the workplace. Specific (institutional) articulation was apparent in many of the responses received (Lotz-Sisitka, 2015).

Articulation through the flexible support of individual learning pathways

The third form of articulation described by Lotz-Sisitka (2015) refers to the pathways followed by individuals as they progress, and are supported in, their learning and work (See Section 1 of this report). This 'individual articulation' may occur along a unique pathway constructed (or followed serendipitously) by the learner as part of his/her learning and work trajectory, or along an established learning pathway,

or through combinations of these realities. It must be remembered that workplace-based learning (WBL), work-integrated learning (WIL), and all types of 'learning on the job' – whether or not the work is paid work – is an essential feature of systemic, institutional, and individual learning pathways, and a key to individuals' mobility between education and training institutions and the workplace.

Research has shown that the majority of learners repeatedly 'stop in and stop out' of Higher Education, as they respectively meet their life, family, work, and study obligations (Walters, 2015a, 2015b) – and that few can afford the luxury of continuous learning pathways (Ibid.). Similarly, an extensive Human Sciences Research Council (HSRC) study found that school learners too, had 'staggered' (interrupted), 'smooth' (continuous), and 'stopped' (curtailed) pathways through Basic Education, reflecting their socio-economic status (Isdale, Reddy, Winnaar and Zuze, 2016). The importance of flexible education and training provision, and workplace learning policies to support these 'staggered' or 'stop-in-stop-out-stop-in-again' pathways is of critical importance for lifelong learning. These patterns hold internationally, but are especially prevalent in contexts such as South Africa, with its socio-economic inequalities.

Aspects such as the quality of qualifications and learning, and the career development advice and initiatives provided, also being part of articulation, were also looked for in the responses.

Using the ideas of 'developed', 'emerging' and 'latent' articulation scenarios

The concepts of 'developed', 'emerging', and 'latent' articulation scenarios were used as categorising descriptions or perceptions and not as analytical tools in the Baseline and the larger study of which it is part. However, it has been useful to categorise the initiatives in the Baseline responses, in terms of whether they appear to be developed, emerging, or latent – in the interests of understanding the extent to which articulation is or is not taking place.

On the other hand, a word of caution is necessary, in that the information obtained for the Baseline was through a survey rather than in-depth engagement with the participants, and full justice may not be done regarding the initiatives described by the respondents. The concepts of developed, emerging and latent are not static and it is possible for programmes that are developed to become latent and for emerging programmes to become developed within varying periods of time. Further, some institutions reported a number of initiatives - at different stages in terms of being developed, emerging, or latent.

Grounded Theory Approach to Analysis

Grounded Theory (Charmaz, 2006; De Vos, 2002) involves using the data – in this case the responses drawn from the survey questionnaire – to confirm existing theories or to develop new ones. Using the Grounded Theory approach involved reading and re-reading the responses to the questionnaires, in an attempt to discover the interrelationships between the variables presented – variables such as concepts, categories, words and ideas that recurred. By deliberately reading the responses to each of the questions by both TVET Colleges and HEIs several times, key words were identified and coded.

Relational Agency and Ecosystems

Relational agency

The need for authentic relationships between people and institutions is a critical factor for successful

articulation and integration. Developing and building relationships requires deliberate effort. Edwards' (2014) unpacking of 'relational agency' into 'relational expertise', which involves 'understanding the motives of others' and 'proceeding on the basis of common understanding' was useful when determining the relationships between the TVET Colleges and HEIs in the study.

It should be noted that it was not possible to understand comprehensively the motives and levels of relational expertise of individuals in the learning institutions through analysis of the responses to the questionnaires. It must be noted that the presence or absence of relational agency was suggestive of the epistemic justice or injustice that exists in the relationships between the TVET Colleges and the HEIs. The idea of relational agency may be able to contribute to addressing the notion of epistemic injustice within and between institutions of learning, to support learner transitioning within and between education, training, development and work.

Ecosystems

Using ideas from Ecosystems Theory in the analysis helped to highlight how each of the role-players in the articulation initiatives interacted with each other in either enabling or hindering, albeit unwittingly, articulation processes and integration. The systems considered included government, industry and Non-Government Organisations (NGOs) as well as those of the TVET Colleges and HEIs.

Identifying Boundary-Making Presences and Boundary-Crossing Practices to 'Absent Absences'

Absences in articulation initiatives were identified by examining the articulation initiatives reported as being successful by the questionnaire respondents, against those reported as being unsuccessful by other respondents. Absences in articulation in one context could be addressed by understanding and engaging with the elements of, robust articulation 'presences' in another context.

5. RESULTS AND ANALYSIS OF RESULTS

As noted, the response rates for the National Articulation Baseline survey were unusually high – possibly because of the follow-up and participatory research methods followed and possibly, because there is a general willingness to participate in articulation across the board. This willingness was also visible in the numbers of national articulation meetings requested by, and participated in, by individuals. This section of the report considers the responses to the five questions given to the public HEIs and TVET Colleges respectively.

Responses to Question 1: Conceptualisations of Articulation

Conceptualisations of articulation provided by HEIs

The 25 HEIs that responded to the question: "What would you say are some of the main ways in which articulation is understood within your institutions?" provided a range of responses. A summary of the responses is presented in Table 2.

Table 2: Summary of the main conceptualisations of articulation in HEI responses[17]

Understandings of articulation	Number of HEI's that mentioned these ideas
Systemic and specific (institutional) + use of 'qualifications/programmes' (Mention of 'qualifications and mobility across institutions and the system')	14
Systemic and specific (institutional) (Mention of 'learning pathways linked to institutions across the system')	6
Mention of 'articulation into the workplace'	4
Systemic (Mention of 'student progression across the system')	2

It should be noted that the frequency of the use of the key words intersects. For example of the 14 HEIs who mentioned *qualifications/programmes*, some also mentioned *student/ learner progression*. Other key words were also found to overlap. For this reason, the cumulative frequency of the key words exceeds the total number of responses.

It must also be noted that 'curriculum' was referred to by five HEIs, although they did not elaborate on it. The word 'curriculum' was also mentioned by eight Colleges in response to other questions. It was not included in the present analysis because it was not highly elaborated, and it was not used by Colleges for Question 1. It is however known that curriculum alignment is imperative for articulation, and the idea has been picked up at later/key stages in the report.

Two HEI responses referred to *student progression* across the system in their understandings. Both of these HEI responses used the idea of *progression* to convey mobility from the TVET Colleges to HEIs, and between HEIs – showing that their conceptualisations were of articulation as being *systemic*.

Six HEI responses mentioned *learning pathways* as an inherent feature of articulation, and all of these responses indicated that the *learning pathways* were linked with institutions across the system. These conceptualisations showed an understanding of articulation that was *both systemic and specific* (inter-institutional).

Fourteen HEIs emphasised *qualifications* in their responses. Of these, the majority (thirteen) used the term *qualification* in the context of mobility within the PSET system – and were seen to have an understanding of articulation that was *systemic* and *specific*, with an emphasis on *qualifications*. A further four HEIs included the term *qualifications* in contexts not directly related to articulation. In these 18 responses, the term *programme* was used interchangeably with *qualification*.

Four HEIs included *articulation into the workplace* in their definitions and in all of these responses, the *specific* (inter-institutional) understanding of articulation was clear. The arrangements for workplace training were not necessarily spelled out clearly in the responses.

Two HEI responses included the ideas of *qualifications* and *learning pathways* in their definitions. A third

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17 Five HEIs also mentioned the role of curriculum alignment in articulation, however the word 'curriculum' was not included as a key word in the analysis of responses to Question 1 because the Colleges did not refer to it – the analysis uses the same key words for the HEI and the TVET Colleges. In their responses to Question 3, eight Colleges and two HEIs pointed to curriculum alignment-related challenges. The issue of curriculum alignment is discussed in Section 5 below, and elsewhere.

mentioned both *student progression* and *learning pathways*; a fourth included links between *qualifications* and *workplaces*; another conceptualised articulation in terms of *student progression*, *qualifications* and *workplaces*. These understandings show an emphasis on the *elements of articulation*, without necessarily viewing articulation or progression in terms of *system*, or *specific inter-institutional*, or *individually supported* pathways.

Over-arching comments on the HEI responses regarding conceptualising articulation

The responses reveal that while there are broad understandings of the elements and types of articulation across the HEIs, there is not necessarily *shared* understanding of the three levels of moves possible to enhance articulation. A simultaneous, explicit, systematic focus on the three different *levels* of articulation - *systemic, specific,* and *individual* – has potential to strengthen the opportunities for learner progression and mobility. The key words used in the conceptualisations presented in the responses describe to some extent one or more of the different dimensions of articulation. Two responses referred to 'diagonal' mobility, although this was not explicitly defined. The HEI responses were not necessarily coherent to the same extents, *across the types/levels* of articulation. Many of the responses referred to q*ualifications/learning programmes*. Only a few mentioned articulation with the *workplace*. The limited responses to *student progression* may be indicative of the overall negative approach of HEIs to articulation, a perception which emerges in the responses of both the HEIs and the TVET Colleges. There was infrequent mention of *supporting individual learners* as they follow their particular pathways: this omission could point to a lack of this kind of support, or if the support does in fact exist, to lack of immediate awareness of its role in articulation, or both.

The patterns in the responses open the way for some of these 'absences' to be 'absented' (Bhaskar, 1993).

Conceptualisations of articulation provided by the TVET Colleges

While a descriptive analysis based on the key words was possible for the relatively small number of HEIs, the responses from the 49 Colleges called for an analytical tool with more detailed categories for comparisons across responses. From the TVET College inputs for Question 1, the following frequently occurring key words were identified: *student progression, qualifications, learning pathways* and *workplace*. These key words were used as the basis for the initial analysis of the responses. The words themselves were not defined by the Colleges; their meaning in this context is discussed briefly at the start of Section 5 below – in relation to the understandings of articulation as being systemic, specific, or via supported individuals. Table 3 provides a summary of the understandings of articulation shown in the responses of TVET Colleges.

Table 3: Summary of the main conceptualisations of articulation in TVET College responses

Understandings of articulation	Number of TVET Colleges that mentioned these ideas
Systemic and specific (institutional) understandings (Mention of 'qualifications/programmes and mobility from TVET')	31
Systemic (Mention of 'student progression', 'student mobility', student movement')	20
Systemic (Mention of 'learning pathways' and 'links to HEI and workplaces' or 'individual')	8

Understandings of articulation	Number of TVET Colleges that mentioned these ideas
Specific (inter-institutional) (Mention of 'arrangements between Colleges, SETAs, workplace skills providers)	15

As for the HEIs, the frequency of the use of the key words by TVET Colleges intersected – for example, of the 31 TVET Colleges who mentioned *qualifications/programmes*, some also mentioned *student progression*, and similarly for the other key words. For this reason, the cumulative frequency of the key words exceeds the total number of responses.

Thirty-one TVET Colleges emphasised *qualifications/programmes* in their responses. Of the 31, the majority (27) used *qualification* in the context of mobility from TVET Colleges to HEIs or workplaces – and were therefore found to show an understanding of articulation as being *systemic* and *specific* (*inter-institutional*). The remaining four Colleges used the word *qualification(s)* in contexts unrelated to articulation.

The notion of student progression across the system was described in 20 of the TVET College responses. Of these the majority (fourteen) used progression to convey mobility from TVET Colleges to HEIs or workplaces – thereby showing a *systemic* understanding of articulation. The remaining six Colleges in this group pointed to 'internal (*specific*) migration' from the National Certificate Vocational (NCV) at NQF Level 4 into the National Education (NATED) 191 'N' courses[18] in their responses. In this group of responses, use of the terms *student movement* and s*tudent mobility* were synonymous with *student progression* and were included in the count.

Fifteen College responses included articulation into *workplaces* in their descriptions, and in each of these cases an *institutional* understanding of articulation emerged, as the arrangements between TVET Colleges, Sector Education and Training Authorities (SETAs), and workplace training providers that facilitate the placement of learners for Workplace-Based Learning (WBL) or artisan/skills development, were mentioned.

Eight College responses included *learning pathways* as a feature of articulation. Seven of these Colleges indicated clearly that the *learning pathways* linked the Colleges with HEI or workplaces, suggesting understandings of articulation as being *systemic*. The remaining College in this group described the learning pathways of *individuals*.

Five Colleges included both *student progression* and *qualifications* in their descriptions, while five mentioned *qualifications* and *workplaces*. Two Colleges mentioned both *learning pathways* and *student progression;* another three paired *learning pathways* and *qualifications*. Two Colleges mentioned both *learning pathways* and *workplaces*. Two Colleges conceptualised articulation as including *student progression*, *qualifications* and *workplaces*, while another two included *learning pathways*, *qualifications,* and workplaces. One included *learning pathways, student progression,* and *qualifications*.

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18 NATED/Report 191 programmes are a suite of qualifications delivered under the auspices of the DHET and quality assured by Umalusi. The programmes consist of 18 months of theoretical studies at TVET Colleges, which lead to the award of N4, N5 and N6 Certificates. If the achievement of N4 + N5 + N6 is followed by 18 months of relevant practical application in workplaces, a National N Diploma is awarded. The National N Diploma is different from the Diploma in the HEQSF. Engineering studies range from N1 – N6 while Business and Utility Studies range from N4 – N6.

Over-arching comments on TVET College conceptualisations of articulation

Similar to the HEIs, the responses of the TVET Colleges to Question 1 show relatively high awareness levels of articulation being *systemic* and *specific* – and there is less mention of achieving articulation through learner support. There is a focus in the TVET College responses, on preparing learners through the College qualifications (NVC and NATED 191) for articulation, via progression from the NCV4 to N4, 5, 6 qualifications, for articulation into HEIs and into the workplace. This emphasis is reflected in the dominance of the use of the term *qualifications* and *student progression* in the responses. As noted, most (three quarters of the College responses show understandings of articulation as being systemic and *specific* (*inter-institutional*). Only one College included the notion of *individual* articulation in its description. None of the Colleges referred to the role of curriculum for articulation.

Comparing TVET College and HEI responses to Question 1

Table 4 shows the frequency of the uses of key words by both TVET Colleges and HEIs, in their responses to Question 1. Table 5 indicates the frequency of the combinations of the different key words by the Colleges and HEIs. As already noted the frequency of the use of the key words overlaps. For this reason, the cumulative frequency of the key words exceeds the total number of responses – in Tables 4 and 5.

Table 4: Frequency of key words in TVET College and HEI responses to Question 1

Key words/ Key phrases	Frequency of use in HEI/TVET College responses to Question 1	
	TVET Colleges using these words in their responses (n=49)	HEI using these words in their responses (n=25)
Qualification(s)	31	14
Student progression	20	2
Workplace	15	4
Learning pathways	8	6

Table 5: Frequency of key words/phrases (combinations) in TVET College and HEI responses to Question 1

Combinations of key words/ Key phrases	Frequency of use in HEI/TVET College responses to Question 1	
	No. of TVET Colleges (n=49)	No. of HEI (n=25)
Student progression + Qualification + Workplace	2	1
Learning pathways + Qualification + Workplace	2	-
Student progression + Qualification	5	-
Student Progression + Learning Pathways	2	1
Learning Pathways + Qualification	3	2

Combinations of key words/ Key phrases	Frequency of use in HEI/TVET College responses to Question 1	
	No. of TVET Colleges (n=49)	No. of HEI (n=25)
Learning Pathways + Workplace	2	0
Qualification + Workplace	5	1

Absenting absences

Centrality of qualifications and the registration of qualifications, for articulation

The large numbers of responses from both the TVET and HEI sectors that included mention of *qualifications* is significant. Within *qualifications* lie the potential connections that curriculum, coordination and planning can engender. Qualification development harnesses the inputs of experts across the stakeholder range needed, prior to the offering of qualifications to learners.

The process of the approval of qualifications may be a point at which the 'absenting of absences' may occur. For example, prior to the conclusion of the registration of a qualification on the NQF, the missing elements in the documents that would be required to engender articulation with other qualifications already in the system could be absented.

In order to absent an absence, the desired alternative needs to be visualised. Qualifications that are well-articulated into learning pathways, along with their developmental and implementing contexts, could be studied to provide models as to how the absences being dealt with, could be addressed.

