



UNIVERSITEIT VAN PRETORIA
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**A COLLABORATIVE IMPLEMENTATION FRAMEWORK OF THE
ARTICULATION POLICY: CASE OF TVET COLLEGES AND THE ENGINEERING
COUNCIL SOUTH AFRICA**

by

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Submitted in partial fulfilment of the requirements for the degree of
Doctor of Philosophy in Public Management and Administration

in the

School of Public Management and Administration

Faculty of Economic and Management Sciences

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August 2024

DECLARATION

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DEDICATION

This research is dedicated to my mother, Annastancia Mugadza, who suddenly passed away on 13 December 2022. You were my source of inspiration. Drawing lessons on resilience, endurance and diligence from your lived experiences has always kept me grounded. You have always been my number one fan, one who could see success where I saw failure, strength where I saw weakness, prosperity where I saw poverty, and above all greatness in meekness. Your discerning eye could see the bright side of life regardless of the adversarial circumstances surrounding us. Mama, you taught me to pray, and it still keeps me going.

I wish you were here to celebrate this and more of my successes with us, but I believe you are watching over this phase of success with an illuminating smile. A smile of pride that your daughter's name has now been written in the book of academics. Love you mama and this is for you!!!

ACKNOWLEDGEMENTS

Through the difficult times, the pregnancy, my mother's passing, and the temptation to quit, family is what restored my hope. Torn between the never ending yet fulfilling responsibilities of a mother, wife and the work demands, the prospects of never completing the program always lurked in the shadows of my retarded progress. My appreciation goes to my family, for the unwavering support. You had to put up with my absence at important family gatherings as you took counsel from the knowledge that we are in it together.

To Prof Holtzhausen, my supervisor and Prof Masiya, my co-supervisor, this journey would not have had a destination had it not been for your relentless support. At times words may not animate the true emotion that sits in one's heart. I cannot thank you enough for the support and encouragement. Those random messages of encouragement motivated me. Occasionally, I would see your messages and be inspired to begin my work. Your patience and steadfast support were extraordinary. You consistently guided me through every step of the process, ensuring that I felt supported throughout. It was exceptional supervision, supervision at another level. *Thank you, baie dankie, ndatenda.*

The support of the School of Public Management and Administration Department academic staff at large and the Departmental Post Graduate Committee did not go unnoticed. It is through your relentless commitment to academic excellence that I managed to complete the research. To Odile, your prompt responses and unwavering support during my technological and other challenges were invaluable. You truly were my saving grace.

Additionally, I would like to specifically mention and acknowledge the following for the unwavering support during my journey: I am deeply grateful to Nadia Starr for your steadfast support throughout the thesis writing process; your dedication and assistance have been exceptional, and I am immensely thankful. A special thank you to Mr Nxumalo for facilitating my ethical clearance. Your efforts in this regard have been greatly appreciated. I am indebted to DHET for the ethical clearance. A special thank you to all the TVET college members of staff who initiated and participated with the interviews. You made this journey smooth. If it were not for you, it would not

have been possible. Your commitment to the interview process left me humbled. Tusani, thank you. All I can say is that you deserve a bells!!! Heidi and Nthabiseng, your invaluable help with data collection leads was crucial to the success of this project. Your assistance has been immeasurable, and I cannot thank you enough. Lastly, to Keo, Temba, Eugene, and Zandile, you were my professional pillars of support. Your encouragement and assistance will be remembered and valued always. Thank you all for your contributions and support.

God bless you all!!!

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LIST OF ACRONYMS

ANKOM	<i>Anerkennung beruflicher Kompetenzen auf akademische Studiengänge</i> [Occupational Competencies for Higher Education Study Programme]
BMBF	<i>Bundesministerium für Bildung und Forschung</i> [The Federal Act for VET]
CAA	Comprehensive Articulation Agreement
CAT	Credit, Accumulation and Transfer
CEOs	Chief Executive Officers
CET	Community Education and Training Colleges
CHE	Council for Higher Education
DECVET	Credit Transfer in Vocational Education and Training
DHET	Department of Higher Education and Training
DPME	Department of Planning, Monitoring and Evaluation
DQF	Deutscher Qualifikationsrahmen Für Lebenslanges Lernen (Germany National Qualifications Framework)
DUT	Durban University of Technology
ECSA	Engineering Council South Africa
FPI	Financial Planning Institute of Southern Africa
GENFETQA	General and Further Education and Training Quality Assurance
GFETQSF	General and Further Education and Training Sub-Framework
GQF	German Qualifications Framework
HEIs	Higher Education Institutions
HEQSF	Higher Education Qualifications Sub-framework
HRDC	Human Resources Development Council
ICT	Information, Communication and Technology
IMF	International Monetary Fund
IT	Information Technology
KPIs	Key Performance Indicators
M&E	Monitoring and Evaluation
MIT	Multidisciplinarity, Interdisciplinarity and Transdisciplinarity
MOA	Memorandum of Agreements

MOU	Memoranda of Understanding
MSA	Multi-Sectoral Approach
MSC	Multi-Sectoral Collaboration
NDP	National Development Plan
NGOs	Non-Governmental Organisations
NPA	New Public Administration
NPM	New Public Management
NQF	National Qualifications Framework
OQSF	Occupational Qualifications Sub-framework
PBs	Professional Bodies
PSET	Post-School Education and Training
QCs	Quality Councils
QCTOs	Quality Council for Trades and Occupations
RPL	Recognition of Prior Learning
SAQA	South African Qualifications Authority
SDG	Sustainable Development Goal
SMART	Specific, Measurable, Achievable, Relevant and Time-Bound
ToR	Terms of Reference
TVET	Technical, Vocational Education and Training
UH	University of Hawaii
UNC	University of North Carolina
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UoTs	Universities of Technologies
USA	United States of America
VET	Vocational Education and Training

ABSTRACT

This study examined the implementation of the Articulation Policy in the Post-School Education and Training (PSET) system, specifically focusing on the articulation of TVET college engineering graduates to the Engineering Council of South Africa (ECSA). The South African government introduced TVET colleges to promote access to education and employment opportunities for youths who could not be accommodated at universities. Articulation creates educational and learning pathways through which TVET graduates can progress in their careers, access work opportunities and meaningfully contribute to the development and economic growth of the country. In response to the need for promoting articulation, progression, access and mobility within the PSET system, South Africa introduced the National Qualifications Framework and the Articulation Policy amongst other policy initiatives. The policies were also designed to address the legacy question of access to education by previously disadvantaged groups in South Africa. The thesis follows a qualitative case study approach. Interviews and document review were utilised for data collection.

The key findings of the study are that the numerous stakeholders to the implementation of the Articulation Policy are working in silos and as a result, there is minimal coordination and collaboration amongst the stakeholders to create sustainable synergies towards the Articulation Policy implementation. Policy guidance is unclear in terms of the role of professional bodies as key stakeholders to the articulation process and there is misalignment in the various pieces of legislation supporting the articulation process. The legacy stigma attached to the TVET qualifications has also contributed to the suspicion with which the TVET qualifications are viewed in both the professional and job market.

The study proposes a Collaborative Implementation Framework which identifies drivers for collaboration as requisite foundational pillars for policy implementation. The framework also proposes sustainable ways of interaction supported by governance structures to monitor the policy implementation outcomes. The framework leverages on technology to facilitate coordination, collaboration and co-production amongst the various stakeholders to implement the Policy on articulation.

Furthermore, the Collaborative Implementation Framework proposes new stakeholder responsibilities to foster communication, cooperation and coordination.

Key words: Articulation, Collaboration, Co-production, Interdisciplinary, Multidisciplinary, Transdisciplinary, Interdependence, Inferdependence, Communication, Cooperation, Coordination, Framework.

CHAPTER 1

INTRODUCTION AND BACKGROUND

1.1 INTRODUCTION

The Articulation Policy (DHET 2017a), as a cornerstone of educational reform, has become increasingly institutionalised, particularly with the setting up of the National Qualifications Framework (NQF). In South Africa, the NQF was conceived to foster a seamlessly integrated educational structure, aiming to promote progression, lifelong learning and fluid pathways between education and work. Central to this initiative is the South African Qualifications Authority's (SAQA) mandate to facilitate access, mobility and advancement within the educational and career landscapes. Through the NQF, the articulation agenda has gained significant momentum, supported by a suite of policies aimed at fortifying the educational framework (Chetty *et al.* 2019:5).

The advent of the Articulation Policy in 2017, which is a strategic overarching national policy (SAQA 2019b:5), marked a pivotal moment in South Africa's educational landscape. This public policy not only provided an overarching conceptual framework but also laid down principles and directives to bolster existing articulation practices within the PSET system (SAQA 2019a). As underscored by De Coning and Wissink (2018:7), the development of such policies within governmental frameworks signals a concerted effort to address systemic challenges and promote inclusivity, echoing the constitutional imperative of equitable access to education.

Against the backdrop of post-apartheid priorities, the impetus behind the Articulation Policy stemmed from a commitment to rectify historical injustices and align educational practices with constitutional principles. The Council for Higher Education's (CHE) assertion of higher education as a public good, further underscores the imperativeness of policies like the Articulation Policy, in fostering equitable access and mobility (CHE 2016:38).

However, despite the noble intentions behind these policies, challenges abound, particularly in the implementation phase. The Ministerial Committee on the Articulation Policy's identification of conceptual and systematic hurdles within the

PSET system, highlights the pressing need for coherent articulation. Issues such as unclear progression routes, dead-end qualifications and disparities between vocational and academic pathways, underscore the complexity of the task at hand, as indicated in the Ministerial Committee on Articulation Policy Report (South Africa 2014:11).

The significance of the Articulation Policy transcends national borders, resonating with global initiatives such as the 2030 Agenda for Sustainable Development. This international commitment underscores the role of articulation in promoting inclusive and quality education, aligning closely with the Sustainable Development Goal (SDG) 4's mandate of ensuring continuous educational prospects for everyone. Several countries prioritise the objective of academic mobility as there is a growing awareness on its importance in peace and development. There is a clear understanding that 'academic mobility' is a contributor to the cross-fertilisation of expertise and transfer of high-level knowledge. Hence it is crucial that governmental policies support educational mobility to foster opportunities for everyone including students, scholars and researchers (UNESCO 2019:6-7). The United Nations Educational, Scientific and Cultural Organisation (UNESCO) supports mobility, improved recognition of qualifications and inclusion across and within regions (UNESCO 2019:1). The global importance of academic mobility in support of articulation can thus not be underestimated.

In this context, South Africa's efforts to harmonise its learning strategies with global imperatives, including the NQF and the Articulation Policy, are pivotal. The interplay between national policies, such as Credit Accumulation and Transfer (CAT) and Recognition of Prior Learning (RPL), further underscores the interconnectedness of articulation policies within the broader educational ecosystem. Moreover, South Africa's proactive stance on recognising foreign qualifications through its evaluation service, underscores the country's commitment to fostering international mobility and inclusion within its educational landscape.

Against this backdrop, the study of the Articulation Policy emerges as a critical endeavour, shedding light on the complexities of implementation of policies, the efficacy of the Articulation Policy and its impact on educational progression, access

and mobility. By delving into the nuances of the Articulation Policy and its implementation within the PSET system, this thesis seeks to contribute to the ongoing discourse on educational reform and inclusive development. This study seeks to address the global and the 2030 Agenda for Sustainable Development Goals' quest for access, mobility and progress through seeking ways of ensuring the articulation of Technical and Vocational Education and Training (TVET) graduates for them to gain the relevant skills in workplaces. Articulation ensures the principles of access, mobility and progress. The sections that follow discuss the background of the Engineering Council South Africa (ECSA) and TVET colleges, Articulation Policy, its objectives, the definition of articulation, types of articulation, literature review of articulation, the problem statement, the central theoretical framework, research methodology and significance of study.

1.1.1 Background to the ECSA and the TVET Colleges

The thesis will examine the Articulation Policy implementation with particular emphasis on ECSA and the TVET colleges. The focus of the study on ECSA emanates from the importance of engineering in the South African economy and the huge investment that the government makes in TVET colleges specifically the engineering field. This section provides a brief background of ECSA and TVET colleges as it relates to this study.

1.1.1.1 The Engineering Council South Africa

SAQA is required to develop and implement policy and criteria to recognise professional bodies and registering professional designations. The recognition and registering process encompasses carrying out consultations with all the professional bodies recognised by SAQA as well as with the Quality Councils(QCs). Additionally, Clause 13 (1)(i) requires that SAQA recognises professional bodies and register their professional designations when the requirements have been met. The establishment of policies and criteria for professional bodies underscores their crucial role in standards development and quality assurance within NQF environment.

The ECSA was recognised by SAQA to form part of the professional bodies that implement policies in the NQF space including the Articulation Policy. ECSA is a legally mandated organisation established under the Engineering Profession Act

(EPA), 46 of 2000. ECSA's primary responsibility is to regulate the engineering profession as outlined in the EPA. It accomplishes this through various core functions, including accrediting engineering programs, registering individuals as professionals in specific categories, and overseeing the practice of registered individuals (South Africa 2000).

As the sole authority in South Africa empowered with the registration of professionals in Engineering and granting the utilisation of engineering professional designations, ECSA requires that individuals meet the necessary criteria prior to professional registration. To fulfil its statutory obligations, ECSA is empowered to undertake several functions, including:

- Establishing and assessing academic standards for registration purposes by accrediting engineering programs at universities and TVETs.
- Establishing and assessing professional development standards through guidelines outlining post-qualification requirements for registration in various professional categories and specified fields.
- Prescribing requirements for Continuing Professional Development and determining registration renewal timelines.
- Enforcing a Codes of Practice and Code of Conduct through investigative and disciplinary mechanisms.
- Identifying engineering work reserved for registered professionals in consultation with the Council for the Built Environment and the Competition Board.
- Advising the Council for the Built Environment and the Minister of Public Works on engineering and related matters.
- Recognising professional associations in the engineering domain.
- Publishing fee guidelines for consulting work in consultation with government, the profession, and industry.
- Carrying out any additional actions required for the effective performance of its duties under the Act (South Africa 2000).

1.1.1.2 Technical and Vocational Education and Training (TVET) colleges

TVET colleges have emerged as vital components of the South African's learning and development system, aiming to address the skills gap, promoting employability,

and supporting economic development (DHET 2013). According to the Department of Higher Education and Training (DHET) (DHET 2017b:1; 2018:32), the administration of TVET colleges is done in line with the Continuing Education and Training Act, 2006 (Act 16 of 2006) as amended. Currently there are 52 TVET public colleges that have a total of 250 campuses registered to deliver qualifications as well as part-qualifications in South Africa. Strategically, the departmental objectives for the TVET colleges are to improve the success of TVET offerings leading to learning at high and intermediate levels, as well as increasing access to such programmes.

TVET colleges offer the National Technical Education programmes at “six N levels, N1 to N6 for Engineering Studies” (DHET 2018:32; HRDC 2014:4). According to SAQA (2017:277) and DHET (2018:32), “N1 to N3” are located at “levels 2 to 4” on the NQF. The N qualifications, which include engineering, are purely vocational. Engineering studies require four subjects to be taken over ten weeks or a trimester. Learners are required to complete the qualification by doing 18 months’ workplace training which can go up to two years, which is determined by the programme. Engineering subjects under study, have trimester enrolments which is reflective of the huge figure of learners that can enrol in any given year.

The government invests large sums of money in TVET colleges in general and the engineering field specifically. It, therefore, becomes critical for this study to explore whether engineering graduates ‘articulate’ to ECSA professional designations for them to access better work opportunities and be able to progress in work and education. ‘Articulation’ of these graduates will assist in addressing unemployment as it is one of the objectives of the Articulation Policy. Given this background, it is prudent for the study to define articulation and carry out a literature review on articulation studies.

1.2 ORIENTATION

The successful implementation of any policy fulfils its objectives and this applies to the Articulation Policy as well. To ensure that a fit for purpose Collaborative Implementation Framework is developed, a detailed review of literature should be conducted. Bless *et al.* (2013:49) opines that the literature review entails an examination and exploration of existing studies related to the issue under

investigation. The review of literature assists in determining if the topic is worthy of pursuing, and further provides insights into ways of how the study may have a scope limit. By reviewing literature, the researcher obtains a clear view of studies that link to the one the researcher wishes to undertake. The review further assists in developing a framework to measure the importance of the research study and a benchmark to assist in juxtaposition of results from previous research with outcomes of the present study (Creswell 2014:25). The concept of articulation will be discussed, a literature review of previous studies that were conducted internationally and locally will be carried out to show the literature that is currently available.

1.2.1 Articulation Defined

According to Kintzer and Wattenbarger (1985:7), articulation is a term that gives reference to relationships and entire processes that are involved in students moving systematically, inter-segmentally and institutionally throughout post-secondary school. Kintzer and Wattenbarger (1985:43) additionally explain that articulation should be acknowledged as a sequence of steps incorporating transfer as part of the process. It is “the total activity - the relationship - is also an attitude”. Wright (1996:6) explains that articulation assists with the transfer of courses without any challenges from one institution to another and that “articulation supports the transfer intent” (Anderson *et al.*, 2006:265).

Articulation is defined by Cohen and Brawer (2003:205) as “the movement of students or more precisely, the students’ academic credits from one point to another”, while Medsker (1960: 1-2) “finds the essence of articulation in joint efforts of individuals and institutions across a wide spectrum of activities. Their endeavours facilitate the transfer of students from one school to another”. Wright describes articulation as a range of relationships and processes involving the mobility of students systematically amongst and between post-secondary institutions. In another explanation, N’gethe *et al.* (2008: xvii) define articulation as “the mechanisms that enable student mobility within and among the institutions that comprise the tertiary system, for example, academic, credit accumulation and transfer, recognition and equivalence of degrees, recognition of prior learning, and so forth”.

Articulation is the facilitation of the mobility and progress of learners in the working world as well as across and within the three sub-frameworks which are the Occupational Qualifications Sub-Framework (OQSF), General and Further Education and Training Sub-Framework (GFETQSF), Higher Education Qualifications Sub-Framework (HEQSF) in South Africa (SAQA 2014:3). Articulation means creating structured pathways that enable learners to connect qualifications or part-qualifications systematically, specifically and individually. These pathways facilitate learners' movement horizontally, vertically and diagonally within the formal education and training system, as well as their integration into the world of work (SAQA 2022:4). An approach that is integrated to the wide public policy fields of training and education, social development and the economy, is essential in ensuring articulation effectiveness (South Africa 2014:3).

Kitnzer and Wattenbarger (1985:22) noted three different kinds of articulation, also named transfer agreements in the United States of America (USA). These types are state systems policies, voluntary agreements that exist between systems or institutions and legally based and formal policies. Articulation can be “‘systemic articulation’ or a ‘joined up’ system incorporating qualifications, professional designations, policies, and various other official elements aligned and supportive of, learning and work pathways”. (DHET 2017a:18; SAQA 2022:4; CHE 2023:10).

Systemic articulation operates within the framework of legislation, national policies and official prerequisites of the learning and development framework. “Specific articulation, also known as articulation in practice”, encompasses official and unofficial arrangements within the education and training system (DHET 2017a: 18; CHE 2023:10). This includes agreements by different education and training sub-systems, between learning programs and specific qualifications, and among various types of institutions, with the guidance of principles of accreditation and policies. Additionally, the accommodation of individual needs within institutions is part of “specific articulation” (DHET 2017a: 18; SAQA 2022; CHE 2023:10).

The DHET (2017:18) further explains that articulation can “refer to the pathways individuals” take in their advancement of “their learning and work”, with the support of institutions offering “flexible admission” processes, curricula, teaching methods,

and “learner support systems”. This “includes aspects such as the quality of qualifications, learning experiences, and career development services”. The concept of ‘transitions’ is crucial in this context, particularly when moving between training and “work, from work to further training, or from school or college to higher education”. As such, articulation aims to promote equity, social justice and inclusivity. Programmatic articulation takes precedence over institutional boundaries. The PSET system should be sufficiently flexible to facilitate learner mobility within and between different types of institutions, focusing on aligning part-qualifications, qualifications and programmes of learning according to “appropriate assessment principles” and procedures (CHE 2023:10).

Interesting to note in the definitions above, is the concept of movement that cuts across all the definitions as well as the identification that individual and institutional efforts are necessary for the success of articulation. Articulation has been generically defined to refer to the movement of students across institutions and inter-segmentally in a systematic way which shows that for articulation to be successful, there must be systems in place to allow for its success. Transfer is also part of a process of articulation, according to the above definitions. It is important for this thesis to reflect on the overarching concepts in developing a Collaborative Implementation Framework.

1.2.2 A review of articulation research

Articulation/transfer studies started around 1924, initiated by Leonard Koos (1924) who had influence on researchers to investigate the ‘transfer phenomenon’. Studies carried out by Koos documented successful stories on transfer mechanisms and processes that were in place, which assisted students with moving to a baccalaureate institution. These studies initiated the concept of articulation and research on articulation has subsequently been carried out. The studies by Koos are important as they provide a basis for this research (Anderson *et al.* 2006:267).

Knoell and Medsker (1965:73) carried out large-scale research on the transfer function and articulation in the USA. Their studies found that there was increased coordination and articulation amongst institutions. Their research prompted suggestions for coordination to be introduced in the 1965 legislature sessions. The

findings in Knoell and Medsker's research provide a firm foundation for this study, which focuses on the collaboration of institutions in the implementation of the articulation policies currently in place.

Kintzer and Wattenbarger (1985) explored articulation initiatives that occurred in each state in the USA and further developed the work initiated by Knoell and Medsker (1965). Each state was grouped according to the policy of articulation utilised in the state, that is, policies of states, agreements that are voluntary between systems of each institution and legally based or formal policies. They did not, however, evaluate the effectiveness of the policies. The research by Kintzer and Wattenbarger (1985) also assists in forming the basis of this study by providing the foundational elements that are used in this study. The current study, however, focuses on the implementation of a specific Articulation Policy by specific institutions.

To add to Kintzer and Wattenbarger (1985)'s research, Ignash and Townsend (2000) cited by Taylor and Jain (2017:282) conducted research assessing articulation agreements in the USA, utilising four measures comprising types of the institutional sectors involved in agreements, involvement of faculties in maintaining and designing of agreements, the direction of transfer covered by the agreements and the components related to degrees that ease transfer. The research established that out of the 34 states with state-wide agreements in articulation, the two-year to four-year transfer in the public sector was covered which addressed general education courses but excluded the majority of programmes.

The Education Commission of the United States published a paper on "*Improving Articulation Policy to Increase Transfer*" (Rifkin 2000), which had a focus on articulation "between community colleges and four-year institutions" in the USA. The study found that though articulation and transfer policies were state concerns, state initiatives alone could not improve articulation to increase transfer because state policies are implemented at institutional level. It is therefore imperative that there is collaboration "among state, system and institutional personnel if the articulation and transfer policy are to be effectively implemented" (Rifkin 2000:9). Rifkin's (2000) research aligns with the current study as it highlights the importance of collaboration amongst all role players in the implementation of the Articulation Policy.

Anderson *et al.* (2006) carried out an assessment of whether the state transfer policy has an influence on transferring students. Roksa and Keith (2008) later conducted similar studies by assessing the influences of the policy on state transfer on the baccalaureate achievement rates by transfer students. They established that there was impact that was limited on policies of state transfer on the outcomes. This study however placed emphasis on the articulation of graduates from institutions of higher learning to professional bodies. This study further investigated whether the current Articulation Policy sufficiently addresses professional bodies in the policy to enable them to implement articulation.

Giani's research (2019:1114) focused on how students' academic characteristics pre-transfer, such as their demographics, and the loss of credits experienced by students between their transfer from one institution to another have an influence on the loss of credits experienced by students. Although the current study does not focus on the student characteristics and the institutions, these aspects are analysed and considered. However, the analysis and considerations are not in the context of assessing credit loss, rather to understand participants' background.

UNESCO explored the articulating trends in Vocational and Post-Secondary Education, examining the challenges encountered when establishing effective learning pathways, as well as the good practices and measures adopted by different countries in addressing the challenges. Guidelines that may be used by policymakers were also provided. The paper explains that to support lifelong learning, there must be effective and clear pathways that enable individuals to continue acquiring new knowledge and skills throughout their working lives, thereby fulfilling their professional and personal ambitions. Furthermore, the ever-changing skills requirement of the job market needs people to acquire, reskill or obtain high qualifications for the rest of their work lives. The needs for upskilling or reskilling are better realised if clear transitions are present to assist with the transition from one type of learning, level of education to another. It can also be from work life to learning or learning to work life. Pathways that are clear may also enable people to address inequality issues and social mobility may be fostered (Ananiadou *et al.* 2019).

The paper clarified that challenges experienced in establishing clear learning pathways are context specific. Countries that have complex governance systems may need to adopt or develop ways of improving system transparency and enable stakeholders' navigation. Good career guidance systems, such as detailed frameworks of qualification based on learning outcomes, may be utilised to address transparency challenges. In addition, in less developed countries where a number of people work in the informal sector, it is critical that Recognition of Prior Learning (RPL) mechanisms be developed to allow for the recognition of informally acquired skills (Ananiadou *et al.* 2019:156).

Rein (2019:161) offers a synopsis of the education system in Germany and the legal prerequisites that involve academic and vocational education. Conceptual and instrumental improvements that support articulation of learning achievements are explained. It is, however, clear in this paper that any articulation method considered suitable, is dependent on the specific application requirements. The paper also clarifies that there is a continuous need to expand the processes of articulation in several sectors, despite the articulation approach applied.

Grote *et al.* (2020:576) conducted research to establish the effectiveness of articulation agreements on transfer students. They explored a partnership that existed between the Mid-Atlantic Research University College of Engineering and two community colleges situated in the same state. The research results indicated that there were complexities with the implementation of the Articulation Policy as it conflicts with the purpose of the enrolment management policy of the particular university. The differences in the purposes of the policies pose challenges to transfer students, advisors and faculties responsible for overseeing the transfers. Grote *et al.*'s (2020) research is important, as it investigates the effectiveness of the Articulation Policy. It closely relates to the current study, which assesses the implementation of the Articulation Policy.

Giani (2019:1114) postulates that despite the several transfer and articulation policies in place to allow for mobility of transfer students, the concern that the process of articulation/transfer is not as seamless as higher education practitioners and the policymakers might intend. This study acknowledges the complexities of

implementing the Articulation Policy which should be considered to reach objective conclusions and offer recommendations.

In South Africa, substantial research has been carried out to establish if there has been articulation amongst the different systems. The Articulation Policy, which is a stand-alone policy, has consequences for professional bodies, SAQA, the Quality Councils, private and public education and training providers and the involved parties in the assessing of students. During the second “National Qualifications Framework (NQF) (2017) research conference: *Building articulation and integration*”, it was found that there is no clarity on the conventional comprehension of articulation and integration.

SAQA conducted a further study that sought to establish the articulation pathways available for graduates into Higher Education Institutions (HEIs) from TVET colleges (SAQA 2017). The research explored the existing relationship between TVET colleges and HEIs with a specific focus on the Durban University of Technology (DUT). This Baseline research established that commendable work relating to articulation was being done albeit pockets that still required improvement (SAQA, 2017). The research recommended that “key enablers of successfully developed articulation models be identified, further investigated and documented” (SAQA 2017b:72).

In 2017, the Financial Planning Institute of Southern Africa (FPI), in collaboration with SAQA, conducted research that sought to explore the pathways of learning followed by people in financial planning and advising. The main conclusions of the research were that there were no “standard learning pathways towards becoming a professional member of the FPI ...” (FPI 2017:23). One of the recommendations raised in the FPI report was that SAQA should inform the DHET of the important role played by professional bodies across the three sub-frameworks in assisting and ensuring that articulation happens. Therefore, the clear inclusion of professional bodies and their designations in relation to the Articulation Policy, is critical. An in-depth assessment of the Articulation Policy implementation needs to be carried out.

Bolton and Lortan (2019), in their research which focused on the articulation of TVET graduates to UoTs in South Africa, explained that SAQA research focuses on articulation of TVET graduates to South African Universities of Technologies (UoTs). The National Baseline study explored different understandings of articulation, existing articulation initiatives and success models and tracked learner transition. The study recommended that Memorandum of Agreement (MOA)/Memorandum of Understanding (MOU) needed to be drafted to support articulation. The research also recommended considering qualifications such as the higher certificates as bridging courses and collaborating, which should be a prerequisite to enable articulation, during their development. Although the current study focuses on the articulation of TVET students to professional bodies, there are several lessons to be learnt and considered for this study.

In 2020, Durban University of Technology and SAQA published research that explored articulation enablers and suggested ways of addressing barriers in articulation between TVET colleges and Universities of Technologies specifically – as well as articulation between these entities and workplaces. The research also considered how good practices could be operationalised on a major scale. The study recommended that current successful articulation initiatives must be shared with other stakeholders. Leadership in education and training, workplaces and government structures need to be advised of their important role they can assume in articulation enabling. The reporting requirements of articulation at national level should be specified and guidelines on how institutions may report and track articulation practices should also be provided (SAQA 2020b).

Needham (2018) explored the articulation of TVET graduates to the world of work and universities, establishing systemic issues that affect TVET graduates. The research identified that TVET colleges have been placed at the nexus of the sub-frameworks operating in isolation. Needham's work shows that articulation for these graduates has also remained elusive. The research points out that, although SAQA has assisted in developing the Articulation Policy and has introduced several policies to support articulation, it does not have 'official authority' for enforcing these policies on the sub-frameworks. Its primary oversight role is implementing the NQF. Furthermore, TVET colleges do not have any autonomy to select its own pathways

of articulation when it comes to other PSET players as they are centrally controlled by the DHET. The study also found that effective implementation of articulation is hindered by the placement of TVET colleges on the nexus of three sub-frameworks. Furthermore, TVET college qualifications overlaps higher education and training, the occupational education as well as school-based education.

The study recommended that there is need for further research to be conducted to determine the connections both between and within PSET institutions. The study identified that the mechanisms, developed to help with the mobility of students within post-school careers after the formal schooling system and learning pathways, were not enough to ensure articulation in workplaces as well as higher education studies. Articulation involves deeper comprehension of background influences that shape post-school education and training as well as efforts of collaboration between institutions of education and workplaces in curriculum development and student support. The study further highlighted the need for further research on approaches that are attitudinal in articulation at institutional and systematic levels to “overcome the current ‘silo’ formation of sub-qualification frameworks and qualifications” undermining the articulation of learners that is effective in the PSET system (Needham 2018:14).

According to Kintzer and Wattenbarger (1985:44), the major responsibility of the articulation of students depends on the understanding and support of faculties, as well as the staff of receiving and sending institutions. Kintzer and Wattenbarger attribute problems in articulation as being “people-oriented” and as such, have developed a guide, see Figure 1.1, that assists in developing solutions to articulation and transfer (Kintzer & Wattenbarger 1985:44).

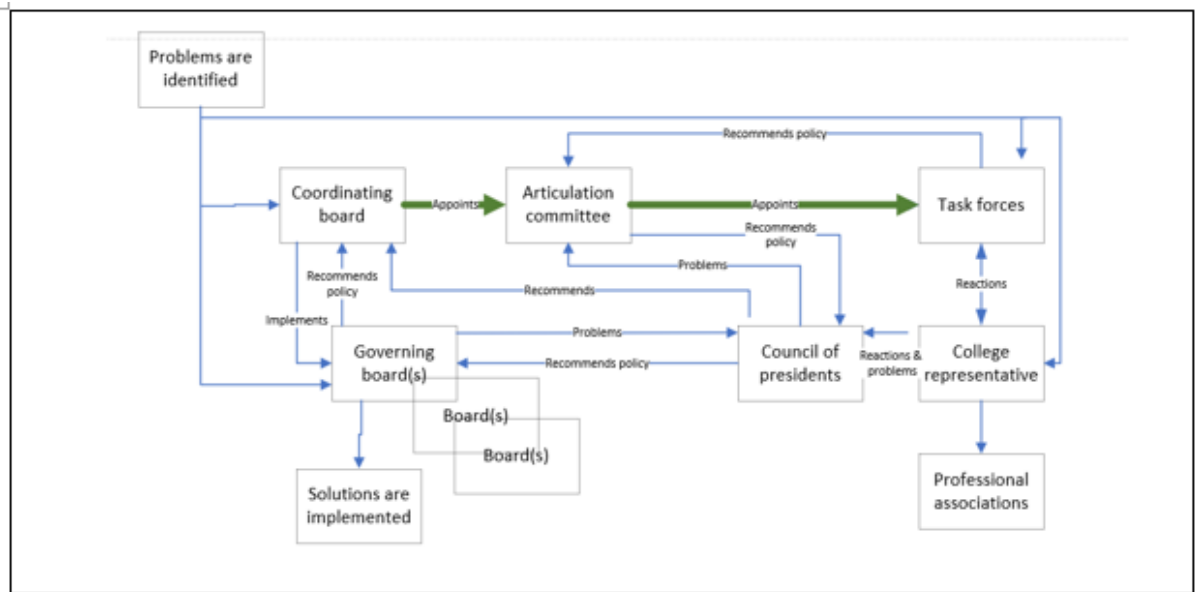


Figure 1.1: Guide to developing solutions to state-wide articulation and transfer problems

Source: Adapted from Kitnzer & Wattenbarger (1985:44)

Figure 1.1 above depicts the communication patterns, mechanisms for student problem appeals and legal structures. The model, developed by Kintzer and Wattenbarger (1985:45), is most suitable for voluntary articulation systems and transfer relationships. Interesting to note is that this model includes what they call 'professional associations' which are professional bodies in the South African context. This inclusion portrays the value and important role that professional bodies can play in articulation which is the focus for this study.

Ananiadou *et al.* (2019:156) published a paper which explored the developments in articulating Post-Secondary Education and Vocational and examined the problems encountered when establishing effective learning pathways, as well as the good practices and measures adopted by different countries in addressing the challenges. The paper clarified that challenges experienced in establishing clear learning pathways are context specific. Rifkin (2000) focused on articulation that took place between community colleges and four-year institutions in the USA. The study determined that though articulation and transfer policies were state concerns, state initiatives alone could not improve articulation to increase transfer. Rein (2019:161) also gives an overview of the German Education system and the legal prerequisites

that involve vocational and academic education. The focus of all these studies was on the subject of articulation generally and between HEIs and TVET colleges.

Several studies were also carried out by SAQA (2017; 2019; 2020) seeking to understand the meaning of articulation, the articulation enablers and articulation initiatives in place between TVET colleges and University of Technologies. The research established that there are pockets of excellence and other initiatives need to be strengthened. The FPI conducted research to investigate the learning pathways pursued by financial planners and advisers. The key findings of the study revealed that there were no “standard learning pathways towards becoming a professional member of the FPI ...” (FPI 2017:23). The focus for all the research carried out was not on the implementation of the Articulation Policy by Engineering Council South Africa (ECSA) on TVET graduates. To have a complete and seamless articulation process, the implementation of the Articulation Policy needs to be investigated and recommendations be made if there are areas of improvement. The Articulation Policy must also acknowledge the important role that professional bodies play, as they are the link between education and workplaces. Thus, their role in policy implementation should not be overlooked.

The review of literature has revealed that different scholars have attempted to define articulation and identify articulation initiatives in existence in different institutions. The research further established whether articulation initiatives were functional and effective. Moreover, other scholars investigated whether articulation policies and agreements had any influence on the receiving of students, whether student characteristics influenced the loss of transfer credits thereby affecting their potential to articulate, and challenges associated with articulation. It also emerged that despite having articulation policies in place, articulation was not as seamless as would have been expected by policymakers. The complexities encountered in implementing articulation policies were acknowledged.