Absences suggested through analysis of the responses from TVET Colleges

Using the Grounded Theory approach to identify variations in the conceptualisations of articulation among the TVET Colleges, the following key 'outlier' notions were found: (1) "Start business related to qualification", (2) "access by Community College", (3) "career development advice", (4) "schools to colleges and sometimes including schools for learners with disabilities", and (5) "College to university – access". These ideas are categorised as 'outliers' because they were mentioned only infrequently. Some were mentioned once, while others resonated with some of the examples provided by other respondents.

Entrepreneurship

'Starting a business related to the qualification' is a reference to entrepreneurship. As entrepreneurship is an alternative to employment in a traditional workplace, it may be viewed as the creation of an alternate workplace. The absence of the rigorous promotion of self-employment within the TVET sector needs to be understood. The knowledge and set of skills embedded in many vocational qualifications lend themselves to self-employment, but not rigorously so. If the elements implicit in the Artisan Development and Training workshops included entrepreneurships and incubators for small businesses, the absence of the promotion of entrepreneurship may be absented.

Community College to TVET College articulation

'Access by Community Colleges' was included by one TVET College in its response to the question on how articulation is understood, although this idea was included in responses to other questions from a small number of the other TVET Colleges. The PSET landscape includes the Community Colleges, and the equivalence of their NQF Level 4 qualification to the National Senior Certificate (NSC) and the National Certificate Vocational (NCV) is clear. Opportunities for articulation, from the Community Colleges into and across the rest of the PSET sector, are not as clear. An assessment of the elements involved in such articulation arrangements, where they exist, would represent the initial steps in absenting the absence of articulation from the Community Colleges into and across the PSET sector.

Career development advice

'Career development advice' was mentioned by only a few TVET Colleges in response to the question on the conceptualisation of articulation, but also included implicitly in the responses to some of the other survey questions. Although not absent from the national system – SAQA led multiple-platform National Career Advice Services between 2010 and 2014, reaching over six million people in that period, and there are now National Career Development Services in the DHET – the effectiveness of career development advice, particularly as it pertains to articulation, needs to be explored.

Schools for learners with disabilities

The TVET College response that included a reference to 'schools for students with disabilities' is noteworthy, as there do not appear to be any reported articulation initiatives that attempt to address opportunities for 'students with disabilities'. As an absence that needs to be absented, it may be prudent to adopt a systemic approach to engendering such initiatives.

TVET College to HEI access

'College to university access' as part of the conceptualisation of articulation was included by one TVET College respondent in its response to Question 1, though mentioned elsewhere by others. Descriptions of access to university via TVET College as a feature of articulation, is infrequent in the responses from the TVET sector; in some responses the emphasis of this route is said to devalue the learning at TVET Colleges. While access to HEI is one of the steps in a learning pathway, for transitioning learners from TVET Colleges, this is not necessarily seen as a step forward. This may be an absence in some instances, but in others, it is not seen as an absence.

A note on important 'outliers'

Many of these responses may indicate that what is absent within a sector is coherent with its understanding of articulation. On the other hand the 'outliers' are not easy to implement and may be avoided for this reason, especially when enrolment planning does not traditionally support these outliers. It cannot be easy to open access to learners transitioning from Community Colleges or to learners with special needs, nor can it be easy to promote entrepreneurship as an alternate destination to the workplace.

Following Norrie (2010), change in a desired direction can involve the 'absenting of absences', as well as 'absenting the structural constraints that keep an absence in place'. Part of the changes required for these

'outliers' may require absenting of the structural constraints that keep them outliers. A systemic approach to these identified issues may prevent them from reducing them to 'distractions'. The HEIs have a tendency to treat transitioning learners from TVET Colleges as outliers as well, and TVET Colleges should be wary of being caught in the same 'lack of parity of esteem' trap.

Absences suggested through analysis of the responses from the HEIs

From amongst the variations in HEI conceptualisations of articulation the following key notions were found: (a) "Career guidance", (b) "Sharing infrastructure", (c) "Cooperation and collaboration amongst the role players in PSET", (d) "providing a fair chance to individuals through testing", (e) "Principles of flexibility, access and mobility", (f) "Partnerships with TVET Colleges and other universities", and (g) progressing "from the workplace into a Degree programme". The discussion on effective systemic career development advice in the analysis of TVET College responses applies to the notion of 'Career guidance' in HEIs.

Sharing infrastructure

The notion of 'sharing infrastructure' was an outlier within this set of extracted key words. The practice where possible, not only allows for the sharing of costs, but for working together to achieve individual and joint goals. It may also facilitate or foster relational agency by building common knowledge created through the shared understanding of the different motives of those collaborating, and going forward together (Edwards, 2014). A good example cited in the responses referred to sharing a kitchen as a laboratory (bringing together aspiring chefs and nutritionists across qualification types). In such a setting relational expertise is needed across the vertical levels in the authority hierarchy, as well as in collaboration across practices at similar levels, in order to facilitate participatory curriculum development regarding academic content and practical knowledge.

Cooperation and collaboration amongst role-players/partners

'Cooperation and collaboration amongst the role players in the PSET sector' and 'partnerships with TVET colleges and other universities' are broader expressions of the aforementioned 'sharing resources' practice. The ecosystems perspective would be useful in fabricating the interactional patterns within and between role-players in the PSET sector. Small existing collaborations between TVET Colleges, HEIs, and workplaces (among institutions, staff, learners) in provincial initiatives could grow into regional and national articulation arrangements.

Giving individuals a fair chance

The notions of 'providing a fair chance to individuals through testing' and of 'principles of flexibility, access and mobility' are linked to access and lifelong learning respectively. HEIs readily promote access to Higher Education for 'traditional' high school learners, and responses to questions in the survey suggest that HEIs are averse to promoting access from non-traditional routes such as those followed by adult learners and learners transitioning from TVET Colleges. As noted, Walters (2015a; 2015b) provides clear pointers for institutions of learning, and workplaces, for the kinds of flexible provision required to support transitioning learners at all ages and stages of life, including those following 'staggered' learning pathways.

Responses to Question 2: Nature of Existing Articulation

In response to the question: "Is your institution involved in any articulation arrangements with any TVET Colleges, HEIs, or any other types of entities? (Please add YES/ NO) If not, why do you think not? If there are, please briefly describe what they are" – HEIs and TVET Colleges mentioned Memoranda of Understanding (MoU), Memoranda of Agreement (MoA), and other types of arrangements. This section categorises the types of articulation arrangements reported, including their frequency. Each responding institution has been coded in order to preserve the anonymity of the institution.

Types of articulation arrangements

The articulation arrangements within and between TVET Colleges and HEIs fall into three categories: formal, informal and a combination of both formal and informal arrangements. 'Formal arrangement' refers to cases where a written agreement such as a Memorandum of Understanding (MOU) or Agreement (MOA) structures the articulation relationship between the education institution and other educational role-players. 'Informal arrangement' refers to cases where the articulation arrangements are based on verbal discussions or agreements between individuals in the various educational institutions and other role players.

Table 6 below shows that 17 TVET colleges have formal articulation arrangements, 25 have informal arrangements and seven have both formal and informal arrangements. Of the 25 HEIs that responded, eight indicated that they have no articulation arrangements, 11 have formal arrangements and six have informal articulation arrangements.

Table 6: Types of Articulation Arrangements: TVET Colleges and HEIs

Institution of learning (Total number)	No articulation arrangements	Formal articulation arrangements	Informal articulation arrangements	Both formal + informal articulation arrangements
TVET Colleges (49)	-	17	25	7
HEIs (25)	8[19]	11	6	-

Formal arrangements

The various types of formal arrangements currently in existence are outlined in Table 7 below.

Table 7: Formal types of articulation arrangements reported

Type of articulation agreement	Instances of the type of articulation agreement
MoU/MoA between one or more HEI	• U3 has a MoU with U14
MoU/MoA between one HEI and several TVET Colleges	• U10 and U18 each have formal arrangements with seven TVET Colleges respectively • U1, U19, U24 each have formal arrangements with two TVET Colleges respectively

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19 These HEIs noted that they had commenced work around articulation arrangements; the research team did not however categorise these beginnings as comprising 'emerging articulation initiatives' yet.

Type of articulation agreement	Instances of the type of articulation agreement
MoU/MoA between one TVET College and one or more HEIs	• Three TVET colleges each have individual formal arrangements with two different HEIs
MoU/MoA involving HEI and workplaces	• One HEI has an MOU with an industry partner
MoU/MoA involving TVET Colleges and workplaces/industry	• 16 TVET Colleges have formal arrangements with workplaces/ industry partners/ SETAs
MoU/MoA involving TVET Colleges, HEI and workplaces	N/A
MoU/MoA involving TVET Colleges and international institutions of higher learning	• One TVET College has MoUs with a college in the United Kingdom and a college in Scotland
MoU/MoA involving HEI and NGO	• One HEI has a formal agreement with an NGO operating a 'matric school' for second chance learners

HEI responses: Nature of formal (developed) articulation arrangements

The nature of the formal arrangements has been described differently by different HEIs. The descriptions given by U2, U15, and U18 are elaborated here because they appeared from the data, to be among the strongest models. The three models described here could be replicated and possibly taken up to scale. The 'ecology' of the articulation initiatives in this section, including articulation mechanisms, ways in which 'relational agency' has been developed in order to achieve these success cases, and their particular 'presences' could be used to absent absences elsewhere.

University 2 (U2)

In the first example, U2, a University of Technology (UoT), wrote that formal articulation arrangements (boundary-crossing mechanisms) were in place between the UoT itself, the four TVET Colleges in its province and the provincial Department of Education – involving the UoT's Faculties of Management and Engineering. These arrangements permit (and encourage) the articulation of students with NATED N4-N6 qualifications into cognate National Diploma programmes offered by the U2. As evidence for submission in the SAQA-DUT survey, U2 provided two documents – a copy of the MoA between the role-players in the province and a copy of its admission policy. The articulation scenario depicted in this arrangement is 'developed'. U2 is the only HEI for which the number of transitioning students is measured in 1 000s (more than 8 000 since 2010). Transitioning students have been tracked since 2010, although the MoA has only been in operation since 2014. The arrangements constitute an example of _systemic, specific_ and _individual_ articulation: as the initiative operates across a province, its arrangements are at once formal and inter-institutional, and also support the creation of learning pathways by individual students.

The collective effort on the part of all signatories to the MoA that forms the basis of the articulation arrangements between the parties, demonstrates commitment to the addressing of 'boundary-making practices' and the support of 'boundary-crossing practices.' The large number of transitioning students is indicative of a 'culture of articulation'. That the transitioning students have been tracked since 2010, even though the MoA was only signed in 2014, is further evidence of this culture of articulation. Tracking occurred even when the arrangements were informal. This scenario describes the rare articulation from

the National N Diploma[20] (awarded by TVET Colleges) to the B Tech (awarded by the UoT), illustrating the extent to which the parties are reducing the gap between learning pathway-related policy development and implementation.

University 15 (U15)

In the second example, U15, a rural traditional university wrote that an Agreement had recently been concluded between the university, a TVET College and a SETA, enabling articulation from a particular National N Diploma into a cognate Bachelor's Degree (NQF Level 7). An Agreement also exists between the university and the provincial government in terms of which a suite of part qualifications that are part of full qualifications ranging from NQF Levels 5 to 7 are offered to the government officials. These part-qualifications equip provincial government officials with a range of necessary skills. It is imperative that these part-qualifications are part of full qualifications, so that learners can transition into the full qualifications, via Credit Accumulation and Transfer (CAT), immediately, or at a later stage. The trainees are made aware of the extent of the pathways that these 'articulated part qualifications' will enable upfront, whether participants intend articulating or not. This scenario needs to be investigated in more depth, as only broad information was provided in the survey.

In addition, a formal agreement between U15, a SETA and T48 was signed to enable holders of the National N Diploma in Animal Production to articulate into a Bachelor of Agriculture Management degree. As this programme started in 2016, it is described as an emerging articulation scenario. U15 provided no documents/evidence and the numbers of transitioning students in this particular case was not indicated. The provincial arrangement described by U15 is an example of *specific* and *individual* articulation as the provincial government is as an employer in the relationship, and the arrangements provide support for individual employees to transition from the workplace into Higher Education. It is an inter-institutional arrangement that is an enabling mechanism that supports the learning pathways of aspiring transitional learners.

In this articulation scenario, the role of the SETA as a broker of 'boundary-crossing practices' between the different elements of the learning pathways, is exemplified. In this instance, the learning pathways traverse the workplace (provincial government), an HEI (U15) and a TVET College (T48). The 'boundary-crossing practices' adopted in order to transition along the pathways include opportunities for access to and progression along the pathways, and to some degree, Flexible Learning and Teaching Provision (FLTP) in the form of learning at work, for employees.

University 18 (U18)

In the third example, U18, a comprehensive university, stated that it had a number of Agreements with TVET Colleges to allow students who have completed a Higher Certificate (HC) to articulate into a Diploma or a Degree at the university. The numbers of Agreements were not made clear in the survey response nor were documents provided as supporting evidence. U18 was however mentioned as a partner by more than one TVET College. The Higher Certificate articulation arrangements that have been in place for some time with learner throughputs (although the numbers of learners and the duration of their studies were not provided) describe developed articulation scenarios, while recent Higher Certificate arrangements describe emerging articulation scenarios.

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

These articulation initiatives are an example of *systemic, specific* and *individual* articulation as the Higher Certificates are available through a number of TVET College partners, and transitioning learners are enabled to articulate into a number of cognate qualifications. The systemic relationship between U18 and the TVET Colleges involved is formalised in a MoA that clearly details the relationship between the College and the HEI, and the role that each institution plays in the Higher Certificate programme/qualification contributes significantly to sustaining the quality of the collaborative relationship between the institutions and the relevant personnel. This is a good example of relational agency in practice and 'presences' that could be replicated elsewhere.

In this articulation scenario, the Higher Certificate qualification and the concomitant MoA between the comprehensive HEI, U18, and the respective TVET Colleges constitute the 'boundary-crossing' mechanisms that are designed to address the 'boundary zone' that is the locus of numerous NQF Level 5 qualifications. A number of these arrangements are unfurled in the discussion around the TVET College initiatives that follow.

TVET College responses: Nature of formal (developed) articulation arrangements

As is the case with the HEI responses, the nature of the formal arrangements in the TVET sector have been described differently by different TVET Colleges. The descriptions given by T6, T15, and T18 are elaborated here because they appeared from the data, to be linked to the strongest models. The three models described here could be replicated and possibly taken up to scale. As for the good practice HEI models, the 'ecology' of the articulation initiatives in this section, boundary-crossing mechanisms, and ways in which 'relational agency have been developed in order to achieve these success cases, and their particular 'presences' could be used to absent absences elsewhere in the TVET sector.

TVET College 6 (T6)

In the first TVET College example in this category, T6 is an urban TVET College with a formal arrangement with U18, in which a Higher Certificate in Tourism Management is offered by T6, for and on behalf of U18. This arrangement has been in place since 2014. A copy of the MoA was provided by T6 together with its survey responses. Another MoA with U1, a University of Technology (UoT), outlining articulation arrangements in general, signed in 2009, was also provided. Evidence of participation in a Generic Trade Preparation Programme (GTPP), an accredited full time programme that has prepared learners to sit for Trade Tests since 2013, was also provided. Collaboration with industry was essential for the success of the GTPP.

Each of the different articulation scenarios described by T6 have been sustained since their inception, and have learner throughputs. Each of these articulation scenarios is therefore a developed scenario. In addition, T6 was a participant in the *Provincial Articulation Conference* for the four universities and six TVET Colleges in the province, as described by U11 in the section that follows.

The arrangements described by T6 constitute examples of *systemic, specific* and *individual* articulation, as they operate across a province; the arrangements are formal and inter-institutional, and support the creation of learning pathways followed by individual students. T6 and the set of initiatives associated with it could be explored as a 'presence' model exemplifying articulation.

TVET College 15 (T15)

The second TVET College example in this category is T15, a College located in a small town in a largely rural province. T15 has a formal arrangement with U18, in which a Higher Certificate in Accounting Sciences is offered by the TVET College, for and on behalf of U18. This arrangement has been in place since 2014. A copy of the MoA was not provided but evidence of the formal arrangement, referred to in correspondence between T15 and the DHET was submitted with T15's survey response. Another MoA between T15 and U10, a University of Technology (UoT), outlining articulation arrangements in general, was referred to but no evidence was provided.

The College has its own Skills Academy accredited by the QCTO as a Trade Test Centre for a number of Engineering programmes. The College has also signed formal agreements with two SETAs in terms of which graduates articulate into Artisan Development Programmes.

T15 noted in its response that many companies which arrange workplaces for artisan training lack familiarity with the NCV qualification. Consequently, T15 has had to make considerable efforts in approaching workplaces and institutions to arrange for the placement of its students. The College tracks student progression within qualifications as well as across qualifications using its MIS system.

Each of the articulation scenarios described by T15 has been sustained since its inception, and has learner throughput. Each of these scenarios is therefore a developed articulation scenario; T15 is exemplary especially for its tracking of student progression and mobility.

TVET College 29 (T29)

The final example in this category, T29, is a rural TVET College. Many of its students enter its courses without being in possession of the National Senior Certificate (NSC), and proceed to complete three years of NCV qualifications and then progress into NATED 191 qualifications. Consequently, the foci of the articulation arrangements of T29 are geared towards securing employment for its graduates. For example, a pathway from Farming Management N4-N6 articulates into the NQF Level 5 AgriSETA Diploma, an occupation-oriented qualification.

Most of T29's formal agreements are with SETAs, in terms of which students are adequately prepared for workplaces. Once in the workplace the mobility of the students within the PSET system is limited as neither T29 nor other TVET Colleges nearby offer opportunities for further lifelong learning. The particular experiences of rural TVET Colleges and the manner in which the ecosystem as a whole is geared to include/ignore them could be a focus of further investigation. The opportunities provided by Open Distance Learning could be considered.

Comment on the TVET College responses

As for the HEIs, in each of the TVET College articulation scenarios noted, the commitment to addressing 'boundary-making practices' and the support of 'boundary-crossing practices' such as the MoA and other formal agreements described by Colleges, is indicative of their support for a 'culture of articulation'. Both T6 and T15 describe their Higher Certificate arrangements with U18. While this type of articulation initiative (boundary-crossing mechanism) exists in a number of the TVET Colleges, it is noteworthy that for T6 and T15, it is not the only (or even the primary) boundary crossing practice, as there are also the other

mechanisms described. These Colleges too, are clearly committed to reducing the gap between articulation policy and implementation.

The enabling roles of the respective SETAs in the development of 'boundary-crossing practices' in the articulation between education, training and work in these examples are exemplary. The 'boundary zones' that transitioning students within rural settings encounter are likely to be exacerbated by students' geographical location. The impediments of operating from a small town or within a rural setting, however, have not deterred T15 and T29 from cultivating and sustaining initiatives and arrangements that address 'boundary-making' practices and support 'boundary-crossing'. By design, the primary focus of these institutions is the placement of their students and their subsequent employment because of the efficacy and viability of the placements.

Comment on the alignment of the TVET College and HEI responses

The TVET College descriptions of the formal arrangements in which they are involved, are aligned with the HEI descriptions of the formal arrangements. Where formal arrangements exist and they are being implemented, learner transitioning occurs and even thrives. Well-articulated arrangements appear to be synonymous with well-managed arrangements.

In as far as articulation with workplaces is concerned the formal arrangements of TVET Colleges are not like those involving HEIs. Such arrangements are an inherent feature of the work of the TVET Colleges. The work placements in industry are a requirement of the completion of the National N- Diploma (incorporating the NATED N4-N6 qualifications). The establishment of partnerships for training with industry and SETAs, the preparation of students for the workplace and the monitoring and assessment of the work placement of students is a pivotal role in TVET Colleges that needs to be a designated role. Work Integrated Learning (WIL) coordinators should be a human resource requirement at TVET Colleges, as they are at UoTs.

Absence of formal articulation arrangements

Before discussing the informal and emerging articulation arrangements reported, it is worth noting the reasons given by respondents, for the absence of articulation arrangements – where this was the case. University 12 (U12) for example, wrote that it does not have any articulation arrangements with TVET Colleges, because of the negative light in which Colleges are viewed. Its response corroborates with the responses of two Colleges (T10 and T42). U12 expressed the reasons for the absence of articulation arrangements thus: *"the negative way in which the university sector views TVET standards, the time consuming process of the Recognition of Prior Learning (RPL), the DHET's concerns over double-dipping and an internal administration that is already stretched with regular processes".*

These cases highlight the need for the building of common knowledge, relational expertise and thereby relational agency (Edwards, 2010, 2014). Edwards argues for collaboration through mutual understanding of the motives of the parties concerned, building common understandings, and recognising all of the necessary expertise in the collaboration as a resource for dealing with complexities like navigating articulation arrangements. These skills are especially needed in contexts where views such as those expressed by T12 exist.

Emerging articulation arrangements

HEIs responses: Emerging articulation arrangements

Of the eight HEIs that have no developed articulation arrangements as yet, it appeared that in two, articulation initiatives are emerging. These two HEIs have informal arrangements with two Agricultural Colleges, which they do not identify as TVET Colleges.

Notwithstanding that some negative perceptions exist, six HEI respondents indicated that they are in the developmental/ early stages of formalising articulation arrangements; four of these universities provided the following full descriptions of their initiatives[21].

- University 5 (U5), a comprehensive university, noted that formal processes for establishing articulation arrangements had recently started. The development of some Higher Certificate programmes by the university 'has been linked to the development of collaborations with regional TVET Colleges: A centre set up specifically to deepen the role of the university in the PSET sector has spearheaded these developments. The efficacy of this centre needs to be observed, as it may yield a model to be replicated. This university is one of two HEI that have an Articulation Policy, although a copy of this document was not provided to the researchers.

- University 6 (U6) a traditional university, described a specific suite of cognate qualifications, namely the National Certificate (at NQF Level 5) and the National Diploma (at NQF Level 6) offered at TVET Colleges in the field of Policing. Transitioning learners from these qualifications are admitted into the university and articulate into a Degree with a specialisation in Policing.

- University 11 (U11), a traditional university, responded that it had participated in a *Provincial Articulation Conference* involving the four HEIs and six TVET Colleges in the province, where it was decided to focus on a few critical areas where there was real potential for articulation success. This focused approach enabled an articulation arrangement from an NCV at NQF Level 4 into a Higher Certificate in a particular field offered by the university. Following the success in the first field, this university has begun to participate in similar articulation arrangements in another field that is currently under development. This model, which involves the provincial government (as a service provider) and all of the education and training stakeholders in the province, could be explored in order to be replicated or taken to scale.

- University 22 (U22) has commenced the development of a Higher Certificate in Cybernetics that will articulate into a cognate (HEQSF-aligned) Diploma that is simultaneously being developed with the Higher Certificate. It is the intention to offer the Higher Certificate in 2017 and the Diploma from 2018.

From among the aforementioned articulation scenarios, there appears to be sufficient commitment on the part of U6, U11 and U22 to addressing 'boundary-making practices' and supporting 'boundary-crossing' across the PSET sector. Each of these institutions is involved in partnerships with one or more TVET Colleges regarding designing articulation at the level of qualification development. While this kind of collaboration may also the case with U5, the documents submitted in this case did not clearly indicate it. As intimated, the centre (institutional structure) that U5 is developing still needs to be observed, in order

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21 Two of these HEIs did not provide sufficient information in the rounds of follow-up provided for in the study, to clarify the initiatives with which they are engaged: their information has been omitted here.

to determine the extent to which it is effective as a boundary-crossing mechanism. Similarly, observing the effectiveness of the reported provincial arrangements that U6 – and the other participating HEIs and TVET Colleges – have noted, may prove helpful in the further development, support, and expansion of such practices.

These emerging articulation arrangements indicate growing interest among HEIs to implement articulation policy.

TVET Colleges' responses: Emerging articulation arrangements

Four TVET College respondents reported that they were in the developmental/early stages of formalising articulation arrangements – and these TVET Colleges provided the following descriptions of their initiatives.

- T4 reported that it was exploring the offering of a Higher Certificate in Engineering Technology, and a Higher Certificate in Business Studies with U13.
- T13 mentioned participation in developing a Higher Certificate as part of the consortium of provincial institutions mentioned by U11 above, in a field yet to be determined.
- T1 has approached U1 to offer a Higher Certificate in Information Technology.
- T15 has approached its provincial Department of Health regarding possible articulation from a cognate NCV at Level 4 into a Higher Certificate in Nursing.

All of the above articulation scenarios relate to the offering of a Higher Certificate qualification by a TVET College in partnership with an HEI. Both T6 and T15 describe their Higher Certificate arrangements with U18. While many other Colleges are exploring the development of such initiatives, it is noteworthy that for these T6 and T15, this development has commenced. For T15 the Higher Certificate in Nursing will be the second such Higher Certificate qualification to be developed.

These TVET College-HEI arrangements build on the opportunities offered via the NQF Level 5 'boundary zone'. The initiatives constitute a sector-wide response to 'boundary-making' practices and sector wide development of boundary-crossing practices. As such, these moves address articulation policy implementation in the short to medium term. Their feasible replication needs to be explored further.

Informal articulation arrangements reported by Colleges

Of the 24 TVET Colleges which said that they have informal articulation arrangements, 12 noted that these collaborations involved relationships with work placements. These responses included: "College agreements with companies – learner placement for workplace training to complete Diplomas"; "establishing relations with employers for students needing employment"; "informal arrangements with retail shops – for internship programmes for students"; "institution linked to workplaces to provide practical component for students/ private providers assist with simulation"; "learnerships and artisan training followed up with workplace learning"; "partnerships with industries for placement of students"; "College enters gentlemanly agreements without policies – regular reporting to companies that send apprentices".

One College (T2) that did not mention work placements, responded that their "Registration office plans to formalise articulation arrangements; in the interim students are assisted on an *ad hoc* basis for entry to HEIs. The Registrar of Student Support meets universities when required and invites them to career guidance sessions (at the College)".

Two Colleges mentioned the need for developing understandings between HEIs and TVET Colleges. College T10 responded as follows: "Principal created platform with partners and some HEIs to understand TVETs (TVET Colleges)". College T42 wrote: "Articulation work requires specialised knowledge, common understanding between role players. HEIs have different understandings and interpretations – involved in increasing enrolment base without allowing Colleges to offer Higher Certificate qualifications".

Informal articulation arrangements reported by HEIs

From among the responses that indicated that there were no formal articulation arrangements in place with other institutions (or entities), the following reasons were provided for the informality of arrangements reported.

- Articulation arrangements have tended to take place on an informal, case by case basis.
- The generally negative way in which the university sector views TVET standards.
- The small number of applicants did not warrant a formalisation of the arrangements.
- The guiding document is a programme design template which determines credits within the Higher Education Qualifications Sub-Framework (HEQSF).
- Practices generally rely on national policies and guidelines for interpreting cases (namely policies relating to the HEQSF, CAT, RPL and the Higher Education Management Information System [HEMIS] requirements for transferring students).
- Practices vary from faculty to faculty.
- Being too new to have set up formal articulation arrangements (These responses were received from two HEIs which have only recently been established).

Each of these reasons points to potential 'boundary-making' practices. Each reason may precipitate *latent articulation scenarios* from planned articulation activities and initiatives. As planned articulation arrangements migrate along the informal to formal trajectory, they risk dissipation by other more pressing imperatives. As already noted, this stalling of articulation arrangements usually follows a change in one or more of the articulation role-players. The inevitable suspension of the associated learning pathway leads to the *latent scenario*. Notwithstanding the risk of movement from informal *emerging articulation scenarios* to *latent articulation scenarios*, the difference between a latent scenario and an absence of articulation must be emphasised. As long as evidence of the contemplation of the intent to develop articulation initiatives can be demonstrated, the potential for boundary crossing initiatives exists.

On taking articulation to scale thus far

One HEI indicated that it has MoUs with 26 TVET Colleges. However, only seven of the responses received from the TVET Colleges concerned corroborated this arrangement. This result may not constitute an inaccurate and inconsistent response, but may rather point to varying degrees of implementation by the different Colleges/stakeholders. This situation should signal caution when planning a scaling up of articulation initiatives, in that the number of scaled up articulation arrangements might not necessarily equal the number of *functioning* arrangements. Edwards' (2014) notion of resourceful leadership may determine the difference.

Difficulties in recognising latent articulation scenarios

The respondents were not asked to categorise their initiatives into types of articulation scenarios. For the researchers, the process of identifying *developed* and *emerging articulation scenarios* presented little

difficulty. On the other hand, recognising articulation initiatives that constitute *latent articulation scenarios* posed a challenge, largely due the need to distinguish between these and non-existent articulation arrangements. A cautious approach was thus followed in categorising the articulation initiatives as *latent scenarios*, as the information provided in the responses often made it difficult to draw the distinction.

Further, in the exercise of taking good practice models to scale, the *latent articulation scenarios* are unlikely to feature significantly in the assessment of strong models. The need to balance the perspectives of the respondents' notions of success, and further exploration of these scenarios for the purposes of recommending whether or not such models should be taken to scale is unlikely to be applied to the *latent articulation scenarios.*

Responses to Question 3: Managing Articulation Arrangements

This section of the report presents an analysis of the question: "Please tell us about (a) how the articulation arrangements at your institution are managed in terms of policy (formal/informal), (b) how they are managed in everyday practice, (c) the main challenges experienced, and (d) how the problems have been/ plan to be, addressed".

Table 8: Summary of articulation management practices reported by TVET Colleges and HEIs

Institutions	Formal policy	Informal arrangements	Formal + informal arrangements	No Policy	Total
TVET Colleges	14	7	15	13	49
HEIs	17	4	1	3	25

The HEIs and TVET Colleges reported that the management of articulation arrangements involves management guided by a single or a number of formal policies, either institutional or national; or that the management is informal. In some cases the arrangements are carried out on an *ad hoc* or case by case basis; sometimes a combination of both formal and informal arrangements is used, and sometimes there are no articulation arrangements at all.

Some of the institutional policies referred to by the fourteen TVET Colleges and seventeen HEIs were the HEI Statutes; the admission policies of HEIs – policies on entry requirements; the general academic rules of the TVET Colleges and HEIs, and the institutional Recognition of Prior Learning (RPL) policies. Specific MoUs in relation to articulation arrangements with other institutions, SETAs or workplaces; an institutional Credit Accumulation and Transfer (CAT) policy; curriculum development policy; programme-specific policy; DHET/Umalusi standards-related documents and SAQA and Quality Council policies for RPL and CAT were also mentioned. Only two HEIs (U5 and U13) mentioned that they had articulation policy or guidelines developed.

Some specific responses from the TVET Colleges and HEIs

Articulation in the context of formal articulation policies and agreements

T11, T34, T38: "NCV articulation is (spelled out) in *Government Gazette* 32743"

T13 mentioned an emerging process for the formalisation of articulation between (several) TVET Colleges and four universities in a region. In a collaborative initiative between the four universities and the provincial government in the region, all of the HEIs and TVET Colleges in the region are embarking on a project to ensure access pathways for students following the NCV and NATED qualifications routes into the universities in the region. A committee representing all of the TVET Colleges in the region is currently working with U1 to develop formal Articulation Agreements that will be applicable to all of the Colleges. These Agreements are based on pilots that have already been completed, in which cohorts of tracked students have already successfully transitioned from the Colleges to the HEI.

U18 has formal articulation agreements with seven TVET Colleges. These agreements cover admission requirements and the programme design process. Specific attention is given to assure that there are articulation pathways for all qualifications, and articulation is managed when the programmes are approved.