However, research has not focused on the implementation of the Articulation Policy between TVET colleges and professional bodies, but tended to focus on the articulation of TVET graduates into HEIs. South Africa is the first country in the world that has incorporated professional bodies as part of the NQF. The acts and policies

that affect training and education providers also affect professional bodies; therefore, there is a requirement for professional bodies to implement the Articulation Policy. The inclusion of professional bodies on the NQF seems to be overshadowed by the attention that is given to qualifications. Major problems have been observed within the TVET system where there is a "lack of the existing pathways" in terms of "entry routes (into college)" and "exit routes (out of college)", whether it be to higher learning, employment, or self-employment" (HRDC 2014:4).

1.2.3 Contextualising articulation in South Africa

In South Africa, articulation was formally conceived when the National Qualification Framework (NQF) was established to have an integrated and fully articulated educational framework. Part of SAQA's key mandate is to promote progression, life-long learning in work and education as well as learning and work pathways. The NQF objectives articulate the need to "facilitate access to, mobility and progression within education, training and career paths" (South Africa 2008: section 5(b)).

The articulation agenda is also supported by a suite of policies that were developed in the NQF space. Hence, the introduction of the NQF was a move towards further strengthening the articulation agenda. The Articulation Policy (DHET 2017a) as a public policy, established an "overarching conceptual structure", policy statements and principles that support the already existing credible articulation approaches in the PSET system in South Africa. De Coning and Wissink (2018:7) clarify that for policies to be identified as public policies, they must be developed or the process should have taken place in governmental framework processes, influences and organisations.

The development of the Articulation Policy was necessitated by the priorities that had been set up by the South Africa government post 1994 to express the new constitutional principles espousing the need to have access to education for everyone. Furthermore, it needed to redress a higher education system that was discriminatory and segregated people (Ministerial Committee on Articulation Policy 2014:7). As noted by the CHE report *Towards a new higher education landscape*, higher education is a "public good" (CHE, 2016:38). The introduction of the Articulation Policy in the education sector meant that its implementation was

supposed to be closely monitored to ensure that its objectives are met. De Coning *et al.* (2018:225) assert that policy implementation encapsulates the actual action responses and the delivery to policy intent.

Furthermore, the observations by the Ministerial Committee (2014:7) that the PSET "system is riddled with conceptual and systematic challenges and incongruities", has led to the development of the Articulation Policy. It was identified that articulation and coherence lacked within the sub-frameworks. The Committee's view was that problems in the PSET system in particular are:

- Unclear learner progression routes and articulation arrangements;
- Dead-end NQF registered qualifications;
- Lack of coherence amongst the NQF sub-frameworks;
- Absence of precise arrangements in terms of articulation amongst the different qualifications and the types of institutions;
- Disorganisation in providing training and education;
- Lack of equality between vocational and academic qualifications; and
- Lack of adequate responses to the different requirements of the socio-economic environment, particularly to the needs of adults and youth who are active participants in employment, training and education. Those mainly affected are those who wish to have a second chance in training and education opportunities (Ministerial Committee on Articulation Policy, 2014:11).

The Articulation Policy of 2017 was seen as an important initiative towards constructing an adequately articulated system of education that meets the required skills in South Africa. The Articulation Policy (DHET 2017a:18) describes articulation as “‘systemic articulation’ or a ‘joined up’ system incorporating qualifications, professional designations, policies, and various other official elements aligned and supportive of, learning and work pathways”. When the government introduced the Articulation Policy, the intention was to create a well-articulated system of Post-School Education and Training (PSET) that would facilitate connections among the various parts.

The Articulation Policy intended to guide the implementation of articulation practices by role players in the formal PSET sector. The government anticipated that this would create a system that would assist in creating work opportunities for young people and citizens at large (Ministerial Committee on Articulation Policy 2014:8). The current study examines the implementation of the Articulation Policy in the PSET system. Post democracy, several policies were developed to address inequalities and enable the progression and mobility of people in areas that were previously prevented by the system. However, some of the policies have had implementation challenges due to the lack of guidelines of how the implementation should take place. Furthermore, Turton *et al* (2002:11) cited by Brynard (2007:39) also clarified that implementation is not just a managerial or administrative problem, rather it is a political process that is complex and that dictates who gets what, from whom, how, when, and where. The presence of several actors operating on various levels further complicates the process of implementation.

The Articulation Policy is a national policy, which involves a number of role players, and the development of a Collaborative Implementation Framework are key to successful implementation of the policy. However, before its promulgation, numerous education and training legislation had been passed to enable articulation. This legislation aimed to build an inclusive, unified and streamlined education system. The legislation further sought to open access to those who had been denied the privilege of quality education and widening access to non-traditional learners (SAQA 2017a:31). The legislation explicitly supported the notion of articulation. The Articulation Policy thus covered professional bodies as they had been incorporated into the NQF, with South Africa being the first and only country to recognise professional bodies as part of the NQF.

According to SAQA (2017:1), the Articulation Policy maps out the legislative and regulatory framework for all institutions of education in South Africa. The implementation of, *inter alia*, the NQF Act and National Development Plan (NDP) is also supported by the Articulation Policy, operating in accordance with the eight NQF policies developed by SAQA. The Articulation Policy ensures that a conducive environment is created which, amongst other things:

- Allows for articulation to occur between and within the three established sub-frameworks;
- Enables organisations to work together in developing work pathways and learning; and
- The provision of support to learners in their pursuit of work and learning pathways.

The following are the two articulation types, which are systematic and specific articulation (SAQA 2017b:2; 2014:8). The Policy for Credit Accumulation and Transfer (CAT) that exist in the NQF (SAQA 2017b:2; 2014:8) postulates that the basis for systematic articulation is legislation, formal requirements, national policy, and it includes articulation between and within the existing three sub-frameworks in the NQF.

The DHET (2017:18) and SAQA (2014:8; 2017:2) state that formal and informal agreements in the education and training system are the basis for specific articulation. These agreements are between institutions with the guidance of policies, guidelines, accreditation principles as well as mechanisms such as CAT or Memorandum of Agreement (MOA). According to SAQA (2014:8), specific and systematic articulation can be applied to part-qualifications, qualifications and professional designations. However, implementing articulation is not without its challenges. There are barriers which include but are not limited to lack of robust arrangements in articulation, people's perceptions on some qualifications, education and training systems overdesign and the policy environment that needs simplification.

1.3 CONTEXT AND PROBLEM STATEMENT

According to the Green Paper for the Post-School Education System of South Africa (DHET 2012:14), approximately three million people, ranging between the ages of 18 and 24 years, are not accommodated either in the job market or in education and training, which is an under-utilisation of human resources. The government introduced TVET colleges to accommodate the youth in education. However, some graduates completing their studies, find it difficult to enter the labour market with TVET students completing their engineering qualifications a case in point.

The introduction of the Articulation Policy by the government intended to develop and support the progression and mobility of people through the creation of bridges to do away with dead-end qualifications. The Articulation Policy was implemented to improve access and mobility to education and training and employability of graduates, including those who have completed studies at TVET colleges. Section 9 of the Articulation Policy states that the intention of the policy was to establish key principles of articulation that enable its implementation within the NQF sub-frameworks including professional bodies. It also intended to strengthen the NQF objective of facilitating mobility, access to and progression within training and education and career paths (DHET 2017a: section 5(1)(b)).

Despite the introduction of the Articulation Policy, TVET college graduates continue to grapple with several challenges relating to inadequate clarity in the articulation pathways that currently exist (HRDC 2014:4). Ananiadou *et al.* (2019:147) posit that globally, it has become an important issue to establish learning pathways to support lifelong learning to ensure continued acquisition of relevant skills and knowledge by individuals throughout their career lives. The upskilling and reskilling should take place in the presence of clear pathways to enable the transition between different training types to address issues of inequality and social mobility. Sadly, Ananiadou *et al.* (2019:148) point out that TVET college programmes have generally been designed for the provision of occupation-specific skills, which cannot be transferred to various occupations. This feature therefore makes TVET colleges less attractive. Hence, building strong pathways may increase the attractiveness of TVET colleges by eliminating the perceptions of 'dead end' qualifications that hinder progression and mobility. HRDC (2014:4) also emphasised that the identification of TVET college pathways would ensure that there is a smooth transition of graduates into employment, self-employment or higher learning.

Section 2 of the Articulation Policy outlines that a system that is well-articulated creates proper linkages between the different entities. It recognises the knowledge and skills gained from one institution as long as these are achieved at the required level. If the gained knowledge proves to be sufficient, access must be allowed (DHET 2017a:1). Furthermore, articulation creates parity of esteem for TVET

graduates. Section 8(e) of the Policy and Criteria for Recognising a professional body and Registering a Professional Designation for the Purposes of the National Qualifications Framework Act, Act 67 of 2008 (as amended, September 2020), asserts that an effective articulation system ensures pride of professional association afforded to all professions, including occupations and trades (SAQA 2020a:6).

Despite the government's development of the Articulation Policy to tackle prevalent issues, notable implementation challenges persist. Professional bodies serve as vital intermediaries bridging Higher Education Institutions (HEIs) and workplaces, actively engaged in qualification development, skill identification and equipping graduates with requisite skills. However, the Articulation Policy tends to prioritise qualifications over the pivotal role of professional bodies, potentially undermining their involvement in the articulation process. Bolton and Lortan (2019:2) underscore the ambiguity surrounding the role of professional bodies, mandated by SAQA to implement the Articulation Policy, yet lacking clear directives. The absence of practical guidance within the policy further compounds these challenges, as highlighted by the Financial Planning Institute (FPI 2017:25) when it states that “SAQA should inform DHET of the importance of including professional bodies and the role professional bodies play in assisting and ensuring articulation across the NQF Sub-Frameworks including professional designations as it relates to the DHET Articulation Policy”.

Moreover, UNESCO (2017) acknowledges the benefits of advancing progression for TVET graduates, yet observes resistance from institutions exercising autonomy in policy implementation. This discretionary power vested in professional bodies may lead to the uneven adoption of the policy, hindering the government's objective of broadening access and dispelling misconceptions about TVET graduates' abilities.

This study aims to scrutinise the role of professional bodies, exemplified by the Engineering Council of South Africa (ECSA), in implementing the National Articulation Policy. By delving into the complexities of policy implementation and its implications for articulation processes, this research endeavours to contribute valuable insights into fostering alignment between educational policies and professional practices in South Africa.

1.4 CENTRAL THEORETICAL STATEMENTS

Theoretical conceptualisations of policy implementation have gone through three clear paradigms to explain the dynamics and complexity of policy implementation. The first phase is when the theories and models of policy evolved from ‘rational or top-down models’ by Van Meter and Van Horn (1975). De Coning *et al.* (2018:197) explain that this paradigm is understood to be where policy implementation success is solely dependent on the efficiency and effectiveness of the bureaucracy assigned with implementation. Brynard (2007:34) also notes that these models promoted central control and were criticised for their insufficient foundation for implementation studies, which led to the ‘bottom-up models’.

The ‘top-down approach’ was discarded in the second paradigm as it was realised that it worked before human rights and the reawakening of democracy. The consideration for bottom-up approaches was adopted due to the complex changing nature of governments and improved democratic processes as well as the large and diverse communities that were being served. It was also important to involve the new generation of policy actors that “demanded involvement and accountability” (De Coning *et al.* 2018:197).

The third theoretical paradigm, which is the hybrid theory of implementation, tried to converge and synthesise theories from a number of approaches (De Coning *et al.* 2018:197; Mphendu & Holtzhausen, 2018:182). Ryan (1996:34) suggests that due to the multiplicity of perspectives and participants, the variables that affect policy implementation need to be examined in the various approaches and models that will enable the formulation of a framework that would be utilised by managers in the public sector. In light of the views discussed, the current study utilises the relational agency theory and systems theory. These two theories take into consideration the involvement of the different policy actors, which is in line with the contemporary theoretical paradigm. Moreover, the use of the theories was motivated by the SAQA articulation research that also used the relational agency theory (SAQA 2020). The SAQA’s research explored the enablers of articulation and suggested ways of addressing barriers in articulation between TVET colleges and Universities of Technologies specifically – as well as articulation between these entities and

workplaces. Although the two studies are different, the concept of articulation is similar.

1.4.1 Relational Agency Theory

Relational agency refers to the ability to collaborate with others to broaden and transform a shared object of focus. This capacity involves recognising, analysing, and leveraging the resources that others contribute as they engage with the object. It entails understanding that another person can serve as a valuable resource, someone who knows how to navigate relationships and identify what is needed to engage and utilise that resource effectively. This collaborative approach allows for coordinated action beyond the confines of individual organisations, fostering aligned and mutually supportive efforts outside traditional institutional frameworks. In essence, it enhances personal agency by encouraging connections across organisational boundaries (Edwards 2009:208-9).

Edwards (2007:2) explains that relational agency theory encompasses being able to offer support and asking others for support. Edwards (2007:3) further articulates that relational agency involves the ability of one's actions and thoughts to be aligned to those of others. Relational agency theory therefore concurs with the research carried out by Hakkarainen and his colleagues, cited in Edwards (2007:4) on "reciprocity and mutual strengthening of expertise and competence for the enhancement of the collective competence of the communities". Relational agency theory focuses on relationships that consist of a network of expertise. Relational agency also emphasises the "importance of pre-existing personal understandings" that would have been attained in other situations in the mediation of interpretations of new situations and implores people to be attentive to negotiations (Edwards 2007:4).

Relational agency theory ideas are utilised in this research to provide guidelines in terms of how institutions under study can collaborate with each other during the implementation of the Articulation Policy. Alignment of the goals of the institutions involved is also of utmost importance. TVET colleges and professional bodies have to ensure that they utilise their competences and expertise to support the transition of learners from colleges to professional bodies. The experience of each of the

institutions under study should assist in mediating and interpreting the Articulation Policy towards the attainment of the policy objectives.

1.4.2 Systems Theory

Systems theory has become an important framework across various disciplines. It helps to understand and navigate the complex dynamics of human behaviour within social systems. This approach offers a holistic perspective, recognising individuals as integral components of larger systems, such as families, communities, and societies. A key principle of systems theory is that the whole is greater than the sum of its parts, emphasising the significance of relationships and interactions within these systems (Bouchrika 2024)

According to Smit *et al.* (2016:55), systems theory refers to the interdependence that is found between an organisation and its environment. These are two sets of interconnected elements (micro-systems) that operate as one. Organisations, in a system, are depended on the external factors affecting their operational environment and the other way round. The environment and the organisation are therefore dependent on each other to survive. According to Wissink cited by Cloete & De Coning (2018:56), the systems approach takes note that policymaking is cyclical in nature unlike other models that view it as a 'stop-start sequential process'. Systems theory is utilised to highlight the interdependency of TVET colleges and professional bodies to their environments for the Articulation Policy implementation.

The research applies relational agency theory and systems theory. The Articulation Policy implementation creates dependencies amongst the different key role players and there must be effective interdependency for the successful implementation of the policy. The interdependency also creates reliance on other stakeholders to deliver on the policy implementation expectations of the other. This requires that different key role players seek assistance and collaborate to fulfil their policy implementation responsibilities.

1.5 RESEARCH OBJECTIVES AND QUESTIONS

Bantwini and Arowolo (2016:500) explain that objectives in research define what the researcher intends to do, the achievements at the end of the research and a link to

the research problem. Objectives should be concise and clear statements that provide direction and guidance for the research.

Bryman (2016:9) explains that research questions are fundamental during research as they compel any researcher to consider basic research issues. Research questions assist the researcher in asking what in the area of research they want to know. Research questions help the researcher to be precise and rigorous on what they want to find out from the research.

1.5.1 Research Objectives

Consistent with the above explanation, the research objectives were to:

1. determine the factors affecting the implementation of the Articulation Policy for the access, mobility and progression of TVET engineering graduates to ECSA.
2. explore international leading practices on the implementation of articulation policies.
3. examine the implementation of the Articulation Policy for TVET college engineering graduates to the ECSA.
4. propose a formal Collaborative Implementation Framework for enhancing the implementation of the Articulation Policy.

1.5.2 Research Questions

In line with the above explanation, the research questions were:

1. What factors affect the implementation of the Articulation Policy for the articulation of TVET engineering graduates to ECSA?
2. What are some of the international leading practices on implementation of articulation policies?
3. To what extent does articulation of TVET college engineering graduates to ECSA take place as required by the Articulation Policy?
4. What mechanisms can be put in place to enable the effective implementation of the Articulation Policy?

1.6 RESEARCH METHODOLOGY

Research methodology determines the type of method to be used, how it must be used and it provides a link of the methods to outcomes. Bantwini and Arowolo

(2016:501) posit that research methodology is an instrument that is fundamental when trying to comprehend the phenomenon being investigated as it provides the researcher with a comprehensive and more in-depth knowledge of the subject being investigated. Hofstee (2011:107) elucidates that research methodology serves as a 'map' on which readers rely when they need to know how one arrived at the conclusions. However, Korzybski quoted by Hofstee, (2011:107) suggests that a map is useless as it misleads and misinforms if it shows a structure that is different from the territory it represents.

According to Saunders *et al.* (2019:130) research methodology is a “research strategy” that generally delineates how research is carried out. It involves a system of philosophical assumptions and beliefs that shape the way research questions are understood and how the research method choices are underpinned. The methodology is an important part of research that assists with ensuring consistency when it comes to the techniques, tools chosen and the philosophy underlying the research. The methodology of a research study may be constructed using the ‘research onion’ theoretical concept (Figure 1.2), as articulated by Saunders *et al.* (2019:130). The research onion presents an exhaustive description of the main stages that may be followed and accomplished for the formulation of an effective methodology. Figure 1.2 of the ‘research onion’ below starts with delineating the main philosophy, selection of the approach, method and strategies and specifying time limits, thereby linking the research logic to the design of the research, key procedures and techniques of collecting and analysing data.

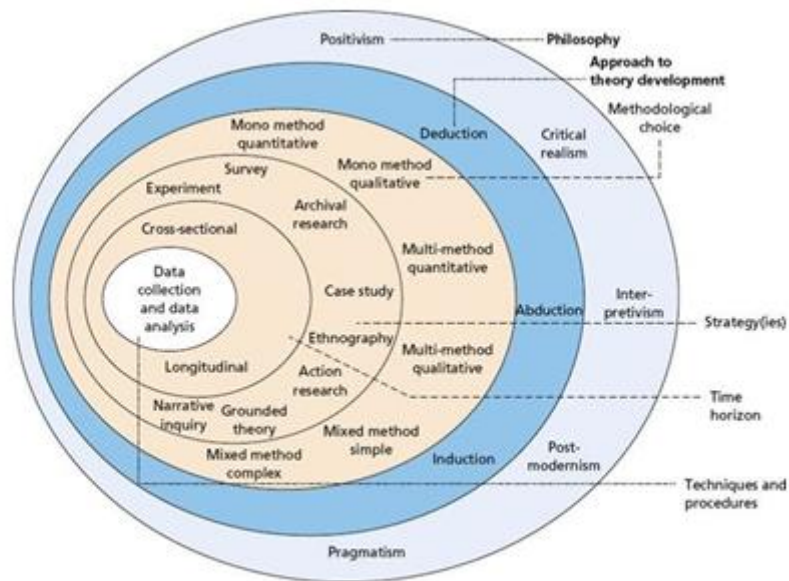


Figure 1.2: The research onion

Source: Adapted from Saunders et al. (2019:130)

Following the illustration in Figure 1.2 above, the study selects methodologies that are in line with the interpretivist approach. The methodologies are detailed in the sections that follow.

1.6.1 Approach/Method and Design

Research approaches are plans as well as procedures that spell out the broad assumptions to specific data analysis, collection and interpretation methods. When a researcher selects a research method, it should be based on the research problem to be addressed, personal experiences and the participants of the study (Creswell 2014:3).

Creswell (2014:12) explains research designs as inquiry types found in quantitative, mixed methods and qualitative approaches used to identify direction that is specific for research design procedures and can also be referred to as "strategies of inquiry". According to Kumar (2014:94), the design of a research is a strategy, plan and structure for investigating to answer questions in research. The researcher adopts a procedural plan to respond objectively, economically and validly to research questions. Bless *et al.* (2013:130) further explain that a research design is directly related to the answering of research questions.

According to Van Wyk and Taole (2016:165) and Gray (2009:131), a well-planned design of research is a catalyst that ensures that components work together to suit a study. A research design is a basic plan of research that includes the following important ideas: the strategy, objective of the study, procedures and tools used for the collection and analysis of empirical material and the conceptual framework. In light of the definitions provided, this study utilises a qualitative approach.

1.6.2 Qualitative Approach

The current study utilised a qualitative approach. The choice to employ a qualitative approach was motivated by Grote *et al.* (2020:581), who carried out research to establish the effectiveness of articulation agreements that streamline vertical transfer in the USA. They explored the relationship between two community colleges within the same state and the “College of Engineering at the Mid-Atlantic Research University” (Grote *et al.* 2020:581) To find the answers to their research questions, they utilised a qualitative approach. Though the research did not focus on the articulation of TVET graduates to professional bodies, the objectives are similar to the current study.

Okeke (2016:209) and Creswell (2014:4) define qualitative research as an approach that is concerned with comprehending the meanings attached to a human or social challenge. This form of inquiry is inductive and focuses on the importance of interpreting situation complexities as well as individual meaning. The implementation of the Articulation Policy has interdependency on numerous stakeholders and is thus complex. The researcher therefore sought to explore this complex phenomenon using a qualitative approach. Creswell (2013:44) and Bless *et al.* (2013:162) posit that qualitative research begins by using assumptions and utilises theoretical/interpretive frameworks, which informs the study of the research problems and addresses the meanings participants assign to a human or social issue.

Kumar (2014:394) posits that an unstructured, open and flexible approach to enquiry and philosophical principles of empiricism is the basis for qualitative research. Qualitative research data is descriptive, and the intention is to develop an

appreciation of the study topic. It involves contextualisation of the cultural or social setting that influences the different patterns of behaviour and addresses the 'why' questions.

1.6.2.1 Qualitative Design

The research design serves as blueprint for action, which can be used when communicating the framework of the study. A good research design should be planned well to ensure that all components work well collectively to fit the research (Creswell 2014:165). In qualitative research, a research design is used to ensure internal credibility. The focus is on whether the researcher's method of collecting and analysing data is addressed adequately by the research question. It is concerned with questions such as "Will the researcher be able to develop a convincing argument in answer to the research question from this research design?" (Bless *et al.* 2013:130).

The researcher utilised an exploratory design to allow for analysis of the research topic to establish what was happening, and to uncover new ideas, opinions and experiences of TVET graduates articulating into ECSA. An exploratory design also enabled the researcher to collect reliable data pertinent to the aim of the study. Bless *et al.* (2013:57) elaborate that the objective of exploratory research is to "determine the breadth and scope of a particular topic" and initial questions to guide more searching research.

1.6.3 Quantitative Approach

Okeke (2016:214) describes quantitative research as a branch of study that underscores the causal relationships that exists between variables. Creswell (2014:4) also defines quantitative research as a method used to test theories that are objective by scrutinising relationships that exist amongst variables. Bless *et al.* (2013:162) suggest that most quantitative research focuses on hypothesis testing using representative samples and results may be generalised on the whole population. It is deductive and simplifies the complexity of reality. In support of Bless *et al.* (2013), Creswell (2014:4) states that those researchers engaging in this type of enquiry possess assumptions of deductively testing theories, have control for an

alternative explanation(s), build protection against bias, replicate and generalise findings.

1.6.3.1 Quantitative Design

Research design in quantitative research is an outline that is detailed to test hypotheses and is spelt out in definite and clear terms. It defines the most suitable operations required for testing a hypothesis under relevant circumstances. In quantitative studies, the research design is used to guarantee that the internal validity is high. Questions that are related to internal validity are "Do observed changes in the dependent variable relate to changes in the independent variable?" (Bless *et al.* 2013:130). Inquiry strategies that are associated with quantitative research are those invoking a worldview that is post-positivist, originating mainly from psychology (Creswell 2014:12).

1.6.4 Case Study Design

The current study utilised a single case study design. The researcher focused on ECSA since it is atypical to other professional bodies. According to Van Wyk and Taole (2015:171), case studies have been repeatedly utilised in sociology, psychology and education. Yin (2014:16) stipulates that a case study is "... an empirical inquiry investigating a modern-day phenomenon in detail and within context of the real world". A case, according to Bryman (2016:67), is a term that associates case studies with location, for example, an organisation or a community. According to Yin (2014:16), a case study is "... an empirical inquiry investigating a modern-day phenomenon in detail and within the context of the real world". Punch 2011 quoted by Van Wyk and Taole (2016:171) also define a case study as studying a bounded system, placing emphasis on the unity and completeness of the system but limiting the focus to the aspects with relevance to the research at the particular time. Kumar (2014:126) explains that though case studies are dominant in qualitative designs, they can also be used in quantitative designs. Bryman (2016:67-8), however, argues that it is not appropriate to associate qualitative research with case studies. Instead, it is the proponents of the case studies who choose the qualitative design.

Grinnell (1981 in Kumar 2014:126) suggests that open-minded and flexible data analysis and collection methods characterise case studies. Grote *et al.* (2020:576) used a case study approach which served as motivation for choosing the case study approach. According to Grote *et al.* (2020), the case study approach answers the 'why' and 'how' questions. The choice of a case study for the research is also motivated by the fact that the research seeks to explore and understand a general problem in a setting that is focused, which in the current study, refers to TVET colleges and one professional body. The use of a case study also assists in generating theoretical insights that develop new knowledge since the area of the research embarked on by the researcher is nascent. Furthermore, the relational agency and systems theories are utilised in the case study design.

This study on articulation was carried out in a real-life context using the case study design, which is supported by Rule and Vaughn (2011:4) and Punch (2011:145) who explain that case studies, being empirical methods of research, investigate contemporary phenomenon in real life contexts. The researcher also utilised several sources of evidence, which are supported by the selection of a case study, as articulated by Punch (2011). The advantage of using a case study is that it offers a comprehensive analysis of a present-day phenomenon, thereby allowing the researcher to comprehend the contextual conditions that are important to the case (Yin 2014:16). Moreover, case studies are activity and time bound, thus researchers can collect information that is detailed, utilising an array of data collection methods over a time frame that is sustainable (Creswell 2014:14). Since the Articulation Policy is a national policy, it was important that a level of generalisation of the results takes place. The choice of a case study therefore assisted in shedding light to similar environments in the education sector that are required to implement the policy (Rule & Vaughn, 2011:7).

Thomas (2015:21) argues that cases are not defined as much by the methods that are utilised in the study, but rather by the boundaries that the researcher puts around the case. A case study of ECSA provided the researcher with more insights into the phenomena of articulation of engineering graduates (Kumar 2014:126). As this is an instrumental case study, the researcher concentrated on Articulation Policy implementation, which is why a single bounded case was selected to explain the

issue (Creswell & Poth 2018:157). The case was purposely selected as the researcher intended to explore and understand the implementation of the Articulation Policy by ECSA and the TVET colleges.

Creswell and Poth (2018:157) state that as a rule, researchers carrying out qualitative research are “reluctant to generalise from one case to another” because of the differences found in different contexts of the cases. The researcher might have challenges in choosing the most appropriate case, thus deciding on a bounded system, but at the same time recognising that the other cases may be possible candidates for this selection and worthy of studying. The researcher however, overcame this by selecting a representative case to include in the study to allow for generalisation, as suggested by Creswell and Poth (2018:157). Tracy (2010:841) explains that to ensure qualitative rigour “quality qualitative research is marked by a rich complexity of abundance...”. To allow for generalisation, the researcher carefully prepared interview questions and selected a wide range of interviewees from various stakeholder groups. This allowed the generation of rich data and perspectives whose analysis results though specific to the ECSA case study, could still be applied in different cases. The advantage of using a case study is that it does a comprehensive analysis of a present-day phenomenon, thereby allowing the researcher to gain an understanding of the contextual conditions that are important to the case (Yin 2014:16).

1.7 POPULATION AND SAMPLING

Lumadi (2016:226) defines a population as a group of objects, persons or even items where samples are taken by the researcher for measurement. A sample therefore relates to participants drawn from a population that is large to conduct a survey. However, the “sample should be representative of the population” to allow for the generalisation of findings to the whole population (Lumadi 2016:226). The ensuing section therefore describes the population and sample of this study.

1.7.1 Target population

The population of this study had various stakeholders which included 52 TVET colleges, ECSA and SAQA. The current research focused on engineering graduates and the 52 TVET colleges offering engineering qualifications. The curriculum of the

South African TVET colleges is similar; therefore, the responses that were given by the population were anticipated to be similar with minor variances. Though there are numerous professional bodies in South Africa, the study focused on a case of ECSA, which is a SAQA-recognised statutory body directly responsible for registration of engineering professionals. SAQA has the oversight role of ensuring that the implementation of the Articulation Policy by professional bodies takes place, hence its inclusion.

1.7.2 Sampling

Bless *et al.* (2013:179) postulate that the quality of research, be it qualitative or quantitative, is directly linked to the sampling method, sampling procedures followed if the technique chosen is adequate, as well as the appropriateness of the size of the sample. Bless *et al.* (2013:164) suggests that good sampling must meet the different criteria for both quantitative and qualitative research. Though the procedures and aims of the various research types may differ, the importance of the quality of sampling will always reappear when evaluating the trustworthiness and validity of the findings.

1.7.2.1 Non-Probability Sampling for Qualitative Research

Qualitative research aims to carry out an in-depth study of a phenomenon. Non-probability sampling is best suited for qualitative research because it focuses on the diversity of cases rather than the representativeness of the population (Bless *et al.* 2013:175). According to Bless *et al.* (2013:164), a sample is viewed as adequate in qualitative research when it permits the identification of all permutations of the phenomenon under research. Purposive sampling is used for this research since the researcher needed to identify the element that is "complex and rich in information". It is applicable at the point of realisation that data saturation has been reached and increasing sample size will not yield new information. According to Lumadi (2016:230) and Maree and Pietersen (2010:178), a researcher carries out research with a purpose and intention in mind, but it is important to note that purposive sampling methods prioritise achieving saturation, which involves obtaining a thorough understanding by sampling until no new substantial information is obtained (Etikan *et al.* 2016:4).

Grote *et al.* (2020:576) conducted research involving 26 interview participants. Among these, 21 were university administrators and academic advisors, referred to as "street-level bureaucrats who implement policy" from 12 out of 14 university engineering departments. Additionally, five participants were community college faculty who advised students at two community colleges. This serves as a guide to the number of research participants for this study. The researcher chooses participants for the research purposefully based on essential criteria to be defined by the researcher. It is also important to note that this research focuses on policy implementers, as supported by Grote *et al.* (2020). De Vos *et al.* (2013:392) explain that when conducting purposive sampling, a researcher needs to critically think about the population parameters and make a choice of the sample accordingly.

The researcher selected a sample of 10 TVET colleges across South Africa. TVET colleges have a standard curriculum and a sample of 10 was considered sufficient for the purpose of this study as it is representative of the remaining colleges. The participants are the heads of the engineering departments at TVET colleges, South African Qualifications Authority Senior Managers, Managers or Specialists responsible for recognising professional bodies and registration of qualifications. Creswell (2007:125) notes that this kind of sampling, where sites and participants are selected purposefully, informs the comprehension of the research problem. The manager responsible for education and continuing professional development at ECSA, the registration manager as well as the Chief Executive Officer, were also participants. According to Bryman (2016:418), this kind of sampling is done strategically to sample cases/participants, which/who are relevant to the research questions posed.

1.8 INSTRUMENTS IN DATA COLLECTION

This study utilised an interview approach and document analysis for data collection. Its objective was to unearth and elicit interpretations, opinions and experiences from participants regarding articulation of TVET graduates. Bakkabulindi (2016:35) points out that in interpretivist research, the primary source of data is the researcher therefore, it is crucial that the researcher competently integrates and analyses data. Bless *et al.* (2013:184) state that the data collected by researchers for particular research is primary data. Primary data is most suitable as it aims at addressing

specific research questions. Secondary data refers to data collected by other researchers, and it relates to other research problems, or it is part of social data collected for a population census.

1.8.1 In-depth Interviews

Bless *et al.* (2013:193) explain that interviews require “direct personal contact” with people asked to answer to questions relating to the problem of the research. Dakwa (2016:296) also defines interviews as conversational engagements that are face-to-face between two people. Furthermore, in an interview, questions are asked to elicit responses for analysis in research that is qualitative in nature.

The main objective of interviews in qualitative research is for the researcher to be able to measure the responses of participants and capture and interpret the information for research analysis. The advantage of using interviews is that the interviewer may probe for further clarification where responses are too brief or there was no response initially (Dakwa, 2016:301). However, interviews can be expensive and consume much time since the researcher would have to contact each participant personally.

According to Dakwa (2016:298), in-depth research interviews or unstructured research interviews refers to the type of research which is used by researchers to elicit information to obtain a holistic comprehension of the participant’s viewpoint or situation. These types of interviews are also utilised to explore areas of interest for further investigation. This type of interview takes the form of individual conversations used to collect specific information from the participant which is qualitative in nature. Bless *et al.* (2013:197) further point out that unstructured interviews are very useful for exploratory research.

This study therefore adopted an in-depth interview approach and interviewed 25 participants. The participants were drawn from 10 TVET colleges, ECSA and SAQA. Interview questions were prepared in advance and asked during the interview.

1.8.2 Telephone Interviews

Dakwa (2016:300) elaborates that the core objective of telephone interviews is to allow the collection of data from samples that are geographically scattered in an efficient, quick and cheap manner. The advantages of telephone interviews are that a researcher can reach respondents who are geographically dispersed as well as protecting the safety of interviewers. The challenges with phoning are that the researchers might not get adequate representative samples of the population and adequate rate of responses.

In this study, the researcher utilised telephones since samples were geographically scattered across the province of Gauteng, hence it was cheaper and easier to call respondents. Nevertheless, the researcher ensured that questions posed in face-to-face interviews were also posed during telephone interviews following the same order of questioning.

1.8.3 Document Analysis

According to Wagner *et al.* (2012:141), the analysis of documents refers to a conceptually informed and integrated method, technique and procedure for locating, identifying, analysing and retrieving documents for their meaning, relevance and significance. When utilising document analysis, emphasis must be placed on the content of the document, how it came about and the importance of the interplay emanating from the document. This study utilised the collection of secondary data to obtain representative data. The researcher analysed the Articulation Policy, Recognition of Prior Learning documents of ECSA, policies and documents relating to the articulation of TVET graduates from NQF stakeholders.

1.9 DATA ANALYSIS STRATEGY

Qualitative data analysis was supported by Creswell's (2014:196) guidelines for case study research. These "involve a detailed description of the setting or individuals" which are followed by analysing data for themes or issues (Creswell 2014:196). Feza (2016:460) suggests that "data analysis is the systematic search for meaning". The exploratory approach adopted includes an 'inductive' analysis, as supported by Grote *et al.* (2020), and followed the steps outlined by Bakkabulindi (2016:36), which involved data reading, managing, describing the participants and context,

interpreting and classifying data. Bakkabulundi (2016) expounds that during data interpretation, the interpretivist researchers' task is to identify what is key, why it is key and what it shows or reflects that concerns the study context and participants.