Articulation arrangements through other policies/ rules/ partnerships/ processes

T7: "No articulation policy – learner placement (in workplaces) is regulated by the Basic Conditions of Employment Act, the relevant host company's policy, and the College's internal WIL policy"

T9: "No articulation policy. (The College follows the) requirements of universities for articulation. Students move easily between Colleges if the same courses are offered. All Colleges follow DHET/Umalusi standards. College agreements (are established) with companies (for) learner placement for workplace training to complete Diplomas"

T10: (The College has articulation partnerships) The partnership's manager "negotiates acceptance at HEI. Universities (U11, U14, U25) were visited. The NCV curriculum was explained to the HEI (which) assisted articulation for some students". The (College) Principal "created a platform with the partners and some HEIs to understand TVET"

T14: The DHET and universities "design and develop learning programmes alone (in silos, not consulting each other)". The "TVET Colleges are consulted by the QTCO for curriculum review. The College offers Departmental (DHET) courses. For university courses, (the College) follow(s) guidelines e.g. for DHET courses, students with matric (who) want to study (for the) NCV are exempted from taking Fundamentals except Life Orientation. University programmes are administered by the universities. The College offers (related) programmes on site"

T23 and T24: "No articulation (policy) documents except guiding documents and DHET policy"

T25: "College follows minimum (HEI) admission requirements"

T31: "Student Support Policy is implemented; (the College), liaise(s) with employers in identifying skills gaps and partnerships with industry"

T40: "SETAs prescribe entry requirements for programmes; requirements and guidelines are presented to the Colleges – e.g. Students who have completed the N2 (qualification) will be accepted for the Artisan Development Programmes of particular SETAs"

T41: "Articulation arrangements are made at campus and divisional level by the Curriculum Manager at

Central Office: NCV Level 4 students are sent to neighbouring Colleges if there are not viable numbers for a class group. For the Report 191 (NATED) Art and Design programme – (there is an) informal arrangement with U3's Fine Arts Department. Students who do not make it into the programme at U3 are sent to T41 to do bridging programmes to access U3 programmes"

T 44: "Articulation arrangements are managed through institutional bilateral agreements with specific deliverables – not regulated by policy guidelines"

U24: "Academic Advisory Committee (AAC) chaired by the Deputy Vice-Chancellor: Academic Affairs and Research, and which comprises Deans, Academic Unit Directors, the Registrar's Office and the Institutional Research and Planning unit, manages the articulation process"

Combining formal and informal articulation practices within institutions

Fifteen TVET Colleges and one HEI stated that their management arrangements were a combination of both formal and informal arrangements. The formal arrangements were guided by national policies and by MoUs with other institutions, SETAs or workplaces. The informal arrangements were managed on a case by case basis. An example of this type of management is provided by T27: "(Articulation arrangements are within) informal and sometimes structured formal partnerships. MoUs (that are) signed outline the form and broad outcomes of the partnership. A Service-Level Agreement (SLA) is in place for specific projects"

Formal articulation practices without articulation policies

Thirteen TVET Colleges and three HEIs indicated that they do not have any articulation policies at all. Of the thirteen TVET Colleges, four did not have any articulation arrangements, and one of the three HEIs did not have any articulation arrangements. For the four TVET Colleges and this HEI, it was easy to draw the distinction between a *latent articulation scenario* and 'non-existent articulation' as none of these institutions were engaged in articulation initiatives. In the other nine Colleges and two HEIs in this group, articulation arrangements are formally managed through day-to-day practices.

Decentralised articulation practices

U21: "HODs (Heads of Department) submit status recognition requests to Deans, then to the DVC (Deputy Vice-Chancellor): Academic for approval, and then the requests are ratified by SENEX (Senate Executive Committee). A SAQA liaison officer (an employee of U21 responsible for liaising with SAQA) was appointed in student administration"

U8: "Admission decisions are made at the discretion of the Head of the Academic Programmes, who receive initial assistance"

U4: "The Dean of the faculty assesses and makes a recommendation to the Registrar"

U3: "(Articulation) practices vary from department to department – contingent upon the perceptions of the academics concerned"

Seven TVET Colleges and four other HEIs manage articulation informally on an *ad hoc* basis.

Latent articulation initiatives

T36: "No articulation and no articulation policy. (The College) had an informal relationship with U25 but the students are not being taken through as it was stated, which rendered the relationship as not being there."

This response made it easy to draw the distinction between a *latent scenario* and 'non-existent articulation': the wording in the response supports the idea that articulation at T36 comprises a *latent articulation scenario*.

Over-arching comments on the management of articulation

It is noted that two HEIs have already developed articulation policies – policies dedicated specifically and exclusively to articulation.

The Statutes of the public HEIs and their various general and faculty rulebooks/ handbooks also contain rules that enable or hinder articulation – an analysis of these Statutes is currently underway to identify the specific clauses that provide support for, or challenge, articulation. There were no direct references to these Statutes by the responding HEIs, although references to entry and progression rules pointed implicitly to the handbooks.

The admissions policies of many UoTs make provision for the admission of students from TVET Colleges with N4-N6 qualifications, by means of subject recognition for similar modules. Most of these institutional admission rules include the NCV at NQF Level 4. The process of checking alignment between programmes or fields of study is usually decentralised.

Even when no specific articulation policies exist, RPL and CAT principles are being used as a framework. Admission rules are the default policies in the absence of explicit institutional articulation, RPL and CAT policies. The over-reliance on a collage of documents to deal with articulation – and with learner transitioning in particular – can lead to misinformation, misrepresentation, misunderstandings, and eventually mistrust by learners in the system. The recently promulgated Articulation Policy (DHET, 2017) may ameliorate the potential disquiet of transitioning learners who encounter such realities.

Articulation management challenges

Responses to the main challenges experienced in the management of articulation are categorised as challenges relating to (a) student support and student issues, (b) work placements, (c) resources, (d) the relationships between Colleges and HEIs, (e) institutional systems and structures, and (f) curriculum issues between Colleges and HEI. Table 9 shows the reported incidence of these categories of challenges.

Table 9: Articulation management challenges reported[22]

Challenges	Number of institutions reporting this challenge
Student support and student issues	6 Colleges, 2 HEIs
Work placement issues	8 Colleges, 1 HEI
Resources	4 Colleges (No HEIs)
TVET College relationships with HEIs; HEIs lack of understanding/ attitudes towards Colleges: 'epistemic (knowledge-related) injustices'	10 Colleges, 2 HEIs
Institutional systems and structures	7 Colleges, 1 HEI
Curriculum issues between Colleges and HEIs	8 Colleges, 2 HEIs

Student support-related challenges reported

Six TVET Colleges and two HEIs mentioned the following challenges confronted by students. A considerable challenge is the financial support for students to enter vocational training/ HEIs – including application and registration fees. Students experience problems at some HEIs when trying to register. It is a challenge to get students, even those who have successfully completed NCV Level 4 qualifications, enrolled for university qualifications because of cost of the university programmes, even when the programmes are access programmes. There is a lack of bursary opportunities.

Secondly, progression is a challenge for students in and beyond their first year in HEI, as the kinds of (academic) assistance and support needed, are not available.

Work placement-related challenges reported

Eight Colleges and one HEI identified the work placement of students as being a challenge. The distances of companies from the institution of learning, which have cost and time implications, was one challenge. Four Colleges mentioned the limited employment entities for articulation to workplaces. One College noted the issue of insurance cover of students at workplaces as a challenge; another responded that site visits were not conducted as expected as there was no dedicated Work Integrated Learning (WIL) office at the institution. One College noted the placement for experiential learning as a challenge, especially in Engineering.

Resource-related challenges reported

Human and financial resources were identified as challenges for the management of articulation. Two Colleges mentioned a lack of dedicated personnel to negotiate and formalise articulation policies and practices. One College identified the need for resources - financial, personnel, and facilities – as being

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22 This section 'Articulation management challenges' is biased in terms of the College voice; the voices of the HEIs are relatively silent on the matter. This finding is not surprising given the limited overall articulation approach on the part of the HEIs: the sense on the part of the HEIs of what the challenges are, would be commensurately limited. The HEI comments were recorded from across their responses.

necessary for articulation arrangements to be successful. What emerged as a contest was who should supply the necessary resources – the Colleges or the HEI? Another College mentioned that College lecturing staff were not adequately qualified to offer qualifications 'owned by UoTs', in the context of College-UoT partnerships, where the TVET lecturers could facilitate the UoT programmes – and the successful students would be certificated by the UoT. In these instances, the College staff needed support from the UoTs.

TVET College – HEI relationship-related challenges reported

The challenge of TVET-HEI relationships for the management of articulation was mentioned by ten TVET Colleges and two HEIs. Unhealthy relationships could result in 'epistemic injustice' – injustice relating to the lack of recognition and respect for different kinds of knowledge – especially when it involved the HEIs' lack of understanding of, or indifference to, TVET College qualifications and standards.

Colleges identified the autonomy of HEIs that had the power to change entrance requirements, as a challenge. In addition, the correct departments and contact personnel in HEIs were not necessarily easy to identify. Colleges had had difficulty in arranging appointments with the Deans in HEIs. The HEIs were reported as generally not regarding the TVET Colleges as being equal partners in the PSET system, and the role-players in partnerships often had different agendas.

It was reported that there was generally poor understanding of 'articulation', and a fear of commitment by both TVET Colleges and HEIs. It was further noted that the Gazetted agreements appeared to allow for easy articulation but the HEIs ultimately have a say in admission. Common understanding was lacking regarding implementing the policies for access to qualifications offered by HEIs.

The Colleges noted that they struggled to get recognition by HEIs. Front desk officials in most HEIs are not knowledgeable about the NATED and NCV programmes offered at TVET Colleges. The Colleges referred to *Government Gazette* rules and SAQA 'bands' in order to articulate the TVET offerings correctly, especially for students from NCV programmes wanting to continue their studies at universities, and noted that the NCV qualifications are not well known or acknowledged by the universities. In addition, the quality of NCV Level 4 passes was said to be not good enough for universities.

Institutional systems and structure-related challenges reported

Institutional systems and structures were identified as challenges by seven TVET Colleges and one HEI. These challenges related to a lack of guiding policies and procedures; management information systems (MIS); administration systems; access or placement tests, and RPL procedures within faculties (in HEIs). The considerable physical distances between institutions were also seen as being challenging for articulation management.

It was reported that good working relationships between Colleges and HEIs were often dependent on specific individuals in the institutions involved, and that these relationships became a challenge when the 'champions' left the institutions.

Curriculum-related challenges reported

Eight TVET Colleges and two HEIs mentioned curriculum-related issues as being challenging. Firstly, HEI

accreditation requirements may dictate that exemptions be granted for courses only if there is significant overlap in the content of the course being exempted and the course already passed. The response to these requirements is an examination of the content of the two courses to determine the extent of overlap.

Secondly, it remains generally a challenge to articulate into Higher Education based on the NCV and NATED qualifications. This may be because of the unfamiliarity of the HEI practitioner with the content of the courses offered at the Colleges, or simply a manifestation of the lack of parity of esteem between the two, where a mismatch is assumed merely because the course is offered elsewhere. There are cases where a mismatch of curriculum content occurs, but this is established by first examining the content.

Some Colleges maintained that the universities are not aware of the rules in the *Government Gazette* 32743, regarding the articulation of the NCV and Higher Education. A College noted that the same HEI would use different approaches for College students with similar NCV results. Another College claimed that an HEI resisted the admission of NCV Level 4 and N6 students. This College suggested that the Department of Higher Education and Training (DHET) should develop guidelines for the recognition of N6 qualifications for entry into HEIs. Colleges also identified subject selection as an issue, and that discussions were needed in order to help them to identify the critical subjects needed to open entry into HEIs.

A third challenge noted was that the NCV Level 2 curriculum was very demanding and that the DHET should consider developing an NCV Level 1 qualification, to bridge into the NCV Levels 2-4 qualifications. In all, the NCV issues dominated in the College responses touching on curriculum challenges.

While this sub-section of the report has sketched the reported challenges to articulation, the following section elaborates on the successes and enablers of articulation, showing some useful ways of addressing the challenges.

Responses to Question 4: Perceptions Regarding Success

This section presents an analysis of the responses to the question: "Please also tell us about (a) whether you think articulation initiatives (or aspects of articulation initiatives) in your institution have been successful (highly successful, moderately successful or unsuccessful); (b) the details about the main successes; and (c) what exactly enabled these successes. Table 10 summarises the responses of the TVET Colleges and HEIs.

The perceptions of the extent to which institutions experienced their articulation arrangements as unsuccessful, moderately successful and successful were gleaned from this question.

Table 10: Summary of articulation successes and enablers reported

Categorisations of perceptions of articulation initiative(s)	Numbers of TVET Colleges	Numbers of HEIs
'Unsuccessful'	11	-
'Moderately successful'	21	6
'Successful'	8	1

Categorisations of perceptions of articulation initiative(s)	Numbers of TVET Colleges	Numbers of HEIs
'Highly successful'	1	5
'Some clear successes, some moderate successes, with some unsuccessful aspects/ initiatives'	2	-
'Some clear successes with some moderate successes'	2	-
'Some moderate successes, with some unsuccessful aspects/ initiatives'	1	-
No ratings given	3	13

TVET College perceptions of articulation initiatives as being 'unsuccessful'

The fact of lack of success regarding articulation initiatives was accepted by six of the Colleges; their responses gave the main reasons for this lack of success. Reasons included 'changing HEI entrance requirements' together with inadequate 'passes at NCV Level 4' and HEI 'lack of knowledge of College programmes'. Reasons also included the collapse of formal agreements, and the need for regulation at national level. Importantly, one of the responses pointed to the economic circumstances of students, who 'stop out' to find employment before continuing their studies. While this reality is framed as a 'problem' in the College's response, it in fact points to the realities of *individual learning paths*, a type of articulation that needs to be recognised and supported in its own right, through flexible provision of education and training. This flexibility is especially the case, since most learners 'stop in and stop out and stop in again' as they progress on their learning and work pathways (Walters, 2015a; 2015b). Excerpts of actual responses follow.

T2: "Articulation arrangements were unsuccessful due to HEIs' changing entrance requirements"

T4 attributes the lack of success of its articulation arrangements to "the quality of passes at NCV Level 4 not (being) good enough for universities"

T12 attributes its lack of success regarding articulation to the "dormancy of the formal agreement and informal discussions"

T13 stated that it was "moderately successful with UoTs but less so with traditional academic universities because of (their) lack of knowledge of College programmes". This College made an important comment when it noted that: "Articulation between College and universities should not be dependent on agreements between (the) TVET College and Universities. (It) should be systemised and regulated by national policy"

T23 responded that its articulation attempts were "unsuccessful because the NCV qualification is not well known or acknowledged by universities"

T37 wrote that "Unsuccessful articulation is due to economic background as many of the students look at furthering their studies (only) once they are employed"

TVET College perceptions of articulation initiatives as 'moderately successful'

The College responses claiming moderate success made mention of useful enablers of these successes, if moderate. The main enablers identified include commitment and adherence to formal agreements, quality teaching and learning, and collaborative relationships between the Colleges and HEIs involved. Excerpts of actual responses follow.

T30 responded that "keeping to MoUs and SLA agreements contributed to success"

T38 attributed the moderate success to "good quality teaching and learning and overall pass percentages in NCV Level 4 and N6"

T44 stated "College to university initiative moderately successful" but added that the majority of South African universities were not keen to admit students from TVET Colleges, as "they do not consider TVET qualifications (as being adequate foundations for university study)"

T47 perceived its articulation initiative as being "moderately successful because (it) worked together in a collaborative relationship with the university"

TVET College perceptions of articulation initiatives as being 'successful'

T8 perceived its articulation experiences as being successful because both of the College and HEI management teams involved were in agreement about aligning the related programmes. To date, there have not been major challenges relating to this collaboration. This response underscores the importance of College-HEI collaboration around curriculum alignment in order to integrate different learning offerings into progression pathways.

TVET College perceptions of articulation initiatives as being 'highly successful'

T9 considered its articulation arrangements with industry for experiential learning as being highly successful due to a placement office dedicated to dealing with experiential learning, although little evidence was provided.

TVET College mixed experiences: 'successful and unsuccessful aspects'

T45 reported a number of articulation initiatives, some of which were "more successful than others". The 'successful experiences' included a bridging programme in which applicants to a National Diploma in Engineering, who did not meet the Mathematics and Science entry requirements were enrolled for N4, N5 and N6 Mathematics and Engineering Science at the TVET College. Upon passing these courses, the students were (and continue to be) admitted to the university National Diploma course with exemptions for first year Mathematics and Science courses in the Diploma. The College's initiatives for student work placements in industry were also seen as being successful. The College has set up a Placement Unit that serves the purposes of:

- sourcing funding for work placements;
- finding host employers;
- developing a database of learners who are ready for work experience;
- induction and interviewing of learners to be sent to workplaces;

- the placement of students;
- the payment of stipends to learners; and
- dealing with the queries relating to payment and experiential training.