Since the researcher utilised interviews and document analysis during the data collection phase, thematic analysis was employed. Thematic analysis is described by Feraday and Muir (2006 reported in Feza 2016:460) as an analysis that “seeks to ascertain themes that surface as being significant in the narrative of the occurrence”. Attridge-Stirling (2001:387) further elaborates that thematic analysis assists in interpreting and shaping emerging themes. Thematic analysis therefore attempts to uncover important notable themes that surface from the data.

The researcher also adhered to advice by Vaismoradi *et al.* (2013:401) that like any other qualitative research methods, to gather and analyse data can be done concurrently to add to the quality and depth of data analysis. Therefore, while interviews were in process, the researcher analysed the data already collected and simultaneously collected, analysed and interpreted data analysis documents. The researcher then “winnowed” data that was not used, as suggested by Creswell (2014:195). The researcher utilised Atlas.ti to analyse data. Creswell (2014:195) alludes to the fact that using computer programmes is efficient, especially when storing qualitative data.

According to Grote *et al.* (2020:583) data analysis for their research was conducted using thematic analysis for transcribed interviews. During the process of collecting information, the researcher organises the data to facilitate the analysis of data. The researcher describes the setting and participants based on the responses of the interviews and document analysis. Using thematic analysis, the researcher codes the data first, followed by separating data utilising the codes to form data clusters to further analyse the data. By using thematic analysis, the researcher establishes the relationships of the ideas and differentiates between generated data. Interpretive analysis of the data was conducted.

Bless *et al.* (2013:238), Creswell (2014:201) and Bantwini and Arowolo (2016:486) all affirm that triangulation is a commonly used method for enhancing the credibility

and reliability of qualitative research. The notion of triangulation originated within realist paradigms, which sought to eliminate subjective bias from research. This concept operates under the assumption that there exists a single reality (or point on the map) that can be understood (Tracy 2010:843). In qualitative research, triangulation works on the premise that when multiple data sources, theoretical frameworks, types of collected data or researchers converge on a conclusion, it enhances the credibility of that conclusion (Heale & Forbes 2013:98). Put in another way, the reliability of results can be confirmed when varied and opposing data collection techniques can produce consistent outcomes for the same study participants (Heale & Forbes 2013:98). While some debate the effectiveness of triangulation in enhancing accuracy, many researchers across various paradigms still regard the utilisation of multiple researchers, data sources, methodologies and theoretical perspectives as beneficial. The incorporation of diverse data types, researcher perspectives, theoretical frameworks and analytical methods facilitates a comprehensive exploration of issues, broadens scope, enhances comprehension and fosters ongoing reinterpretation (Tracy 2010:843).

The researcher utilised methodical triangulation for this study, as suggested by Bless *et al.* (2013:238), where different data collection methods are used. The data from face-to-face interviews was compared to the data from literature review and document analysis. The results from the narrative analysis based on interview results were compared to the thematic analysis emanating from literature review and document analysis. This is corroborated by Grote *et al.* (2020:582), who employed triangulation by integrating findings from interviews with information obtained from web pages, policy documents, and institutional courses. Yin (2009) contends that a notable aspect of case studies in the utilisation of diverse data sources to achieve a detailed understanding of the research context.

The researcher considered Tracy's (2010:842) criteria for ensuring trustworthiness through applying triangulation as a way of ensuring credibility of the study. The researcher continuously assessed personal motivations and biases to ensure sincerity during data gathering, analysis and reporting of results. Additionally, rigour of the study was ensured through spending sufficient time gathering data in the field,

transcription of interview results immediately after the interviews whilst the information was still fresh in the researcher's mind.

1.10 LIMITATIONS AND DELIMITATIONS

SAQA recognises non-statutory and statutory professional bodies. Other professional bodies do have qualifications offerings at TVET colleges therefore the findings may not be generalised to all the professional bodies recognised by SAQA. Furthermore, with the non-statutory professional bodies, there is no legal requirement for professionals in the different professions to be registered with the professional body. Therefore, the recommendations that are offered might not apply to such professional bodies.

Most of the key stakeholders identified in the Collaborative Implementation Framework are governed by Acts of Parliament. For the framework to be effective, there may be the need for redefining and realignment of the legislative mandates of these role players. A project of this scale may take a while to be implemented and finalised. Furthermore, funding for the implementation of the Collaborative Implementation Framework will need to be defined and clarified, considering that the key stakeholders come from different government departments, with different mandates and funding models. There is need for defining how funding for some of the activities and infrastructural requirements, such as the establishment of an Information Technology (IT) platform.

The study intended to interview specific role players such as the principals and heads of engineering departments at TVET colleges. However, due to staff movement and other factors, these role players did not always have the required knowledge and the researcher was referred to more knowledgeable individuals to respond to the interview questions.

1.11 ETHICAL IMPLICATIONS

Research ethics assist researchers to understand their responsibility as ethical scholars. It is the researcher's responsibility that research is carried out ethically, therefore, the research plan must pass ethical evaluation (Bless *et al.* 2013:28-9). To

ensure that the study passes the ethical evaluation, the researcher adhered to the following:

1.11.1 Ethical Review

Research involving human subjects raises numerous ethical concerns, particularly regarding the potential for perceived exploitation of participants. Bless *et al.* (2013:28) emphasise that research ethics focus on sensitive and respectful handling of the participants of the research, who may be exposed to varying levels of risk. It is the researcher's duty to ensure that the study is conducted ethically. It is therefore important that the researcher obtained ethical clearance before the research commences from the Research Ethics Committee of the University of the Pretoria to safeguard the interests of the research participants. The ethical standards attempt to have a balance between the protection of research participants and supporting the liberty of scientific enquiry (Bless *et al.* 2013:28). The researcher sought permission from the ECSA, SAQA and TVET colleges to ensure good research practice.

1.11.2 Informed Consent and Voluntary Participation

It is important that participants know how the research affects them, what the research entails, benefits and risks of participation and that participation is voluntary (Bless *et al.* 2013:32). The researcher for this study therefore took time to explain to the participants what the research entailed and what was required from the participants relating to their participation. The researcher further clarified to the research participants that they could also refrain responding to the interview questions at any time during the process.

1.11.3 Confidentiality

According to Bless *et al.* (2013:32), any information that would have been shared by the participants, especially personal and sensitive information, should not be shared with anyone except the researchers. Any data from the research participants should be kept in a secure place. In this study, the participants were informed that their identities would be protected, and the information would not be shared.

1.11.4 Anonymity

Anonymity and confidentiality are linked. Data from participants must not be associated obviously and immediately with any identifier or his/her name. Anonymity should apply to all areas of the process of research, from the point of initial contact with potential research participants to the time when the research findings and report would be published (Bless *et al.* 2013:33). The researcher for the current study ensured that all information that could identify participants was anonymised and the process was clearly explained to participants.

1.11.5 Discontinuance

Assurance must be given to participants that they may discontinue participating at any point that they so wish without providing any reason. Their wish to withdraw from participating must be respected. It must be further disclosed to the participant that their withdrawal will not prejudice receiving any services (Bless *et al.* 2013:33). The researcher explained to participants that they may choose to discontinue with participation at any given point. They were not required to offer any explanation.

1.12 SIGNIFICANCE OF THE STUDY

Articulation in South Africa is a fairly new documented phenomena and the Articulation Policy is one of its kind as it transcends across education institutions, places of work and professional bodies. This study aimed to develop a Collaborative Implementation Framework for the Articulation Policy, which will contribute to the practice of public administration specifically the implementation of the policy. The introduction of the framework creates an opportunity for the revision of policies and regulations such as mandating acts, funding regulations and policies related to articulation. The Collaborative Implementation Framework will provide an opportunity for the review of the Articulation Policy to clarify the responsibilities of professional bodies in as far as its implementation is concerned and could improve the implementation of the policy.

The implementation of the Articulation policy is directly linked to the government's objective of ensuring that there is access, progression and mobility within career paths, training as well as education. This provides an important tool for redressing unfair discrimination that exists in job opportunities, training and education (South

Africa 2008: section 5). Improved access, progression and mobility by TVET Engineering graduates will indirectly address unemployment in South Africa. The framework creates new ways of work through new governance structures and working committees. This provides a deliberate channel of collaboration which can be measured and evaluated.

The White Paper for Post-School Education and Training (DHET 2014:5) emphasised the need to strengthen partnerships with employers. Through implementation of the Articulation Policy, professional bodies such as ECSA can further improve the relationships with employers to ensure seamless articulation of TVET graduates into the world of work.

Professional bodies act as the nexus between employers and education institutions. They contribute to curricula development, especially statutory bodies, and they work with employers in terms of upgrading the skills of employees. If progression is to be achieved through articulation, it is essential to analyse the requirements of professional bodies and identify the obstacles faced by graduates in their bid to articulate to a professional body and subsequently, to places of work.

The study is significant as it assists in examining the implementation of the Articulation Policy. Additionally, the study is aligned to Agenda 2063 objectives of improving the skills profile and addressing the skills gap across Africa. If professional bodies allow direct articulation of TVET students into professional designations, they will be the strengthening the:

“...technical and vocational education and training through scaled up investments, establishment of a pool of high quality TVET centres across Africa, foster greater links with industry and alignment to labour markets, with a view to improve the skills profile, employability and entrepreneurship of especially youth and women, and closing the skills gap across the continent” (Ethiopia 2015:14-15).

1.13 FRAMEWORK OF THE RESEARCH

Chapter 1: Introduction and Background

Chapter 1 provided an overview of articulation and its contribution to the National Qualification Framework (NQF). It presented the background to the introduction of the Articulation Policy in South Africa and its objectives. The concept of articulation was defined and articulation research internationally and in South Africa was reviewed which assisted in identifying the gap for the current research. The problem statement and research questions were outlined followed by an overview of the methodology which guided the research. The significance of the study was also highlighted.

Chapter 2: Articulation in Public Administration

Chapter 2 provides the theoretical framework of the study. The chapter conceptualises the implementation of the Articulation Policy in public administration. The current discourse on inter-, multi- and trans- disciplinary nature of Public Administration and how it has effect on the Articulation Policy implementation is elaborated on and analysed. Clear links between public policy and public administration are discussed. The public policy process is outlined to show where implementation is located in the policy process. The difficulties that are associated with policy implementation are also highlighted. Important to note are the critical factors that should be considered during the implementation of the Articulation Policy as well as the policy role players and stakeholders in policy. The effect of the governance era and how it influences policy implementation is analysed to understand how multiple stakeholders affect implementation.

Chapter 3: Coproduction in a collaborative environment

Collaboration is an important aspect that affects the implementation of the Articulation Policy and it is discussed in this chapter in detail. E-collaboration, multi-sector collaboration and determinants of collaboration are examined. The concepts of interdependency and interdependency in a collaborative environment are fundamental concepts that form the discussions in Chapter 4. The process of decision making in a collaborative environment are discussed. Co-production is defined and the elements and types of co-production are discussed in relation to policy implementation.

Chapter 4: Articulation legislative framework: Leading Practices

An analysis of the legislative background of articulation is carried out and utilised as a benchmark of the South African Articulation Policy. International best practices on articulation are considered. Germany articulation practices are considered as it has managed to successfully implement the articulation of VET graduates. It has placed importance on the articulation of the VETs graduates and their employability. The processes of articulation in place and the differences in the types of articulation in South Africa are examined. The chapter further clarifies the concept of articulation and how it has assisted in addressing issues of progression and parity of esteem in the education sector especially for people that have TVET qualifications.

Chapter 5: Data analysis and interpretation of findings

Chapter 5 analyses the data collected from interviews and document analysis on Atlas.ti. Data analysis and interpretation of findings are carried out in line with the discussions in Chapters 2, 3 and 4. Data collection and analysis processes are discussed in detail. The challenges encountered during the collection and analysis of data are highlighted. The results of the study are clearly documented. The demographic information of the participants is presented. The results of the study are presented in line with the themes extracted from Atlas.ti.

Chapter 6: Summary of the chapters, reflections, findings and conclusion

This chapter summarises the study, discusses the research findings and proposes recommendations. The recommendations consider the data analysis results in Chapter 4 as well as the literature review in Chapters 2 and 3. The chapter concludes on the results of the study.

Chapter 7: Proposed Collaborative Implementation Framework

The chapter suggests good practices and a framework to be adopted to address any potential gaps identified in the implementation of the Articulation Policy. The purpose of the framework is discussed in detail. In developing the framework, consideration is given to the information from the literature review in Chapters 1, 2, 3 and the data that were analysed in Chapter 4.

1.14 SUMMARY

Chapter 1 introduced the subject of articulation and the Articulation Policy. Articulation was contextualised and a detailed literature review of previous articulation studies was carried out. In this chapter, a discussion of the two theories, that is, the relational agency theory and the systems theory was discussed to guide the researcher in understanding and organising observations, data and interpretations within this study. By using these theories, the researcher developed a deeper understanding of the underlying mechanisms driving the implementation of public policies. The problem statement, research methodology and significance of the study were discussed providing a foundation of the thesis. The outline for each chapter was provided.

CHAPTER 2

ARTICULATION IN PUBLIC ADMINISTRATION

2.1 INTRODUCTION

Objective one requires this study to determine the factors affecting the progression of TVET engineering graduates to ECSA in terms of the requirements of the Articulation Policy. Chapter two delves into objective one, exploring the impact of multidisciplinary, interdisciplinarity and transdisciplinarity (MIT) on the implementation of the Articulation Policy, and aligning the study with Public Administration. It discusses how the Articulation Policy fits into Public Administration within public policy, highlighting pertinent developments crucial to the thesis. It emphasises the significance of multi-stakeholder roles in policy implementation to ensure the endurance of public administration and to provide insights into policy complexities from an MIT perspective (Kuye 2018:327; Uwizeyimana & Basheka 2017:1).

There have been noted developments in the public administration field with several scholars putting forward their contributions to the field. These contributions have had significant impact to the discipline with Igbokwe-Ibeto (2019:3) noting, “Public administration has gone through metamorphosis aimed at perfecting its acts to achieve the goals of government”. Kuye (2018:327) supports this assertion by stating that research in Public Administration has to adapt to the currency of events in society and future engagements that shape the discipline to take debates around governance, government and leadership. Ijeoma *et al.* (2013:27) concur with Kuye and posit that both the Public Administration practice and study are evolving and also changing with times, explaining the changes that occur in the locus and focus of the discipline.

2.2 ADMINISTRATION IN PUBLIC ADMINISTRATION

Thornhill (2016:7) and De Vries (2016:6) explain that the word administration is derived from Latin; ‘*ad*’ = to and ‘*ministrare*’ = serve. Shafritz, Russell, and Borick (2013:28) define administration as the management of governments and other

institutions, including the direction of their operations. They also emphasise that it involves government officials engaged in policymaking and the execution and implementation of those policies. The word administration refers to studying of a system that facilitates the rendering of public services. Simon (1976 cited by Igbokwe-Ibeto, 2019:2) views administrative activities as activities of a group working together to attain common goals. Igbokwe-Ibeto (2019:2) also summarises administration as cooperative action that involves material and human resources to attain the goals that have been set. Gladden (1966:12) however notes that "... administration is a long and slightly pompous word but has a humble meaning for it means to care for, look after people or manage affairs ... Is determined action taken in pursuit of conscious purpose".

Ijeoma *et al.* (2013:24) explain that we cannot confine the definition of administration. It ought to be viewed as a summation of activities embarked on to attain goals by members of an organised group. Igbokwe-Ibeto (2019:6) highlights that there are high expectations by citizens in every country for the delivery of services. However, effective administration is required to make sure that there is efficient and effective use of resources. It is therefore critical that administrators responsibly implement any policy to ensure that the citizenry received the services they require.

In 1887, Wilson postulated that "administration is the most obvious part of government, it is government in action, it is the executive, the operative, the most visible side of government and it is of course as old as government itself" and clarified that "administration is a field of business, which is removed from the hurry, and strife of politics" (Wilson 1887:198). Wilson in his assertion is very clear that politics and administration are separate and thus views administration as 'government in action', thereby highlighting the fact that when policies are designed, administrators who implement them are seen doing so on behalf of government (Wilson, 1887). This was supported by Goodnow who posited that "administration has to do with the execution of policies" (Henry 1975:377). Igbokwe-Ibeto (2019:7) also agree that the responsibility of administrators is to implement government programmes. According to Thornhill and Van Dijk (2010:101), when 'public' is added to 'administration', it then denotes the responsibilities that are carried out in

environments that are political, targeted as fulfilling the societal needs as required in a particular period.

2.3 PUBLIC ADMINISTRATION DEFINED

Uwizeyimana and Maphunye (2014:90-1) posit that there have been several definitions of public administration that have been proposed by past and current scholars. However, these definitions have revealed that there are differences in thinking on what constitutes public administration, its historic origins as well as the future for public administration.

Maserumule and Vil-Nkomo (2015:446) are of the view that theorising public administration can be traced back to Cameralism. Cameralism was a science and praxis of the administration of the state and the focus of Cameralism was mainly on the “political economy of the administration of the state which accent on public leadership”. However, due to the evolution of public administration along the politics-administration dichotomy that followed Woodrow Wilson’s 1887 essay on *The study of Administration* and the emergency of the New Public Management (NPM) in the 1980s, Cameralism, being the predecessor of modern science of Public Administration, remain obscured.

During the late 19th century, public administration became very popular after Woodrow Wilson’s essay where he defined the discipline from a disciplinarity perspective (Ndanguba & Ijeoma 2017: 2). Wilson (1887:198) argued that public administration is the implementation arm of government. Wilson explained that “it is government in action, the most visible side of government ... and that there should be a science of administration that seeks to strengthen paths of government, to make its business less unbusinesslike, to strengthen and purify its organisation and to crown its duties with dutifulness”.

De Vries (2016:7) explains that there are varying views on public administration’s status as an academic discipline in itself or whether it is a sub-field of political science, law, social sciences or economics or if it is an “interdisciplinary endeavour between those disciplines”. Views from authors such as Woodrow Wilson and De

Vries have led to discussions on what public administration has to study, how its objects should be studied and its boundaries, if any.

De Vries (2016:5) and Mfene (2009:211) state that public administration as a field that is academic, is “centrally concerned with the organisation of government policies and programs as well as the behaviour of officials (usually non-elected) formally responsible for their conduct”. This view is supported by Denhardt and Denhardt (cited by Pillay, 2016:19) who state that public administration is an academic discipline concerned with implementing government policies and public representatives are prepared to work in the public sector. Furthermore, De Vries (2016:6) describes public administration studies to be the means through which the public sector serves the public good by developing and implementing public policies. Public administration also studies what is required to carry out business legitimately, effectively, efficiently and rationally, thereby optimising serving the public good. According to Ijeoma *et al.* (2013:22), public administration focuses on systematically examining what takes place in the public administration practice.

Public administration is an academic discipline which involves a study of a system, which ensures the existence of a policy framework, developed to acquire the necessary personnel that perform functions delegated to the organisation. Public administration is further defined as an organisational structure put in place so that employees are clear as to what their responsibilities are and to make sure that procedures for provisioning of services are efficient and effective; that the sufficient allocation of funds to the organisation is done, and that measures to control are in place to enable all officials to be accountable, if they have not performed their functions (Thornhill *et al.* 2014:418-9). Pillay (2016:19) summarises that public administration is a discipline that makes an analysis of the organisation of government policies, the conduct, behaviour and procedures of the activities of the administrative state.

In terms of practice, public administration is defined by Pfiffner and Presthus (1967:7) as the coordination of group and individual efforts to execute public policy. Pfiffner and Presthus (1967:15) further elaborate that since public administration is responsible for implementing policies, it sometimes finds itself in a political context.

Raadschelders (1999:288) states that the main purpose of public administration is the governance of society. Public administration is in existence to ensure that the governance of society is realised.

Ijeoma (2013:1) provides the definition of public administration as the management of affairs by government to execute the needs of society. Public administration can be simplified as the systematic implementation of policies by government. Igbokwe-Ibeto (2019:6) further supports Ijeoma's definition when defining public administration as a tool used to implement laws and policies of the government. By implementing public policies and programmes, the promises of government to the citizenry are fulfilled. Public administration refers to the duties and responsibilities of the policymaking branch of government (Thornhill and Van Dijk 2010:101). Henry (2013:5) posits that public administration is the combination of theory and practice with the idea of promoting a superior comprehension of the relationship of government and the society it governs. According to Shafritz and Hyde (2017:11), the efficient use of resources which are available to public functionaries and employees, is the main objective of public administration.

According to Ijeoma (2013:1), public administration occurs in a socio-political environment that is highly influenced by its political environmental elements that create distortions and problems which in turn, affect the behaviour of groups or individuals in the system or organisation. Mfene (2009:211) also adds to the definition of public administration that it is focused on the implementation of laws, regulations and rules within a country, which is meant to execute public services to meet the aspirations of people (Bayat and Meyer 1994:4). Shafritz *et al.* (2013:29) clarify that what distinguishes public administration from private or business administration, is the political environment.

The definitions of P(p)ublic A(a)dmistration above provide a clear view of the context within which public policy works. Moreover, the political setting where public officials operate is a factor that requires consideration when developing a Collaborative Implementation Framework for the implementation of the Articulation Policy. Further, the socio-political environment should be noted as a factor that can have great influence on the behaviour of public officials when they implement

policies. These factors however, should not overshadow the importance that public administration has on the governance of society.

2.4 DEVELOPMENTS IN PUBLIC ADMINISTRATION

According to Kuye (2018:327), it is necessary that public administration research adapts to current events in society so that it engages in future research to assist in shaping the discipline and stimulate new dimensions to leadership, governance and government debates. Kuye further notes that there have been important developments in policy and public administration in the recent past. The evolving public administration also shapes the discussions in this chapter.

Marked developments have been noted in public administration. These developments, as stated by Vyas-Doorgapersad and Simmonds (2009:3), relate to the several paradigmatic shifts from “despotism to democracy; from traditional public administration to new public administration/management, from an inter-disciplinary to multi-disciplinary perspective, and from public administration to e-public administration”.

These changes were critical as they allowed public administration to conform to the global developments (Igbokwe-Ibeto 2019:5). Furthermore, the changes aimed at perfecting public administration acts, so as to attain the goals that had been set by the government (Igbokwe-Ibeto 2019:3). Durokifa and Ijeoma (2020:105) also posit that the evolvement of the paradigms at different times also depict the events and happenstance in society. Moreover, the evolvement that took place was in sync with the discipline and diverse emerging orientation and was witnessed as transitioning from “traditional Public Administration to Public Management, New Public or e-governance”. Durokifa and Ijeoma (2020:106) conceptualise these terms into three streams which are public management, administration and public governance.

Vyas-Doorgapersad and Simmonds (2009:7) conceptualise the new public administration and the old public administration developments by grouping the various paradigms. The commencement of public administration in 1887-1889, politico-administrative dichotomy (1900-1926), when the principles of public administration were established (1927-1937) and the identity crisis period (1938-

1949), marked the old public administration. The new public administration (1950-1970) was seen as a turning point where intellectuals began thinking of 'new' ideas in public administration.

Igbokwe-Ibeto (2019:3) posits that the vision of the old public administration was concerned with policies and laws in society. Henry (1975:379) also states that during the old public administration, politics "ha[d] to do with policies or expression of the state will" while administration "ha[d] to do with the execution of these policies". According to Igbokwe-Ibeto (2019:4), the old public administration had limited interaction with people's social needs, a period was referred to as 'the watchman role' where the interest of government was to maintain peace and security. Effectiveness characterised this era more than efficiency, especially where public funds were utilised (Akhakpe 2014:328 cited by Igbokwe-Ibeto 2019:4). It was later realised that this method could not be sustained since it represented inadequacies in addressing the main concerns and needs of the people and government.

According to Vyas-Doorgapersad and Simmonds (2009:7), the period 1950-1970 saw the progression of the new public administration. It represented the turning point in public administration wherein intellectuals began thinking about 'new' ideas. The new public administration also stressed the importance relating to impartiality and fairness, which were viewed as absolute goals. These were to be practised as well as followed in political and bureaucratic fields.

Igbokwe-Ibeto (2019:4) explain that the era of the New Public Administration (NPA) began in the 1960s, early 1970s. The argument was that efficiency does not deal exhaustively with public administration issues; instead, the central concern is man, which is a multi-faceted classification not consistently compliant with economic principles that are defined by. Authors therefore suggested a shift from a restricted perspective of public administration to a value-oriented administrative system. It is in this era that this study would seek to ensure that the Articulation Policy is implemented. The involvement of man is key in the process of implementation. The evolvement that has taken place in the field of public administration and the different knowledge that man brings to the discipline, has brought about some complexities, specifically to the policy implementation context. The next section focuses on

multidisciplinarity, interdisciplinarity and transdisciplinarity (MIT) in the discipline of public administration.

2.5 THE FUTURE OF PUBLIC ADMINISTRATION IN THE DOMAIN OF PUBLIC ADMINISTRATION: THE CURRENT DISCOURSE

Recent reports and policy briefs indicate a growing demand from the policy sector for more integration of interdisciplinary research (IDR) and transdisciplinary research (TDR) in research calls and funding programs, enabling these approaches to effectively tackle society's major challenges (Vienni-Baptista *et al* 2022:865). Thus, the discussion on the multidisciplinary, interdisciplinarity and transdisciplinarity (MIT) of public administration is one that cannot be ignored. Kuye (2018:327) is of the view that if the key business of public administration is to survive “the intellectual fitness of time”, then interdisciplinary and transdisciplinary research is required to play a central role to shape this discourse. Interdisciplinarity and transdisciplinarity are viewed as effective approaches to tackle society's major challenges, making them significant topics in both academic and policy discussions (Vienni-Baptista *et al* 2022:865). The debates relating to leadership, governance and government currently taking place should be shaped by future research and be able to adapt to the currency of events in society. Uwizeyimana and Basheka (2017:1) assert that the future of public policy and public administration needs to be understood from the context of multi-, inter- and trans- disciplinary perspective.

Hence when thinking of policy issues, a discussion on MIT is critical, considering that the challenges facing administrative systems are rather complex. The people who work in systems such as these must be efficient and effective and must be able to face the complexity challenge. The question that should be posed then is whether knowledge from one discipline can assist people in solving complex challenges, particularly as the “promiscuous” nature of the discipline has always been questioned and whether challenges in public administration can be resolved by people with a single disciplinary focus (Uwizeyimana and Basheka 2017:1).

This discourse is important as it assists in giving a clear picture of policy and specifically, policy implementation and how a Collaborative Implementation Framework could be designed to suit a complex environment where implementation

takes place. The creation of a Collaborative Implementation Framework for implementing the Articulation Policy should also be guided by the understanding that public administration is complex subject matter, which requires that one understands its interdisciplinarity, multidisciplinary as well as transdisciplinarity. There is thus a need for MIT concepts to be observed in the development of a Collaborative Implementation Framework to ensure the effective implementation of policies. The execution of public policies requires the interactive efforts of various stakeholders from different disciplines and their ability to collaborate, remains a critical success factor for policy implementation.

2.5.1 Interdisciplinary

Ndaguba and Ijeoma (2017:3) explain that the word “inter” means “between”. Interdisciplinarity is a collaborative and interactive approach to explaining phenomena, solving problems, creating products, or introducing new questions. From the outset, it engages all relevant professions and scientific disciplines, integrating their specific skills, information, concepts, theoretical and practical knowledge, techniques, and methods. This integration aims to foster a deeper and more comprehensive understanding of complex issues that cannot be effectively addressed by a single discipline or field of research (Toš 2021:69).

According to Choi and Park (2006:355), interdisciplinarity synthesises two or more disciplines integrating knowledge and establishing a new level of discourse. Van der Waldt (2017:184) asserts that public administration “as an interdiscipline entails the convergence of organisational theory, social theory, political theory and related studies”. The idea of interdisciplinarity is embodied in the idea of integrated sciences or studies, where a discipline can utilise methods from different interconnected fields when engaging a phenomenon. It however, tends to integrate the interconnected concepts from the perspective of the main field of study. This is done for three main purposes, which are new application, new analysis and generation of an entire new discipline.

Interdisciplinarity entails combining two or more disciplines to engage a phenomenon. Tshikwatamba (2007:751) is of the view that an interdisciplinary analysis is based on the nature of public administration activity and an area of study

in relation to other disciplines that are involved in their practice and theory, culminating in multidisciplinary equations. By nature, public administration is interdisciplinary, and the term “inter” is explained by Tshikwatamba (2007:751) as “others and among”. Choi and Park (2006:351) further simplify the understanding of interdisciplinarity when they suggest that “interdisciplinarity analyses, synthesises and harmonises links between disciplines into a co-ordinated and coherent whole. The common term for interdisciplinarity is ‘interactive’”.

2.5.2 Multidisciplinary

Multidisciplinarity is a problem-solving approach that involves engaging various relevant professions and scientific disciplines in parallel and independently. Each discipline brings its unique skills and methods, but there is no exchange of specific information, ideas, or techniques, and the contributions remain separate without interaction or integration (Toš 2021:69). According to Choi and Park (2006:351) “multidisciplinarity draws on knowledge from different disciplines but stays within their boundaries” The common name for multidisciplinarity is ‘additive’. Choi and Park (2006:355) further state that multidisciplinarity is a process that provides a juxtaposition of disciplines that is additive and not integrative; the disciplinary perspectives are not changed, but contrasted. Uwizeyimana and Basheka (2017:3) explain that for public officials to comprehend the challenges of poor service delivery of public service, their attitudes and behaviour towards their jobs has become an important variable. Therefore, psychology as a discipline can also assist public administration scholars to comprehend public officials’ behaviour that are not in line with the expected norms.

Ndaguba and Ijeoma (2017:3) observe that a case where different disciplines are used in a panel for processing a phenomenon, for example, education and decision-making, is called multidisciplinarity. The thrust is to allow multiple ideas from several disciplines to be part of both a contextual and conceptual argument in the field. According to Plesk and Greenholgh (2001 cited by Ndaguba and Ijeoma 2017:3) the multidisciplinary methodology was adopted to ensure that multiple academia is drawn from several disciplines to reconstruct and redefine “complex ideas outside the conventional methods” after the Second World War. Ndaguba and Ijeoma

(2017:3) further note that the challenge with this method is the use of thematic orientation when diagnosing a problem from a disciplinary point.

2.5.3 Transdisciplinary

Transdisciplinarity is inherently more inclusive than interdisciplinarity. While it aims to create a comprehensive synthesis for specific problem areas, it goes beyond the limitations of involving only experts and scientists, incorporating all relevant and interested participants from various sectors of society. This interconnectedness highlights the complexity of the issues being studied and fosters more direct interactions between professionals and the community. By delving deeper into the core of the problems, transdisciplinarity leads to more comprehensive, well-founded, and socially verifiable solutions (Toš 2021:69).

Choi and Pak (2006:351) explain that social, natural and health sciences are integrated in the context of humanities in transdisciplinarity and they go beyond their well-known boundaries. Transdisciplinarity can also be referred to as 'holistic' and a transdisciplinarity approach can lead to new perspectives. Uwizeyimana and Basheka (2017:5) add that with transdisciplinarity, individuals must master a variety of subjects or fields. They further comment that transdisciplinarity is important in public administration as it assists in resolving the complex nature of managing public service delivery demands.

Furthermore, transdisciplinarity is a collaborative and interactive approach to elucidating phenomena, solving problems, creating products, or posing new questions. From the outset, it engages all relevant practical professions and scientific disciplines, along with interested participants from various sectors of society. This process emphasises interaction and the exchange of information and knowledge among all participants, aiming to achieve deeper and more comprehensive solutions to specific problem areas (Toš 2021:69).

Ndaguba and Ijeoma (2017:6) further assert that transdisciplinarity involves a holistic and integrative approach to create new knowledge to tackle real issues, which is consistent with methodologies that are repeatable, which can be authenticated in the development encompassing solutions that are practical between practitioners and

scholars from diverse fields. Ndaguba and Ijeoma (2017:11) therefore conclude by supporting the idea of using transdisciplinarity for administration and public policy in future. This is important since transdisciplinary offers a broader vision afforded by the diverse disciplinary angles to reach a single conclusion.

Ndagumba and Ijeoma (2017:1) argue that public administration should be viewed through a transdisciplinary lens. They suggest that it is important to examine current developments in public administration and explore the imminent role of transdisciplinarity within the field. It is important that when one thinks about these issues, comprehension of concepts around network governance, government operability, decision making, e-governance, policy cycle, comparative public administration, agenda setting, poverty, peace, inequality conflict management, policy analysis and sustainable development which is quite recent, need resolute engagement from a number of disciplinary perspectives, which is the reason for discussing transdisciplinarity.

Furthermore, transdisciplinarity might assist public administration in appreciating the developmental state and “include sustainable likelihood for the destitute”. It is also anticipated that the issues that relate to ill-informed institutions and poor governance structures, absence of adherence to instructions of the organisations as well as processes and procedures, malfunctional and ineffective implementation of “framework and poor patterns of evaluation can be covered by diverse disciplines being engaged in comprehending the complexities from individual disciplinary vision” (Ndaguba and Ijeoma 2017:6).

The three concepts of multi- inter- and trans-disciplinarity are critical in public administration and public policy. The discussion of transdisciplinarity is a fairly new one and it can be noted from the foregoing discussion that it is important in public policy discourse. It is therefore imperative to explore the link between public administration and public policy, which gets discussed in the next section.

2.6 THE RELATIONSHIP BETWEEN PUBLIC ADMINISTRATION AND PUBLIC POLICY

Public policy has in some instances been separated from public administration. One of the authors who made his views clear was Woodrow Wilson, who wrote that “Politics is thus the special province of the statesman, administration of the technical official. Policy does nothing without the aid of administration but administration is not therefore politics”. He further noted that “the field of administration is a field of business which is far removed from the hurry and strife of politics” (Wilson 1887:209).

Kent-Brown and Roux (2003:73), assert that public policy is “institutional output”, and government institutions are involved. Government wins domestic support for its public policies and it is able to use national measures to ensure that public policies can be universally enforced in the domestic environment where it has jurisdiction. Cloete and Rabie (2008:56) also differentiate between public administration and public policy, explaining that the latter is comprised of programmes of action of government which give effect to the empirical and normative goals so that recognised challenges within a society are addressed. Public administration and management then concentrate on resources such as human, financial and otherwise that are required for this purpose, as well as the logistical and operational processes through which resources are converted into concrete policy outcomes, output and impacts on society.

Ijeoma *et al.* (2013:215) also confirm that “public policy is an imperative in public administration”, thus highlighting two views on the link between public policy and administration. They explain that the first perspective views administration and policy as two separate events. In other words, policy determines what to do, whereas administration works towards putting into action the policy decisions and attaining them. Administration therefore becomes a process of accomplishing policy decisions. The second perspective portrays administration as incorporating the process of decision making together with all the other functions within the organisation. In this instance, administration is not a separate function from policymaking; rather it is the totality of an organisation’s activity that assists in reaching a particular goal. Decision-making lies within administration, a notion

supported by Kent-Brown and Roux (2003:67) who posit, “Public Administration includes policy analysis among its functional activities”. They explain that this change results from the distinction between the 'old' Public Administration, which maintained that administrative and political questions are different, and the 'new' Public Administration, which has rejected this notion (Weimer & Vining 1989:7; Coetzee 1991:39-40 as cited by Kent-Brown & Roux 2003:174).

The discussion above illustrates how public administration and public policy are closely linked and at times intertwined. The two cannot be separated as they are interdependent in achieving the objectives of government. To further understand the origins of policy and what public policy entails, the following section discusses the policy background and provides public policy definitions.

2.7 BACKGROUND AND DEFINITIONS: PUBLIC POLICY

It is thought that policy originated from the social sciences discipline of political science and economics. Policy process has been contested with policy makers disagreeing on where to commence and end the process, if the end exists at all (Reddy & Govender, 2014:158). There are also postulations that policy implementation in public management and administration is not a linear process. There have been difficulties encountered by government relating to policy, implementation of the policy and its evaluation. In light of the complexities found in policy, it clearly must be multidimensional, dynamic, integrated and seamless. It should also be acknowledged that in the context of governance, policy is highly complex since each role player, which is, business, government and civil society, brings their own interests (Reddy and Govender 2014:159).

De Coning and Wissink (2018:5) explain that policy is “a statement of intent or an action plan to transform a perceived problem into a future solution”. The specifications of the basic principles in achieving specific objectives are spelt out in policy. Policy further interprets the values of society and is normally embedded in how relevant programmes and projects are managed. There are several phases in the policy process, and these are “initiation, design, analysis, formulation, dialogue and advocacy, implementation and evaluation”. Howlett and Ramesh (2003:5-18

cited by De Coning & Wissink, 2018:5) also admit that policy is complex and is a goal-oriented activity that greatly improves future conditions.

Reddy and Govender (2014:158) describe policy as interrelated or a collection of separate proposals, ideas, formal programmes or actions that have expected outcomes. There are several dimensions that a policy can take which can be its centrality to a government activity programme planned for a public entity to serve a specific section of the society. It should be clear that a policy can be politically framed, or it can be devised to address issues of service delivery. As a result of the wide range of purposes and contexts that a policy serves, studying policy becomes complex.

Public policy, according to Cloete (1999), can be understood as the deliberate decisions and actions taken by government authorities to address societal issues and achieve specific goals within a given political, economic and social context. It encompasses a range of processes, including the identification of problems, formulation of goals, selection of strategies, implementation of programmes and evaluation of outcomes. Public policy is characterised by various factors including values, interests, power dynamics and organisational arrangements and it reflects the priorities and preferences of policymakers and the broader society. Public policies promote the welfare of society, which is echoed by Cloete and Rabie (2008:56), who posit that public policies being government's programmes of action, fulfil selected normative and empirical objectives. This is to ensure that recognised challenges and needs of communities are addressed in a certain way and that changes desired by communities, are achieved.

Gumede (2011:167) explicate that public policy is "all the formal and publicly known decisions of governments that come about through predetermined channels in a particular administration". It is when intent is declared and implemented. De Coning and Wissink (2018:7) clarify that for any policy to qualify as 'public policy', it should be developed or at the minimum, have been processed in the governmental framework processes, influences and organisations.

Reddy and Govender (2014:159) explain that applying policy in public management and administration is not a straightforward process. Worldwide, governments grapple with the implementation and evaluation of policy, which is why it is important to ensure that policy is multi-dimensional, integrated, dynamic and seamless. Reddy and Govender (2014:159) further clarify that these four characteristics must not be idealised. Policy must not be understood as all-knowing and perfect since it can have unintended consequences or even at times, fail.

Kent-Brown and Roux (2003:74) identify four policy levels which consist of administrative policy, departmental policy, government policy and political party policy. At the level of political party policy, the value systems of the party, the ideology of the party and the leadership worldview are discussed and debated. Public policies are influenced from this level. Political party policies are “implementation policies as determined by political office bearers”, working together with high-profile public officials (De Coning and Wissink 2018:16).

The departmental policy, according to Kent-Brown and Roux (2003:74), focuses on how the government policies are implemented. Institutions provide the operational and organisational framework to public officials and role players performing the actual work to process policy inputs and outputs. Political policy, according to Madue (2016:120), can also be known as a “political party manifesto”. The main objective of these public policies is to inform prospective voters of the actions of a party if it gets elected to form a government. The manifestos are communicated during election campaigns to ensure that they are evident when people start to vote. The policy of the political party that wins becomes government policy. The practical ideas of a political party are therefore translated into government policy. The reflection of government policy is usually seen in regulation, legislation and programmes that are mostly known as policy instruments (Madue 2016:121).

Lastly, the administrative policy functions more on the public administration realm and has more to do with public policy implementation than policy making. De Coning and Wissink (2018:16) further elaborate that administrative policies do not refer to the different functional policy levels but rather as “different functional types of policy”. Operational policy or administrative policy is a policy that is very specific and is

meant to attain objectives of the department, ensuring that the department runs smoothly. This policy contains trivial issues that do not affect the executive or government policy since it is operational in nature.

These four levels of policies are not only sequential but are also interrelated. Brynard (2010:195) postulates that the notion that policy meanings are a *priori* shared among implementers, designers and managers, is different from their view. Furthermore, Brynard views policy as carrying unresolved, vague and conflicting meanings.

The four policy levels nevertheless undergo a policy cycle that is known to be cyclical. Reddy and Govender (2014:159) highlight that governments throughout the world struggle with policy implementation and policy evaluation which result in the implementation of policy in public administration not being a straightforward process. They caution that policy should not be viewed as all-knowing and perfect since it can achieve unintended consequences and fail. The policy implementation theories are further discussed for clarity on how the Articulation Policy is implemented. In addition, a discussion on the implementation theories should assist the study in developing a Collaborative Implementation Framework that are appropriate for the Articulation Policy.

2.8 PUBLIC POLICY PROCESS

The Articulation Policy, for the Post-School Education and Training System of South Africa, enacted in 2016, was established as a public policy to address educational and training inequalities. This policy underwent a comprehensive public policy process and is currently in the implementation phase, with a focus on monitoring and evaluation, which are central to this study. The subsequent sections provide a detailed explanation of the stages of development and implementation of the Articulation Policy.

Historically, one of the well-known ways of simplifying public policymaking for analysis has been to think of it as a process. It was envisioned as a set of stages that are interrelated where deliberations and policy issues had a more or less sequential flow that is from ‘inputs’ which are problems to ‘outputs’, which are policies. Harold Lasswell in 1956 was the pioneer and promoter of “policy science”

who developed the idea of ensuring that the process for the development of public policy is simplified by breaking it into several discrete stages (Howlett *et al.* 2009:10), which are referenced as the “policy cycle”. Howlett *et al.* (2009:10) however clarify that the policy process surpasses the input and output phases; it includes assessing activities after the outputs have been produced.

Lasswell (1971) categorised the process seven phases which not only describe the way public policies were devised and developed but also how they should be. These stages are appraisal, application, termination, invocation, promotion, prescription and intelligence. Lasswell’s policy processes in this construct meant that when intelligence gathering takes place, policy makers collect, process and disseminate information. The second phase is where the people involved in policy decisions promote particular options. Decision makers would then prescribe the actions to be followed. The prescribed course of action is invoked together with the sanctions that will be utilised when people fail to comply with the prescriptions. In the sixth stage, implementation of the policy by the courts takes place and bureaucracy does its work until cancellation. Lastly, results of the policy are evaluated in line with its original goals. Lasswell’s formulation of the policy process, which is presented in the following sections, was the foundation of many other models (Howlett *et al.* 2009:11).

2.8.1 Problem Identification

Ijeoma *et al.* (2013:218) state that the identification of the problem is most likely the most important part of the policy process as the outcomes of a policy are determined on how the problem of the policy has been framed. Societies are complex and therefore the identification of problems is complex. Cloete (2018:137) postulates that the identification of a problem normally begins with stakeholders who identify a situation or condition in society that is causing dissatisfaction. An individual, interest groups or government, business or labour organisations can initiate the process. If government identifies a problem, it deals with it, however, if the policy problem identified is outside government circles, the stakeholders in the society mobilise support to persuade policy makers to action and change the status quo. This is called agenda setting.

Cloete (2018:137) defines an agenda as a “tool to facilitate the proceedings at a meeting in order to ensure that its main purposes are achieved”. It gives order to discussions and ensures that the important discussions are prioritised. An item with the highest priority is most likely to be dealt with first so that it gets the priority it deserves (Cloete 2018:137). Cloete (2018:137) further explains that agenda setting is a planning process that is deliberated where policy issues are identified, the defining and prioritising of problems is done as well as mobilisation of support to lobby decision makers to undertake suitable measures. Agenda setting focuses its attention on policy issues that are a priority to receive the attention needed by the agenda setters. Ijeoma *et al.* (2013:220) also add that the purpose of any agenda is to mobilise and strategise to ensure the problem is defined.

Madue (2016:125) highlights that there are two types of agendas, namely systematic and institutional agendas. The systematic agenda comprises issues that are experienced by members of a political community while institutional agenda consists of issues requiring the attention of policymakers. Cloete (2018:138) notes that agenda setting is an important step in public policy making. Agenda setting assists in determining and prioritising what policy issues are to be addressed. Furthermore, it also determines who controls the policy-making process. Lastly, it also looks at how stakeholders influence the policy agenda.

2.8.2 Policy Design/Formulation

The second phase in the policy making process is policy formulation. Cloete (2018:159) terms it policy design and defines it as the process of planning and developing of the content of the policy. This stage involves converting financial and intellectual resources into an action plan, which includes setting of goals and objectives, prioritisation, assessing and generating of opinions. Madue (2016:128) is of the view that the formulation of public policy is part of the policy making pre-decision phase. Madue (2016:128) is supported by Cloete when explaining that this phase includes crafting of goals, opinions and priorities, assessment of benefits, costs and externalities of each opinion. It further involves the identification of public policy tools and policy alternatives to resolve a problem. Ijeoma *et al.* (2013:224) also agree that during the policy formulation stage, clear objectives should be set. The policy objectives are the goals the policy decision is supposed to achieve.

Having the right policy means making the right objective choices. Cloete (2018:161) clarifies that for policy design purposes, objectives outline specific purposes whereas goals set broad aims.

According to Cloete (1999:175), government formulates public policy with the following objectives:

- Providing solutions to societal problems.
- Accelerating economic development.
- Ensuring continuity in public administration, even as governments change.
- Serving the interests of the public rather than solely pursuing governmental interests, aiming to improve people's conditions.
- Streamlining administration processes, as administrative functions serve as instruments for policymaking.
- Fulfilling governmental survival needs, as the initiation and implementation of public policies are vital for government continuity.

The policy formulation stage is also central to public policy processes. The right content of the policy should be developed to ensure that the policy serves its purpose. It is imperative that clear objectives and purpose of the policy be established to ensure that the policy design is executed correctly.

2.8.3 Policy Implementation

There have been policy implementation challenges in South Africa, which have seen the achievement of government objectives being adversely impacted. This is a consequence of the multifaceted nature of policy implementation resulting in complexities when translating policies into practice. The Articulation Policy has also been affected by implementation challenges that are examined in the current study. Brynard views policy as carrying unresolved, vague and conflicting meanings. According to Cloete (1999:178), policy implementation refers to the process of putting a government's chosen policy into practice. It involves the translation of policy goals and objectives into concrete actions, programmes and services that directly affect the target population. This process encompasses a range of activities, including the allocation of resources, establishment of procedures and mechanisms,

coordination among various stakeholders and monitoring of progress towards desired outcomes. De Coning *et al.* (2018:195) further explain that the concept of policy implementation is multifaceted and happens at different levels of government. Policy implementation is pursued in conjunction with civil society, non-governmental organisations (NGOs) and the private sector. It is therefore important that planning and strategy generation be the main ingredients in the interface of policy implementation.

Policy implementation, according to Gumede (2011:167), refers to action or several actions that are carried out to execute policy programmes or objectives that would have been agreed upon. Brynard (2007:34) also defines policy implementation as the private or public actions by groups of people that assist in achieving the objectives that are part of policy decisions or the policy itself. Implementation has a double meaning, that is to execute or to enable 'practical effect to', fulfilling or accomplishing of objectives reflecting the ambiguity that is found in the understanding of implementation, which can refer to "implementation as end state or policy execution". The implementation concept therefore suggests that two entities become objective and the outcome fulfils two relationships that are different, that is, accomplishment and the causal functions.

Lane (1993:92 cited by Brynard, 2007:35) states that the assessment of implementation is focused on the public policy operation and its results. There are three activities that are logically separated and these are:

- Objective clarification involved;
- Statement of the link between outcomes and outputs in relation to the causal effectiveness (the causal function); and
- The clarity of the relationship between outcomes and objectives to assert the extent to which the goals have been achieved.

These three tasks imply the difficulties that may be encountered in judging the implementation effectiveness.

Hill (2003:194) identifies four variables that influence policy implementation. The first category identified is policy and process, influencing policy implementation through its design and the resources that would have been allocated to its implementation. Secondly, institutions and their social settings also have an influence on policy implementation. Organisations are expected to work together to produce a policy. Implementers and other agents also have influence on policy implementation as they shape the outcomes of a policy. Lastly, the conditions that exist within the policy environment contribute to the outcomes of policy implementation. These conditions include the economic conditions, behaviours of the affected groups as well as the opinion of the public. This is shown in the following diagram:

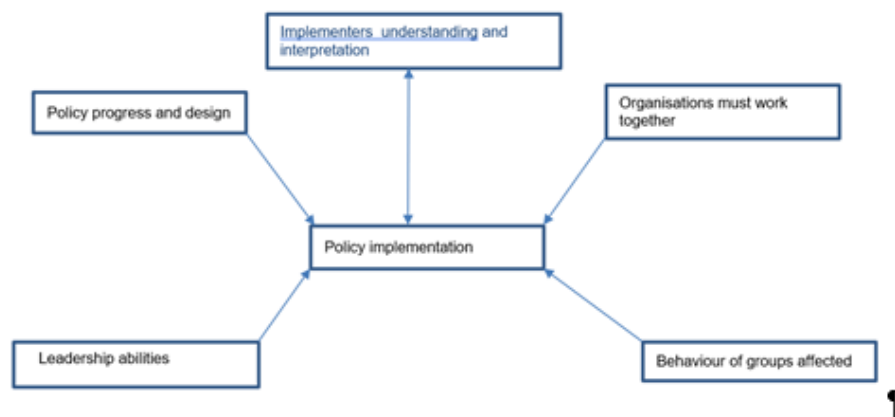


Figure-2.1:-Four-main-categories-of-variables-influencing-implementation¶

Source:-Adopted from Hill (2003:267)¶

Mfene (2008:207) also points out that the process of policy implementation involves several activities targeting conversion of the objectives and goals of policies into services and public goods to provide a better life for all citizens. The activities are however, executed by various public officials who have different qualifications, behaviour, expertise, norms, beliefs and values and are at different levels in the hierarchy. The need for a concerted effort by all the public officials involved at the different levels to guarantee the successful provisioning of services, is required.

2.8.4 Public Policy Evaluation

The last phase in the process of making public policy entails the evaluation of the policy. Rabie and Cloete (2018:273) explain that policy evaluation is encapsulated in

the question “what difference will or does/did the policy, programme or project make?” Systematic public policy planning, design as well as implementation with the purpose of improving policy outcomes and outputs quality, is not useful if the assessment is based on whether one has achieved or missed the targets. It is therefore necessary to carry out an evaluation to make the important decision on whether to continue, expand, reduce or terminate the policy, project or programme. Policy evaluation is an important pillar of the policy process that needs to be carried out for the Articulation Policy. It will assist in reflecting the strides that have been made during its implementation.

Policy evaluation is defined as the assessment of the policy design, process of implementation that is systematic and the policy results against the goals that were intended by the policy, project or programme and also against the implicit or explicit standards informing the intent (Rabie and Cloete 2018:274). Summarised, policy evaluation is intended to examine the effect of a particular policy on the beneficiary societies and whether or not the policy has made or is making progress in achieving the set objectives (Madue 2016:135).

The Department of Planning, Monitoring and Evaluation (DPME) (2011:10) defines evaluation as: “The systematic collection and objective analysis of evidence on public policies, programmes, projects, functions and organisations to assess issues such as relevance, performance (effectiveness and efficiency) value for money, impact and sustainability and recommend ways forward”.

The DPME identified six forms of evaluations which are implementation, diagnostic, design, economic evaluation, evaluation synthesis and impact evaluation. These evaluations take place at various stages such as, before an intervention, when implementation takes place, and when implementation completed. The types of evaluations are depicted in the following diagram:



Figure 2.2: Types of evaluations

Source: Adapted from DPME (2011:10)

The diagram above reflects the stages at which the evaluations take place. During the design level, design evaluation, which assesses the theory of change, takes place. At the same stage, diagnostic evaluation takes place with the aim of establishing the current situation and the root causes of the problems. Implementation evaluations take place at the inputs, activities, outputs and outcomes levels. It also evaluates what is happening and why it is happening. The cost benefits are assessed during economic evaluation at the activities, inputs, outcomes and outputs level. Between the outcomes and impact levels, impact evaluation takes place.

The DPME (South Africa 2011:10) summarises evaluations across government as depicted in Table 2.1:

Table 2.1: Summary of types of evaluations across government

Type of evaluation	Covers	Timing
Diagnostic Evaluation	This is preparatory research (often called ex-ante evaluation) to ascertain the current situation prior to an intervention and to inform intervention design. It identifies what is already known about the issues at hand, the problems and opportunities to be addressed, causes and consequences, including those that the intervention is unlikely to deliver, and the likely effectiveness of different policy options. This enables the drawing up of the theory of change before the intervention is designed.	At key stages prior to design or planning
Design evaluation	Used to analyse the theory of change, inner logic and consistency of the programme, either before a programme starts, or during implementation to see whether the theory of change appears to be working. This is quick to do and uses only secondary information and should be used for all new programmes. It also assesses the quality of the indicators and the assumptions.	After an intervention has been designed, in first year, and possibly later
Implementation evaluation	Aims to evaluate whether an intervention's operational mechanisms support achievement of the objectives or not and understand why. Looks at activities, outputs, and outcomes, use of resources and the causal links. It builds on existing monitoring systems and is applied during programme operation to improve the efficiency and efficacy of operational processes. It also assesses the quality of the indicators and assumptions. This can be rapid, primarily using secondary data, or in-depth with extensive field work.	Once or several times during the intervention
Impact evaluation	Seeks to measure changes in outcomes (and the well-being of the target population) that are attributable to a specific intervention. Its purpose is to inform high-level officials on the extent to which an intervention should be continued or not, and if there are any potential modifications needed. This kind of evaluation is implemented on a case-by-case basis.	Designed early on, baseline implemented early, impact checked at key stages e.g., 3/5 years
Economic evaluation	Economic evaluation considers whether the costs of a policy or programme have been outweighed by the benefits. Types of economic evaluation include: • cost-effectiveness analysis, which values the costs of implementing and delivering the policy, and relates this amount to the total quantity of outcome generated, to produce a "cost per unit of outcome" estimate (e.g. cost per additional individual placed in employment); and • cost-benefit analysis (CBA), which goes further in placing a monetary value on the changes in outcomes as well (e.g. the value of placing an additional individual in employment).	At any stage
Evaluation synthesis	Synthesising the results of a range of evaluations to generalise findings across government, e.g., a function such as supply chain management, a sector, or a cross-cutting issue such as capacity. DPME will undertake evaluation synthesis based on the evaluations in the national evaluation plan and do an annual report on evaluation.	After a number of evaluations are completed

Source: Adapted from DPME (2011:10)

The diagram above illustrates the six evaluation types in the public sector. The first evaluation is diagnostic evaluation that seeks to establish the status quo before identifying the remedy and choosing the nature and design of the intervention. Diagnostic evaluation is carried out at the key stages before planning or design. Design evaluation takes place after designing an intervention within the first year or later. This type of evaluation is carried out in the analysis of the theory of change during the programme implementation or before the commencement of a programme. Implementation evaluation takes place more than once during the intervention or even once. The main objective of this evaluation is to assess if the

operational mechanisms support the successful achievement of the aims and to establish why. It further scrutinises the outcomes, activities and outputs, utilising of resources as well as causal links.

The fourth evaluation is impact evaluation that measures outcome changes due to a specific intervention. It aims to inform responsible officials on the extent that an intervention can be continued or not. The design of impact evaluation is done early on, and the implementation of the baseline is also done early with the impact being monitored at key stages. Economic evaluation deals with the consideration of the costs of a programme or policy and whether they outweigh the benefits. Economic evaluation is done at any stage of the policy process. Lastly, evaluation synthesis involves synthesising results of several evaluations for the generalisation of findings across government. Evaluation synthesis is carried out after several evaluations have been completed.

The purposes for undertaking evaluations are to ensure that:

- Performance is improved (evaluation for learning);
- Accountability is improved;
- Knowledge is generated (for research) and establishing everything that is not working and what works; and
- Decision making is improved (DPME 2011:3).

Furthermore, evaluations have potential benefits such as:

- Feedback and learning into policy and policy implementation;
- Ensuring that management and policy decisions have their basis on evidence;
- Ensuring a better comprehension of the programmes that are cost effective;
- Saving finances, and
- Improving comprehension and assisting to better overcome institutional bottle necks to ensure improved impact (adapting policies and programmes) (DPME 2011:3).

From the foregoing discussion, it can be noted that policy evaluation is an important step in the policy process to establish the effectiveness of a programme/ policy.

Policy evaluation is a complex process that requires the necessary skills, finances and time to ensure that the impact and outcomes of a programme/ policy are determined, measured and quantified.

The introduction of the Articulation Policy brought renewed hope to the South African public, particularly for those from disadvantaged backgrounds, with the promise of enhanced mobility and opportunities. While there have been significant successes, some areas within education and training continue to face challenges. Notably, TVET graduates have historically encountered barriers that hinder their access and mobility. To address these persistent issues effectively, a clear and systematic approach is needed to improve access, progression and mobility.

2.9 POLICY IMPLEMENTATION THEORIES

Mphendu and Holtzhausen (2018:179) explain that the argument put forward is that theory supports research and assists in developing the relevant recommendations that can be utilised by public administrators to refine implementation. In implementation, there are three clear theory classes namely, hybrid, top-down, bottom-up theories. It has to be noted that the implementation of a policy is reliant on main role players, their willingness and capacity to implement it. Furthermore, poor policy design contributes to failed implementation of policy. The Articulation Policy in relation to the theories of implementation are discussed in the following section.

2.9.1 Top-Down Approach

Younis (1990:5) states that the top-down approach is also called ‘forward mapping’, a term, proposed by Elmore. The top-down approach has been described as a “policy centred” approach. Barrett and Fudge (1981:12 cited by Younis, 1990:5) describe the top-down approach as “the policy maker’s perspective” since it is concerned with what policy makers need to do. Younis (1990:5) further explains that this approach has the assumption that policy is formulated at the ‘top’. It is then translated and passed on to those at the bottom for implementation. Mphendu and Holtzhausen (2018:179) also concur when they state that “top downers” generally commence when senior authorities make pronouncements of a policy, the policy is then cascaded “down” to those at the bottom.

This is true especially in the South African context and specifically with reference to the Articulation Policy. The policy was approved by the Minister of Higher Education and Training and passed to the lower levels for implementation. The description of the top-down approach, as noted by Mphendu and Holtzhausen (2018:179), fits the South African context. The national government gets to formulate relevant legislation and all three spheres of government are expected to implement the legislation. In South Africa, the general concern of this approach is that legislation is passed and then implementation by different actors is expected without proper guidance on the process and verification of the availability and adequacy of the budget and personnel to assist with implementation. This is one of the challenges faced during the implementation of the Articulation Policy. For a top-down approach to be successful, an implementation plan, adequate resources and competent people should be available to implement the legislation (Mphendu and Holtzhausen 2018:180).

2.9.2 The Bottom-Up Approach

The bottom-up theory of implementation largely reacts to the challenges identified in the top-down theory. The bottom-up theory identifies and suggests alternatives to address these weaknesses (De Coning *et al.* 2018:200). Birkland (2016:337) explains that Richard Elmore, an advocate of the bottom-up approach, refers to it as 'backward mapping.' This method involves tracing the implementation process and relevant relationships in reverse, starting from the implementers at the bottom and working up to the policy designers at the top.

The bottom-up approach does not restrict a single defined policy like a statute or any other form of policy. Instead, in this approach, policy may be regarded as a collection of rules, norms, laws and practices that shape the way interest groups and government address problems. Implementation therefore may be seen as a carrying on of conflicts and compromises that take place throughout the policy process, not prior to its commencement but also when enactment occurs (Birkland 2016:338).

Birkland (2016:338) highlights that there are numerous commendable features in the bottom-up approach. The approach does not focus on a specific programme. A "fixed top-to-bottom implementation chain means that the bottom-up approach can view implementation as working through a network of actors – much like an issue

network or policy community – rather than through some rigidly specified process that fails to account for the richness of the policy making environment” (Birkland 2016:338).

The bottom-up approach is thought to be an approach that overemphasises the capabilities that the “street-level bureaucrats” have to upset the policy makers’ goals or targets. It is however argued that “street level bureaucrats” are not complete free agents; they have boundaries such as obligations and professional norms, available resources, as well as legal sanctions that can be applied due to non-compliance (Birkland 2016:338-9).

While the top-down and bottom-up approaches seem to be different, they help to implement policies (Howlett *et al.* 2009:155; Birkland (2016:339). Sabatier (1993a) and Matland (1995 cited by Howlett *et al.* 2009:165) further elaborate that the two approaches complement rather than contradict each other. Birkland (2016:339) articulates that the top-down approach can be utilised better when there is a dominant and single programme under study. The approach also commences with government decisions and the examination of the extent to which administrators execute or fail to execute decisions. Lastly, the reasons underlying the extent of policy implementation, are sought (Howlett *et al.* 2009:165). It is also appropriate to utilise the top-bottom approach when resources are limited to ‘backward mapping’ implementation of policy.

The bottom-up approach, according to Birkland (2016:340), is much more useful when there is no single dominant programme. It is also more appropriate when policy makers focus on local dynamics of implementation rather than the broad sweep of design. Consideration of the local factors is important both from an academic and practical perspective. Policy implementers get important lessons from the successful or failed implementation of policy. Howlett *et al.* (2009:165) highlight that in the bottom-up approach, street-level bureaucrats’ activities are also taken into account.

2.9.3 Hybrid theory of implementation

Mphendu and Holtzhausen (2018:179) note that there should be common ground for the bottom-up and top-down approaches, which they name the hybrid theory of implementation. Birkland (2016:340) explains that due to the relative weaknesses and strengths of the two approaches, it has been considered that the benefits of both approaches be pooled into a single model or “synthesis that can address the structuring of policy from top as well as the likelihood of its subversion or at least its alteration at the point of implementation”. Elmore (1985 cited by Birkland, 2016:340) also considered combining the ‘backward mapping’ idea with a ‘forward mapping element’. By considering both forward and backward mapping, it can be understood that choices of policy tools to structure implementation can be made, but with the realisation that the requirements and motivation of the first level operational implementers are considered.

It is therefore important that this study takes into account the strengths and weaknesses of the theories discussed above when developing the Collaborative Implementation Framework. The incorporation of the top-bottom and the bottom-top approach be considered during the design of the Collaborative Implementation Framework for the effective implementation of the Articulation Policy. This is in line with Najam’s idea (1995:14 cited by De Coning & Wissink, 2018:201) who clarifies that:

“both perspectives provide useful insights into the implementation process; both demonstrate significant explanatory strengths as well as weaknesses; each may be more relevant to particular sets of cases than others; in some cases, both may be equally relevant, albeit at different stages of complex and dynamic implementation process; and finally, there is need to evolve new models of implementation that incorporate the strengths of both perspectives”.

2.10 POLICY IMPLEMENTATION CHALLENGES

Younis (1990:3) explains that public policy implementation has been characterised by scepticism by public officials when it comes to meeting government objectives. If it is not a problem of public officials, it is the failure of the policy to address the

problems of the society. Moreso, policy implementation studies have been adversely impacted by a 'black box' approach where the assumption is made that decisions were carried automatically through the implementation system but still accomplished the intended results. During the implementation of the Articulation Policy, there is a need for clear diagnosis of the challenges hindering its effective implementation.

Implementation is a technical process that needs experience and skills. Implementation technicalities emanate from complexity and nature of a policy, quality of implementation methods and personnel as well as the technology that is utilised in implement a policy. A lack of experience and training, the sophistication of tasks as well as the technical complexity, are a source of implementation challenges (Younis 1990:135).

Ineffective control of policies can also affect implementation. A safeguard mechanism that ensures harmony between means and ends, is a concurrent control of all the activities and actions carried out to achieve objectives and projects. Absence of follow up procedures and lack of communication, complicates implementation controls. There must be continuous follow ups and controls to ensure that any deviations or problems are corrected. Younis further articulates that inadequate financial resources may also be a hindrance to the implementation of public policies. Delays of public projects occur because of lack of finances (Younis 1990:135).

The challenges that are encountered in policy implementation are also summarised by Brynard (2007:39) when identifying that the multiplicity of perspectives and actors is a huge obstacle during policy implementation. Wittrock and De Leon (1985:55 cited by De Coning *et al.* 2018: 206) further point to policy as a moving target where "the dynamics inherent in the implementation process can no longer be neglected, however inconvenient that must be".

The Articulation Policy is not susceptible to implementation challenges. The policy has had its fair share of challenges that are examined in this thesis. Ijeoma (2013:232) outlines some common challenges associated with policy implementation

which include organisational challenges, lack of incrementality that comes with new policies, multiplicity of actors, street bureaucrats and information intelligences.

2.10.1 Organisational challenges

When a policy is being implemented, there is the involvement of personnel. While policies may be meticulously formulated, deficiencies within the organisation such as management, administration including planning, human resources, coordination and finances can hinder the policy implementation process.

2.10.2 Lack of incrementality that comes with new policies

Incrementality refers to the added value to a process. A new policy may require new regulation funding. This may incite demonstrations and stir anger as there will not be any yardstick to measure the new policy against the old policy.

2.10.3 Multiplicity of actors

The policy implementation phase is characterised by several actors who have different interests, and several decision-making points. The above points make policy implementation difficult as the various players are bound to protect their interests. The various actors as well as the several decision-making points can result in political fights where actors try to manoeuvre to protect their interests.

2.10.4 Street bureaucrats

The people that were part of policy formulation are usually not the ones involved in implementation. The implementers are usually the staff working in an organisation (street level bureaucrats). It depends on these 'street bureaucrats' being able to stick to the critical ideas/goal of the policy.

2.10.5 Information intelligence

The collection and feedback of information when implementing a policy is critical. This requires functional management and coordination to address the shortcomings identified in the feedback and communication.

These challenges highlight the complexities involved in translating policy intentions into concrete actions and outcomes on the ground. It should be borne in mind that

implementation challenges come into play as soon as the policy has been passed on to the administrators. Several interdependent actions have to be achieved simultaneously almost making the success of implementing a policy difficult (Madue 2008:133-4). The abovementioned challenges may be constraints on the implementation of public policies. When the Collaborative Implementation Framework for the Articulation Policy is developed, consideration should also be made on the highlighted challenges.

2.11 FACTORS FOR CONSIDERATION DURING THE IMPLEMENTATION OF THE ARTICULATION POLICY

In line with Agenda 2063 that aspires to eliminate any form of discrimination and seeks to have a well-educated citizenry (Ethiopia 2015:2), the Articulation Policy seeks to address the previous discrimination that was unfair in employment opportunities, training and education (South Africa 2008: Section 5 (1)(d)). Articulation, in the South African Education Sector, was considered to be an effective tool that created an enabling environment that would ensure mobility, progression and access. However, with the development of the Articulation Policy, there are some implementation challenges that need attention if its full objectives are to be realised.

Articulation has commonly been known to apply to qualifications worldwide. However, SAQA has also introduced professional bodies on the NQF, therefore the Articulation Policy also has an effect on them. The Massey University Articulation Policy (2013) defines articulation as the transition of students between, into and from qualifications. The policy clearly states that the notion of articulation is strongly associated with the portability of qualifications and their parts. Kintzer and Wattenbarger (1985:7) postulate that articulation is a common term referring to the “entire range of processes and relationships involved in the systematic movement of students inter-institutionally and inter-segmentally throughout post-secondary education”. The definition by Kintzer and Wattenbarger does not limit articulation to qualifications only. This definition is adopted for the study.

Kintzer (1973 cited in Kintzer & Wattenbarger, 1985:22) identifies three types of state-wide articulation which are legal and formally based policies, state system

policies and voluntary agreements that exist between systems and individual institutions. Rifkin (2000:4) notes that articulation is nevertheless a complex task that the state cannot resolve on its own. Instead, quality interaction between the government and various sectors of education plays a pivotal role in successful implementation. The factors that should be considered to improve articulation are collaboration, articulation agreements, student support services and technical support and research.

2.11.1 Collaboration

Collaboration is pivotal to improved articulation practices. Rifkin (2000:4) emphasises the significance of key stakeholders' involvement in the development of articulation agreements. It is imperative that key stakeholders have ongoing, frequent meetings among them. Therefore, the development of a Collaborative Implementation Framework in the current study are key in implementing the Articulation Policy. SAQA (2020:32) also emphasises that conscious and deliberate collaborative relationships should be developed to improve articulation.

2.11.2 Articulation agreements

Articulation could be improved by establishing, committing to and implementing formal articulation agreements such as a Memorandum of Understanding (MOU), a Memorandum of Agreement (MOA), Recognition of Prior Learning (RPL) and Credit, Accumulation and Transfer (CAT) arrangements, as examples (SAQA 2020b:32). Rifkin (2000:4) further explains that these formal agreements have always been voluntary. The agreements are in place without any legislation to enforce them.

2.11.3 Student Support Services

SAQA (2019:153) articulates that quality career guidance is vital for progression at all levels. The guidance will assist graduates and prospective students to better understand and navigate through the complexities of the systems of education and training. They will be able to make informed decisions in terms of their employment options and learning. SAQA (2020b:32) further emphasises that advice must be provided to students about their “possible steps” and “destination possibilities”. Rifkin (2000:4) underscores that articulation agreements and collaborative efforts may not

be as effective unless students have access to high-quality information, counselling, academic advice and other support services.

2.11.4 Technical support and research

Additional research is required to support articulation. Research should be well documented and shared across the key role players which assists in informing articulation initiatives (SAQA 2020b:33). Rifkin (2000:7) elucidates that articulation also benefits from a technical structure that is well-developed, including information about students, tracking systems and databases for articulation as well as research. The foregoing discussion highlights some factors that should be considered to improve articulation. When developing the framework for the implementation of the Articulation Policy, the above are good pointers that should guide what should be included. Though there are good points that could be considered to improve articulation and its implementation, there are also challenges that need to be highlighted in implementing policies.

2.12 POLICY ROLE PLAYERS AND STAKEHOLDERS

There is a distinction between policy role players and policy stakeholders, as indicated by Reddy and Govender (2014:172). Policy stakeholders can either have direct or indirect influence in the policy-making processes. Direct policy stakeholders are normally actors and political institutions, which usually include public institutions, governments, researchers and government appointed think tanks, politicians as well as political parties. Indirect policy stakeholders include interest groups, advocacy, lobbyists, non-governmental organisations, private companies, media as well as academic institutions. Policy role players are involved directly in the creation, implementation and evaluation of the policy process. These role players have a direct link with the government and the beneficiaries of the policies.

Birkland (2016:108) also categorises policy-making participants into official and unofficial actors. Official participants are those whose responsibilities are sanctioned by the Constitution like the executives and the judiciary branches. The official actors do not have the explicit legal authority to participate in the policy-making process. The participants are involved since they have the right to be and the government system will not work without them. The unofficial actors include the media, which

plays the watchdog role. Interest groups are the most prominent and effective since people can collectively express their policy desires. To ensure that a Collaborative Implementation Framework is designed and implemented successfully, it is important that the policy role players and stakeholders have to be identified. These are political office bearers/legislatures, appointed public officials, bureaucracy, the public, political parties, interest or pressure groups and mass media.