The unsuccessful initiatives reported by T45 had failed because there were no MoUs. These initiatives included the actual processes of securing MoUs. Both existing initiatives and new ones remained at the negotiating stages for lengthy periods with minimal follow up.

HEI perceptions of 'highly successful' articulation initiatives

Five HEIs described their articulation initiatives as being 'highly successful'. The details of these initiatives are elaborated to some extent immediately below as this articulation-related work includes enablers which could serve to take the initiatives – and other articulation initiatives – to scale. These enablers ranged from inclusive admission criteria, to the quality of teaching and learning – and student achievement levels, to focussing on particular articulation pathways. Inclusive admission criteria included admitting students from NATED and NCV as well as National Senior Certificate (NSC) qualifications, into university Degree programmes – but this required the students to have included certain subjects in their NATED, NCV, and NSC studies, and to have achieved at certain levels. It was implicit if not explicit in the responses, that career advice from the very early stages of learning pathways, whether at school, TVET College, Community College, HEI or elsewhere – wherever there are transition points – is absolutely imperative. Where students are of an age to have learned informally or non-formally at work or throughout life, providing Recognition of Prior Learning (RPL) services also enhances the inclusivity of admission criteria – whether to commence learning programmes or for advanced placement in the programmes.

The fact that articulation efforts were sometimes focussed on *particular* learning pathways, in particular fields or transition points also enabled gains and successes. Such beginnings could be built on incrementally. Alignment to the Higher Education Qualifications Sub-Framework (HEQSF) also assisted articulation work.

- U2, a UoT, described its initiative as comprising an articulation MoA with provincial government and all of the TVET Colleges in the province. The MoU is clearly being implemented as is evidenced by the high numbers of transitioning students and their success rates. The students are transitioning into and along pathways involving qualifications in Engineering (all fields) and Management (in the fields of Human Resources Management and Marketing). U2 indicated that student performance was a significant factor in the success of this initiative, and that the pass/success rates for students entering the UoT with NATED (College) and NSC (school) qualifications were similar. U2 further noted that sometimes the pass rates of students who entered with NATED qualifications exceeded the pass rates of students entering its programmes with other qualifications. The TVET College students who articulated into the BTech Degree courses after completing N6 plus 18 months of the relevant practical experience (collectively constituting the National N Diploma) performed notably well especially if their placements were in line with their fields of study. This example underscores the importance of the NATED qualifications for articulation.

- U9, a traditional university, indicated that not many articulation initiatives had been undertaken but noted that it "focused on articulation into Bachelor and postgraduate programmes". Since the graduation numbers and percentages of postgraduate students in relation to the numbers of students admitted, had been very good, U9 judged its articulation efforts to be highly successful.

- U12, a traditional university, judged its RPL initiatives as being highly successful because students, including senior public figures, had graduated from the university after being admitted to postgraduate qualifications via RPL.

- U18, a comprehensive university, noted that its articulation work had been highly successful because of the extent to which it was prepared for the roll-out of HEQSF-aligned qualifications and the concomitant phasing out of the non-aligned qualifications. HEQSF-aligned Diplomas will be replacing National Diplomas and HEQSF-aligned Advanced Diplomas will be replacing the B.Tech degrees. These new qualifications may have required amendments to old articulation arrangements, which U18 would have planned for.

- U23, a University of Technology, assessed as highly successful, it's articulation "work in progress" with TVET Colleges, and its articulation with other universities which was "at an exploratory stage." In this particular example, actual evidence to support the description was not provided – so this example is an anomalous one.

One HEI which saw its articulation as being 'successful'

U13, the only institution to label its articulation as 'successful' (as opposed to highly successful or moderately so) is a comprehensive university. U13's response notes that although there are currently formal articulation practices in place, these practices are "not widely encouraged" by the university. This is largely due to the outcome of a research project conducted in 2006-2009 to investigate the articulation from Diplomas to Degrees. A primary finding of the research was that articulation between programmes in the same field is rarely easy because the Degree programmes have different purposes to the Diploma programmes: each type of programme prepares students for different roles in the world of work. One is a conceptual qualification preparing the graduate in a general way, while the other is deemed to be a contextual qualification, preparing graduates for specific work. In terms of the curriculum, these differences often mean that the movement between the two is between very different knowledge forms with different cognitive and cultural conventions.

HEIs which deemed their articulation initiatives 'moderately successful'

It appears that 'moderate successes' were attributed by the respondents to initiatives that were commencing or in the process of being set up – initiatives that are categorised as being 'emerging articulation scenarios' in the current research. U6's alignment of its policy documents with its new Teaching and Learning Strategy is one example.

Another situation underlying the perception of 'moderate' success was the existence of articulation routes that had low uptake. From an HEI point of view this pattern could appear to moderate success, but looked at differently, it shows successful movement from TVET Colleges to workplaces. This transitioning represents another opportunity for HEIs to provide flexible learning and teaching opportunities. It could for example point to the need for *later* periods of learning in individuals' learning and work pathways. The relatively high success levels of the more mature students reported by U4 underscores the viability of this kind of flexibility.

Also worth noting is the successful articulation between NATED programmes and the learning programmes in HEIs. These findings have important implications for keeping NATED qualifications in the programme mix. The role played by private colleges and NGOs is also clearly key in an articulated system.

- U3, a UoT, has a number of articulation arrangements with all of the public TVET Colleges in its province, as well as with a few private colleges. U3 noted that articulation arrangements with private colleges were easier to manage than arrangements with public colleges. This was largely due to the higher volume of NATED qualifications on offer at the private colleges. NATED qualifications have been found to articulate more seamlessly into National Diplomas (offered by UoTs) than do the NCV qualifications.

- U4, also a UoT, noted that since the numbers of students articulating from TVET Colleges were small, it categorised as moderately successful, its articulation in terms of "access and success". U4 noted that students articulating from TVET Colleges performed better than their high school counterparts. U4 observed that "students from TVET colleges succeed in their studies compared to those who come straight from school, mainly because they are already knowledgeable and experienced about the rigours and demands of studying in the Higher Education sector; they understand the environment and show the maturity required for success in the Higher Education sector. They are clear and confident about their career choices". U4 further asserted that the university provided a 'more conducive environment' than the students were accustomed to, with resources that enabled success.

- U6, a traditional university responded that it had embarked on a project to align all supporting policy documents with their new Teaching and Learning Strategy which includes inclusive admission criteria, and articulation.

- U7, a traditional university, reported a partnership with a local NGO that offers a "matric school". Successful students exiting this school are admitted to an extended programme at U7, and are offered additional support through a mentoring programme. U7 attempts to ensure that all of these transitioning students are financially supported in the extended programme. The extended programme leads to a cognate Degree at U7.

- U10, a UoT, noted that there were articulation pathways, but a low uptake of the available articulation routes. The main reason for this low uptake was that the graduates from the TVET Colleges consider their qualifications (the National N Diploma, which is a 360-credit Diploma awarded after eighteen months of theory in the N4-N6 qualifications followed by 18 months of work placement) as being equivalent to the UoT qualifications (the National Diploma, which is also a 360-credit diploma). Another reason cited was that some of these College graduates find employment and choose not to transition. The U10 respondent noted that the marketing of the available articulation arrangements is not adequate.

- U12, a traditional university that sees its articulation initiatives as being moderately successful, reported that it used to have a highly successful articulation initiative in a particular programme, Theology, but that the initiative had been discontinued due to regulations around duplication of content. The researchers would categorise this articulation as a 'latent articulation scenario'.

Colleges and HEIs which did not rate their articulation initiatives

Several HEIs did not want to rate their articulation initiatives for a number of reasons. Two HEIs – U1 and U11 – noted that it was too early to rate their initiatives fairly. U8 noted limited participation by students and/or limited formal processes.

U1 also acceded that it was not possible to ascertain the numbers of students who had gained access through articulation arrangements from TVET or other Colleges as there is no field for this admission route in their student system. They are able to track students who transfer from UoTs or other universities but are not able to identify these students' previous programmes of study.

U5, a traditional university, indicated that its articulation had largely focused on student transitioning from the B.Tech Degree (obtained at UoTs) into the B.Eng. Degree, a professional Bachelors degree. For this reason it did not want to provide an over-arching judgment on the success or otherwise, of its articulation.

All of these findings have implications for the expansion of articulation work going forward. If there is to be reporting on articulation for example, the different phases of articulation need to be recognised – from start-up periods, to the stages of transitioning student cohorts, to periods for reflection and enhancement. There is also clearly a need for institutions of learning to track where their students come from, and where they transition to – in short, there needs to be analysis of the learning pathways being followed. This tracking would need to be linked to relatively permanent markers such as individuals' identity numbers, so that 'stopping in and stopping out' can be recorded and the students supported. The evaluation of articulation would also need to take into account the relative size of articulation initiatives, and initiatives of all sizes need to be encouraged.

Enablers of articulation

From the College and HEI explanations of why they rated particular articulation initiatives as moderately to highly successful, it is possible to elaborate on the enablers of articulation. These enablers are of central importance for building on already-existing articulation initiatives, and for expanding and taking them to scale. The enablers are discussed in more depth in Section 6 below.

Responses to Question 5: Monitoring and Tracking Students

In this section of the report the College and HEI responses are documented for the question: "Are the students who transition into your institution monitored and tracked in terms of their progression through your programmes, and success rates and levels? (a) If so, please tell us how it is done, and (b) tell us roughly how many students have transitioned from TVET Colleges (10s, 100s, 1000s), and what their success levels and rates have been? (c) If not, please could you elaborate as to why this is the case?"

Students articulating into another organisation can be tracked and monitored in terms of the programmes, and success rates and levels. Table 11 below shows that over half of the 49 TVET College respondents have a tracking system for articulating students, while just under half do not track or monitor student articulation. Of the 25 HEIs which responded, eight HEIs indicated that they have a tracking system for articulating students; just over two thirds do not track or monitor student articulation. The tracking of articulation was not required in the past; some respondents noted that resources would be required to do this tracking.

Table 11: Summary of student tracking and monitoring by TVET Colleges and HEIs

Institutional type	Number (%) of institutions with tracking systems	Number (%) of institutions with no tracking	Total
TVET Colleges	28 (57%)	21 (43%)	49
HEIs	8 (32%)	17 (68%)	25

Types of monitoring and tracking arrangements

The various types of tracking arrangements reported as currently being in existence are outlined in Table 12 below. It is clear that tracking varies widely across institutions. In a strongly articulated system, tracking and monitoring needs to be more consistent across institutions.

Table 12: Types of articulation monitoring and tracking arrangements

Monitoring and tracking arrangement(s)	Particular TVET Colleges and HEI (Numbers and %)
TVET Colleges which understood tracking as being the tracking of students through the levels of their qualifications (and not as articulation from the College to other institutions)	T1, T4, T7, T11, T12, T15, T16, T17, T19, T22, T25, T26, T27, T28, T30, T34, T42, T49, T50 (n=19, 39%)
Tracking of the progression of students from access, through the mainstream qualification and eventually graduation, is done within the HEI via the University Preparatory Programme	U6 (n=1)
Tracking is done by the UoT for students from TVET Colleges articulating into the UoT	U2 (n=1)
The HEI's Faculty Management (Deans and Deputy Deans) does tracking and monitoring of students who transitioned	U11 tracking students from U1 U7 (n=2)
All faculties report on enrolment planning targets (all students) in their annual reporting to the Senate	U17 (n=1)
Reporting on enrolment planning targets to DHET through HEMIS is done by the Institutional Planning, Institutional Research, Quality Assurance & Reporting Department	U26 (n=1)
Tracking is done by the College, of: (1) students transitioning within NATED Business Studies N4 to N6, and (2) students transitioning in NATED Engineering Technology N2 to N6 – Tracking is per programme per level	T4 (n=1)
Tracking is done by the Colleges once students have qualified and transitioned into the workplace	T7, T8, T12, T42, T45, T46, T49 (n=7, 14%)
Coltech TVET or MIS system, monitoring and tracking on enrolment planning targets is done by the placement officers	T11, T15, T16, T26, T28 (n=5, 10%)
Tracking through contacting students personally	T7, T20 (n=2)

Monitoring and tracking arrangement(s)	Particular TVET Colleges and HEI (Numbers and %)
Student progression is monitored through mentoring: mentors or student placement officers provide feedback and submit reports	T5, T43 (n=2)
Tracking of students from a TVET College to a University is done but the survey response does not mention how the reporting is done	T13 (n=1)

In summary, of the 25 HEIs, only U2 mentioned the tracking of students from TVET Colleges into the university, whereas the other 24 mentioned tracking of students in general. TVET Colleges mentioned tracking within qualifications; however, T7 mentioned tracking of student transitioning into workplaces, further studies and unemployment. A national focus on tracking, and building common understandings around tracking – and specified formal requirements for tracking – would serve to build awareness around student transitioning, and help institutions to focus their energies on the types of transitioning desired.

Numbers of students whose transitions between TVET Colleges and HEIs have been tracked

Of the 28 TVET Colleges who stated that they have a tracking system for students transitioning into HEIs, 13 Colleges (27%) provided actual figures for the numbers of students who transitioned. Of the eight HEIs who stated that they have such tracking systems, four (16%) provided actual numbers. These numbers are summarised in Table 13 below. Actual numbers transitioning may be slightly higher across the board, but are not visible due to the lack of tracking.

Table 13: Number of students who have transitioned (grouped in 10s, 100s and 1000s):

Type of institution	Student numbers			Total numbers of institutions
	10s	100s	1000s	
Numbers of TVET Colleges	2	7	4	13
Numbers of HEI	1	2	1	4

Student transitioning within the past five years

The data received from TVET Colleges and HEI in response to the survey question on student transitioning in the past five years are shown in Tables 14 and 15 below. Table 15 shows the types of reasons given for not tracking students.

Table 14: Student transitioning from TVET Colleges 2011-2016

TVET Colleges	Data provided
T3	Database of CVs submitted to Student Support Services for learnerships and apprenticeship opportunities
T4	NATED Business Studies N4 to N6 NATED Engineering Technology N2 to N6 – tracked per programme per level; Average throughput rate: 51% NCV L2 to L4 - Average pass rate: 58%, throughput: rate 40%
T7	Certificated students 2013/14 = 1 220 Permanently employed= 49 Contract/ internships = 90 Studying further = 36 Own business = 5 Unemployed = 234 Unreachable = 806
T8	Places 200 students in different workplaces through NSF funding Placed NCV Level 4 & Report 191 (N6) graduates Placed more than 2 000 students & records traceable when students leave the College
T12	College overall pass rate 51% College average throughput rate 51.5% 450 students completed artisan related programmes 328 students-partnerships placement in workplace/ industry/ government for work exposure and experiential learning/ certification
T13	Track students from College to universities 18 first year students from College at universities in 2015
T19	2013 placed 30 learners 2014 placed 260 learners 2015 placed 198 learners 2016 placed 68 learners
T20	Number of NATED 191 Interns placed between 2013-2016 = 283 (Success rate 100% for Level 4)
T22	NCV students subjected to CAP Test assessment; 475 students written CAP Test to date
T25	Database – student placement – 2013-2016
T27	Students monitored academically only
T28	Have database and track students through social media Placement Unit works with TVETMIS (COLTECH) In 2012, 1 200 students were placed Currently 3 000 students have been placed in 2012-2016.
T30	In the last five years 5517 students have transitioned (no explanations of the numbers provided)
T35	More than 20 students admitted each year (2011-2016) in the Department of Art and Design
T46	Students tracked once graduated – used for work placements. Database of N6/ Level 4 students.
T50	Students tracked once graduated – used for work placements. Database of N6/ Level 4 students artisanships/ articulation into skills programmes

Table 15: Summary of success rates and levels for students who transitioned into HEIs[23]

HEI/ TVET College	Reported student success rates and levels
U2	"Challenges faced in tracking makes it difficult to track successes"; In 2010-2016 an average of 8.34% students transitioned from TVET Colleges
U4	Even though no formal tracking system is in place, U4 stated that in 2015/2016 four students (originally from Colleges) graduated
U8	20/700 (0.03%) students transitioned from the TVET sector
U11	U11 provided anecdotal information, in the form of one example of a student who articulated from a UoT into the university – the student had excelled, completing his qualification within its three-year time frame; U11 noted that many of the students who articulate from UoTs "do poorly"
T4	T4 noted that the tracking of pass rates does not distinguish between progressing between qualification levels and transitioning from one institution to another; throughputs provided were: - NATED N4-N6 – average throughput = 51% - NCV Level 4 – average throughput = 58%
T20	Success rate for NCV Level 4 = 100%
25 of the TVET College responses which did mention the tracking of students had provided success rates that related to success *within* qualifications and not to the articulation of students *between* institutions/learning programmes/qualifications	

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23 Only two HEIs provided dates in their responses; these dates are included in Table 15.