2.12.1 Political office bearers/ Legislatures

Section 44 of the Constitution of the Republic of South Africa, 1996 states that parliament has the power to confer legislative authority on the national assembly and to pass legislation concerning any issue. The Constitution binds parliament when it exercises its legislative authority. Mphaisha (2014:78) echoes what is in the Constitution by stating that legislature is there to approve policies, to authorise laws and monitor the work of other organs of state, as well as that of departments. In South Africa, the National Legislature consists of the National Council of Provinces and the National Assembly.

Howlett *et al.* (2009:62) and Birkland (2016:109) posit that the legislature has a different role of holding governments accountable to the public rather than implementing or making policies. The performance of this function nevertheless allows the legislature to influence policies. In the legislature, important forums are created where social issues are highlighted and demands for policies that address them are made. Furthermore, the legislature also has the opportunity to articulate their views during the process of approving the bills of government and budgets of government to fund the implementation of policies. Legislature may also discuss and raise challenges encountered in the implementation of policies and request for amendments. In parliamentary systems where the majority party controls the government, proposed laws from the executive are usually approved by the legislature.

2.12.2 Appointed public officials

Section 85 of the South African Constitution assigns the executive authority to the President. The President together with the cabinet, exercise the executive authority by ensuring that legislation is implemented, developed, national policy implemented,

legislation prepared and initiated. Mphaisha (2014:90) explains that the executive is the second branch of government whose responsibility is to develop and implement new policies. The executive branch comprises the President, Deputy President, Ministers as well as Deputy Ministers.

Howlett *et al.* (2009:61) also identify appointed public officials as elected politicians. The elected officials are divided into two categories, which are the legislature and the executive. Many countries also refer to the Executive as the cabinet or the government and they are a key role player in the policy sub-system. The main role is derived from its constitutional authority, that is, to govern the country. Though there is involvement of other policy actors in the policy process, the authority of making and implementing policies rests ultimately with the executive. The executive also has bureaucracy at its disposal and therefore can utilise these resources to influence and control societal actors such as mass media, interest groups and think tanks. The government can further control the timing of introducing and passing of laws in the legislature since they have these important powers.

2.12.3 Bureaucracy

Bureaucracy refers to appointed officials who deal with administration and public policy. The function of the bureaucracy is to help the executive to execute its tasks as is suggested by the term 'public servants'. Public officials are often the keystone to policy processes and the central figure in policy sub-system (Kaufman 2001 cited by Howlett *et al.* 2009:65). For a bureaucracy to be considered strong, there must be professional ethos, a mandate that is clear and support that is strong from politicians but not interference (Howlett *et al.* 2009:67).

2.12.4 The public

The public is considered to play a small but direct role in the public policy process. The public provides the foundation of the attitudes, values and norms against which the process of policymaking unfolds. The public also has an important role that it plays as voters in democracies, as voting allows the public to participate in democratic politics and by implication, in policymaking processes. Voting also allows the public to insist on attractive policy packages from candidates and political parties (Howlett *et al.* 2009:64).

2.12.5 Political parties

Political parties can connect the public and the government in a way that affects policy. Political parties function along the boundary between the societal actors and the state. Their influence on public policy is an indirect one especially considering the role they play in the staffing of the executive and to a lesser degree the legislature. Those that are appointed are most likely to listen to their party when policies are designed (Howlett *et al*, 2009:67).

2.12.6 Interest or pressure groups

When government takes a decision to implement policies, organised groups start exerting influence on policy. Interest groups usually utilise the knowledge that may be available or even less available to others. These interest groups usually have unique knowledge and information of policy issues that are of concern. Bureaucrats and politicians therefore find the information that interest groups possess to be indispensable. Opposition politicians in government are therefore inclined to help these groups to get information that can undermine the opposition or to improve policy making (Howlett *et al*. 2009:69).

2.12.7 Mass media

There is general consensus that mass media has crucial links between the society and the state. This position allows media to have significant influence on private and public preferences with regard to problem identification and solving in a society. Nevertheless, the media's direct role in the several stages of the policymaking process is usually quite marginal and sporadic. The role of the media in the policymaking process commences when it reports on problems, which often leads to analysing where challenges were encountered. The media sometimes extends into advocating for solutions (Howlett *et al*. 2009:74).

This research seeks to ensure that the Articulation Policy is implemented effectively. Key role players and stakeholders who play a huge role in the implementation process have been identified above. The role players and stakeholders are key in the consideration of developing a Collaborative Implementation Framework. The role

of each has to be identified and ensured that they are placed appropriately in the Collaborative Implementation Framework.

2.13 POLICY IMPLEMENTATION IN THE CONTEXT OF GOVERNANCE AND e- GOVERNANCE

Public administration has undergone various changes in its history. The changes have influenced the delivery of public services to the people. The governance paradigm, where the study placed focus, is based on developing a Collaborative Implementation Framework for the implementation of the Articulation Policy. The study highlights how the governance/e-governance paradigm influences the Collaborative Implementation Framework for this research. The introduction of governance acknowledges that the discipline of public administration is not static but has to adjust to the environment where the actions of government are operationalised.

Louw (2012:94) is of the view that governance has become a theme that is currently leading the discourse of policy development. Governance is known as ‘steering’ and in simple terms, it means giving direction or navigating. Reddy and Govender (2014:159) point out that policy has become a complex issue in the context of good governance. This is made complex by the fact that each of the role players, that is, business, government and civil society bring in their own interest. These interests should be accommodated when developing Collaborative Implementation Framework for the implementation of the Articulation Policy.

Thornhill (2016:21) and Mukonza (2014:506) explain that governance is a recent development in the public sector. It has brought about an emphasis on the changing societal requirements and role players’ interdependency during the provision of services. The introduction of governance has also brought about the need to decentralise authority. The lower levels now have authority that was transferred from government when governance was introduced.

Paile (2018:10) articulates that when governance came to the fore, it was linked to economic development. Louw (2012:94) and Paile (2018:10) further postulate that the concept was introduced by the World Bank and the International Monetary Fund

(IMF) in the 1980s, after the realisation that the fiscal and micro-economic policy improvements were unsuccessful in reaping the anticipated financial outcomes in countries that were developing. The World Bank (2007:1) defines governance as “the manner in which public officials acquire and exercise the authority to shape public policy and provide public goods and services”. Paile (2018:10) notes that the concept of governance did not only come with the observation of the rule of law and ethics but it also entails fighting corruption, observing human rights and maximising effectiveness, efficiency and economy. Although governance has introduced new dimensions to public administration through administrative changes and reforms, public administration has consistently remained central to the formulation and implementation of public policy over time (Tshiyoyo 2018:79).

Rhodes (2000:61) cited by Tshiyoyo (2018:86) argues that governance has various actors in the network and which actors are interdependent between organisations. Furthermore, governance covers non-state actors thereby making it broader than government. There are also members who have a need to negotiate and exchange a shared purpose through continuous interaction of the network. These interactions are based on trust and there are rules that regulate them. There is also a degree of interdependency from the state especially if they are self-organising. Tshiyoyo (2018:87) is of the view that public policy has been dominated by networks in the governance era. Governance has therefore created a new role for public administration. Bureaucracy is required when managing networks and to have collaborations with actors in the network with the ultimate goal of co-operation and collaboration in delivering public services. There is also need for public managers to acknowledge globalisation in decision-making.

The Collaborative Implementation Framework for the Articulation Policy should therefore take into consideration the critical elements that are highlighted in the governance era. There is need for all actors in the networks that have been created during governance to collaborate and deliver services for the public good. Though e-governance has been in the discussion for a while, it has become more imperative for the public sector to consider its impact on the delivery of public services especially since the COVID-19 pandemic where the use of technology has become a priority. The introduction of Information, Communication and Technology (ICT) in

public administration will improve information sharing between stakeholders and government. Satyanarayan (2004:1) cited by Mukonza, 2014:508 argues that ICTs in government further enhances transparency, access and accountability. E-governance, summarised by Jain Palvia and Sharma (2007:3) involves:

“new styles of leadership, new ways of debating and deciding policy and investment, new ways of accessing education, new ways of listening to citizens and new ways of organising and delivering information and services. E-governance is generally considered as a wider concept than e-government since it can bring about a change in the way citizens relate to government and to each other...Its objective is to engage, enable, and empower the citizen”.

With this idea in mind, the Collaborative Implementation Framework should also consider the use of ICTs so that it is in line with the changing dynamics in public administration.

2.14 SUMMARY

This chapter dealt with public administration and public policy issues. The context of public administration was provided, and a brief historical background was outlined. Important concepts such as P(p)ublic A(a)dministration and Administration were defined. The origins of public administration were highlighted. The discussion on the developments in Public Administration which focused on the old and “new vision of public administration” to provide a perspective of the different ideas that different authors had at different periods assisted with a clear picture of the development of public administration. The discourse that focuses on the multidisciplinary, interdisciplinarity and transdisciplinarity (MIT) of public administration and how MIT affects public administration and public policy was also elaborated on. The relationship between public administration and public policy is also an important aspect of the chapter that links and provides clarity on the two aspects.

The chapter discussed insights into the background of public policy and associated key definitions. Policy process and how the origins of the process was also considered. The challenges that may affect policy implementation were deliberated.

The chapter highlighted some of the specific factors that should be considered to overcome the challenges that may be encountered during the implementation of the Articulation Policy. Policy implementation theories and role players were discussed. The section concluded by clarifying the role of governance and e-governance in public policy implementation. This helps with the contextualisation of public policy in public administration.

The following chapter explores collaboration at length to understand the importance of collaboration, types of collaboration and how ICTs could assist in ensuring that collaboration effectively takes place during the effective implementation of the Articulation Policy.

CHAPTER 3

CO-PRODUCTION IN A COLLABORATIVE ENVIRONMENT

3.1 INTRODUCTION

Chapter 2 conceptualised articulation in public administration. The idea of having multi- trans- and inter-disciplinary teams was identified as fundamental in policy implementation given the complexities that exist in administrative systems. When resolving the implementation challenges, attention should also be given to the knowledge and background of the administrative staff dealing with implementation. Different disciplines should be accommodated to cater for the complexities that come with implementation. Thus, the discussion on collaboration and coproduction becomes key in this thesis.

The importance of collaboration and coordination can never be underplayed in policy implementation given the “promiscuous” nature of public administration with a specific focus on public policy, which calls for challenges in public administration to be resolved by people with a multi-disciplinary focus (Uwizeyimana & Basheka 2017:1). Chapter 3 elaborates on collaboration and co-production as pivotal factors in implementing the Articulation Policy, thereby addressing objective one, which seeks to identify factors influencing policy implementation. This chapter further explores this discussion by providing an in-depth exploration of collaboration and co-production, emphasising their critical role in achieving successful policy implementation. According to Emerson and Nabatchi (2015:16), collaboration involves diverse stakeholders deliberating to build consensus and develop networks, while co-production, as highlighted by Pestoff *et al.* (2006:506), allows citizens to participate in the implementation of public policies.

Policy implementation challenges have been discussed by different authors like Ijeoma *et al.* (2013:232) who noted that the implementation stage is considered to be the most challenging stage. This phase is characterised by challenges associated with the content of policies as well as contextual problems. The effective implementation of the Articulation Policy requires effort from multiple stakeholders such as SAQA, professional bodies, and the Quality Council for Trades and

Occupations (QCTOs). Collaboration and co-production become important concepts in ensuring that seamless policy implementation takes effect. The two concepts of collaboration and co-production, which are discussed below, allow key stakeholders to engage and participate during the implementation of the policy.

3.2 COLLABORATION

Modern day organisations have become quite complex in nature and multi-, cross- and inter- disciplinary is required to facilitate implementation, innovation and improvement of work efficiency and quality. The partnerships that have emerged between people, professionals and clients when they make decisions, coordinate and cooperate, have resulted in collaborative practices. In this chapter, it is important that collaboration is discussed at length as it is a concept that will be utilised in the design of the Collaborative Implementation Framework. It is a concept that will bring together different role players and the key stakeholders. There is also need to be innovative during the implementation of the Articulation Policy.

Collaboration brings about “public innovation and innovative potential ...” (Torfing 2016:10). Torfing (2016:11) explains that the “development of new technologies and circulation of new scientific knowledge” is in itself not sufficient to spark innovation. Rather, innovation is dependent on the “purposeful actions” of political and social actors who interact with people inside and outside their own organisation. It is also vital to mention that “public sector innovation requires collaborative interaction between a host of different public and private actors including politicians, civil servants, experts, private firms, interest organisations ...”.

Collaboration can also be a key tool that creates innovative solutions that can disrupt policy impasses and also contribute towards improvement of public services and organisations. It is therefore important that a Collaborative Implementation Framework is designed to enhance the implementation of the Articulation Policy and enable high level interaction by the relevant stakeholders. An understanding of what collaboration is, is critical as well as the challenges that may be encountered in a collaborative environment. Discussion on collaboration is necessary as it addresses the challenges and strengths posed by the different actors in the public sector when implementing policy.

3.3 OVERVIEW AND CONTEXTUALISATION OF COLLABORATION

Huxham (1996:1) explains that collaboration carries negative overtones from World War II when it was utilised to describe people who worked with the enemy. However, collaboration is currently used positively where people work in association with others to mutually benefit each other. In Dutch the word “*samenwerken*” is translated literally as “working together”. In Latin, “*collaboratus*” also means working together. Collaboration includes co-ordination, networking, cooperation and collaboration. This research focused on organisational collaboration which is concerned with people in one organisation working with individuals in another organisation. These are referred to by Huxham (1996) as inter-organisational collaborations.

According to Huxham (1996:22), organisational collaboration involves resources sharing, exchange of information, altering activities as well as improving each other's capacity for common purposes and mutual benefit by sharing responsibilities, rewards and risks. Emerson and Nabatchi (2015:16) define collaboration as “an approach to solving complex problems in which a diverse group of autonomous stakeholders deliberates to build consensus and develop networks for translating consensus results”. Emerson and Nabatchi (2015:16) refer to individuals working together from different organisations, jurisdictions or sectors as “cross-boundary collaboration”.

Drawing on literature, Morley and Cashell (2017:208) indicate that collaboration:

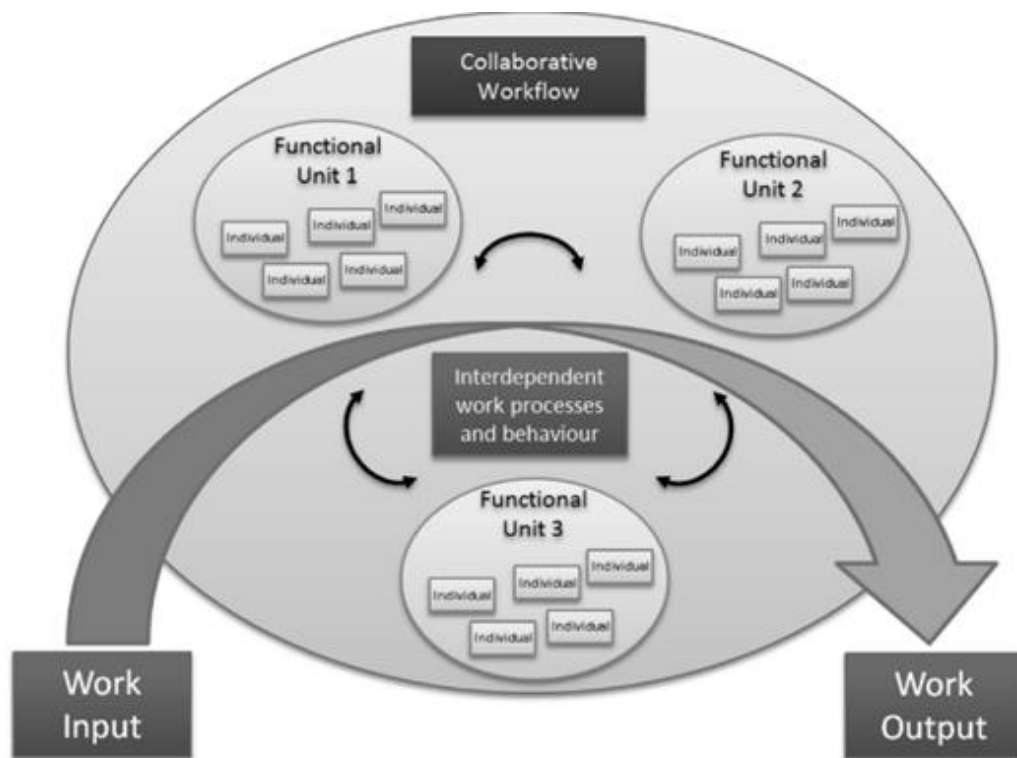
- Involves the interaction of a number of people to attain a common objective;
- Comprises task inputs and social inputs;
- Is an ongoing and active partnership between institutions and professionals with backgrounds and mandates that are diverse, working collectively towards the provision of services;
- Is a process involving communication, cooperation, negotiation, respect, trust and understands that the building of a synergistic alliance maximises each participant's contribution;
- Requires the construction of collective action, addressing complex client needs as well as inter-professional team relationships involving trust and respect;

- Is a process that involves negotiating agreement, working together as well as conflict management and both understanding and valuing one another;
- Involves shared planning over time, working together, operating cooperatively as equals and colleagues with respect and a mindset of finding solutions together;
- Is “a dynamic, transferring process of creating a power-sharing partnership ... for purposeful attention to needs and problems (practice) to achieve likely successful outcomes”; and
- Provides a satisfying, effective, and efficient means of delivering services by involving interdependent professionals who coordinate their efforts to address clients' needs.

Sullivan in Morley and Cashell, (2017:208) provides an important analysis of the attitudes and behaviours that constitute collaborative practice, and these are:

- Coordination (working together to attain shared objectives);
- Cooperation (making contributions to the teams, comprehending and appreciating contributions made by other members of the team);
- Collective decision-making (based on cooperation, communication, trust, honesty, and a balanced distribution of power); and
- Partnerships (characterised by respectful and open relationships developed over time, where members collaborate equitably).

In collaboration, an interdisciplinary team is united by trust, common goals, and open interdependency. While the team may delegate responsibilities amongst various functional units, it maintains communication that is strong, a mutual comprehension of the work processes that are interconnected, and a collective ownership of both the outputs and inputs throughout the entire process (Morley & Cashell 2017:209). This is represented in the figure below:



Source: Morley & Cashell (2017:209)

Figure 3.1: An interdisciplinary team

According to Morley and Cashell (2017:211), a successful and motivated team is accountable and members trust each other, feel safe to behave in a transparent and open way, accept their differences and collaborative interdependency. Behavioural content and processes can promote the functioning of a socially cohesive team that operates in an innovative and integrated way.

Rupprecht *et al.* (2017:93) define collaboration as the exchange and combination of diverse expertise and core proficiencies with the aim of “creating a joint outcome in agreement” considering objectives and ideas of all the parties involved in the collaboration. Farouk *et al.* (2020:3) also share their thoughts on what collaboration entails. They posit that some researchers are of the view that collaboration is a term that describes the close cooperation that exists amongst independent partners who are involved in a joint project to meet the customers’ needs in an effective manner and at a low cost. Rosly *et al.* (2020:5) also define collaboration as the participation of agencies to reach the same achievement and goals. They further explain that

collaboration can also be two agencies cooperating to resolve an issue. Collaboration therefore occurs when two or more organisations share responsibilities, exchange information, execute, manage and monitor performance.

Marqui *et al.* (2013:195) clarify that collaboration is complicated and it is more than a set of systems and techniques. Instead, several characteristics and behaviours are required to make collaboration a reality. Coordination and cooperation of operations with the strategically selected role players is key. Marqui *et al.* (2013:199) clarify that in as much as cooperation is necessary, it is not a condition sufficient for the achievement of coordination. Coordination is necessary but is also not sufficient to achieve collaboration. Ma *et al.* (2018:2204) elaborate that there are various concepts related to collaborative relationships beyond just collaboration. Such concepts are cooperation, joint venture, alliance and coordination. These can be illustrated in a diagram as below:

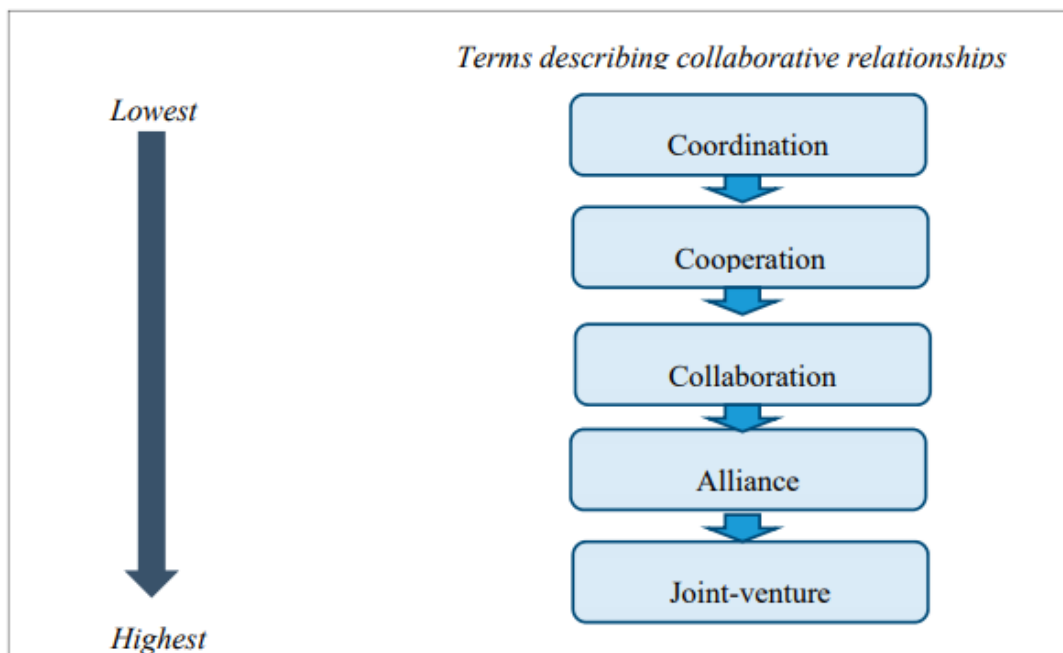


Figure 3.2: Levels of collaboration and terms describing collaborative relationships

Source: Ma *et al.* (2018:2204)

Ma *et al.* (2018:2204) posit that collaboration, as presented in the above diagram, is at a higher level than coordination as it requires higher levels of trust and commitment. Spekman *et al.* (2002:45) posit that when organisations with long term

relationships exchange basic information with a customer, it is termed cooperation. When the incessant flow of critical and important information takes place aided by information technology it is coordination.

Johnston and Staughton (2009:5) also concur with Ma *et al.* (2018) when they articulate the different types of collaboration but also introduce new terms in collaboration. They assert that partnerships, contracts, partnering, strategic alliances, networks and joint ventures are all types of collaboration. According to Johnston and Staughton (2009:5), strategic alliances and contracts tend to be characterised with asymmetrical relationships with the stronger side having power. Partnerships can last for a long or short term, but they have mutually agreed benefits and goals while partnering is more suitable where long term commitment, openness and trust between parties are required (Black *et al.* 2002:424). Joint ventures are also defined by Stafford (1994:65) as a type of collaboration involving companies that pay to build independent and new associates that they will co-own through formal agreements. Lastly, the interconnectedness amongst the different types of collaboration, such as alliances, joint ventures, partnerships, are represented by networks.

Collaboration can be broadly utilised to mean a lot of inter-organisation relationships of all kinds. However, all these relationships have different legal basis, meanings and may not be suitable for some organisations meaning to collaborate with each other. Collaboration is thus adopted where higher levels of trust, commitment and information sharing is a requirement.

3.4 PREREQUISITES FOR COLLABORATION

The public sector has been characterised by policy implementation challenges. Louw (2012:88) observes that governments are launching major reforms within the public sector. Seemingly, there is pressure for the public sector to transform and at the same time seem to evolve but into what? It is vital that as the public service is reforming and evolving, it considers collaboration as the new way of assisting in decision making considering that e-governance requires that several role players engage in decision making. Akinsola and Munepapa (2021:4) expound that collaboration is essential in the public sector to assist in meeting the needs of

stakeholders, comprising people and several parts of communities in the country. However, for collaboration to be successful, there are prerequisites/ key drivers that should be considered.

3.4.1 Shared understanding of the problem and a common vision

Szymaniec-Mlicka (2017:192) is of the view that it is expected that decision makers have a better comprehension of the context that they operate in as well as the interconnection that exists with other functional units or departments of the public services. Varty *et al.* (2017) explain that there is need to share understanding and knowledge with the different parties who are not restricted by location, but who have high mobility and who are in locations that are geographically dispersed and e-collaboration can do just that.

Mahlangu *et al.* (2019:9) also posit that for collaboration to be successful, clarity of aims and objectives is required before committing to working together. A common perspective and vision of what the collaboration seeks to attain should be shared by all stakeholders. A process of negotiation by all stakeholders should take place so that there is a common understanding. Initially there might be different perspectives, but negotiation will allow everyone to have clarity as well as expressing their concerns. There should be connections and clarity on roles that must be sought by the different sectors including understanding the benefit of the organisation in the bigger collaborative project as this will encourage participation. Expectations should be communicated early in the project so that they are managed.

3.4.2 Strategic planning

There should be concrete and defined steps on how the objectives of the collaboration should be achieved. The plan has to specify activities and objectives, outcome measures, an indication of how financing will be done for the plan, timelines and costs. Equally useful is a process map visually describing the outline of activities that will be connected to timelines. A plan will also assist in guiding the monitoring of the progress as well as the outcomes evaluation (Mahlangu *et al.* 2019:9).

3.4.3 Leadership

Mahlangu *et al.* (2019:9) posit that leadership is a key factor in successfully executing the implementation process. Facilitative leadership creates an enabling environment for collaboration that is effective. The leadership should be one which drives the agenda for collaboration. The position should be taken by a person who is credible and has power to influence and convene other sectors' decisions in terms of the programmes to be prioritised. The leadership of collaboration must be linked to an organisation for continuity and not to an individual. Sectors outside government should participate in the leadership responsibility to inspire commitment and ownership by all parties and sectors.

3.4.4 Capacity of members

For collaboration to operate optimally, members' capacity is important. The best suited strategies to address complex problems lies with the people who can come up with innovation and ideas. Process skills as well as reasoning, negotiation including listening are important competences needed by collaborating members to effectively represent their different sectors and make a meaningful contribution. Hence the leader of collaboration should facilitate the acquisition of skills and capacity. Some of the skills are however acquired through experience (Mahlangu *et al.* 2019:9).

In designing the Collaborative Implementation Framework, consideration should be given to the key drivers or prerequisites discussed above. It will assist in the success of the Collaborative Implementation Framework. The key drivers will lead to "collaborative advantage", as suggested by Huxham (1996:14):

"Collaborative advantage will be achieved when something unusually creative is produced – perhaps an objective is met that no organisation could have produced on its own and when each organisation, through the collaboration, is able to achieve its own objectives better than it could alone".

3.5 COLLABORATION DETERMINANTS

The drivers or determinants of collaborative practice are thought to encompass the processes, team behaviours and content. Content comprises the strategies and

vision of the team that helps the team members to find direction and clarity as a unified group valuing diversity of members. The processes include organisational procedures, tools, management influences and policies. These processes will simplify team interactions. Interactions will be more inclusive, objective and transparent making them less emotional and personal. Behaviours are interactions and actions that are internally driven by members of the team. A successful and motivated team has members that are accountable and trusted to one another, accepting their differences and interdependency, and feel safe behaving in ways that are transparent. Processes, content and behaviours promote teams to operate in a socially cohesive manner and operate in innovative and integrated ways (Morley & Cashell 2017:211).

3.5.1 Structural Determinants (Opportunity)

The nature and degree of the interactions of collaboration of interdisciplinary teams can be impacted by the organisational and physical environment. Organisational environment may include architecture such as functionality, physical structure and aesthetics as well as management considerations such as the defined relationships amongst teams and amongst members of a team. The environment may also mean the schedules, temporal arrangements, processes, physical spaces, communication tools and organised activities which either discourage or encourage team collaboration that is effective (Morley & Cashell 2017:212).

3.5.2 Psychological Determinants (Willingness)

According to Morley and Cashell (2017:212), human interactions are key to collaborations, therefore the collaboration determinants also comprise several psychological factors. The “interactional determinants” may take account of the team members’:

- Readiness to be involved in collaboration (affected by professional education, group cohesion, previous experience, constancy of group and personal maturity);
- Mutual respect and trust (this would have been developed over time and it will be influenced by perceived education, competence and experience both of others in a team and oneself); and

- Communication (which is affected by the ability of one in communicating their role, communicating constructively and efficiently, and communicating in such a manner that enhances additional collaboration determinants such as respect and trust (Morley & Cashell 2017:212).

3.5.3 Educational Determinants (Ability)

Skills training and education may promote collaborative practice. Morley and Cashell (2017:212) outline two competencies that are important to collaboration. Firstly, it is important that the comprehension of role expectations and boundaries in a team as well as learning to stabilise the needs of team identity and professional identity is understood. Secondly, another competency is the ability of engaging in informal and formal communication that is effective which includes the skills to resolve conflicts, negotiation, the ability to utilise a language of dignity and respect and having the knowledge of the communication approaches and language when engaging with different people from different professions and individuals that are different.

Language also plays a significant role in collaborative communication, especially language that is inclusive that can reflect “underlying notions of connectedness” within a team setting. The use of the relevant technical terminology can be important for the generation of respect that is mutual, communication that is clear and confidence especially in environments that are specialised and technical (Morley & Cashell 2017:212). The determinants of collaboration are shown in Table 3.1 below:

Table 3.1: Determinants of collaboration

Subcategory	Specific determinant
Opportunity	Time
	Space
	Tools
	Procedures
Ability	Inter-professional collaborative skills
	Shared language
Willingness	Safety
	Collegiality
	Role valuing

Source: Morley & Cashell (2017:212)

According to Morley and Cashell (2017:213), the provision of training and education that is appropriate, the psychological environment that is supportive and structural and physical opportunities are all important in the promotion of collaborative practice. These factors should be considered when developing a Collaborative Implementation Framework. These three determinants may also assist in dealing with some of the barriers encountered when collaborating.

3.6 REASONS FOR COLLABORATING

The implementation of the Articulation Policy has had its challenges. Collaboration should therefore be utilised to ensure that policy implementation is a success. However, it is important to point out that several collaborative arrangements are voluntary. Many parties come together simply because they see that there is some benefit. Though the parties may see benefit for themselves, the motivation may be altruistic for the greater good. Collaborations usually come about as a response to government incentives or edict (Huxham 1996:1). In this case, however, a Collaborative Implementation Framework will be in the best interest of professional bodies in South Africa as well as the Education sector.

Huxham (1996:3) and Freitas *et al.* (2019:6), explain that collaboration can be done for financial reasons. Joint funding of projects assists with efficiency and cost cutting. Huxham (1996:3) further expounds that when joint funding takes place, efficiency is

realised from the practical imperative that duplication of effort is avoided, and efforts of the various parties are coordinated into a coherent and directed whole. Joint funding can also be politically used in public private partnerships. It can be viewed that the 'good practice' in the private sectors can be rubbed off on the public sector which is often viewed as insufficient.

Collaboration can also take place for self-interest. Huxham (1996:3) elaborates that the self-interest might not be intended to be at the expense of the other parties involved. An organisation may participate or even initiate collaboration to achieve results that may not be achieved any other way. Morley and Cashell (2017:208) argue for the collaboration idea as it results in improved outcomes as sharing of information, transfer of knowledge and enhanced decision making takes place. Professional bodies and TVET colleges in South Africa therefore need to work together to ensure that articulation takes place as it is of benefit to both organisations.

Huxham (1996:4) further articulates that one could argue that the real reason for collaboration is a moral one. There is a belief that real problems in society cannot be tackled by one organisation alone. Instead, the challenges are multi-organisational as they have ramifications for several aspects of society. It will be prudent for collaboration to take place so that the challenges can be alleviated. It is also important that those that are affected by the problems, are highly involved so as to empower them.

According to Morley and Cashell (2017:211), collaboration may benefit organisations and staff if collaborative teams are fostered. Staff retention and satisfaction is higher in organisations that engage in collaborative culture. This may be a result of the horizontal nature of collaborative teams rather than hierarchical power structures. Collaborative teams have inclusive communication, are more open, have respect, have a greater level of role understanding and members appreciate each other. High collaborative and performance teams tend to drive value as well as process improvement, initiative, innovation, increase the engagement of staff and reduce the absenteeism of staff. All these aspects result in efficient and more competitive organisations.

It is therefore important to ensure that collaboration is fostered in the development of a Collaborative Implementation Framework. It will improve teamwork, encourage communication, performance of teams, encourage innovation and enhance decision-making processes.

3.7 COLLABORATION CHALLENGES

While collaboration is beneficial, there are also challenges that hinder collaboration from taking place (Rosly *et al.* 2020:5). Huxham (1996:5) highlights that there is evidence indicating that collaboration does not always happen and the potential value is not always realised. Working in a team is not always easy. It is even more challenging when collaboration occurs across organisations, as the challenges become magnified. Huxham (1996:4) conceptualised the concept of collaborative inertia that describes a situation where the work output rate that results from collaboration is greatly reduced in comparison to the expectations of a casual observer. There are several reasons that result in collaboration inertia and these are discussed in the sub-sections below.

3.7.1 Differences in language, aims, culture, procedures and perceived power

Huxham (1996:4) explains that organisations that have collaborative relationships normally have divergent aims. It should also be noted that the same differences are used as the leverage for collaboration. These same differences may also mean that the organisation's reasons for being involved in collaboration also differ. The difficulty will also be aggregated if the different parties come from different professional groups. Morley and Cashell (2017:211) further explain that inter-professional teams sometimes involve members with different salary, prestige levels, and other aspects adding further to the challenge of negotiating and managing power dynamics. Team leaders should negotiate and facilitate responsibility and authority issues rooted in the complex interactions of teams.

Differences in organisational procedures and culture can also make collaboration difficult. What is seemingly meant to be straightforward can be executed differently in different organisations. Difficulties may be encountered when the different parties make assumptions about how the work should be executed. If there are perceived power imbalances where large organisations collaborate with smaller organisations,

the smaller organisations may feel defenceless which will aggravate the potential for future misunderstanding (Huxham 1996:5). Members of the team may also have styles, goals, expectations, interests and experiences that are different, which could generate conflict and complicate communication.

3.7.2 Lack of authority structure and tension between accountability and autonomy

The authority hierarchy can also affect collaboration. Though other organisations may be more powerful than others, no formal authority hierarchies may exist between parties. The working relationships of individuals from different organisations is based on goodwill. The lack of authority structures has implications on time and time should be spent in creating goodwill between individuals. More time may also be spent on achieving the set targets in collaboration (Huxham 1996:6). Morley and Cashell (2017:212) therefore suggest that team leaders should enable the negotiation of responsibility and authority issues that stem from the complex interactions of collaboration teams.