Table 16: Reasons for the lack of tracking or monitoring of student transitioning

Reasons given	HEIs	TVET Colleges
"Not aware of tracking, although believe it should be done"	U1	-
"The absence of tracking is due in large part to the non-capturing of TVET College articulation information in the registration process. Only the 'National Certificate data' are captured and indicated, irrespective of the formal post-school activities of registering students. This is the easier of the two primary reasons to address. The second reason lies at the heart the broad acceptance of the principles of Credit Accumulation and Transfer (CAT). Although this is now national policy, its general support and implementation has not been measured across the country. U3 is no exception in this regard. Far too many academics do not know about these (CAT) principles; and amongst those who do, there is sufficient division within the ranks, over the efficacy of articulation, to render its implementation difficult if not impossible. These remain anecdotal perceptions that will likely be tested in the already mentioned post-graduate investigation"	U3	-
"Higher Education Data Analyser (HEDA) can provide the data of a cohort of students that articulated from a TVET College to U4"	U4	-
"No Informal tracking for articulation to another organisation"	U5, U8, U9, U10, U14, U15, U19, U21, U25	T6, T9
"Small number of students transitioning between TVET Colleges and HEIs"	U5, U6, U9, U15, U21, U24	-
"Formalisation of tracking is being planned"	U5, U8, U15, U24	-
"No need for tracking"	U12, U21	-
"It is too early to track the students"	U16	-
"Tracking is done on an *ad hoc* basis"	U25	T6
(Tracking not explained)	-	T3, T4
(No response given)	U2, U7, U11, U13, U17, U18, U20, U23, U26	T2, T7, T8, T10 to T47

Articulation-Related Documents Shared by the HEIs and TVET Colleges

Fourteen (29%) of the responding TVET Colleges and eighteen (72%) of the HEIs outlined their available articulation-related documents and were willing to share these documents with the researchers under conditions of strict anonymity – a summary of the documents received is provided in Table 17 below. Four of the Colleges and five of the HEIs mentioned that they had articulation-related policies; one College and two HEIs were unsure; and three Colleges and one HEI did not answer. Twenty-nine Colleges (59%) said 'no' to sharing their documents.

Table 17: Summary of the documents shared by the TVET Colleges and HEIs

Types of documents reported	TVET Colleges	HEIs
'Admission policy available'[24]	T25, T43	U2, U6, U10, U11, U15, U20
'RPL policy available'	T19	U4, U10, U11, U12, U14, U15, U17, U18, U19, U22, U24
'CAT policy available'	-	U15
'General Rules available'[25]	-	U20
Policies related to continuation of study or post-graduate studies	-	U17, U24
'Recently approved articulation policy document'	-	U5
'Articulation principles and guidelines'	T20	U1, U13, U24
'University programme design template'	-	U14
'The Co-operative Education Policy (which) regulates the articulation of students from the university to the world of work'	-	U4
'We are guided by the Higher Education Qualifications Sub-Framework (HEQSF)'	-	U25
'We do not have any innovative articulation-related documents to share as such. However, currently we are updating our RPL, CAT and Assessment Policies in line with the recently published policy documents by the Council on Higher Education (CHE)'	-	U9
'The articulation policy is in development phase and will be available once Senate has approved it'	T13	U2
'WIL Policy'	T7	-
'MoUs with HEIs'	T15, T20, T28, T43, T44	-
'Service Level Agreements' (SLA)	T15, T43	-
'Alumni Form'	T15	-
'Document relates to placement of lecturers and students'	T17	-
'Quality Management Policy'	T19	-
'SAQA document' and 'Regulations documents'	T22	-
'Government Gazette – DHET Articulation Policy'	T14, T22, T47	-

The responses to this question reveal differing understandings of articulation, and extents to which articulation is developed across the responding institutions. Most of the institutions draw on their Admission/General Rules and their own or national RPL, CAT and Articulation policies for their articulation work. Several draw on the articulation-related MoU and MoA. Additional documents referred to include the Cooperative Education Policy, Work Integrated Learning Policy, Service Level Agreements, Quality

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24 All of the institutions of learning have admission policies, but only these institutions mentioned that they use these documents articulation initiatives.

25 All of the institutions of learning have general rules, but only these institutions mentioned these.

Management Policy, programme design templates, and others. The institutions were not all willing or able to share the documents they use, for confidentiality reasons.

Given that the Ministerial Policy for Articulation was published via *Government Gazette* in January 2017, it is not surprising that the articulation policies provided by respondents are not fully aligned to this new national policy. It is however encouraging that several documents dedicated to articulation pre-date the Ministerial policy, showing that quite a few institutions have been engaging in articulation initiatives for some time. It is noteworthy that only two HEIs (both UoTs) explicitly included articulation between institutions of learning and workplaces in the documentation provided; from the responses to several of the survey questions however, it is clear that many other institutions implicitly recognise this articulation pathway. From many responses, it is clear that there is little delineation between general/admission rules on one hand, and articulation on the other. An implication of this finding is that some of the General and Admission Rules of learning institutions may need to be revised in order to strengthen articulation.

Colleges and HEIs Willing to Write up Successes

Seven TVET Colleges and 19 HEIs stated they were not willing to write up their successful articulation initiatives. One College and two HEIs did not answer; two HEIs were unsure. The remainder – 29 (59%) of Colleges and 13 (52%) of HEIs answered affirmatively (See Table 18).

Ta**ble 18: Institutions willing to write up their (successful) articulation initiatives**

Number of TVET Colleges willing to write up	Number of HEIs willing to write up
29 (59%)	13 (52%)

6. REFLECTIONS ON THE RESULTS AND ANALYSES

This section of the report highlights the main findings of the survey, including the findings relating to how articulation is understood, articulation initiatives and mechanisms that exist, and how these initiatives are managed and enabled. It also touches on perceptions of these initiatives as being 'highly successful', 'successful', 'moderately successful', and 'unsuccessful' – and why these ratings were put forward by the respondents. Finally, it identifies initiatives that could be taken to scale.

Reflections on the Main Findings Regarding Understandings of Articulation

It was found that across the public HEI and TVET College sectors there are relatively high awareness levels of what has been termed *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. These understandings - boundary-addressing approaches - were expressed differently, ranging from narrow descriptions of links to workplaces, or between Colleges and HEIs, to broader conceptualisations incorporating learning pathways, learner progression and mobility, inter-institutional agreements, and other aspects.

There was less understanding of the need for institutions to be flexible in their support of learners as they follow their particular individual pathways. Learners encounter 'boundary zones' between the different elements of learning pathways, and adopt individual boundary-crossing practices as they transition along these pathways, often independently of the boundary-addressing approaches cultivated by well-meaning institutions.

This absence – that the perceptions of the PSET sector as a whole are not ordinarily, immediately and automatically focussed on the *learners* (for whom the articulation initiatives are designed) – is one that needs to be addressed as a matter of urgency. This need is especially the case given the 'new' 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' learning pathways (Walters, 2015a, 2015b; Wildschutt, 2017).

Elements seen as being of key importance for articulation

The following key articulation elements (boundary-crossing mechanisms) were mentioned in TVET College and HEI responses to survey questions other than that relating to how articulation is understood, but reveal how it is understood:

- developing shared understandings of the qualifications offered at TVET Colleges and HEIs respectively;
- aligning different programmes and curricula for the purposes of articulation;
- designing bridging programmes to support and expedite articulation; and
- strengthening the parity of esteem while accepting the differences between qualifications designed for different purposes.

'Outlier elements' were also identified – in the form of concepts mentioned by fewer than three respondents. The outliers included 'articulation into entrepreneurship', 'Community Education and Training College (CETC) articulation into TVET Colleges', 'the provision of career development advice', 'articulation for students with disabilities', 'the sharing of infrastructure', and that 'emphasising articulation between TVET College qualifications and academic qualifications in HEIs devalues the College qualifications as most of the students want to transition from the Colleges into the workplace'. These ideas may be more widely held than were reported.

Need to workshop broad and deep understandings of articulation

A simultaneous, explicit, systematic focus on the three different *levels of articulation - systemic, specific,* and *individual* – in the rich forms of articulation expressed in the findings on the whole – have potential to strengthen the opportunities for learner progression and mobility. No single institution expressed an understanding of the full range of types of articulation, with all the enabling aspects (the 'ecology') required, although many of the respondents did report extensive articulation work and successes. One or more national public workshops would expand the 'system learning' in this regard.

Quest to Identify Existing Articulation Initiatives and Success Models

Around a third of the TVET Colleges surveyed reported the existence of their formal articulation arrangements; half are participating within informal arrangements, and a seventh within a combination of formal and informal arrangements. Just under half of the HEIs surveyed are participating in formal articulation arrangements, and a quarter in informal initiatives. In short, all of the TVET Colleges reported engagement in some articulation activities, while over two thirds of public HEIs did.

Because the survey was designed to elicit descriptions of *all* the articulation initiatives underway, it deliberately did not provide specific prompts that could narrow the responses. For this reason, the responses cover a very wide range of types of articulation initiatives – within and between Colleges, between Colleges and HEIs, and between both Colleges and HEIs on one hand, and the workplace on the other.

Strong province-wide articulation models (involving systemic and specific articulation, and the support of individual learners)

At the heart of the action research project, of which the National Articulation Baseline Survey is part, is the quest to identify good practice models of articulation, and to enhance actual articulation in the system. From among the responses submitted, a number of good practice models surfaced; at least three relatively large-scale arrangements deserve to be singled out.

All three involve articulation arrangements which were developed in response to provincial needs; all three involve the provincial governments concerned, and a range of learning institutions (and other entities in some cases), in the formalisation of the articulation agreements concerned. Each of these examples differs in their approaches, scales and purposes. Yet each of these gained traction, possibly as a consequence of turning articulation into a provincial priority. All three include *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 boundary-crossing activities in all three have considerable potential to be replicated. The role-players themselves identified each of the initiatives as being successful. In line with the confidentiality upheld in the research project, the entities involved are not named in this report although they may choose to identify themselves in public forums in the near future.

'Successful articulation model' involving nodes of networked institutions (systemic and specific articulation)

In addition to the strong provincial models, a number of robust and effective specific articulation arrangements were reported that each appear to be anchored around a single institution. Some Colleges provided evidence of multiple articulation arrangements across the PSET landscape, including evidence of 'active' MoAs and student tracking into, within and out of the Colleges. Several HEIs reported articulation agreements with a number of Colleges. These arrangements effectively create boundary-crossing zones. All of the institutions that demonstrated these commitments should be provided with opportunities to host visits and/or workshops to share the 'ecologies' – the many interacting elements – that contributed to the success of the initiatives and to determine what would be required to replicate their models and take them to scale.

Articulation Structures

While formalised inter-institutional articulation arrangements are to be commended, there are indications that implementation does not always follow the adoption of agreements. In addition, a large number of the reported articulation initiatives are informal, *ad hoc* and may be dependent on personal relationships. Respondents noted that the proliferation of numerous informal arrangements, and failure to adhere to formal agreements, presented significant challenges for articulation.

In the best practice models already described, two key contributing factors surfaced that appear to be driving the success of the models. The first factor is the reliance on an established articulation *office*, as opposed to an incumbent *officer*. These structures are responsible for some – if not all – of the elements of articulation; they are boundary-crossing or articulation *structures* that enable boundary-crossing practices. Some of these structures take the form of work placement offices or centres developed exclusively for the promotion of articulation – they resemble the roles played by the Cooperative Education Offices in UoTs. These offices are relatively new in the TVET landscape (in the form of 'budgeted posts') and may represent a means to 'absent an absence' (Norrie, 2010).

A second factor is the 'resourceful leadership' (Edwards, 2014) needed to forge collaborations across perceived divides. Cultivating such leaders and establishing more articulation structures could be made a requirement for enhancing the boundary-crossing needed for articulation.

The National Articulation Policy (DHET, 2017) is a means to structure and enhance articulation. From an ecosystems perspective this policy is likely to support NQF-aligned articulation and perturb inadequate interactional patterns within and between TVET Colleges, HEIs, Skills Development Providers, and workplaces (institutions, staff and students). The PSET sector's response to the Articulation Policy is vital. If the response is not 'appropriate' then additional compliance may need to be built into steering mechanisms within the ambit of the DHET/ SAQA.

The Centrality of the Students/Lifelong Learners

In terms of what needs to be taken to scale, the first is a return to the centrality of the students/lifelong learners in the understandings of articulation. In the marketing of articulation – and other advocacy initiatives – the independent pathways of the transitioning students/learners and the supportive environments that enable these pathways need to be placed in the foreground, as opposed to the institutions themselves being at the centre of marketing. It is argued that this set of actions could contribute to the amelioration of what could be termed the 'epistemic injustice' confronted by transitioning students on a regular basis.

Regarding 'epistemic injustice', a frequently occurring issue is the economic circumstances of students, who 'stop out' to find employment before continuing their studies. A distinction needs to be drawn between 'drop out' and 'stop out' in enrolment planning. While this reality of 'staggered learning pathways' (Wildschutt, 2017) is framed as a 'problem' in many of the survey responses, it in fact points to the realities of *individual learning paths*, a type of articulation that needs to be recognised and supported in its own right, through the flexible provision of education and training. This flexibility is especially the case, since *most* learners – especially in the TVET and Higher Education contexts, but also in secondary school – 'stop in and stop out, and stop in again' as they progress along their learning and work pathways (Walters, 2015a; 2015b; Wildschutt, 2017). This flexibility includes alternative entry requirements that take staggered pathways into account and CAT; and open, distance, and blended learning amongst other mechanisms.

Tracking Learner Transitioning

As for the survey question about the existence of articulation initiatives, the survey question about tracking was also purposely broad in order to enable the spectrum of information relating to tracking to surface. The responses reported that just over half of the Colleges and just under a third of HEIs track students. There is a system for the tracking of throughput in HEIs – HEIs supply data to the DHET; HEMIS contains the information - but only four of the HEIs mentioned this type of tracking; 38% of Colleges track student progress through the College qualifications. Two HEIs and five Colleges reported tracking enrolment targets. Seven Colleges reported College-to-workplace tracking; two universities track across-faculty transitioning; and three UoTs track students transitioning between TVET Colleges and the UoTs. It is clear that tracking has a variety of foci across TVET Colleges and across HEIs.

Need for Reporting on and Guidelines for, Tracking

Systematic reporting requirements are needed for articulation, and articulation reporting *guidelines* are needed in order to facilitate common understandings around tracking and consistent articulation-related reporting across the system. Learners' identity numbers could be utilised for this tracking, to enable tracer

studies of learner movements within and across different contexts in the system, as well as of pathways involving learners stopping in and stopping out of education and training. The absence of tracking in parts of the system could be 'absented' (Norrie, 2010) by understanding and engaging with the elements of robust learner tracking present elsewhere in the system.

The responses of institutions which do not yet track transitioning learners suggest that the institutions may adapt readily to specified tracking requirements. These responses included "small numbers of students transitioned (to HEIs) from TVET Colleges", "(articulation-related) tracking was not required in the past", and "(articulation-related) tracking was not a focus in the past".

The National Learners' Records Database (NLRD) system, Higher Education Management Information System (HEMIS) and the TVET Management Information System (TVETMIS) could specify the inputs required; these systems could be adapted to enable reporting on articulation.

'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 is part, the three articulation scenarios described were those of 'developed', 'emerging' and 'latent' (See Section 3). Although respondents were deliberately not specifically asked to indicate the scenario(s) that described their articulation initiatives, their responses provide an indication of the extent to which the initiatives fit into the three articulation scenarios.