The different parties involved in collaboration require a fair degree of freedom to make progress. However, all parties need to report back to their parent organisations as the different activities affect the parent organisations. The individuals need to be accountable to the organisations unless they are fully empowered by the organisations to make decisions during collaboration on commitments. Time could be wasted with the back and forth to the organisations resulting in the energy levels and impetus for proposed actions withering (Huxham 1996:5).

3.7.3 Time management

Collaboration can consume time as well as other resources. Since members may be in different places and organisations, it may be difficult to arrange spontaneous meetings and deal with issues as they arise. There should be planning and coordination, which takes time (Huxham 1996:6).

The ongoing discussion has highlighted the inherent difficulties in communication that underlie collaboration. The differences in the aims of the collaborating parties will also lead to more time in trying to reconcile them, trying to reach agreements and

understanding how to avoid conflict and misunderstandings. The recurring theme running through the discussion is the time spent in collaboration resulting in consumption of resources and resultantly becoming costly. It is therefore important that the inherent challenges of collaboration are understood and dealt with when the Collaborative Implementation Framework is developed so that it functions successfully.

3.8 COLLABORATION PROCESS

The governance era has seen the use of networks, stakeholders, partnerships and collaboration in government processes and policy. The need to involve all stakeholders in administrative processes has motivated the development of a Collaborative Implementation Framework. The use of technology during the governance era has had an influence on the framework that will be developed to match the requirements of the e-governance paradigm. The Collaborative Implementation Framework will assist in bringing together diverse expertise from different competency areas so that effective ways of implementing the Articulation Policy can be devised.

Rupprecht *et al.* (2017:92) support the idea when they explain that collaboration enables synergistic and effective combination of teams and team members' complementary expertise. The rapid advances in ICT have also impacted Public Administration. Rupprecht *et al.* (2017:93) have developed working phases that can be found in a generalised task model when working collaboratively. The working phases, outline below, were developed taking into consideration the use of ICT.



Figure 3.3: Working phases in a generalised task model of collaborative working

Source: Rupprecht et al (2017:93)

To explain the working phases, Rupprecht *et al.* (2017:93-4) state that collaboration begins with assigning roles and tasks to each participant, which can be performed through utilising software tools or by a group during or before a meeting advance. This will be phase one of the process. Assignment of tasks also assists with coordination of team members and work to manage the dependencies of the activities. Participants who do not have tasks may not participate in group work. Assigning tasks also leads to equality of workload which increases the satisfaction of individuals therefore improving the individual participants' willingness to cooperate and thus, the performance of the entire team. Coordination of activities therefore becomes the first requirement in a collaborative framework (Rupprecht *et al.* 2017:94).

The second phase in collaborative working is the drafting of the goals to be achieved and how the goals can be accomplished. Participants may perform this function in a group or individually. The tasks that would have been assigned are refined and the work outline created. There is a continuous feedback loop with comments, which lead to phase three. In the third phase, the result is a draft where the expertise and ideas from all members are integrated and considered. Communication amongst members is a critical requirement that supports collaboration. It synchronises

approaches that guarantee that the agreed goal is achieved (Rupprecht *et al.* 2017:94).

In phase four, the style of work shifts from group tasks to single tasks where execution of the tasks assigned takes place. Phase four is closely linked to phase 5, which is the revision and iterative reviewing of tasks. In this phase, all ideas, suggestions and comments are incorporated and discussed. The exchange amongst members is important as it allows the necessary communication of individual ideas and performance satisfaction. Participants can make the decision to accept the output, which is the outcome of phase five, resulting in task establishment in phase six (Rupprecht *et al.* 2017:94).

The Collaborative Implementation Framework that is to be developed resulting from the current study, will be able to adopt the working phases in a collaborative environment, as depicted by Rupprecht *et al.* (2017). It will also assist with how the ICT is programmed to allocate tasks in a collaborative environment. The working phases will form the basis of collaboration amongst the several strategic stakeholders who will participate in the implementation of the Articulation Policy.

3.9 MULTI-SECTORAL COLLABORATION IN A NETWORKED ENVIRONMENT

A discussion of multi-sectoral collaboration is important as different sectors are involved in the Collaborative Implementation Framework at different levels. It is also critical to discuss what e-collaboration entails since there are different role players who will participate in the practical implementation of the Articulation Policy and there is a need to utilise technologies to be able to effectively implement the Articulation Policy.

3.9.1 Multi-Sector Collaboration

An approach to resolve problems from multiple angles, involving different sectors in governance such as the civil society, community structures, individuals, private sector and government, is referred to as a multi-sectoral approach (MSA). This approach is usually utilised when a problem in question is beyond the resources and scope of one sector. MSA is important as it addresses pertinent contextual factors, such as education and health with its increase in inequalities. Multi-sectoral

collaborations (MSC), which are also known as cross-sector collaborations, are adopted to address such problems. Multi-sector collaboration has now become a desirable and necessary strategy to address development challenges (Mahlangu *et al.* 2019:1).

A discussion on MSC is important as it assists in understanding how the Collaborative Implementation Framework will work in a multi-sector environment. Mahlangu *et al.* (2019:1) state that multi-sector collaborations provide platforms for including the main stakeholders in society when developing interventions, coordination, support, information sharing amongst sectors and more importantly, sharing responsibilities. Moreover, multi-sector collaboration allows for greater responsiveness to situations that are complex and leverages on innovation and knowledge, reach, resources and expertise that is found from the varied and combined strengths of different sectors.

In spite of the highlighted benefits of multi-sectoral collaboration, Mahlangu *et al.* (2019:1) also share the challenges that could be encountered with multi-sector collaborations. The different parties with different strategies, backgrounds and tactics also bring in competing institutional backgrounds. Moreover, multi-sector collaborations may be expensive and costly in resources and time. They are also inherently fragile and require coordination, management, proper planning, that is constant, obligations that are reciprocal, as well as trust amongst the sectors.

Multi-sector collaborations remain a phenomenon that is complex. It is thus essential that the processes and execution is clearly outlined for it to be successful. The following section attempts to clarify how some of the processes in multi-sector collaboration can be carried out.

3.9.2 e-Collaboration in the Public Sector

The Collaborative Implementation Framework that will be developed in the current study will be in the public sector space. It will be designed to enable the implementation of the Articulation Policy by the different role players. Akinsola and Munepapa (2021:2), opine that it is critical that decision makers have a better comprehension of the operational environment and their connection with other

entities, which will allow them to give wide-ranging public service. If good quality service is to be provided, views from different stakeholders from both within and outside the organisation are to be shared. e-Collaboration is therefore necessary to allow these different views to be shared without limiting people to their geographical locations. Anders (2016:227-228) adds to the discussion by articulating that ICTs have provided teams with an environment where they can exchange views and communicate across space and time.

Nikoi and Boateng (2013:46) describe e-collaboration as the utilisation of internet resources by at least two people called “collaborators” to facilitate information exchange, documents and ideas. Internet resources assist individuals in working together effectively and also making effective decisions. Bettoni *et al.* (2016:2-3) also agree with Nikoi and Boateng (2013:47) that effective decision making can effectively be done if collaboration efforts of both internal employees and external stakeholders takes place. ICTs remain core to the discussion of effective collaboration and decision making.

3.9.3 Decision-making process in an e-Collaborative Environment

Decision-making in a collaborative environment is integral to modern organisations. In the competitive markets of today, the decision-making process is crucial. As indicated previously, collaborative efforts of experts both outside the organisation and employees within the organisation are required. Collaborative efforts have however, become easier to implement due to the improved communication and information systems. The tools have allowed employees to be flexible by affording employees to connect with other organisations, to access information sources as well as enabling them to work from anywhere (Naik 2015:9). The main stakeholders in the implementation of the Articulation Policy are diverse and e-collaboration will provide a more efficient way of marshalling and sharing their ideas for decision making purposes.

Since the decision-making process involves different parties, collaborative tools, which make decision making and collaboration faster and simpler, efficient and effective (Naik 2015:9), need to be used. Akinsola and Munepapa (2021:6) also add that e-collaboration tools are important in the facilitation of decision making in the

public sector as well as other organisations. Sharing of knowledge and information is important in the public sector because it assists in making decisions that are effective thereby making communication transparent and open. Negulescu (2014:115) devised a decision-making process that may also be utilised in an e-collaborative environment.

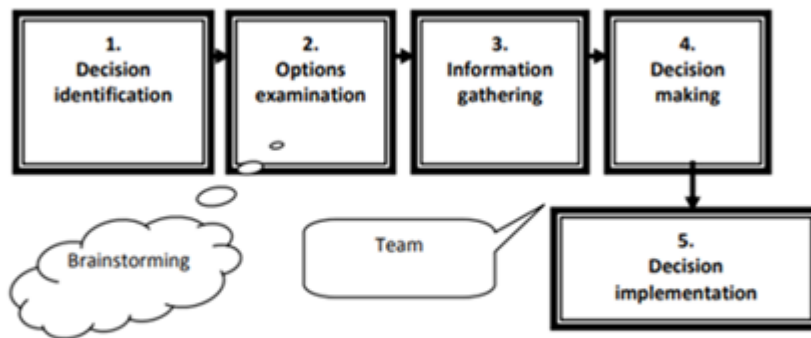


Figure 3.4: Decision-making process in a collaborative environment

Source: Negulescu (2014:115)

De Vreede *et al.* (2016:1-3) explain that there are four categories to technology-mediated collaboration which include (1) same place, same time (telephone conference in the one building), (2) different place, same time (meeting via telephone or conference on the web between two people who will be in different buildings yet belonging to the same organisation), (3) same place, different times (shared folders which are on the network), (4) different place and different time (this can be voice mails that will be exchanged, e-mails).

As a Collaborative Implementation Framework is developed, it is important that consideration is given to asynchronous and synchronous collaboration technologies such as shared folders, emails, telephone conferences on the web, for example, as this will assist in choosing the right tools to be used particularly in the public sector where affordability could be an issue. The use of new tools should also be considered taking into consideration the available resources, particularly as it could enable effective, efficient and simplified decision-making.

3.10 DEPENDENCY AND INTERDEPENDENCY IN A COLLABORATIVE ENVIRONMENT

In a stakeholder network, there are various stakeholders. The various stakeholders may depend on each other, either in one direction or bi-directional. Bi-directional dependency requires that each stakeholder benefits from the other, defining an interdependent relationship. Johnson *et al.* (2014:46) define interdependence as “a set of complementary relationships that two or more parties rely on to manage required (hard) or opportunistic (soft) dependencies in joint activity”.

Rupprecht *et al.* (2017:94) clarify an interdependent relationship as one that when changes are made by simultaneously and independently operating members of a team, they will have an impact on the overall tasks being performed and the system. When one task exists, it does not necessarily depend on the completeness or existence of another task. The ‘relies on’ relationship does not necessarily exist. However, there could be a ‘can be positively or negatively influenced by’ relationship if execution of one task influences another task. Tasks therefore may be interdependent due to dependencies, but not because of just existing.

The interaction of influence and dependency creates interdependency which can be one directional or bi-directional. The parties enjoy dependence and influence. Stakeholders may not be dependent upon each other, but their independent actions may influence the common outcome. According to Rupprecht *et al.* (2017:94), interdependent activities mean that conflicting interests may be present which are to be coordinated so that discrepancies may be captured before becoming a threat to the achievement of a common goal. Common ground is achieved when the parties involved continually inform others about any changes that take place outside their views.

Johnson *et al.* (2014:48) further clarify that it is not required that all members of the team are aware of the whole activity scope, instead they must all be cognisant of the interdependency that exists in amongst their activities. The appreciation of the activities and tasks resultantly impacts task performance and coordination positively. The impact awareness and shared knowledge that would have been established will allow members of the teams to work collaboratively and their activities adjusted as

required. Rupprecht *et al.* (2017:95) illustrates the interdependence phenomenon diagrammatically as follows:

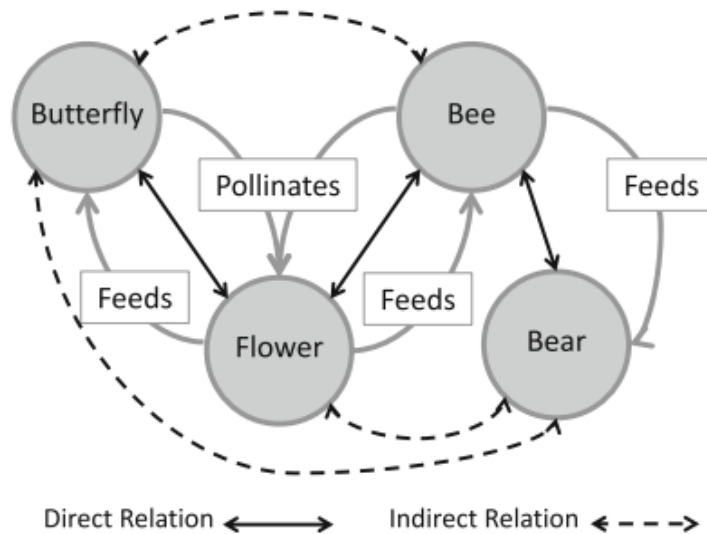


Figure 3.5: Interdependencies showing direct and indirect relations between participants of a system

Source: Rupprecht *et al.* (2017:95)

In the diagram above, Rupprecht *et al.* (2017:95) explains that there are four participants: (1) flower (2) butterfly (3) bee (4) a bear. A butterfly is dependent on the nectar from the flower to provide for its food. For pollination and reproduction seeds, the flower is dependent on the butterfly. There is a straight interdependency between the flower and the butterfly. A bee also coexists with the butterfly in the same habitation. The bee is dependent on the flower for the production of honey and for cross pollination, the flower depends on the bee. There is a direct interdependency on the bee and the flower. However, the butterfly and the bee cohabit without any influence on the other. The bee and the butterfly impact each other when cross pollinating flowers, which accelerates reproduction. The task of pollinating flowers by the bee and the butterfly makes the job easier resulting in an improved overall outcome (more flowers are reproduced), which is a prerequisite when performing the task (food). A third participant is the bear that eats the honey produced by the bee. In this instance, there is a direct relationship between bears and butterflies. Thus, (indirect) dependencies and influences which imply interdependencies amongst all parties exist. There should be information and data exchange, teamwork that is

interactive amongst experts that is performed and the interdependencies should be connected (Rupprecht *et al.* 2017:95).

The above discussion therefore reflects that collaboration requires interdependency and interdependency for it to be successful. For collaboration to be effective, stakeholders should closely work together in a mutually beneficial relationship, being interdependent amongst stakeholders. Additionally, the interdependent actions of those stakeholders may impact the implementation of the Articulation Policy, being interdependence.

The interdependence and interdependence of the different parties are also supported by e-collaboration. The right tools need to be chosen that will enable effective and efficient decision-making. Knowledge and information sharing should therefore be seamless, enabled by affordable and relevant tools especially in the public sector. The Collaborative Implementation Framework that supports the implementation of the Articulation Policy will consider interdependency and interdependency.

It must also be added that the use of ICT has been a challenge in public service, especially relating to the adoption of e-collaboration tools. According to Akinsola and Munepapa (2021:6), the public sector should place more emphasis on collaboration, as it will allow effective networking. Furthermore, free flow of information will be realised if proper communication channels are utilised thereby enabling interdependence and interdependence, thus allowing stakeholders who are not the main role players to influence the process. The use of ICT during collaboration is one that cannot be ignored. ICT is an enabler of the successful implementation of the Articulation Policy.

The nature of policy implementation in a governance paradigm is that it allows multiple stakeholders to participate. The participation by multiple stakeholders makes contributions to the favourable outcome of implementation of the policy. In this section, collaboration has been discussed in detail as it is a fundamental concept that plays a major role in guaranteeing that all role players participate in policy implementation. With the complexity of organisations and the cross-, multi-, trans-,

and inter- disciplinary of teams in organisations, collaboration is key to enable innovation, efficiency and effectiveness.

It is crucial to discuss the part that coproduction of services plays. The phenomenon of co-production has been in existence well before its popular adoption, yet it has become a symptom of the governance paradigm in which participation and collaboration are crucial (Brandsen & Honingh 2015:427). Furthermore, public policies also encourage co-production as they aim to ensure that citizens have more power over designing of services received (Brandsen & Honingh 2015:433). Co-production, its elements as well as the different forms of co-production, is discussed below.

3.11 CO-PRODUCTION IN A COLLABORATIVE ENVIRONMENT

The discussion on co-production will assist with the understanding of how it can be utilised to bring about innovation during the delivery of service in public service. Pestoff *et al.* (2006:592) indicate that much literature deals with labour market changes yet it fails to consider the possible contributions to economic innovations that take place through public service provision. The involvement of different actors in service provision assists in introducing innovation in labour markets. There are various ways through which consumers of services can participate in service provision; for example, they can be co-producers of the services to which they are recipients. These arrangements are therefore thought to result in commitment and innovation in the public sector.

According to Pestoff *et al.* (2006:593), co-production, as a concept, was originally utilised in the USA during the late 1960s in describing and delimiting citizen involvement when producing public services. There was clear emphasis on the citizens' role in the production of services, although there were clear ramifications on the macro and meso levels of society on citizen involvement. According to Nabatchi *et al.* (2017:4), co-production has its own definitional ambiguities which has led practitioners, as well as scholars, into applying co-production to several activities and areas involving a wide range of actors. Nabatchi *et al.*'s (2017:4) definition of co-production is important as it gives an overview of what co-production entails. It allows reflection on how co-production fits and influences governance in policy

implementation. Nabatchi *et al.* (2017:4) define co-production “as an umbrella concept that captures a wide variety of activities that can occur in any phase of the public service cycle and in which state actors and lay actors work together to produce benefits”.

Like co-production, governance allows for interactions by network actors which lead to interdependence of organisations (Tshiyoyo 2018:84). Bovaird and Loeffler (2002: 10) further explain that there is an assumption that governance has several stakeholders where similar problems are not resolved by public authorities alone. However, support of other players such as the media, business, voluntary sector and citizens is required. Tshiyoyo (2018:87) affirms that the features that dominate the model of governance are the networks that have dominated public policy. These networks also lead to the co-production in policy which requires collaboration to take place.

Brand (2017:2) articulates that governance challenges most often are complex and require collaborative and innovative ways of solving them. These challenges therefore require a multi-party co-production exercise which will transform ways of producing services. Sandfort and Phinney (2017:126) assert that implementation occurs in “complex emergent systems, attending to both the structures and processes that shape what policy becomes through implementation”. They further state that the “public service systems interaction with citizens is part of the larger policy process” (Sandfort & Phinney 2017:126). The implementation of policy also takes place at different levels involving different and several actors which leads to the discussion on co-production. Therefore, this discussion of co-production is necessary to clearly illustrate how the Articulation Policy could be implemented effectively by TVET colleges and professional bodies.

3.11.1 Co-production Defined

The recent years have seen radical reinterpretations of the role of service delivery and policy making. Policy making and implementation is not purely seen as a top-down process. Rather it is considered to be a negotiation process by many interacting systems. Service delivery is also not produced by managerial staff and professionals in the public sector, but communities and users coproduce the services

(Bovaird 2007:846; Pestoff *et al.* 2006:506). Pestoff *et al.* (2006:506) further emphasise that co-production permits the citizenry to participate in the implementation or execution of public policies. Brandsen and Honingh (2015:427) note that the concept of co-production has always existed, and it is also an indicator of the governance paradigm that is emerging where participation and collaboration are more central.

Nabatchi *et al.* (2017:11) explain that co-production is an overarching notion capturing “a wide variety of activities” which may happen at any stage of the cycle of public service and allows lay and state actors to work in unison to generate benefits. Ostrom (1996:1073) proposes that co-production is “the process through which inputs used to produce a good service are contributed by individuals who are not “in” the same organisation”. During co-production, citizens are active role players in the creation of public services and goods. According to Nabatchi *et al.* (2017:12), there exists two types of actors in co-production. State actors are directly or indirectly government agents who serve in a professional capacity and armature actors or public members such as citizens, customers and/or clients, who are voluntary members.

Mangai (2018:255) and Honingh *et al.* (2020:222) posit that co-production involves the provision of public services by citizens. This may be organised to reduce the costs during the production of services and increasing efficiency. Brandsen and Honingh (2015:427) explicitly point out that co-production is the collaboration of citizens and public agencies. This may refer to individual citizens or a collective. Brandsen and Honingh (2015:431- 433) further elaborate that public policies also inspire co-production in several ways. Normally, the aim is to offer control to the citizens “over the design of the services they personally receive as organisational resistance is likely to be highest ...”.

Jaspers and Steen (2017:1) also add that it is expected that co-production enhances public value achievement such as more service delivery responsiveness, reduction of costs or an increase in the access of vulnerable groups. It is therefore expected that when co-production takes place during the implementation of the Articulation

Policy, costs will be reduced, there will be access to vulnerable and disadvantaged groups and consequently, a more responsive delivery of services.

Joshi and Moore (2004:31) and Mangai (2018:257) offer a divergent concept of co-production. They point out that the notion of institutional co-production is a functional entry point when trying to understand service delivery in developing countries that are delivered “through unorthodox organisational arrangements that cannot simply be dismissed as relics of traditional institutions or as incomplete in modern organisations”. According to Joshi and Moore (2004:31), institutional co-production is when public services are provided through regular relationships that are long term between a group of organised citizens and state agencies. Both parties contribute their resources substantially. Joshi and Moore further clarify that the original definition of co-production, as coined by Elinor Ostrom, focused on the direct and joint participation of private citizens and public functionaries when providing services. The familiar, more recent and more formal application of the term refers to delivery of service arrangements involving two or more parties/organisations (Joshi & Moore 2004:31).

Joshi and Moore’s (2004:40) definition of institutional co-production clarifies that there is exclusion of co-production arrangements that are temporary. Furthermore, quasi-contractual or contractual arrangements of institutional co-production between organised state actors and state agencies should not be involved. Instead, the real relationships between the different parties might be informal, undefined and continuous renegotiation blurs the lines between private and public sectors, but the definition is clear and precise when co-production occurs. Authority, power and resource control is mostly likely divided, though unequally, among the groups of citizens and state in an ambiguous and interdependent fashion. Blurring of boundaries, Joshi and Moore (2004) suggest, may in “some circumstances be the price of service delivery arrangement that work”.

Though the definition and meaning of co-production has progressed with time and led to new concepts being developed, the basic ideas of co-production will be utilised. The current study adopts the umbrella definition of co-production from Nabatchi *et al.* (2017:11) that defines co-production as “a wide variety of activities”

which can happen at any stage of the cycle of public service and lay actors and state actors work jointly to create benefits. Furthermore, the recent and more formal definition by Joshi and Moore (2004:31), which refers to service delivery arrangements involving two or more organisations, is considered. Pestoff *et al.*'s (2006:506) idea of co-production allowing citizens to participate in the execution of public policies is adopted.

3.11.2 Elements of co-production

Brandsen and Honingh (2015:427) highlight some important points of co-production which will assist this research with important considerations to make when developing a Collaborative Implementation Framework. They state that:

- Co-production is inherent for some services and not a matter of choice;
- In as much as co-production is inherent, the extent of citizens' active involvement varies;
- There are many different co-production types. It is therefore disingenuous to mention co-production as if it is a unitary phenomenon;
- The distinction of the forms of co-production can be founded on the extent to which the citizenry participates in the design of the service to which they are recipients and whether co-production involves complementary activities or organisation core services; and
- Differentiating co-production types clearly assists in our comprehension of how the co-production design process links to specific results and supports evidence-based design principles.

3.11.3 Types of Co-production

According to Brandsen and Honingh (2015:432) there are various types of co-production, as illustrated in the table below:

Table 3.2: Types of co-production

	Implementation	Design and Implementation
Complementary	Complementary coproduction in implementation	Complementary coproduction in service design and implementation
Non complementary	Coproduction in the implementation of core services	Coproduction in the design and implementation of core services

Source: Adapted from Brandsen & Honingh (2015:432)

Brandsen and Honingh (2015:432) articulate some variable elements that lead to four potential types of co-production. To be discussed are the four types of co-production some of which will assist in understanding how they help in the implementation of the policy for Articulation. The four types are:

- Complementary co-production in implementing and designing of services which takes place when the citizenry participates in tasks that complement the main process instead of a part of it (Brandsen & Honingh 2015:432);
- Complementary co-production in implementation takes place when citizens get engaged actively in implementation of complementary tasks but not in the design (Brandsen & Honingh 2015:432);
- Co-production in the implementation and design of main services include the direct involvement of citizens in the production of services that are core to an organisation. They also get involved directly in both implementation and design of the individual services allocated to them; and
- Co-production in the implementation of main services is when citizens actively participate in implementing rather than the design of individual services that are at the centre of the organisation. For example, co-production may be intrinsic in production processes but institutionally it is designed in a manner that citizens may not directly influence the way it is designed in individual cases (Brandsen & Honingh 2015:432).

Brandsen and Honingh (2015:433) observe that there are different ways through which co-production can be encouraged by public policies and usually there is an

attempt to award citizens more controlling power over the design of services to which they are recipients, as there will be high organisational resistance and top-down interventions needed the most.

3.12 SUMMARY

Several concepts and elements that have an influence on a Collaborative Implementation Framework that is to be developed were discussed in this chapter, one of which is collaboration. Collaboration cannot be detached from policy implementation as it is a fundamental principle that ensures a collaborative environment during policy implementation. Granular aspects of collaboration such as determinants of collaboration, collaboration challenges, decision making were discussed.

Core to the collaboration and co-production principles is the multi-sectoral approach that has to be adopted considering the different backgrounds, institutions, tactics as well as strategies involved. Interdependency and inter-dependency relationships in an e-collaborative environment are considered important particularly as the various stakeholders need to depend on each other playing different roles. e-Collaboration will assist in ensuring that a seamless flow of information takes place using this platform.

Co-production is an important concept in the Articulation Policy implementation as it ensures that citizens are engaged in the policy implementation. Furthermore, with the emergence of the governance paradigm, participation and collaboration are key in policy implementation and it requires that services are co-produced for the effective implementation of the Articulation Policy. As such, the issues discussed in this chapter will be tested and clarity provided in Chapter 4 that deals with the leading practices with the articulation legislative framework.

CHAPTER 4

ARTICULATION LEGISLATIVE FRAMEWORK: LEADING PRACTICES

4.1 INTRODUCTION

The legislative discourse in South African education has seen more focus on issues of access, mobility and progression. Articulation has become an important topic in South Africa. Articulation is thought to provide some of the social justice solutions needed in South Africa. The Articulation Policy was developed to enable the government to resolve inequalities in society. Although the Articulation Policy was developed, the implementation thereof has been riddled with challenges. It has thus become a priority that measures are established to ensure that implementing the Articulation Policy becomes a reality. Of importance is to put innovative ways of implementing the Articulation Policy.

Chapter 3 reviewed literature on collaboration and co-production to understand their importance in policy implementation given the multiplicity of role players in policy implementation. The review of literature revealed that although there may be other important elements required in policy implementation, the two elements cannot be ignored. Collaboration is a fundamental principle that ensures that a collaborative environment is in place during policy implementation. Co-production further strengthens collaboration by ensuring that people, communities and different sectors work together for successful implementation of policies. Building on the discussions in Chapter 3, Chapter 4 examines the legislative frameworks in the United States of America (USA) and Germany to benchmark and assess whether articulation practices in South Africa align with global standards, thereby addressing objective two.

Germany has a majority of learners following vocational training. The employment of these students was pegged at 91.3% in 2017 indicating high esteem of the vocational qualifications.

The government of South Africa offers a wide range of PSET, which is carried out at public and private Higher Education Institutions (HEIs), Technical and Vocational Education and Training (TVET) colleges, Community Education and Training Colleges (CET) colleges and private colleges. According to the DHET (2018:6), the students' enrolment in public and private PSET institutions in 2016 was 2 290 984. Out of the total, 705 397 were enrolled at TVET colleges. TVET colleges are the second-largest providers of Education and Training, with the first place occupied by HEIs (public and private) that have a total student enrolment of 1 143 245. However, the esteem of vocational qualifications in South Africa is low, particularly, as highlighted by some studies, students leaving TVET colleges struggle to secure employment despite the colleges producing high numbers of vocationally trained graduates.

Gewer and Akoobhai (2013:14) point out graduates from TVET colleges in South Africa continue to encounter difficulties because generally, TVET colleges are viewed as institutions that are weak hence there is need to expand and diversify the sector as a whole. The institutions are expected to be "all things to all learners" since there are no substitutes. Gewer and Akoobhai (2013:16) reaffirm that the completion of TVET qualifications usually does not lead to employment due to companies preferring high achievers especially artisans. They also have scepticism on the delivery standard of the colleges. Cosser (2010:22) further adds that TVET colleges are regarded as providing qualifications that are not in demand in the labour market.

Germany has successfully implemented its articulation policies making it the appropriate country to use as a comparison. Hence Germany will provide leading practices to inform this study on ways of articulating and improving the esteem of vocational (TVET) qualifications.

The USA is also considered for international comparability and leading practices. The USA started formalising articulation agreements and policies from the 1920s. Research contributing to the articulation literature was also carried out early in the 1970s. There is well-developed articulation literature and practices in the USA qualifying it as one of the countries to include for comparison and international best practices. Particular focus will be on the states of North Carolina and Hawaii as each

state is responsible for implementing its articulation policies. The different concepts that are interchanged to refer to articulation and are discussed to create context. This will allow for comparison and trends observation and enable the current study to adopt leading practices from these countries for possible implementation in South Africa.

4.2 INTERNATIONAL COMPARABILITY: ARTICULATION PRACTICES

It is important to understand how articulation has been carried out in different countries to use as a benchmark and get leading practices. As explained previously, South Africa is the only country that has incorporated PBs officially on the NQF, therefore international comparability will not reflect articulation with PBs. Other countries excluded professional bodies from their qualification frameworks. Literature suggests that it is better to have both qualifications and PBs in qualification frameworks. as argued by Bolton *et al.* (2020:22) who posit that the inclusion of PBs on the NQF is important. They state that articulation is key to the NQF as lifelong learners require transition into workplaces and qualifications. Professional development, which is mainly carried out by PBs, is key in these pathways. However, the exclusion of PBs from other frameworks will not have an impact on comparability due to the fact that the study focuses on policy implementation. The basic tenets of policy implementation will still be comparable, regardless of whether PBs are included or not.

By doing international comparability, the research addresses some of the questions and opinions posed by Dr Narsee (SAQA 2019:2). Dr Narsee explains that it is important that people reflect “how far we have come when it comes to implementing articulation in the system; it is also important to address the constraints to articulation and articulation successes”. An important question posed was, “What can we do in terms of policy and implementation to further improve articulation?” (SAQA 2019b:2). International comparability will also respond to some of these questions by assisting in identifying where and how implementation of the Articulation Policy can be improved.

4.3 GERMANY: ARTICULATION LEGISLATIVE CONTEXT

Germany is considered in the articulation legislative environment. According to Rein (2019:163), the majority of people in Germany have higher secondary education with a lot of students pursuing vocational training. Of Germany's 25 to 64 age group, 86% have a minimum of a higher secondary qualification. At least one in two students, who have obtained a higher secondary education, is registered with a vocational or prevocational course, combining company-based training and school education. Citizens aged between 25 and 64 (55%) possess either a post-secondary or an upper secondary vocational qualification. The employment of Vocational Education and Training (VET) graduates was pegged at 91.3% in 2017 (European Centre for the development of Vocational Training Foundation, United Nations Educational, Scientific and Cultural Organisation and UNESCO Institute for Lifelong Learning 2019:221). From the statistics above, it is clear that the German economy respects VET graduates as they make a meaningful contribution in society, as indicated by the employment and throughput statistics above. Unlike South Africa, the VET qualifications are highly esteemed. The South African Articulation Policy seeks to address some of the stigma associated with TVET graduates, hence the comparison with Germany offers a learning opportunity to ameliorate the esteem of the TVET graduates in South Africa through the implementation of the Articulation Policy.

Furthermore, Germany has been chosen as an appropriate comparison since most of the articulation taking place is for vocational students, as highlighted above, and these initiatives have been successful. The current study focuses on vocational students articulating into PBs thereby making Germany an appropriate comparison. In Germany, the past learning achievements articulating to courses in Higher and Vocational Education, are legislated as explained in sub-subsequent sections.

4.3.1 Germany Qualifications Framework [Deutscher Qualifikationsrahmen Für Lebenslanges Lernen (DQF)]

According to the European Centre for the Development of Vocational Training Foundation, UNESCO and UNESCO Institute for Lifelong Learning (2019:221), Germany has eight levels on the DQF (Germany National Qualifications Framework). The framework became fully operational in May 2013. The DQF's focus is to encourage permeability (*Durchlässigkeit*) of Germany education and training,

integrating and linking several subsystems and improving the possibilities of progression. The movement of learners is encouraged between institutions and levels, according to their skills, competencies and knowledge.

Some of the objectives of the DQF that directly support articulation are:

- Support employee and learner mobility within the country and between itself and other European countries;
- Encouraging and improving participation in and access to lifelong learning.

The DQF, like the South African framework, is meant to encourage mobility, access and progression within and out of the qualifications framework.

Table 4.1: Germany National Qualifications Framework (DQF)

DQR LEVELS	QUALIFICATIONS	EQF LEVELS
8	Doctorate (<i>Doktor</i>)	8
7	Master degree (<i>Master</i>) Strategic IT professional (certified) (<i>Strategischer IT Professional (Geprüfter)</i>) Other further vocational training qualifications according to Vocational Training Act and Handicraft Code (level 7)	7
6	Bachelor degree (<i>Bachelor</i>) Commercial specialist (certified) (<i>Fachkaufmann (Geprüfter)</i>) Business management specialist (certified) (<i>Fachwirt (Geprüfter)</i>) Master craftsman (certified) (<i>Meister (Geprüfter)</i>) Operative IT professional (certified) (<i>Operativer IT Professional (Geprüfter)</i>) Trade and technical school (State-certified) (<i>Fachschule (Staatlich Geprüfter)</i>) Other further vocational training qualifications according to Vocational Training Act and Handicraft Code (level 6)	6
5	IT specialist (certified) (<i>IT-Spezialist (Zertifizierter)</i>) Service technician (certified) (<i>Service-techniker (Geprüfter)</i>) Other further vocational training qualifications according to Vocational Training Act and Handicraft Code (level 5)	5
4	Upper secondary general education school leaving certificate (<i>Allgemeine Hochschulreife (AHR)</i>) Qualification entitling holder to study particular subjects at a higher education institution (<i>Fachgebundene Hochschulreife (FgbHR)</i>) Qualification entitling holder to study at a university of applied sciences (<i>Fachhochschulreife (FHR)</i>) Dual VET (three-year and three-and-a-half-year training courses) Full-time vocational school (regulated under <i>Länder</i> law) (<i>Berufsfachschule</i>) Full vocational qualification (full-time vocational school) (<i>Berufsfachschule</i>)	4
3	General education school leaving certificate after 10 years at <i>Realschule</i> (<i>Mittlerer Schulabschluss</i>) Dual VET (two-year training courses) Full-time vocational school (general education school leaving certificate obtained on completion of grade 10 at <i>Realschule</i> or, under certain circumstances, at other lower secondary school types) (<i>Mittlerer Schulabschluss (Berufsfachschule)</i>)	3
2	Lower secondary school leaving certificate after 9 years (<i>Hauptschulabschluss</i>) Vocational training preparation (<i>Berufsausbildungsvorbereitung</i>) Employment agency measures (<i>Maßnahmen der Arbeitsagentur</i>) Year of pre-vocational training (<i>Berufsvorbereitungsjahr</i>) Introductory training for young people (<i>Einstiegsqualifizierung</i>) Basic vocational training (<i>Berufliche Grundbildung</i>)	2
1	Vocational training preparation (<i>Berufsausbildungsvorbereitung</i>) Employment agency measures (vocational preparation schemes) (<i>Maßnahmen der Arbeitsagentur</i>) (<i>Berufsvorbereitende Bildungsmaßnahmen</i>) Year of pre-vocational training (<i>Berufsvorbereitungsjahr</i>)	1

Source: Adapted from European Centre for the Development of Vocational Training Foundation, United Nations Educational, Scientific and Cultural Organisation and UNESCO Institute for Lifelong Learning (2019:221)

4.3.2 Vocational Education and Training

Several articulation practices, regulations and models in Germany education landscape have facilitated connectivity and permeability in career and learning pathways (Rein 2019:163). The section below discusses the legislation, practices and models that been developed and implemented in the last decades relating to articulation.