Some institutions reported articulation arrangements involving more than one learning programme, each of which fits into a different scenario. In other words, one institution may offer a programme which is developed, another that is emerging, and a third which is latent. Another institution may have two programmes for which emerging articulation arrangements are in place. The researchers categorised the programmes, and not the institutions. Table 19 below shows the numbers of HEI-reported initiatives categorised by the researchers as being 'developed', 'emerging' or 'latent'. Table 19 also includes one response from which the status of its articulation could not be gleaned.

Table 19: Developed, emerging and latent articulation initiatives in HEIs

Articulation scenarios			
Developed	Emerging	Latent	Not sure
8	9	7	1

Developed articulation scenarios reported by HEIs, and the mechanisms that support them

Eight of the articulation scenarios reported by the HEIs were categorised as being 'developed' – the researchers suggest that at least three of these could be taken to scale.

Ready-to-scale-up HEI-reported developed articulation scenario

One of the articulation scenarios involves a UoT, four TVET Colleges, the Provincial Department of Education; articulation between N4-6 qualifications and both the National Diploma and B Tech Degree (which would be replaced by the Advanced Diploma in future) in Engineering and Management respectively; and over 8000 learners have transitioned successfully.

In this articulation scenario the collective effort on the part of all signatories to the Memorandum of Agreement (MoA) that forms the basis of the articulation arrangements between the parties, demonstrates their commitment to the addressing of 'boundary-making practices' and the support of 'boundary-crossing practices.' The large number of transitioning learners is indicative of a 'culture of articulation'. In addition this scenario describes the rare articulation from the National N Diploma (awarded by TVET Colleges) to the B Tech (awarded by the UoT). This rare articulation arrangement illustrates the extent to which the parties are reducing the gap between learning pathway-related policy development and implementation.

Second ready-to-scale-up HEI-reported developed articulation scenario

The second HEI-reported developed articulation scenario involves a traditional rural university, TVET Colleges, a SETA, and the Provincial Department of Education; and articulation between (i) the National N Diploma in Animal Production, and a Bachelor Degree at NQF Level 7, and (ii) 'articulated part qualifications' for government officials.

In this articulation scenario, the role of the SETA as a broker of 'boundary-crossing practices' between the different elements of learning pathways is exemplified: in this instance, the learning pathways traverse the workplace, an HEI and a TVET College. The 'boundary-crossing practices' adopted in transitioning along this pathway include deliberate opportunities for access to and progression along these pathways, and to some degree, Flexible Learning and Teaching Provision (FLTP).

Third ready-to-scale-up HEI-reported developed articulation scenario

A third HEI-reported articulation scenario involved a comprehensive university and a number of agreements with Colleges for transitioning between Higher Certificates and National Diplomas. In this instance, the Higher Certificate qualification and the concomitant MoA between the comprehensive HEI and the respective TVET Colleges constituted the 'boundary-crossing' mechanism, designed to address the 'boundary zone' that is the locus of numerous NQF Level 5 qualifications.

Developed articulation scenarios reported by TVET Colleges, and the mechanisms that support them

Eight articulation scenarios reported by TVET Colleges were categorised by the researchers as being developed. From among these, two described articulation arrangements between programmes at the Colleges and those at two universities, and between the College qualifications and entry to Trade Tests/ access to artisan training. In these instances, MoAs formalised the articulation arrangements described between each of the Colleges and the partnering HEIs. In one of Colleges one of the workplace initiatives was mediated through a formal agreement with a SETA, while in another agreement (at the same College) a formal arrangement is in existence between a dedicated Artisan Training and Development Centre and the College. The extent to which curricula are linked to workplace requirements was not clearly stipulated.

A third noted College reported successful articulation between the NCV and NATED courses respectively, and employment. Here, 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.

Taking developed articulation scenarios to scale

There may be opportunities among the developed articulation scenarios, to take the articulation initiatives to scale.

Some of the developed articulation scenarios were specifically created to meet a particular provincial need. For example in one province the NCV in Primary Health was designed to articulate into the Higher Certificate: Disability Practice. A particular version of such an articulation arrangement or a minor variation may be taken to scale, province by province depending on provincial priorities.

Among other numerous emerging articulation scenarios, the following are noteworthy as approaching the developed stage and could be taken to scale:

- interdisciplinary Post-graduate Diplomas specifically designed to include several disciplines in order to broaden articulation possibilities;
- articulation arrangements between National N Diplomas and cognate B Tech Degrees (before they expire) and cognate Advanced Diplomas;
- the adoption of a systemic (provincial) approach to articulation focusing on critical areas with a strong potential for success – one such approach has yielded two focus areas (Primary Health, Early Childhood Development) in one province, one focus area (Policing) in a second province, and one (Animal Production) in a third province; and
- an articulation arrangement between an HEI and an NGO operating as an 'matric school'[26] for 'second chance learners'.

In all, articulated pathways were reported as follows:

a. N4-6 qualifications → workplace (vertical articulation within NQF Sub-Framework);
b. N4-6 qualifications → National Diploma[27] → workplace (vertical articulation across NQF Sub-Frameworks);
c. N4-6 qualifications → National Diploma → Advanced Diploma → workplace (vertical articulation across NQF Sub-Frameworks);
d. N4-6 qualifications → National N Diploma → HEI Degree Studies, where the Advanced Diploma is replacing the B Tech Degree (diagonal articulation across NQF Sub-Frameworks);
e. NCV4 → workplace;
f. NCV4 → N4-6 to the pathways shown in (a)-(d) (horizontal articulation across NQF Sub-Frameworks followed by vertical/diagonal articulation);
g. NCV4 → Higher Certificate (diagonal articulation across NQF Sub-Frameworks);
h. NCV4 → Higher Certificate → National Diploma (diagonal articulation across NQF Sub-Frameworks followed by vertical articulation);
i. Level 5 Occupational Certificate → National Diploma (diagonal articulation across NQF Sub-Frameworks); and
j. Higher Certificate → National Diploma (vertical articulation within NQF Sub-Framework).

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 *designed* to articulate to other units of learning and full qualifications via CAT, and which also allow learners to exit upon completion of the part-qualifications, is another articulation scenario that could be taken to scale. One HEI's description

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26 Colloquial expression referring to NQF Level 4 qualifications such as the National Senior Certificate.

27 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.

of this practice constitutes a developed scenario, while another describes initiatives that are emerging.

Emerging and latent articulation scenarios reported

There were some emerging articulation scenarios reported which are not highlighted because of the nature of the information provided and the lack of evidence supplied. The framework of the 'articulation scenario' model is specific. For this reason, a number of programmes that were described by respondents *had been* developed *in the past* but *are no longer* developed, with many programmes in similar circumstances running the same risk. Transitioning from qualifications that are not HEQSF-aligned to ones that are, is a primary cause of this migration to what will effectively be latent programmes.

Table 20: Articulation reported as seen through the lens of the scenarios

Types of institutions	Developed articulation scenarios	Emerging articulation scenarios	Latent articulation scenarios	Not sure	Total numbers of articulation scenarios[28]
HEIs	8	9	7	1	25
TVET Colleges	8	29	13	0	50
Total numbers of articulation scenarios	16	38	20	1	75

Perceptions of the Extent of Success or Otherwise, of Articulation Initiatives Implemented

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 HEI reported 'mixed successes'.

Perceptions of factors contributing to high levels of success

Factors perceived to be contributing to the successes of College-HEI articulation included when both of the College and HEI management teams involved had collaborated, and agreed regarding the understanding and alignment of, and relationships between, programmes; when HEI admission criteria were held constant, and when the criteria were inclusive; when formal agreements were in place *and* being implemented; and when there was recognition that learners needed to 'stop out' and 'stop in again', together with the accommodation of these patterns. The quality of teaching and learning and of learner achievements, were noted to play roles in articulation. Bridging programmes – such as one which articulated into an Engineering Diploma for applicants who met the specified Mathematics and Science achievement levels in the bridging course, and could carry the credits over to the Diploma in the form of CAT – was cited as a particular success.

Student/learner work placements in industry were deemed successful following the work of the College Placement Units which served the purpose of dealing with all aspects of experiential learning.

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28 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 HEI that responded to the survey.

Perceptions of moderate successes

It has been noted that 'moderate successes' were attributed by the respondents to initiatives that were commencing, or in the process of being set up – initiatives that have been categorised as being 'emerging articulation scenarios' in the current research. The examples given included an HEI's alignment of its policy documents with a new teaching and learning strategy. A second example provided was the existence of articulation routes with 'low student uptake'. The emerging scenarios represent opportunities for institutional flexibility as they adapt in support of articulation.

Perceptions of lack of success

The articulation initiatives rated as being unsuccessful were almost all linked to an absence of formal arrangements (such as MoUs and MoAs), or to failure to implement existing formal agreements.

Colleges and HEIs which did not rate their articulation initiatives

Several HEIs and Colleges did not want to rate their articulation initiatives either because it was too early to rate this work, or because of the limited participation by learners and/or the limited extent to which there were formal processes.

From the College and HEI explanations as to why they rated particular articulation initiatives as moderately to highly successful, or as unsuccessful, it is possible to elaborate on the enablers of articulation. These enablers are of central importance for building on already-existing emerging articulation initiatives, expanding and taking developed initiatives to scale, and unblocking latent initiatives.

The Enablers of Articulation Identified

From the challenges (boundary-making practices) identified by respondents as well as the key elements noted as being important for articulation initiatives, the following seven sets of enablers (boundary-crossing practices) are delineated.

- The **development of collaborative relationships** in order to (1) *understand* qualifications, programmes, and learners across institutions; (2) respect the motives of the different institutions and the purposes of the different qualifications and programmes; (3) *design and align* curricula and programmes to facilitate transitioning; (3) *advocate* different learning pathways and *advise* learners at early and key points, as to the subjects they need in order to follow these pathways. The importance of College-HEI collaboration around aligned curriculum design in order to integrate different learning into progression pathways cannot be understated, although this work takes time. One HEI indicated in 2016 for example that in collaboration with a College, they jointly developed a Higher Certificate and Diploma in Cybernetics: the former is being offered in 2017 and the latter will be offered in 2018. Alignment to the Higher Education Qualifications Sub-Framework (HEQSF) also assisted articulation work.

- The **roles played by a variety of types of entities** other than HEIs and TVET Colleges are very significant for articulation. These entities include private colleges, NGOs, provincial structures, and employers. The *provision of sufficient work placement places* is one of the most critical concerns in work and learning pathways, especially in the TVET/UoT sector. Learners cannot complete

their qualifications without the work experience components. In a socio-economic context where attempts to complete qualifications outstrip the growth of the economy, *entrepreneurship* and 'intra-preneurship' hubs are also important[29].

- The **establishment, commitment to, and implementation of, formal articulation agreements.** These agreements could take the form of MoUs or MoAs with the relevant stakeholders, CAT arrangements, place reservation with specified (inclusive) criteria to access the places, RPL, and other mechanisms. In addition to these agreements, all entities need to *ensure that their Statutes, General and Faculty Handbooks, Rules, Admission Criteria and other documents and processes* do not include barriers, and contain enablers for articulation. The recently published National Articulation Policy (RSA, 2017) in fact requires this work, and two HEIs noted that their *institutional articulation policies* also assisted learner transitioning.

- **Inclusive admission criteria** enable articulation. This inclusivity includes HEIs admitting learners with *N4-6 and NCV4 as well as with National Senior Certificate* (NSC) qualifications, into their programmes – although this transition requires that the learners have included certain subjects in their N, NCV, and NSC studies, and to have achieved at certain levels. Where learners are of an age to have learned informally or non-formally at work or throughout life, *providing RPL is also essential* to enhance the inclusivity of the admission criteria – whether the RPL assists transitioning to commence learning programmes or for advanced placement in the programmes.

- The **quality of teaching and learning**, and **learner achievement levels**, were reported as being enablers of articulation. Learners were able to transition more easily when they had sound bases on which to build. Quality teaching and learning includes **learner support** – in terms of learners' academic, socio-emotional, and resource needs, including aspects such as accessible learning materials; Information Technology (IT), tutorial, and mentoring support; counselling services; extended library hours and services, and others. Quality also includes the **scaffolding** of learning – through bridging courses and other means. One survey response noted that access to successful achievement in NCV2 qualifications pointed to an urgent need for NCV1 qualifications, as the 'step' straight into NCV2 work was too difficult.

- **Career development advice** was described as being essential from the very early stages of learning pathways, whether at school, TVET College, Community College, HEI or elsewhere – to ensure that the necessary learning is in place. There is also a need for advice wherever there are transition points.

- The fact that articulation efforts were sometimes f**ocussed on *particular*** learning pathways, in particular fields or particular transition points also enabled gains and successes. Such beginnings could be built on incrementally. Some of what constituted successful articulation was the transitioning between N4-6 programmes and cognate learning programmes in HEI. These findings have important implications for **keeping the NATED qualifications** in the qualifications/ programme mix.

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29 '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 occurring within the workplace (in-house context for the entrepreneurial activities). As each of these employees and their enterprises grow, a formal relationship evolves in which the enterprise becomes a supplier to the employer.

7. CONCLUDING COMMENTS AND RECOMMENDATIONS FOR THE WAY FORWARD

There is much to be gleaned from the responses to the survey questions. The general approach – the use of action learning and research, and the ideas of 'ecosystems', 'relational agency' and 'absenting absences' – proved useful for understanding the various aspects of articulation, and have strong potential to assist in its development. The survey results point to areas that could be investigated in more depth, towards system learning. The investigation of which the survey is part, will be enriched by the many avenues that are likely to be explored because of the responses. Although the involvement of some private entities emerged in the responses, the survey focussed on public Colleges and HEIs; a similar survey could be extended to the private Colleges and HEIs.

Much of the work that is being done 'on the ground' is commendable. Some of the articulation arrangements described are excellent initiatives, from which the entire sector could learn while other good initiatives are in danger of dissipating. If the articulation is to gain traction within the system for education, training, development and work, then there is a need, as soon as possible, to share in as large a congress as possible, the many lessons that could be learned from work already done. It is also imperative to continue the dialogues underway in the national articulation workshops hosted several times annually since the start of the SAQA-DUT Partnership Research into articulation.

Coordinating bodies such as Universities South Africa (USAf), the South African College Principals' Organisation (SACPO), the Association of Private Providers of Education, Training, and Development (APPERTD), the Department of Trade and Industry (DTI), the Department of Labour (DoL), and SETAs – in addition to the DHET, DBE, SAQA and the Quality Councils, need to be involved in taking to scale the successful articulation initiatives; supporting the emerging initiatives; unblocking the latent ones; and systematically commencing new initiatives.

The evaluation of articulation initiatives going forward, would need to take into account the 'start-up', 'roll-out', and 'reflection and enhancement' stages. It would also need to consider the relative sizes of articulation initiatives – and initiatives of all sizes need to be encouraged.

Recommendations

There are seven recommendations from the National Articulation Baseline Study.

Recommendation 1

The first recommendation is for the key enablers of the successful '*developed articulation models' to be identified, further investigated, and documented.* Using a holistic approach that captures the whole 'ecology' of the initiative, including the boundary-crossing mechanisms, relational agency supporting it, and key lessons learned, will become levers upon which to catapult articulation practices more widely. The claims made and the extent of the successes reported by respondents will need to be verified. This work lies within SAQA's mandate, and SAQA should lead this work as part of its long-term research initiatives.

Recommendation 2

Secondly, given that a simultaneous, explicit, systematic focus on the three different *levels of articulation -*

systemic, specific, and individual – in the rich forms expressed in the findings on the whole – have potential to strengthen the opportunities for learner progression – the awareness and understandings of (a) what articulation can comprise, (b) the boundary-crossing mechanisms and relational agencies that enable articulation, and (c) of existing articulation successes, need to be shared more widely across the system. It is recommended that *national learning events (for example research seminars/colloquia/conferences) be convened to promote system-wide sharing and learning*. The leadership in public and private HEIs, TVET Colleges and schools, Community Colleges, Skills Development Providers, employers, NGOs, national, provincial, and local government structures and other entities need to be conscientised and energised regarding the roles they could play in enabling articulation initiatives. While hosting such events falls within SAQA's mandate, the DHET needs to recognise and publicise articulation success stories and enforce wider entity participation in its Implementation Plans for the White Paper for PSET, and the National Articulation Policy.

Recommendation 3

The third recommendation is that the Implementation Plans for the White Paper for PSET and National Articulation Policy, and Guidelines for Work Integrated Learning (WIL) and Work Based Learning (WBL) specifically provide for the for *articulation champions* to take articulation to scale, namely:

a. to establish *articulation champions* in the form of articulation offices, officers, or other mechanisms to build capacity in institutions of learning, and provide the necessary resources to support this function. These champions in the form of structures/individuals/ networks with leaders/other mechanisms could be responsible for some – if not all – of the elements of articulation, including RPL and CAT. Their functions could include work placements; advocating learning pathways; career development advice; providing the range of forms of learner support needed – including developing supportive systems across these functions in the institution - ensuring other functioning articulation (boundary-crossing) mechanisms, and reporting on articulation, RPL and CAT;

b. build capacity for *Work Integrated Learning (WIL)/Work-Based Learning (WBL) coordinators*, which need to be a human resource requirement at TVET and CET Colleges, as they are at UoTs. These WIL/WBL coordinators will essentially serve as 'boundary workers'; and

c. develop and sustain *entrepreneurship and 'intra-preneurship' hubs* across the system.

Recommendation 4

Fourth, design a campaign to *develop collaborative relationships and communities of practice both nationally and provincially.* While SAQA is well-placed to oversee the related developmental work, the DHET needs to enforce entity participation in the Implementation Plans for the White Paper for PSET, and national policies for Articulation, Credit Accumulation and Transfer (CAT), and Recognition of Prior Learning (RPL). The purpose of the relational agency (collaborative relationships) would be to enhance:

a. *understanding* of qualifications/programmes/learners across institutions and across the NQF Sub-Frameworks;

b. *respect* for the motives of the different institutions and the purposes of the different qualifications/ programme offerings;

c. the curriculum/programme *design and alignment work* needed to facilitate vertical, horizontal, and diagonal articulation in its various forms, as well as learner transitioning;

d. *joint advocacy* of different learning pathways and advice for learners at early and key transition points, as to the subjects required to follow these pathways; and

e. the establishment and incentivisation of, and development of commitment to, *articulation mechanisms* such as Memoranda of Agreement (MoA), Memoranda of Understanding (MoU), articulation committees, CAT arrangements, RPL, place reservation, and other formal agreements. It needs to be made clear that alignment to the HEQSF and OQSF workplace requirements could assist articulation work.

Recommendation 5

Fifth, advance the *collaborative models in the three types of articulation scenarios in systematic* ways. Developed articulation scenarios need to be taken to scale; emerging articulation scenarios need to be supported to further their development, and the blockages to latent articulation scenarios need to be identified and unblocked. Elements said by the respondents to contribute to articulation, such as the NQF Level 5 and other qualifications, should be prioritised. Development in the articulation scenario categories, including of these articulation enablers, needs to feature in the Implementation Plans for the White Paper for PSET, and National Articulation Policy:

a. *developing and aligning institutional policies* with National Articulation Policy;

b. *aligning the programmes and curricula* in learning pathways;

c. *flexibility* in entry criteria (including HEIs admitting learners with N4-6 and NCV4 qualifications as well as with National Senior Certificate (NSC) qualifications, and providing RPL); and flexible administration, curriculum, and assessment systems;

d. *quality teaching and learning,* where the quality of provision includes a range of types of learner support, and scaffolding the content of learning within and between learning offerings;

e. an *emphasis on expanding work placements* including 'intra-preneurs'; and

f. *wide-scale information-sharing and advocacy* of the mechanisms that enable strong articulation initiatives (this advocacy work lies within SAQA's mandate).

Recommendation 6

Sixth, *a focus on particular learning pathways/fields/transition points* – such as transitioning between N4-6 programmes and cognate learning programmes in HEIs, NQF Level 5 qualifications which intersect across all three NQF Sub-Frameworks, and selected professional qualifications that intersect across the OQSF and the HEQSF. The findings of the National Articulation Baseline Study point to the need to revisit the intention to phase out the NATED qualifications in the qualifications/programme mix. It is recommended that these foci be included in the Implementation Plans for the White Paper for PSET, and National Articulation Policy.

Recommendation 7

Seventh, develop *systematic reporting requirements and guidelines for institutions to track and report on articulation practices* – at national level – in order to facilitate common understandings around tracking and consistent articulation-related reporting across the system. Learners' identity numbers could be utilised for this tracking, to enable tracer studies. Existing reporting systems need to be upgraded to include information relating to articulation, RPL, and CAT. Reporting criteria could include reporting in the different categories of boundary-crossing mechanisms. There are also tracking-related roles for the NLRD, HEMIS, and TVETMIS.

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9. APPENDICES

APPENDIX 1: SURVEY INSTRUMENT FOR THE HEIs

SAQA-DUT ARTICULATION RESEARCH PARTNERSHIP
BASELINE STUDY SURVEY
August 2016

Introductory note

Democratic South Africa inherited a racially segregated, unequal education and training system. Different types of learning did not enjoy parity of esteem; qualifications were not necessarily linked to learning pathways. The South African National Qualifications Framework (NQF) was the means chosen to integrate this system and to enable lifelong learning. The South African Qualifications Authority (SAQA) is mandated to oversee the implementation and further development of the NQF, and conducts research to support this work. SAQA's Research Directorate is a small unit which expands its capacity through long-term research partnerships with public Higher Education Institutions (HEI).

Much has been achieved regarding systemic redress, access, progression, quality and transparency in the context of the NQF. One of the current major foci is on systemic articulation – the extent to which learners can move into and through universities, to work. There are known transitioning barriers – between Technical and Vocational Education and Training (TVET) Colleges and Universities of Technology (UoTs); between UoTs and traditional universities; and between UoTs and workplaces. SAQA has set up a long-term Research Partnership with the Durban University of Technology (DUT) to investigate good practices regarding transitioning models that address these barriers. The SAQA-DUT project includes *inter alia* six in-depth case studies, the development of a baseline of current articulation initiatives in the country, and supporting existing/ developing/ emerging articulation networks.

The 26 public Higher Education Institutions (HEI) are hereby requested to participate in the SAQA-DUT Articulation Baseline Survey. Given the national importance of this work (please see the White Paper for Post-School Education and Training, 2013), and because it involves building articulation across the system, we do need a 100% response rate. Your contributions have great potential to assist individual learners as well as the system on the whole.

We close these introductory paragraphs by noting three ways in which articulation can be understood: we hope that you will show us further ways. First, articulation can be understood broadly, as 'systemic articulation' or a 'joined up' system incorporating qualifications and various other elements aligned to and supportive of, learning pathways. Secondly, articulation could also be seen more specifically, in terms of the structuring of qualifications to allow progression, with or without intra- or inter-institutional agreements for Credit Accumulation and Transfer (CAT). Third, articulation could refer to the pathways followed by individuals as they progress, and are supported in, their learning and work[30]. Aspects such as the quality of qualifications and learning, and career development advice/ initiatives are part of articulation. The concept of 'transitions' becomes important, when a learning pathway involves transitions from training to work, from work to training, from school or College to Higher Education, and so on (Lotz-Sisitka, 2015)[31].

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30 Related articles showing how institutions can transform towards being increasingly flexible in order to support individual learning pathways (papers developed within the SAQA-University of the Western Cape Research Partnership) are available on request.

31 These understandings were developed within the SAQA-Rhodes Partnership Research into Learning Pathways; related articles are available on request.

SECTION A: PLEASE ADD DETAILS

Name of HEI:
Name of respondent:
Position of respondent:
Email of respondent:
Landline of respondent:
Cell-phone of respondent:

SECTION B: PLEASE TYPE INTO THIS INSTRUMENT

1. What would you say are some of the main ways in which articulation is understood within your institution?

2. Is your institution involved in any articulation arrangements with any TVET Colleges, other HEI, or any other types of entities? (Please add YES/ NO). If not, why do you think not? If there are, please briefly describe what they are.

3. Please tell us (a) how the articulation arrangements at your institution are managed in terms of policy (formal/informal), (b) how they are managed in everyday practice? (formally/informally) (c) the main challenges experienced, and (d) how the problems have been/ plan to be, addressed.

4. Please also tell us about (a) whether you think articulation initiatives (or aspects of articulation initiatives) in your institution have been successful (HIGHLY successful/ MODERATELY successful/ UNSUCCESSFUL); (b) the details about the main successes; and (c) what exactly enabled these successes.

5. Are the students who transition into your institution monitored and tracked in terms of their progression through your programmes, and success rates and levels? (a) If so, please tell us how it is done, and (b) tell us roughly how many students have transitioned from TVET Colleges (10s, 100s, 1000s), and what their success levels and rates have been? (c) If not, please could you elaborate as to why this is the case?

SECTION C: PLEASE SHARE WITH US/ FEEL FREE TO REFER TO THESE IN YOUR ANSWERS

A. Does your institution have any articulation-related documents to share with us? **YES/NO**

B. Would you be willing to write up your articulation initiative(s) in the form of (a) **CASE STUDY/ STUDIES (5000 words maximum)** – or to co-write it/ them with us? We would very much like to include it in the SAQA-DUT research, and in the dedicated SAQA Bulletin 2016(2): "Articulation in the system for education, training, development and work" **YES/NO**

Thanking you – we very much look forward to engaging with you,
Professor Darren Lortan (DUT), Dr Margie Maistry (DUT), Dr Eva Sujee (SAQA),
Ms Renay Pillay (SAQA), Ms Tshidi Leso (SAQA), Dr Heidi Bolton (SAQA

APPENDIX 2: SURVEY INSTRUMENT FOR THE TVET COLLEGES

SAQA-DUT ARTICULATION RESEARCH PARTNERSHIP
BASELINE STUDY SURVEY
September 2016

Purpose statement

The South African Qualifications Authority (SAQA) in partnership with the Durban University of Technology (DUT) is conducting research on articulation in the South African education and training system. The research design includes a baseline survey of articulation in the TVET sector, and public Technical and Vocational Education and Training (TVET) Colleges are kindly invited to participate.

Introductory note

South Africa inherited a racially segregated, unequal education and training system. Different types of learning did not enjoy parity of esteem; qualifications were not necessarily linked to learning pathways. The South African National Qualifications Framework (NQF) was the means chosen to integrate the system, and to enable progression within it. The South African Qualifications Authority (SAQA) is mandated to oversee the implementation and further development of the NQF, and conducts research to support this work. SAQA's Research Directorate is small and expands its capacity through long-term research partnerships.

Much has been achieved regarding systemic redress, access, progression, quality and transparency in the context of the NQF. One of the current major foci is on systemic articulation – including the extent to which learners can move into and through TVET into workplaces or universities, according to their needs. There are known transitioning barriers. SAQA-DUT partnership research seeks to investigate successful transitioning models. The research includes case studies, the articulation baseline survey, and building actual articulation.

The 50 public TVET Colleges are hereby kindly requested to participate in the SAQA-DUT Articulation Baseline Survey. Given the national importance of this work (please see the White Paper for Post-School Education and Training, 2013), we need a 100% response rate. Your contributions are very important as they have potential to assist individual learners as well as the system on the whole.

We close this introduction by noting <u>three</u> ways in which articulation can be understood: we hope that you will show us further ways.

- First, articulation can be understood broadly, as 'systemic articulation' or 'joined up' qualifications and various other elements aligned to and supporting, learning pathways.
- Secondly, articulation could also be seen more specifically, in terms of the structuring of qualifications to allow progression, with or without institutional agreements for Credit Accumulation and Transfer (CAT).
- Third, articulation could refer to the pathways followed by individuals as they progress, and are supported in, their learning and work[32]. The quality of qualifications/ learning and of career development advice, are part of this support. The concept of 'transitions' is important – articulation

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32 Related articles showing how institutions can transform towards being increasingly flexible in order to support individual learning pathways (papers developed within the SAQA-University of the Western Cape Research Partnership) are available on request.

involves transitions from training to work, from work to training, from school or College to Higher Education, and so on (Lotz-Sisitka, 2015)[33].

SURVEY

SECTION A: PLEASE ADD DETAILS

Name of TVET College:
Name of respondent:
Position of respondent:
Email of respondent:
Landline of respondent:
Cell-phone of respondent:

SECTION B: PLEASE TYPE INTO THIS INSTRUMENT

1. What would you say are some of the main ways in which articulation is understood within your institution?

2. Is your institution involved in any articulation arrangements with other TVET Colleges, HEI, workplaces, or any other types of entities? (a) Please add YES/ NO). (b) If not, why do you think not? If there are, please briefly describe what they are.

3. Please tell us (a) how the articulation arrangements at your institution are managed in terms of policy (formal/informal), (b) the main challenges experienced, and (c) how the problems have been/ plan to be, addressed.

4. Please also tell us about (a) whether you think articulation initiatives (or aspects of articulation initiatives) in your institution have been successful (HIGHLY successful/ MODERATELY successful/ UNSUCCESSFUL); (b) the details about the main successes; and (c) what exactly made these successes possible.

5. Are the students who transition into your institution, monitored and tracked in terms of their progression through your programmes, and success rates and levels? (a) Please tell us YES/NO/ how it is done, (b) give us numbers for the last five-or-so years, and (c) tell us if it would be possible to capture student details in such a way that would make it possible to track their progress after they leave the colleges? (YES/NO)

SECTION C: PLEASE SHARE WITH US/ FEEL FREE TO REFER TO THESE IN YOUR ANSWERS

A. Does your institution have any articulation-related documents to share with us? **YES/NO**

B. Would you be willing to write up your articulation initiative(s) in the form of (a) **CASE STUDY/ STUDIES (5000 words maximum)** – or to co-write it/ them with us? We would very much like to include it in the dedicated SAQA Bulletin 2017(1): "Articulation in the system for education, training, development and work" **YES/NO**

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33 These understandings were developed within the SAQA-Rhodes Partnership Research into Learning Pathways; related articles are available on request.

Thanking you – we very much look forward to engaging with you,

Professor Darren Lortan (DUT), Dr Margie Maistry (DUT), Dr Eva Sujee (SAQA),
Ms Renay Pillay (SAQA), Ms Tshidi Leso (SAQA), Dr Heidi Bolton (SAQA)

APPENDIX 3: LIST OF TABLES

Acronyms

AAC	Academic Advisory Committee
AgriSETA	Agricultural Sector Education and Training Authority
APPERTD	Association of Private Providers of Education, Training and Development
BTech	Bachelor of Technology
CAT	Credit Accumulation and Transfer
CETC	Community Education and Training College
CHE	Council on Higher Education
CPUT	Cape Peninsula University of Technology
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DoL	Department of Labour
DTI	Department of Trade and Industry
DUT	Durban University of Technology
DVC	Deputy Vice-Chancellor
FLTP	Flexible Learning and Teaching Provision
GTPP	Generic Trade Preparation Programme
HC	Higher Certificate
HEDA	Higher Education Data Analyser
HEI	Higher Education Institution
HEMIS	Higher Education Management Information System
HEQSF	Higher Education Qualifications Sub-Framework
HOD	Head of Department
HSRC	Human Sciences Research Council
IT	Information Technology
MHET	Minister of Higher Education and Training
MIS	Management Information System
MoA	Memorandum of Agreement
MoU	Memorandum of Understanding
NATED	National Education
NCV	National Certificate: Vocational
NDP	National Development Plan
NGO	Non-Governmental Organisation
NLRD	National Learners Records Database
NQF	National Qualifications Framework
NSC	National Senior Certificate
OQSF	Occupational Qualifications Sub-Framework
PSET	Post-School Education and Training
QCTO	Quality Council for Trades and Occupations
RPL	Recognition of Prior Learning
RSA	Republic of South Africa
SACPO	South African College Principals Organisation
SAQA	South African Qualifications Authority
SENEX	Senate Executive Committee
SETA	Sector Education and Training Authority
SLA	Service/Site Level Agreement

TVET	Technical and Vocational Education and Training
TVETMIS	TVET Management Information System
UoT	University of Technology
USAf	Universities South Africa
WBL	Workplace Based Learning
WIL	Work Integrated Learning