4.3.2.1 The Federal Act for VET [*Bundesministerium für Bildung und Forschung (BMBF, 2005)*]

The Federal Act has requirements that are legal that allow one to be credited for past achievements in learning in continuing and initial VET with regards to the possibility of articulation. The Federal Act acknowledges that a relevant but different vocational training could be “credited to the respective vocational hours”, considering the vocational knowledge, abilities and skills that would have been gained through the process. Articulation needs the combined application of apprentices and trainees to the authority assigned to do so such as the chambers for Industry and Commerce (Rein 2019:165). In the Act, there are no implementation related provisions that address the crediting of past learning achievements in VET.

4.3.2.2 Credit Transfer in Vocational Education and Training (DECVET)

The objective of the preliminary experiment DECVET by BMBF ensured that there is movement between the VET subsystems through transfer of credits. The DECVET project intended to make huge contributions and promote transparency, permeability as well as mobility with the VET system in Germany. The focus of the DECVET was on transitions and access in VET:

- Transition to apprenticeship training from vocational training;
- “Transition within the dual vocational training system” regarding qualifications that are cut across profiles, vocational profiles in vocational fields;
- Transitions between full-time and dual training that is school based in vocational; and
- Access to further VET from dual initial VET (Rein 2019:167).

4.3.3 Types of Articulation in German

Articulation of Occupational Competencies for Higher Education Study Programme [*Anerkennung beruflicher Kompetenzen auf akademische Studiengänge (ANKOM)*] was introduced by BMBF (Federal Act for VET) so as to assist with fostering the transitions between Higher Education and VET. In ANKOM there are three types of articulation which have been based on the German Qualifications Framework (GQF) system. These articulation types are individual articulation procedures, general articulation procedures as well as the combined credit procedures.

4.3.3.1 General Articulation Procedures

General articulation procedures refer to the learning outcomes that have been acquired formally and documented on certificates and degrees. Learning outcomes are assessed for eligibility and credits are awarded towards certain programmes. The crediting that takes place is not specific to a person. General articulation allows each holder of a qualification to be credited with modules that have already been determined without further examinations to the applicants (Rein 2019:171).

4.3.3.2 Individual Articulation Procedures

In individual articulation procedures, the documentation of learning results is done by the person responsible for the relevant course or module for each candidate who seeks accreditation. The procedure refers to learning outcomes that are obtained informally, non-formally and formally. The outcomes to individual learning in a portfolio represented by several certificates are compared with corresponding modules in the desired qualification for equivalence. This may involve interviews with the relevant people. The assessment forms from the responsible person form the foundation for making decisions by the Examination Board representing the course or module. The results, if positive, will be credited to the Examination Office individually. This process is carried out to enable individuals to receive credits for skills and knowledge gained at the workplace or VET or for transferring credits between institutions (Rein 2019:172).

4.3.3.3 Combined Articulation Process

In this process, both the individual and general approaches are combined. The combined articulation process is easier and more efficient to implement. Learning

outcomes that have been acquired formally as well as informally are credited to the qualification chosen by the student (Rein 2019:173). The requirements of the specific purpose determine the suitability of the three articulation methods (Rein 2019:174). The willingness of the different institutions will also enable articulation to take place despite legislation in place. This proves the point that a Collaborative Implementation Framework is a requirement for an articulation process. Different role players need to come together to ensure that collaboration and co-production take place during implementation of the policy.

The DQR has included most VET qualifications. VET qualifications are at levels one to seven. Higher DQR levels also accept qualifications from a variety of education sectors. The qualification of a master craftsperson is at EQF/ DQR level 6, because it can be compared to the bachelor's degree (CEDEFOP 2019:54). The DQF has made it possible for VET graduates to articulate into the different pathways. Articulation for VET graduates takes place successfully, though it is not into PBs, which makes Germany a good comparison. Germany's legal context does not provide for articulation into professional bodies as they are not part of the DFQ. However, some of the good practices could be adopted in South Africa.

4.4 UNITED STATES OF AMERICA (USA): ARTICULATION LEGISLATIVE CONTEXT

Agreements on articulation between universities community colleges and in the USA date back to the 1920s. Recently systems and states have established formal mechanisms of improving mobility of credit by introducing transfer policies surpassing institutional articulation agreements (Hodara *et al.* 2017:334).

According to Kintzer and Wattenbarger (1985:21), as early as the 1970s, the USA formalised articulation. The articulation/transfer plan, which was described to be "legally-based", was followed by the Illinois Board of Higher Education. Later, several states in the USA followed suit in setting up formal articulation processes. Medsker, in 1960, had also proposed the importance of coordination in articulation, although it was only implemented in the 1970s. In 1973, Kintzer identified three state-wide articulation types or what they can refer to as 'transfer agreements'. In 1985, Kintzer and Wattenbarger conducted research that made major contributions to the body of

articulation literature, which means that research on articulation has a long history. Even though the USA's articulation policies do not include articulation to PBs, well-developed and matured articulation practices and a developed body of literature provide a good source of international best practices.

Furthermore, the USA has 50 States of which each has policies and/or articulation embedded in legislation. This provides rich ground for developing leading practice from which the comparison intends to benefit. Roksa and Keith (2008:237-8) posit that studies carried out recently also aim to capture the articulation policies landscape across the 50 States. It is therefore important to use the USA as a comparison because it enables the current study to utilise and compare the articulation legislation that is broad and varying. Articulation is developed in each State, whereas in South Africa a national policy guides articulation.

4.4.1 Common Articulation Elements in the USA

Most articulation in the USA is carried out at state level. There are several articulation elements that guide the understanding of articulation in the USA. The following elements have been explained by Smith (2010:1).

4.4.1.1 State-Wide Policy

Articulation policies are adopted by higher education systems and legislated at state levels. According to Roksa and Keith (2009:248), state-wide articulation policies are codified in state statutes.

4.4.1.2 Cooperative Agreements

Cooperative agreements enable articulation between post-secondary institutions where policies are not existent. In some of the states, cooperative agreements cater for transferability requirements of the core curriculum within the university system for that state.

4.4.1.3 Reporting of Transfer Data

States collecting the statistics on persistence by students, including transfer, presently, have the capacity or establishing monitoring capacity whether articulation programmes are successful.

4.4.1.4 Rewards and Incentives

To encourage articulation of learners to four-year colleges, from two year colleges some states encourage articulation by providing financial aid, priority admission or guaranteed transfer.

4.4.1.5 State-wide Articulation Guide

Answers to the questions that students may have in relation to transfer processes are provided in the state-wide articulation guides. The guides also explain concrete and detailed descriptions of the articulation. Gross and Goldhaber (2009:5) further articulate that the state-wide articulation guides provide “concrete descriptions of the transfer process, and a common set of core courses”.

4.4.1.6 Common Core

These are common core streamline articulation processes, which assist by eliminating the confusion that may exist when different institutions have different requirements of the core courses for one to fulfil the requirements for graduation.

4.4.1.7 Common Course Numbering

The course numbers at four-year universities and community colleges should be identical to eliminate possibilities of students taking credits that cannot be transferred.

The above articulation elements in the form of negotiated cooperative agreements and/or codification in legislation assist programmes of articulation between institutions in offering pathways towards bachelor's degrees. There have been increases in articulation and transfer policies over the past decade in the USA, demonstrating that there has been acknowledgement by higher education governing boards and state legislatures that there is need for these policies. In two-thirds of the states in the USA, there is at least one or more of the above articulation elements, that is, institutional agreements, enabling legislation, cooperative systems or websites, dedicated to transferable common core and/or articulating transfer policies. Four or more elements are also in thirty-six states therefore reinforcing each other in making transfer smooth for recipients (Smith 2010:1). According to Smith (2010:1), more than six million students (35%) in post-secondary education in the USA are in

community colleges. Not all students transfer to four-year institutions. However, individual states improve the articulation by creating the above-mentioned agreements and policies.

4.4.2 Legislative context: North Carolina and Hawaii

The American Education system has used “transfer” and “articulation” interchangeably. A number of practices and policies were introduced to ensure mobility between institutions. Transfer or articulation is defined by Kintzer and Wattenbarger (1985:7) as “the mechanics of course, credit and curriculum exchange”. These include transfer and articulation agreements, transferrable common cores, “transfer-oriented associate’s degrees and common course numbering” amongst others (Giani 2019:1114).

The current study utilised the North Carolina and Hawaii states as comparisons for this study. The choice of North Carolina is driven by the fact that North Carolina is controlled by one governing board. It also has 58 community colleges that feed into Carolina universities. North Carolina is therefore comparable to the current study which has 52 TVET colleges. All the colleges are centrally managed by the DHET. The governance and the number of the institutions relating to the implementation of the Articulation Policy also provide guidelines as to how North Carolina implements its own articulation policies.

In Hawaii, research has been carried out to establish if articulation has been successfully implemented with the help of the policies. According to Taylor and Giani (2019:434), their findings identified that there was an expansion in the likelihood of learners completing their bachelor’s degrees through reverse credit transfer and awarding of an associate degree, utilising reverse credit transfer which “was a significant predictor of bachelor’s degree completion within two years”. The choice of Hawaii is therefore motivated by its successful implementation of articulation policies which present learning opportunities for the current study.

4.4.2.1 North Carolina Legislative Environment

In North Carolina, the process of “transfer to four-year from two year” institutions is governed by the ‘Comprehensive Articulation Agreement (CAA)’. The policy,

originally developed to respond to legislative mandates “in 1995 (HB 739 and SB 1161)”, established transfer pathways between “community colleges and the University of North Carolina (UNC) system”. The CAA applies to all “58 community colleges in North Carolina” and all 16 UNC institutions. It allows learners who achieved “an associate degree to transfer to a four-year institution” (Giani 2019:1121).

4.4.2.2 Hawaii Legislative Framework

The framework for the state-wide transfer and Articulation Policy is rooted in the “Board of Regents Executive Policy E. 5209”, which was implemented for the first time in 1989, revised in 1994, 1998 and 2006 respectively. The policy facilitates easy transfer amongst the University of Hawaii (UH) campuses but at the same time, taking cognisance of the independence of each campus curriculum, policies as well as the requirements of the degrees. The transfer between community colleges and universities is also the core principle of the policy (Taylor & Giani 2019:434).

The policy amendments have ensured that the University of Hawaii avoid “course-to-course articulation”. Previously, the Committee of the University on articulation approved the articulation agreements. Policy, however, shifted the focus to waiving of course-by-course review. The policy is underpinned by STAR, which is a technology solution that is cloud-based. It interconnects instantaneously with the student Information System shared by all the ten UH campuses. Hence the transfer of courses became an instinctive process that is aided by “STAR Academic Pathway Solution”. The technology aspect is a vital component initiative on reverse credit transfer including its effects to broadly streamline transfer (Taylor & Giani 2019:434-5). The idea of the technology that supports the policy is adopted in the Collaborative Implementation Framework to ensuring the seamless Articulation Policy implementation.

In the USA, the states have a central responsibility in the formulation and implementation of articulation policies (Giani 2019:11121). The USA has managed to distinguish articulation pathways for two-year college students into four-year institutions. The focus has been on HEIs to other HEIs. USA has also demonstrated that they have a matured body of literature as well as the implementation practices

on articulation. The research focus will however be on the practical implementation of the Articulation Policy between TVET colleges and professional bodies. It is important that a policy that has been promulgated by the government, is implemented to cover all the stakeholders within the NQF space. To facilitate the effective implementation of the Articulation Policy between the TVET and PBs, there should be proper collaboration.

4.5 SOUTH AFRICA: ARTICULATION LEGISLATIVE CONTEXT

Currently, articulation has been a subject of discussion in South Africa. There are increasing calls for ensuring that learning pathways are clearly defined to enhance mobility, progression and access. In South Africa, there are three ways in which pathways in learning can be understood, which are 'systematic', 'individual', and 'specific' (DHET 2017a; South Africa 2018). Important to note is that South Africa is the only country that has incorporated Professional Bodies (PBs) on the National Qualifications Framework (NQF). It was realised that it is important to include PBs on the NQF as they were the missing link and are the nexus between the world of work and education. They complete the cycle between workplaces and education and play an important role in implementing policies in the education landscape. The Articulation Policy includes professional designations that are awarded by professional bodies. Systematic articulation also includes professional designations apart from qualifications and part-qualifications.

A sharp focus on articulation has been on TVET college students articulating to Higher Education Institutions (HEIs). Since South Africa is the only country that has incorporated PBs on the NQF and included them in the Articulation Policy, focus should also be placed on the articulation of TVET graduates to PBs where they can be awarded a professional designation. Bolton and Lortan (2019:18) also emphasise that "collaboration cannot just be for the sake of collaboration - focus areas are needed. A focus on articulation from HEIs or TVET Colleges to professional designations is needed". This assertion has led the current research to focus on articulation of graduates from TVET colleges to PBs.

Articulation in South Africa is highly regulated. Given the historical background in South Africa and the pronounced inequalities, articulation has been identified as one

of the drivers for addressing inequality related social problems. There have been several pieces of legislation that regulate the articulation. However, challenges have been noted in the practical implementation of the Articulation Policy despite the highly regulated environment. To develop a better understanding, the South African articulation legislation framework is discussed.

4.5.1 The National Qualifications Framework Act, 2008 (Act 67 of 2008)

The SAQA Act No. 58 of 1995 led to the establishment of the National Qualifications Framework (NQF) in South Africa (South Africa 2008). The NQF was developed to transform and integrate an education system previously divided during apartheid. The SAQA Act was then reviewed to establish the NQF Act No. 67 of 2008 (South Africa 2008) and subsequently the NQF Amendment Act No. 12 of 2019 has also been developed and promulgated to enable SAQA to effectively implement the NQF Act. The structure of the NQF enables learning pathways within and across sub frameworks, thereby enabling articulation. There are three quality councils under the NQF as presented by Bolton *et al.* (2020:22) in Figure 4.1:

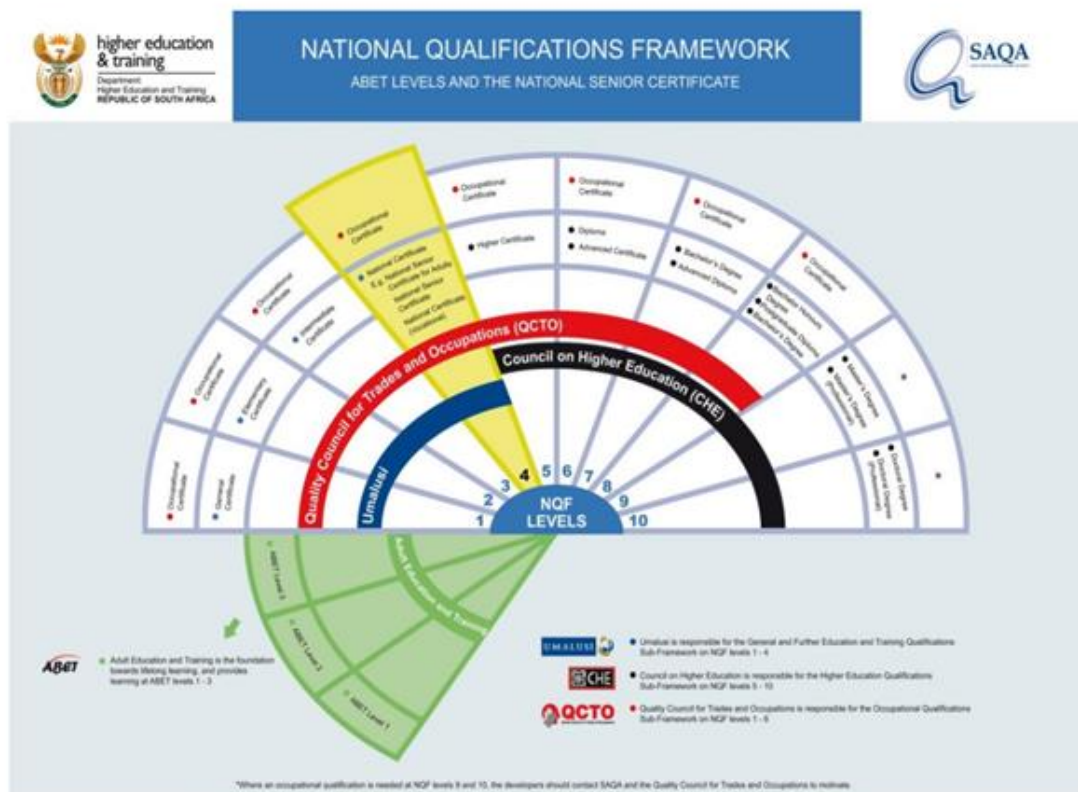


Figure 4.1: Representation of the South African NQF

Source: South African Qualifications Authority 2020

As depicted in Figure 4.1 above, the NQF has three key partners namely, the Council for Higher Education and Training (CHE), the Quality Council for Trades and Occupations (QCTO) and Umalusi, the Council for Quality Assurance in General and Further Education and Training. The three partners are in charge of the Higher Education Qualifications Sub-framework (HEQSF), the Occupational Qualifications Sub-framework (OQSF) and the General and Further Education and Training Sub-framework respectively (Bolton *et al.* 2020:22). According to Bolton *et al.* (2020:22) the key stakeholders of the NQF include professional bodies, training providers public and private, organised labour as well as organised business. The NQF partners and stakeholders must ensure that articulation occurs across the board.

According to Section 3, the NQF Act applies to (i) “education institutions (ii) skills development providers and (iii) professional bodies”. Some of the objectives of the NQF referring to articulation are very clear, especially the sections that refer to the need to:

- a) Facilitate access to, movement within, and advancement in training, education, and career paths (Section 5(1)(b); and
- b) Speed up the correction of past inequities in training, education, and creation of opportunities related to employment (Section 5(1)(d)).

Under this Act, professional bodies, as part of the NQF, are also required to ensure the fulfilment of the objectives of the NQF.

Bolton *et al.* (2020:22) postulate that articulation is a key concept of the NQF. There is need for lifelong learners to have the ability to changeover into workplaces and qualifications. This articulation is supported by the Articulation Policy and national policies for Recognition of Prior Learning (RPL) and Credit Accumulation and Transfer (CAT). Articulation is represented in the Figure 4.2 below:

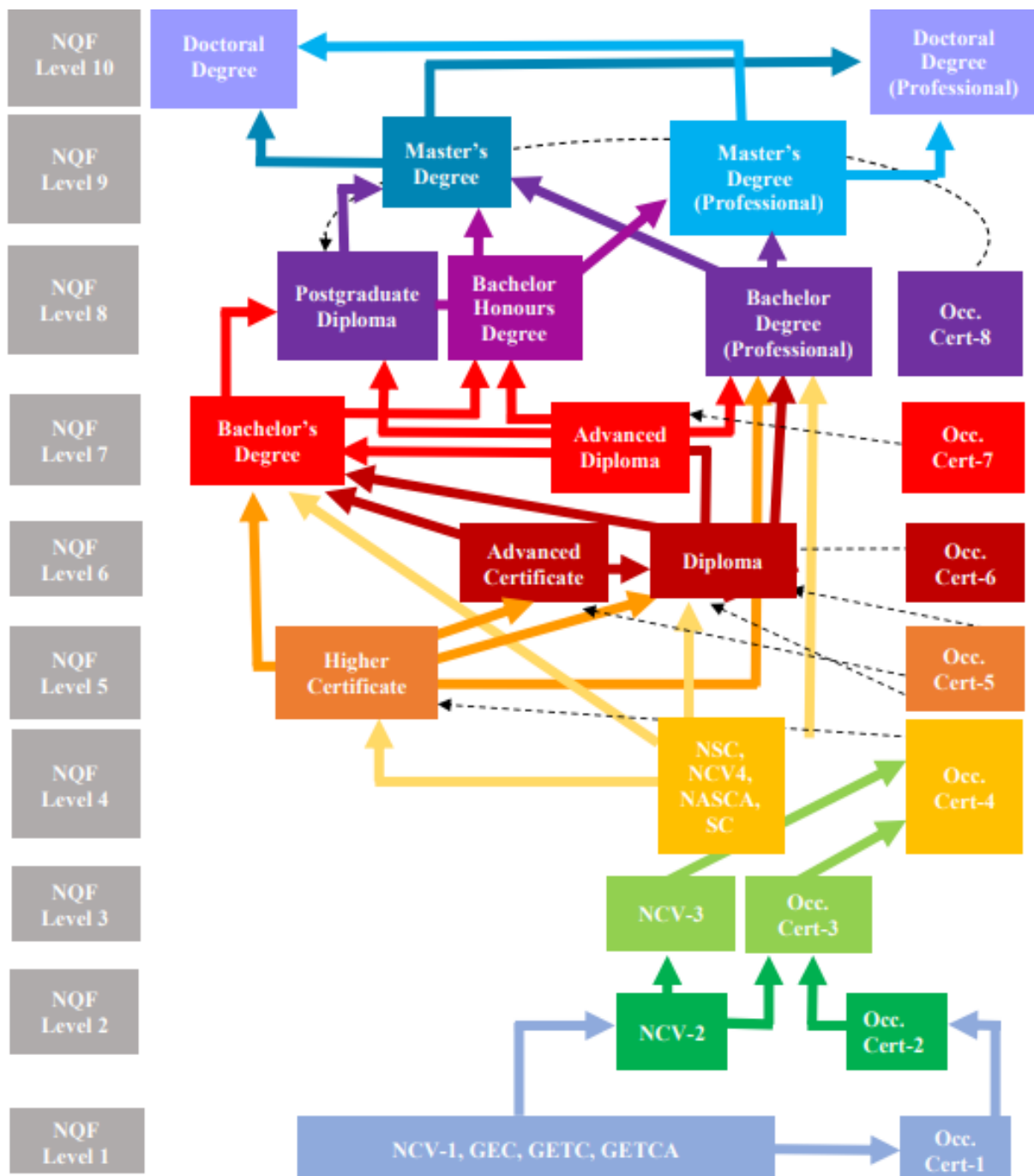


Figure 4.1: Qualification Pathways in the South African NQF

Source: Adapted from Bolton et al. (2020: 22)

In the figure above, the articulation possibilities on the NQF are shown. The solid lines indicate systematic articulation (deliberately designed, official) whereas the dotted lines indicate specific articulation (interinstitutional and/or through Memoranda of Understanding (MOU) and CAT (Bolton et al. 2020:22).

4.5.2 Engineering Profession Act, 2000 (Act 46 of 2000)

The Engineering Council of South Africa (ECSA) is a statutory body established in terms of section 2 of the Engineering Profession Act, 46 of 2000. ECSA's mandate and responsibility include regulating the engineering profession in South Africa by establishing standards for engineering education and professional competency, accrediting educational programmes, registering competent professionals in various categories and evaluating educational qualifications (South Africa 2000: section 2).

To fulfil its statutory obligations, ECSA is empowered to undertake several functions, including:

- Establishing and assessing academic standards for registration purposes by accrediting engineering programmes at universities and technikons.
- Establishing and assessing professional development standards through guidelines outlining post-qualification requirements for registration in various professional categories and specified fields.
- Prescribing requirements for Continuing Professional Development and determining registration renewal timelines.
- Enforcing a Code of Conduct and Codes of Practice through investigative and disciplinary mechanisms.
- Identifying engineering work reserved for registered professionals in consultation with the Council for the Built Environment and the Competition Board.
- Advising the Council for the Built Environment and the Minister of Public Works on engineering and related matters.
- Recognising professional associations in the engineering domain.
- Publishing fee guidelines for consulting work in consultation with government, the profession and industry.
- Undertaking any other necessary actions to ensure the effective execution of its responsibilities under the Act (South Africa 2000).

ECSA's legislative role of accrediting engineering qualifications as well as the registering of engineering professionals, operationalises the articulation of

engineering professionals from HEIs including TVETs into PBs and places of work (South Africa 2000).

4.5.3 Quality Councils: Acts and Policies supporting articulation (2008)

The Higher Education Amendment Act, the Skills Development Act and the General and Further Education and Training Quality Assurance Amendment Act all for 2008 are affiliated to the NQF Act (South Africa 2008). The three Acts also provide for articulation. As argued by Bolton *et al.* (2020:59), as a key stakeholder in the articulation process, the Quality Councils (QCs) must also develop policies that align to SAQA policies including the RPL, assessment and CAT policies.

4.5.4 Skills Development Amendment Act, 2008 (Act 31 of 2008)

The primary purpose of the Act is the provision of an institutional framework that ensures workplace and national approaches that enhance the capabilities of the workforce in South Africa. The strategies should be integrated in the NQF, as required by the NQF Act. The drive of the Articulation Policy emanated from the need to build an educational system that aligns with nurturing human skills. It was also important that the Articulation Policy builds an equitable society and offers all citizens of South Africa the chance to develop to their full potential. The Skills Development Amendment Act aims, among other objectives, to:

- a) Enhance the South African workforce; skills and
- b) Improve the employment opportunities for individuals previously disadvantaged by unfair discrimination, while addressing these disparities through training and education (South Africa, 2008, Section 2(1)).

4.5.5 Level Descriptors for the South African Qualifications Authority

The level descriptors ensure that there is progression and coherence in learning. There must be increments in learning from one level to the next. When using the descriptors at any level, the requirements of the preceding levels must be met. The descriptors assist developers of qualifications and professional designations to allow for articulation through the progression of the Exit Level Outcomes at each level (SAQA 2012a).

4.5.6 Policy and Criteria for registering Qualifications and Part-Qualifications on the National Qualifications Framework

The policy and criteria for registering qualifications and part-qualifications on the NQF, advances one of the NQF objectives of facilitating mobility, progression and access within training, education and career paths. The policy and criteria for qualifications and part-qualifications is applied when developing, evaluating, registering and publishing part-qualifications and qualifications. One of the requirements is that all qualifications must have articulation to be accepted for NQF registration. Vertical and horizontal articulation possibilities must be reflected in the qualification (SAQA 2013).

4.5.7 White Paper for the Post-School Education System of South Africa

According to Bolton *et al.* (2020:59), the White Paper for PSET articulates the vision for integration in training and education that is carried outside of the schooling system. The White Paper stipulates roles and responsibilities for private and public HEIs, NQF partners, Community Education and Training Colleges (CETs), TVET and colleges. There is emphasis that SAQA must take a leadership role and provide guidance in additional development of the RPL and system articulation. The NQF role players must ensure implementation of these policies. Furthermore, the White Paper also emphasises higher education qualifications articulation with other PSET qualifications.

4.5.8 National Policy and Criteria for Designing and Implementing Assessment for NQF Qualifications and Part Qualifications and Professional Designations in South Africa

The policy and criteria are broad guidelines that are applicable to all sectoral assessment policies as well as to the NQF Sub-Framework. They provide guidelines that are broad for assessing to provide progress and holistic principles of assessment and criteria. The policy also covers part qualifications, qualifications and professional designations as well as CAT and RPL assessments across the NQF context (Bolton 2020:59).

4.5.9 Recognition of Prior Learning (RPL) Coordination Policy (2016)

The aim of the Recognition of Prior Learning (RPL) Coordination Policy is to ensure that policy environment that is strong that relates to developing and implementing RPL across the PSET system, is enabled. It applies to all NQF levels. The policy establishes coordinating mechanisms for RPL, its funding, and also the implementation of RPL. Coordination Policy has a strong policy statement that ensures that NQF Act objectives are met. The policy provides a guide for RPL implementation, and in particular, the functions and roles of the SAQA, DHET, the Quality Councils, the national funding and coordinating mechanism for the implementation of RPL (DHET 2016).

4.5.10 Articulation Policy for the Post-School Education and Training (PSET) System of South Africa

The Articulation Policy maps out the regulatory and legislative framework for all institutions of education in South Africa. The implementation of, *inter alia*, the NQF Act and National Development Plan (NDP) is also supported by the Articulation Policy. It operates in line with the SAQA eight NQF policies. The Articulation Policy ensures that a conducive environment is created which, amongst other things:

- Allows for articulation to occur within and between the three established sub-frameworks;
- Enables institutions to collaborate in developing work pathways and learning; and
- Provides support to learners in their pursuit of work and learning pathways (DHET 2017a).

4.5.11 National Policy and Criteria for the Implementation of Recognition of Prior Learning

National Policy and Criteria for the Implementation of Recognition of Prior Learning (RPL) (amended in March 2019) states that RPL includes prior learning that is informal, non-formal and formal. There are two types of RPL for different purposes. RPL for access allows for different access routes into professional designations, learning programmes as well as career progression. RPL for credit allows for one to attain credit for or towards a part-qualification or a NQF registered qualification. RPL

offers alternative routes to access into a professional designation, learning programme or workplace recognising applicants who fall short of the minimum academic entry criteria (SAQA 2019c). Professional bodies should formulate and implement RPL in their specific contexts to allow for progression, coherence and access for their members.

4.5.12 Policy and Criteria for Recognising a Professional Body and Registering a Professional Designation for the purposes of the National Qualifications Framework Act, Act 67 of 2008

The policy, amended in September 2020, seeks to remediate the perceptions of exclusionary practices that were created during apartheid. Professions are required refrain from unjust practices and policies when allowing people entry into the profession. The role of SAQA regarding professional bodies is to make sure every citizen benefits from the professions. The Policy and Criteria objectives, according to Section (8)(j), are amongst others, to ensure that there are alternative routes provided by professional bodies for members to access professional designations through RPL.

Professional bodies are also required in accordance with Section 28(i)(ii), to develop a policy and criteria on RPL to award designations to members without the relevant qualifications. Professional designations must also be included in the pathways across or within the NQF sub-frameworks in terms of Section 44(c) (SAQA 2020a). According to Bolton *et al.* (2020:57), professional bodies' role is supporting the articulation between learning and work. The professional designations that are awarded by professional bodies are required to have a progression pathway, thereby supporting the notion of articulation.

4.5.13 Policy for Credit Accumulation and Transfer (CAT) within the National Qualifications Framework

The policy on CAT is also one of the key mechanisms for articulation. The CAT policy outlines the roles that SAQA, Quality Councils (QCs), skills development providers, education institutions, workplaces and recognised professional bodies should play towards the implementation of the policy in Section 9(a). Section 26(b) of the policy prohibits professional bodies from applying unfair exclusionary practices

when admitting members to the professional body, as well as when recognising training institutions. Section 26(c) further states that professional bodies must be involved in initiating and participating in conjunction with workplaces, training and education providers in the recognition and promotion of CAT.

According to Bolton *et al.* (2020:58), the CAT enables efficient, credible and transparent CA, which enables the optimal movement of learners across and within learning institutions. The three QCs are also required to come up with linkages that allow learners to move across QCs. SAQA has a mediating role to play by supportively alerting institutions of any unfair exclusionary CAT practices.

4.6 SUMMARY

The review of literature in this chapter provides comparisons of the legislation, policies and agreements that have been developed and implemented in Germany, the USA and South Africa. In Germany, the implementation of their articulation policies was successful especially for VET graduates. Several articulation practices, regulations and models in the Germany education landscape have facilitated connectivity and permeability in career and learning pathways (Rein 2019:163). The review also indicated that articulation is an old concept that has been well-researched in the USA. Furthermore, 50 states have policies and/or articulation embedded in their legislation. The USA is considered matured in terms of implementing articulation. Although the implementation of articulation has not been carried out between VET graduates to PBs in either country, they have good practices that can be borrowed for the implementation of articulation in South Africa in the PB space. The literature review also highlighted the issue of several pieces of legislation that have been promulgated to assist with articulation in South Africa. Nevertheless, some of the pieces of legislation have not been implemented fully due to lack of clear guidelines and the role of the main role players has not been clearly articulated in the legislation making implementation challenging.

CHAPTER 5

DATA ANALYSIS AND INTERPRETATION OF FINDINGS

5.1 INTRODUCTION

Chapter 4 provided a basis for enhancing the implementation of the Articulation Policy by examining how other countries have implemented their Articulation Policies particularly Germany and the USA. In Germany, the DQR has included most VET qualifications which are at levels one to seven. Higher DQR levels also accept qualifications from a variety of education sectors. The qualification of master craftsperson is at EQF/ DQR level 6, because it can be compared to the bachelor's degree (CEDEFOP 2019:54). The DQF has made it possible for VET graduates to articulate into the different pathways that are available.

In the USA, each state has the central responsibility in the implementation and design of articulation policies (Giani 2019:11121). The USA has managed to distinguish articulation pathways for two-year college students into four-year institutions. The focus has been on HEIs to other HEIs. The USA also demonstrated that they have a matured body of literature as well as the implementation practices on articulation.

These findings have provided a comparative basis for articulation practices in South Africa. Germany has managed to create parity of esteem for its VET graduates, and they are comparable to graduates from higher education institutions. This has enabled seamless articulation pathways for the VETs graduates an issue with which South Africa is battling. Important to note is that the USA articulation systems are centralised allowing for better coordination. This is different to the system in South African that has independent institutions that work in silos thereby making articulation difficult, especially for TVET graduates who are already affected by their historical and social context. It is however imperative to acknowledge that in spite of all the difficulties experienced by South Africa, it has managed to expand its articulation drive by developing legislation to guide PSET sectors involved in education, training and development to allow for mobility for lifelong learners, an initiative that is missing in the German and USA context. With this context in mind,

the study concentrated on articulation of TVET graduates to professional bodies to enhance the implementation of the Articulation Policy incorporating the learnings from other countries.

Chapter 5 provides an empirical lens to the subject of articulation and the implementation of the Articulation Policy in support of the literature reviewed in Chapters 1 to 4. Chapter 5 discusses the results and methodology utilised in analysing the data collected during the study. The analysis identifies challenges inhibiting the implementation of the Articulation Policy together with possible solutions to these challenges. The root causes of the challenges limiting the implementation of the Articulation Policy were considered and incorporated in the formulation of the development of the Collaborative Implementation Framework. This chapter will focus on the attributes of the participants, the thematic responses of the interviewees, the implications of the interview responses and outcome of document analysis on the implementation of the Articulation Policy thereby addressing objectives 1, 2 and 4.

5.2 DATA COLLECTION AND ANALYSIS

The study utilises qualitative research best described by Bansal *et al.* (2018:1189) as “scholarship that primarily relies on qualitative data and inductive theorising”. The qualitative approach is utilised for the study to ensure that there is a methodological fit for nascent research, as guided by Edmondson and MacMunus (2007:1169). This is also aligned to the methodology that was discussed in Chapter 1 Section 1.6.2, which stipulates that the qualitative approach and the inductive inquiry be utilised as it focuses on the importance of interpreting situation complexities as well as individual meaning (Okeke 2016:209; Creswell 2014:4).

Since the qualitative approach was utilised, the researcher practised self-reflexivity, as advised by Tracy (2010). Tracy (2010:842) encourages qualitative researchers to practise self-reflexivity where the researcher has to be honest and authentic with themselves and the audience. Self-reflexivity allows the researcher “to be frank about their strengths and shortcomings” (Tracy 2010:842). Before the interviews, the researcher took note of Tracy’s advice by assessing motivations and biases to ensure that the collected data was credible. Self-reflexivity was also observed during

and after the interviews, including during the data analysis to ensure the findings' credibility.

5.2.1 Development and finalisation of primary data collection instruments

The review of extant literature demonstrated numerous challenges with regards to the Articulation Policy implementation and the general absence of articulation between TVET colleges and ECSA. The study intended to explore factors impacting the implementation of the Articulation Policy and the primary data collection instrument was specifically designed to elicit insights into the reasons for the status quo relating to the articulation of TVET engineering graduates to ECSA. The following broad themes linked to the research objectives were included in the interview guide:

- The status of implementation of the Articulation Policy between ECSA and TVET colleges.
- The identification of factors impacting the implementation of the Articulation Policy and articulation of TVET engineering graduates to ECSA
- Potential solutions proffered to resolve some of the challenges impacting the articulation of TVET engineering graduates to ECSA

The interview guide was developed to probe the participants to consider the Articulation Policy requirements and reflect on whether it was being implemented to promote the mobility of TVET students who completed engineering qualifications to ECSA. Furthermore, the instrument invited the participants to identify the potential factors inhibiting the articulation of the TVET engineering students to ECSA when the Articulation Policy provides for such articulation.

The interview guide contained open-ended questions and throughout the interviewing process, where relevant, the researcher asked follow up questions to the participants to get more clarity on their responses and also to direct their focus on the substance of questions. The research utilised open-ended questions to accommodate the nascent study and to allow the researcher to learn “with an open mind”, in line with Edmondson and MacManus's (2007:1162) suggestion for nascent studies. Moreover, the researcher utilised interviews to collect data where iterative and exploratory data analysis was utilised (Edmondson & MacManus 2007:1162).

Sixteen research questions were developed in line with Braun and Clarke's view (2006:14) that "qualitative research involves a series of questions...". Some of the research questions were "broad and exploratory" (Braun & Clarke 2006:14). Narrow questions were also included as "part of the broader overarching question..." and they provided the "answers to the overall research question" (Braun & Clarke 2006:14). The interview guide is included in Appendix A.

The interviews commenced with the researcher introducing herself, providing a brief background to the research topic, the objectives and purpose of the interview. The researcher would ask for informed consent to record the interviews and proceed with them. This interview structure was applied consistently across all the interviews.

The researcher conducted a pilot interview to evaluate the appropriateness of the questions for the interview, the question sequence, the estimated duration of the interview, depth and clarity of the interview questions. The pilot interview was carried out with one participant through Microsoft teams since some of the participants were to be interviewed virtually. The lessons learnt from the pilot interview were utilised to update the interview guide as well as the interview request letter to interviewees where the estimated interview duration was included.

5.2.2 Data collection process and challenges

Based on the provisional ethical clearance approval received on 18 August 2023, the researcher commenced with preparatory work relating to data collection. The researcher began engaging the different stakeholder organisations such as the DHET to get approval to engage TVET colleges, ECSA, SAQA, and former TVET college employees to conduct interviews.

The final approval to the ethical clearance was granted by the Faculty's Ethics Committee on 6 September 2023. The request to conduct interviews were sent simultaneously to the different stakeholders and further requests sent as more referrals emerged from the interviews. Where responses were not received, interview requests that were shared through emails, phone calls and WhatsApp messages were used to follow up with the potential participants. Some of the agreed interview dates were also moved and some of the interviews cancelled. The

researcher followed up to renegotiate convenient dates and times. Due to all the logistical challenges relating to scheduling of the interviews, four interviews were conducted in September, 21 in October and one in November 2023.

In spite of the initial intention to interview 20 participants from TVET colleges in Gauteng, due to the non-availability of some of the participants, the researcher ended up interviewing participants from North West, the Western Cape, KwaZulu-Natal, Free State and Limpopo. This however, does not impact the outcome of the study especially considering the homogeneous nature of the TVET curriculum. It also further enriched by the perspectives gained from the interviews since more provinces were represented in the sample. Some of the TVET college participants who had agreed to the interviews, had declined citing that they needed to get approval from their Head Office to participate in the research interviews. Although the research interviews finally kicked off once the required additional approvals were obtained, this delayed the interviews as these had to be rescheduled.

Some of the in-person interviews conducted at one of the TVET colleges which is closer to a National Key point, could not be recorded on Otter.ai that was initially used due to signal jamming for security reasons. This was however resolved by using a recorder and the interview transcribed later. This did not affect the outcome of the interviews, as the researcher ensured that all interviews underwent the same transcription process.

The researcher intended interviewing Academic Managers and heads of the engineering departments from the TVET colleges; however, during the interviews, some of the academic managers and heads of department delegated this responsibility to lecturers who were more informed with the engineering curriculum and who had been involved in engineering qualifications development. Due to the exam period that coincided with the interviews, it was difficult to secure two participants at some of the TVET colleges and the two participants per college, as initially planned. However, the sample was extended to include TVET colleges in other provinces. The electricity crisis in South Africa also impacted the scheduling of interviews as some of the interviews had to be rescheduled to times when there was no load shedding. This delayed some of the interviews.

5.2.3 Interview Recordings, Transcription and Survey Data Capturing

The initial strategy was to carry out in person interviews, however, during the execution of the interviews, it was clear that some of the participants preferred virtual interviews. Furthermore, due to distance especially for participants who were in provinces namely KZN, Western Cape, Free State and Limpopo, it became more viable and cost effective to conduct virtual interviews. Thirteen (50%) interviews were conducted in person and thirteen (50%) were conducted virtually.

For the in-person interviews, Otter.ai was used to record the interviews. Interviews were conducted virtually through Microsoft Teams. The interview recordings and draft transcripts were downloaded immediately after the interviews. The draft transcripts were edited within a day of the interview to correct the auto transcription errors whilst the interview was still fresh in the mind of the researcher. The interviews were transcribed to conduct thematic analysis. The researcher followed the six steps of thematic analysis proposed by Braun and Clarke (2006:87). The researcher collected the data corpus and prepared data sets that were used for analysis, in which case all the data corpus were used as data sets (Braun & Clarke 2006:5).

A detailed comparison of the interview recordings and the updated auto transcripts was performed, and the revised transcripts updated to a final version within three days of the interview. The participants were each assigned a unique code for identification purposes for example TP-1, TP-2. In preparation for capturing the interview results into Atlas.ti, the interview results were captured on an excel spreadsheet for preliminary analysis purposes. Table 5.1 below presents the split between face-to-face interviews and online interviews:

Table 5.1: Mode of interview delivery split

Mode of Interview Delivery	Number of Participants
Face-to-face	13
Virtual	13
Total	26

Source: Author's own

During the interviews, procedural ethics were observed to ensure “accuracy and avoid fabrication, fraud, omission and contra vice”. Furthermore, the researcher clarified the “nature and potential consequences of the research” to interviewees so that they understood “that their participation is voluntary”. This procedure did not only address ethics “but also lead to more credible data” (Tracy 2010:842).

5.2.4 Qualitative data analysis

The study utilised Atlas.ti to perform a qualitative data analysis. The final transcripts were uploaded onto Atlas.ti and based on the responses provided per each interview question, several ideas were identified. The several ideas identified per each interview question were grouped into noticeable themes. The data analysis was conducted according to the six steps of thematic analysis, as explained by Braun and Clarke (2006:87). An inductive coding approach was followed. The researcher revisited the final transcripts to thoroughly understand the contents of the interviews before proceeding with coding. This is in line with Braun and Clarke’s suggestion (2006:87) that during data analysis, the researcher must be “immersed ... in data” to the point of familiarity “with the depth and breadth of the content”. This involves “repeated reading” in an “active way” to identify patterns and meanings. Braun and Clarke (2006:12) explain that analysing inductively entails coding of data “without trying to fit it into a pre-existing coding frame or a researcher’s analytical preconceptions”.

The initial analysis of data generated latent codes that captured the underlying context and importance of the primary data (Braun & Clarke 2006:8) and these draft codes were recorded in Atlas.ti. As recommended by Braun and Clarke (2019:10) and Nowell *et al.* (2017:4), the researcher went through several iterations refining and developing codes as new information that did not match the existing codes, became available. When coding data, the researcher coded by “tagging and naming selections of text within each data item”. The researcher coded “as many potential themes/patterns as possible” to ensure that all themes/patterns are captured (Braun & Clarke 2006:19) and in addition, searched “across a data set ... to find repeated patterns of meaning” (Braun & Clarke 2006:14). Overlapping codes were merged leading to the creation of new codes.

During data analysis, the researcher identified themes by prioritising codes that correlated with the research questions, reflecting a discernible pattern or significance within the dataset (Braun & Clarke 2006:10). This supports Braun and Clarke's (2006:10) assertion that the significance of a theme does not solely rely on quantifiable metrics but rather on its ability to encapsulate something significant in relation to the overarching research question. Themes, strongly connected to the data itself, were noted through the utilisation of an inductive approach (Braun & Clarke 2006:12). The different codes were clustered and categorised according to the research objectives as a way of generating sub-themes and themes. The themes were continuously revisited and reassessed for suitability and appropriateness as the study progressed and where necessary, updates were made.

5.3 TRIANGULATION

Triangulation, originally stemming from navigation, involves determining a location by measuring angles from two known points. In the realm of research, triangulation refers to employing two or more approaches to investigate a particular question or phenomenon (Heale & Forbes 2013:98). Yin (2009) highlights the case studies characteristics which involve the utilisation of numerous sources of data to attain a detailed comprehension of the context of study. In the thesis, the researcher utilised methodical triangulation, as recommended by Bless *et al.* (2013:238), involving the use of different methods of collecting data and data sources. Specifically, data from in person interviews were compared with document analysis results and literature review. The document analysis involved the review of policies, white papers, frameworks and sub-frameworks, annual reports, international education agreements and strategic plans.

5.4 INTERVIEW FINDINGS

The next section discusses the findings emanating from the primary analysis of data. This analysis includes an overview of profiles of the participants and highlights the key emerging themes from the various responses. Additionally, relevant documents were examined and compared with the interview results.

5.4.1 Participants' profile

A total of 26 participants were interviewed in this study. The participants were interviewed from three most important stakeholders in the implementation of the Articulation Policy namely, ECSA, TVET colleges and SAQA. The interviews were conducted across six provinces namely Gauteng, North West, the Western Cape, KwaZulu-Natal, Free State and Limpopo. Of the 26 participants, three (12%) were from SAQA, two (8%) from ECSA and 21 (81%) represented TVET colleges.

The participants from SAQA ranged from Managers to Senior Managers responsible for research, professional bodies and overall monitoring of the implementation of the Articulation Policy. The participants from ECSA included the individuals responsible for policy development on articulation, accreditation of institutions and overseeing the education and training for ECSA. Both ECSA and SAQA participants were from Gauteng.

TVET colleges had a wide range of participants from Academic Managers, project managers, lecturers responsible for delivering the engineering courses and staff involved in developing the TVET qualifications in engineering. The 21 TVET participants were from 10 TVET colleges across six provinces. The following table shows the participants' profile overview.

The following is an analysis of the profile for participants from TVET colleges:

Table 5.2: Profile for TVET college participants

Province	TVET Colleges	Number of Participants
Gauteng	4	15
North West	2	2
Western Cape	1	1
KwaZulu-Natal	1	1
Free State	1	1
Limpopo	1	1

Source: Author's own

5.4.2 Participants' understanding of articulation

The participants' understanding of articulation varied from limited to an excellent knowledge of articulation. From the 26 participants, 19 (73%) demonstrated a clear understanding of articulation, two (8%) had limited knowledge of articulation and five (19%) were completely unaware of the meaning of articulation or chose not to respond to the questions relating to articulation. The participants from SAQA and ECSA demonstrated extensive understanding of articulation, and this could be attributable to the fact that these participants daily work with activities that are directly linked to articulation.

Participants with less understanding of articulation were from TVET colleges, which may be due to the limited articulation-related activities occurring at these institutions. Participant TP-7 understood articulation to be the *"manner in which a person expresses self"*. Whereas this definition is correct in the day-to-day use of the term, it is incorrect in the context of the Articulation Policy. Participant TP-18 highlighted that *"I am not sure. I just looked it up, but I still don't get it"*. Participants TP-4 referred to articulation as *"the admission criteria for the TVET colleges"*.

Though some TVET participants had a greater understanding of articulation, there was a general lack of good understanding of articulation by the TVET colleges participants.

5.4.3 Participants' general awareness of the Articulation Policy

Although the majority of the participants from ECSA and SAQA were generally very aware of the Articulation Policy, a few were not sure what the policy entailed.

Participant EP-2 indicated that they had not heard about the Articulation Policy when they said:

“No, I have not heard but I do know that the Minister, I think somewhere in 2013 or 2014, I am not sure, did indicate that the qualifications that are not properly articulated need to stop that led to the discontinuation of BTech qualifications”.

The general awareness of the Articulation Policy could be attributable to the fact that most of these participants interact with the policy on more frequently, with some of them directly engaged in the implementation and monitoring of the policy. In contrast, the participants from the TVET colleges were generally less aware of the Articulation Policy. For instance, participant TP-9 from the TVET colleges mentioned that:

“I was not aware of the policy before I started preparing for this interview”.
Participant TP-18 also echoed the same view when she pointed out that “I have never heard about it”.

From all the participants interviewed, 13 (50%) were aware of the Articulation Policy and clearly understood its objectives, seven (27%) were aware of the policy but had limited understanding of the policy and six (23%) were not aware of the policy and only got to know about the policy during their preparation for the interview or chose not to respond to this question. All participants with limited or no knowledge of the Articulation Policy were from the TVET colleges. Of the 21 TVET participants, 13, (62%) had limited to no knowledge of the Articulation Policy. The general lack of awareness of the Articulation Policy by these participants could be a result of the fact that most of the participants from the TVET colleges do not work directly with the Articulation Policy. This appears to be a systemic issue with the TVET colleges rather than the participants themselves. Being at the frontline of implementation of the Articulation Policy, TVET colleges ought to be more aware of the Articulation Policy to ensure that the students are empowered on the different pathways that are available for articulation.

The TVET colleges' role in the articulation process, especially the development of qualifications, demands that they are more aware of the Articulation Policy. However, the awareness levels were lowest at the TVET colleges.

5.4.4 Participants' involvement with articulation

The interviews revealed that five (19%) participants were not directly involved with articulation, whereas 21 (81%) reported being directly involved with articulation. Of the 21, six (29%) participants were involved in activities that are central to the Articulation Policy such as contributing to the policy development, development and review of qualifications, whereas 15 (71%) were involved in peripheral activities of articulation such as career guidance, student support services and negotiating with industry for the placement of students.

The participants from ECSA and SAQA were directly involved with the articulation process. For instance, Participant SP-1 indicated that she participates in research and has led the development of some of the policies both of which are related to articulation. Participant SP-1 has also been involved in assisting initiatives targeted at enhancing articulation of TVET graduates into universities.

"A lot. So, I suppose since 2008, SAQA has been doing research, to understand articulation and to develop policy and to revise policy and to implement it and oversee the implementation. So, I participated in that research. I've overseen it. I've been like, I suppose, a leader or co-leader in developing some of the policies, in fact, like the Articulation Policy, like the CAT policy, Assessment policy, the RPL policy. I have been on the quality Council reference groups for developing their articulation policies. And at the moment, this is very interesting ... At the moment, what is absolutely amazing is that SAQA did a big articulation research from 2016 to 2020 into articulation between TVET and higher education. And from that the recommendations were a whole lot of things but including that we want to strengthen articulation sector by sector by sector".

Participant SP-2 stated that they are *"involved in the review of the Articulation Policy"*. Participant SP-3 also highlighted that they are involved in articulation:

“As a specialist dealing with professional bodies, the professional bodies actually do register with what we call the professional designations. Those professional designations have to be registered with the South African Qualifications Authority on a separate register. So now the requirement for those professional designations is that they must be underpinned by a qualification that is registered on the NQF so that that's the role that the professional bodies play, which is a quality assurance role”.

Participants EP-1 and EP-2 were involved in the creation of pathways for articulation into their organisation and *“development of institution accreditation standards”* to facilitate the articulation of professionals into the organisation.

The involvement of participants with the articulation process was generally low at the TVET colleges. For example, Participant TP-9 indicated that their involvement was limited:

“It's not very direct. I'm not directly involved in articulation because I'm just a lecturer. So, I don't see myself playing a very huge part in the articulation process. I'm not sure exactly how involved I should be in the process”.

In contrast, TP-19 mentioned that they were not involved with articulation citing that this could be a head office responsibility. For those participants who were involved with articulation at the TVET colleges, their involvement was limited to career guidance and student support services for the engineering students. Participant TP-12 elucidated their role in articulation at their institution:

“During our induction space, one of the things that we try to explain to the student is, from the time they register with us, how long it will take for them to complete their courses. Also, after completing for instance, one of the diplomas, because we offer different courses in electrical and mechanical, you find students that want to, after completing electrical, go and pursue mechanical. So, we say, “How do we assist you in getting into that space without having to repeat, carrying over some of the subjects” and also further explaining to students after completing their qualification here, that it is not the end of the road”.

From the 21 TVET participants, 16 (76%) indicated that they were involved in student support and career guidance activities meant to assist students with career choices and articulation pathways available to them once they graduate. For instance, Participant TP-18 was responsible for advising students on the possible articulation opportunities once they exit the TVET college, and placing the students at workplaces for experiential learning.

5.4.5 Institution's involvement in articulation

For the 26 participants, nine (35%) participants reported that their institutions were running significant articulation related activities such as direct engagement with key stakeholders. They were also heavily involved in articulation. Twelve (46%) participants indicated that their institutions were involved in limited activities such as student support and career guidance and five (19%) participants reported that their institutions were either not involved in any articulation activities completely or the participant was unaware of any activities that the institution was involved in.

Further to SAQA's monitoring role for the overall implementation of the Articulation Policy, it is involved in promoting access to learning and mobility of graduates across the globe. Participant SP-1 confirmed that SAQA is involved with the conversion of foreign qualifications to promote the mobility of international graduates into the South African National Qualifications Framework. Participant SP-1 also indicated that *"SAQA endorsed the Addis Convention, which is about recognition of qualifications across Africa, as well as the recognition of refugee qualifications"*. This facilitates access to the various South African institutions of higher learning as well as articulation to the professional bodies by foreign nationals. Participant SP-3 further elaborated that the organisation's role in articulation:

"It's like an oversight responsibility that we have here, to ensure that the people who are at the forefront of the implementation of the Articulation Policy are doing exactly as they're supposed to do, because ours as the body that registers qualifications, we have to ensure that articulation finds expression in the qualifications that have been brought to us. So, we ensure that we work

with the providers who work with the quality councils to ensure that articulation manifests the type of the qualification they develop”.

Participant EP-1 indicated that ECSA is involved in *“providing guidelines for the articulation of students who wish to register as engineers”*. ECSA defines the various articulation pathways into various engineering designations, which means that although the responsibilities of the ECSA and SAQA in the articulation process were clear and understood by the participants from these institutions, the same cannot be said for the TVET institutions.

There were mixed responses from the TVET college participants with some citing little to no involvement and some mentioning some level of involvement. For instance, participant TP-1 indicated that:

“... the little involvement of the college is out of my personal interest because of my previous work experience with QCTO and my personal drive to see articulation taking place. The institution’s involvement comes as a by-the-way thing”.

Participant TP-16 indicated that they were not aware of any involvement by the TVET college other than the offering of tuition, as supported by Participant TP-13 who was of the view that:

“No, I must be honest, there is no involvement. I think articulation works; I don't know. Maybe it's a perception. It's more implemented in Higher Education, not in TVET. So, there are no initiatives in terms of articulation or implementation of the policy at that level. Yeah, as far as I know, we do not have that”.

Participants TP-4, TP-8 and TP-14 indicated that their institutions offered student support services such as career guidance, induction process and placing of students for internship programmes. According to the responses provided by the TVET colleges participants, the involvement of TVET colleges in the articulation process is very limited to peripheral activities. Though some of the activities indirectly improve

the articulation of students to professional bodies, there was a clear lack of deliberate direct effort such as the engagement of key stakeholder like ECSA, for example, to understand the requirements for the articulation of TVET graduates. The participants indicated more active institutional involvement with articulation at both ECSA and SAQA. The TVET colleges, who are a critical component to the articulation process considering that they produce the graduates into the market, perform suboptimal articulation activities.

5.4.6 Institution's initiatives towards articulation

Different institutions were involved in different initiatives aiding the implementation of the Articulation Policy in general. From the 26 participants, seven (27%) participants reported their institutions to be running strategic projects or initiatives such as developing frameworks, collaborating with industry players to place students for experiential learning. For nine (35%) of the participants, their institutions had some initiatives such as student orientation, student support services and student funding towards the implementation of the Articulation Policy. For 10 (38%) participants, their institutions did not have any initiatives or the participants were not aware of any initiatives that their institutions were running to promote the implementation of articulation.

Some of the strategic initiatives were deliberately implemented at some of the institutions, include the Unfurling Post School Education and Training (UPSET) Project aimed at facilitating articulation of TVET students into Higher Education Institutions. The UPSET project involves universities of technologies and TVET colleges working together with SAQA, to create hubs for articulation wherein universities grant seamless access to TVET graduates into certain university degree programmes. These hubs are being established in each province. It is however important to note that although the UPSET initiative broadly benefits the articulation of TVET graduates, it does not directly focus on articulation between TVET colleges and the professional bodies, which was the focus of this study.

Participant SP-1 reported that SAQA was running numerous initiatives targeted at improving articulation in general and these also include commissioning research into the implementation of articulation.

“SAQA has access to data relating to national qualifications and membership to professional bodies and it has conducted research and analysis of data for articulation for different fields”. Participant SP-2 added that “SAQA is identifying all qualifications without clear articulation pathways so that this can be resolved and that SAQA has several initiatives focusing on creating awareness about articulation amongst the different role players and coordinating with the stakeholders to ensure articulation occurs”.

Participant EP-1 and EP-2 mentioned that ECSA has just started working closely with TVET colleges to identify ways of improving access to professional designations for TVET graduates. ECSA has developed a framework to streamline the accreditation of TVET colleges and this will advance the mobility of graduates from accredited TVET colleges into ECSA. This project was however, in its infancy stage at the time of conducting this study and it remains to be implemented. EP-2 elaborated that:

“We are currently working with the DHET and QCTO and you may know that now there is a new NQF qualification which is the Occupation qualifications that is parallel to the HEQSF, so we are now at a stage that it is a work in progress and there is nothing that has been finalized but from our side, we have approved the Framework to see if we can recognise but we need the DHET and QCTO to agree, to say how are we going to assist to recognise the TVET colleges qualifications.

Furthermore, participant EP-2 explained that TVET qualifications are not currently accredited.

From the responses received from SAQA and ECSA participants, it is clear that there is deliberate action and initiatives focusing on improving access and mobility for TVET graduates. This sharp focus on articulation could be born out of the legislative and funded responsibilities of the two institutions on the implementation of the Articulation Policy.

Some of the initiatives implemented at TVET colleges were not primarily targeted at articulation although they also benefited articulation. For instance, orientation of students is aimed at sharing information about the institution, where and how important resources and facilities can be accessed at the college. The discussion of matters relating to articulation such as progression pathways becomes an incidental agenda item in this instance. This can be contrasted to the deliberate efforts directly targeting articulation as is the case with SAQA and TVET initiatives above. This distinction is significant within the context of this study because some of the initiatives implemented at the TVET colleges were not solely driven by articulation.

Participant TP-1 from the TVET colleges indicated that their college was:

“negotiating for accreditation of qualifications at QCTO to provide more articulation options to the learners. The TVET college is also reaching out to industry to get them to assist learners with special skills, for example on a current project on cellular phone repairs. However, no one is assigned this responsibility at the organisational level, but it is driven by my personal interest and the networks I have from my past experience”.

Ten participants TP-1, TP-2, TP-3, TP-4, TP-6, TP-11, TP-13, TP-14, and TP1-6 reported that their institutions did not have any initiatives or the participants were not aware of any initiatives in their institutions to promote the implementation of articulation. Student support services such as career guidance, student orientation and negotiating the placement of students on work-based learning in industry were amongst the most common initiatives identified by participants TP-5, TP-8, TP-9, TP-10, TP-12, TP-18, TP19 and TP-21. Participant TP-7 reported that their college was *“negotiating MOUs and student stipend funding with SETAs to ensure students get the financial support to complete training”*. Though student funding indirectly impacts articulation, the response relates more to student access rather than articulation. However, within the historical context of South Africa where access to learning was discriminatory, the issue of student funding is intricately linked to articulation.

There were mixed responses from the TVET colleges with some indicating that there were no initiatives focused on the articulation of graduates from the TVET colleges.

In instances where TVET colleges had articulation initiatives in place, these were mostly in the area of student support. There was limited direct effort towards ensuring that the TVET graduates articulate either to professional bodies or to the higher learning institutions. This could be linked to funding of such activities at the TVETs as most funding from government is for tuition. Additionally, the limited familiarity with the Articulation Policy at the TVET colleges could be contributing towards the mixed responses observed above.

5.4.7 Progression pathways embedded in TVET qualifications and available to engineering graduates from TVET colleges

Existence of articulation pathways embedded in engineering qualifications was confirmed by 18 (69%) participants whereas eight (31%) participants either stated that they were unaware of any articulation pathways or were unable to answer the question. This result confirms what is in the Articulation Policy, namely that qualifications should have articulation pathways, as discussed in Chapter 1.

Participants SP-1, SP-2, SP-3 pointed out the availability of clear articulation pathways for TVET graduates to higher education institutions. However, they pointed out that the implementation thereof remains a challenge. Participant SP-1 cited that:

“the UPSET initiative is trying to deal with the challenges that have been hindering the articulation of TVET graduates into universities”. Participant SP-3 indicated that: *“progression pathways are clearly provided for in the policy. Within the TVETs, students should be able to articulate from N4 to N6 and once N6 graduates complete experiential learning, they are awarded a diploma NQF 6 and this should open access to the Higher Education qualifications namely, NQF 7 to NQF 9”.*

From the responses above, as well as the review of literature, it seems that articulation pathways are defined. Participants EP-1 and EP-2 confirmed awareness of the pathways as documented in the Articulation Policy but noted that there is additional work underway to give effect to direct articulation from TVET colleges into ECSA, especially for engineering designations. Participant EP-2 indicated that:

“No TVET qualifications had been accredited with ECSA at the time of conducting this study and recognition of the TVET graduates with N4-N6 certificates is mainly based on Recognition of Prior Learning (RPL) if the graduate can demonstrate competencies that meet the ECSA requirements. There are some TVET graduates that are registering with ECSA as technicians”.

Participant EP-1 indicated that there is *“No standard defined progression pathways for TVET colleges as is the case with traditional universities”*. The responses above indicate that there are no direct functional articulation pathways between TVET graduates and ECSA hence ECSA's initiative to create a framework for accrediting TVET colleges to smoothen the direct articulation of TVET graduates into ECSA.

Some of the participants TP-1, TP-2, TP-3, TP-5, TP-7, TP-9, TP-11, TP-12, TP-13, TP-14, TP-19, TP-20 and TP-21, identified articulation within the QCTO sub framework, namely N4 to N6. They indicated that articulation across the sub frameworks i.e. from the TVET colleges to universities still remains a challenge. Participant TP-5 noted that:

“When students complete N6, they seek apprenticeship to qualify as Artisans. They also try and register at Universities of Technology but without much success. Since I started lecturing in 1997, I know of only two of my students who went to university to pursue Engineering”.

Participant TP-9 also underscored the challenges with articulation to universities:

“I would have preferred that we have clear cut pathways currently it's a grey area and there is no direct alignment between what we teach and the expectations from universities”.

Participant TP-11 indicated that *“NCV graduates can go to university but for the nated (N4-N6) programmes, it is difficult for them to be admitted at universities”*. Participant TP-11 emphasised the difficulties of articulating into Higher Education and professional bodies:

“There are no progression pathways except horizontal, i.e. access into other TVETs or qualifications within TVETs, there is no articulation vertically. It is not easy to articulate into higher education institutions. You need about 20 years of experience for you to register with ECSA if you hold a TVET qualification”.

Even though the Articulation Policy provides the pathways for articulation into universities and professional bodies, the lived experiences of TVET graduates paint a different picture as a host of hurdles need to be crossed before one can articulate.

5.4.8 Discussion of articulation at the highest decision-making structures within the organisation

From the 26 participants, 11 (42%) indicated that articulation is discussed at the highest decision-making levels within their institutions. Ten (38%) participants were not aware if articulation is discussed at their institution's highest decision-making structures. Furthermore, five (19%) participants reported that articulation was not discussed at their institution's highest decision-making levels.

Participants SP-1, SP-2 and SP-3 indicated that articulation was discussed regularly at board level and there are sub-committees of the board that are charged with matters relating to articulation. SP-3 reflected that:

“The discussions are always there. We have a committee that we call a Qualifications Committee. That is a committee that has been designed specifically to look at the qualifications that are from the Quality Councils. So, they look at the qualifications, and they check their articulation options. So, if there are no qualified articulation options, the qualification has to be returned to a Quality Council and provider so that they can look into it and see how they address is a very serious short-fall, because that's not what the policy is about”.

SP-1 supported the sentiment by emphasising that:

So, I think the answer is that, you know, SAQA engages like daily in this and also, like, at great depth because SAQA is a leader in this field. SAQA must lead and must support through system.

Participants EP-1 and EP-2 indicated that the council reviews the strategy and the strategy deals with articulation, with EP-2 explaining that:

“The current NQF Level qualifications that are on the engineering profession are all approved by the Council that is number one. Then number two, it is part of our five-year strategy to recognise the TVET college qualifications as well. So, in the current strategy, we do have this strategic 2020-2025 and even in the 2015 to 2020, we do not develop qualifications. We support the development of qualifications because ordinarily those are developed by the higher education institutions and they would submit to us for endorsement just to see if indeed, it does have all the elements that the qualification needs to have for one to register after completion. So yeah, we do have. The 2020 strategy is available on our website”.

Participants TP-2, TP-12, TP-15, TP-16, TP-19, and TP-21 indicated that articulation is discussed at their colleges' highest decision-making levels. The discussions take the form of securing opportunities for learners to move horizontally across TVET qualifications, as well as the admission policy of the TVETs, with TP-12 saying:

“You see, the only part which is embedded in our admission requirements, where we spell out, like for instance, the students that will come here at this level here, they are students that are coming from technical schools. For instance, a student was doing electrical engineering, and is coming here to do electrical engineering. That student will not start here. So, the admission policy which is discussed at that level, up to the point where the council signs, spells out that a student that comes with so many technical subjects can start at N2, or with so many technical subjects can start at N3. So, it is up to, I would say, at the level of the admission”.

For five (24%) TVET participants, the respective highest decision bodies at their colleges did not discuss the issue of articulation, with participant TP-13 confirming that:

“No. As far as I remember, I served in the highest structure in the college. Yeah, that's what I'm saying in terms of the policy is actually non-existent at TVET or at the TVETs that I worked at. So, for me, I feel this issue was never a discussion point”.

Furthermore, 10 (48%) TVET participants were not aware if the Boards at their colleges considered and discussed articulation as an agenda item. These participants reported that they were not directly involved with the highest decision-making structures at their TVET colleges. Some participants, such as TP-13, was unsure of what articulation was and could not provide a directed clear response: *“I don't think so. During administration they only check for spaces that are available, and they make sure to register you as a student”.*

The highest decision-making bodies at the TVET colleges are not involved with matters to do with articulation on a consistent basis across the TVET colleges. According to the feedback provided, the discussion of articulation at the strategic level of the TVET colleges could be improved to ensure that sustainable efforts and resources are committed towards articulation. The tone from the top may be perceived as not being supportive enough of articulation. This is further supported by the feedback regarding the limited initiatives that TVET colleges embark on to improve articulation of TVET graduates, as noted in Section 5.4.6 above.

5.4.9 Attitude of the industry, professional bodies and ECSA towards TVET engineering graduates

There were mixed responses relating to the attitude of industry and professional bodies towards TVET engineering graduates. There were both positive and negative sentiments on the attitude of these important stakeholders to the implementation of the Articulation Policy. Two (8%) participants reported that industry, professional bodies and ECSA welcomed TVET graduates. Conversely, 18 participants (69%) reported that stakeholders had concerns about TVET graduates.

Four (15%) participants stated that industry, professional bodies and ECSA had alternatively areas of concern and appreciation for TVET graduates. However, two (8%) participants indicated that they were not able to respond to the question.

The following are examples of the sentiments that were shared by some of the participants. Participant TP-3 indicated that: *"Industry prefers this college because we teach good content, and our college had a relationship with China where some of our students did learnership programmes"*.

Though this type of association is not common amongst the TVET colleges, it is an indication of the importance of strategic partnership with industry in shaping the perception of industry towards TVET graduates. Participant TP-6 reported that:

"industry finds our graduates useful especially the N2 and N3 because of their practical experience". This view was also supported by Participant TP-7 who mentioned that *"TVET students have practical knowledge compared to their counterparts from the universities and they are well received by industry"*.

Participant TP-7 however also indicated that TVET students who are doing the NCV programmes are not well received by industry since some of the students did not do matric. Participant SP-3 indicated that ECSA was beginning to embrace TVET graduates through the introduction of technician designations which is also accessible to TVET graduates and the introduction of the TVET college accreditation framework. The following are examples of participants' feedback highlighted that the stakeholders had concerns about the TVET graduates. Participant TP-1 reported that:

"Industry players used to get money direct from SETAs for partnering with TVET colleges but now that is being changed and some of the industry partners are not happy with this and they are withholding their support for TVET graduates".

The financial impact of the proposed changes to the funding model was cited as the driver for some of the industrial players withholding their support. Participant TP-2 indicated that *“industry has suspicion on experience and quality of TVET graduates and ECSA is unsupportive to unregistered engineers”*.

Participant EP-2 cited the need for ECSA to participate in qualification development of TVET colleges so that it is able to endorse the qualifications and the TVET graduates. This is particularly important as participant SP-2 indicated that:

“there is lack of trust in the TVET qualification which could be a result of lack of information about the qualification as well as development of qualifications without looking at the need in the market”.

This view was also further supported by participants TP-4, TP-5, TP-8, TP-9 TP-11, TP-12, TP-13, TP-14, TP-15, TP-16, TP-18, TP-19 and TP-21 who raised concerns from industry and professional bodies relating to the quality of the TVET engineering qualification, lack of practical experience and lack of sufficient consultation on qualification development.

Though there were mixed views on the perception of TVET graduates by key stakeholders, as indicated above, the popular view is that many stakeholders do have concerns about TVET engineering graduates. These concerns can be broadly categorised into the following:

- consultation process on the development of TVET qualifications;
- content;
- relevance of the qualifications; and
- focus of the international accords adopted by ECSA.

The ramifications of these concerns unfortunately contribute to hindering the articulation of TVET graduates into ECSA and the meaningful economic contribution of the TVET graduates.

5.4.10 Perception of TVET qualifications and factors hindering the articulation of TVET Engineering graduates to ECSA

The participants were requested to provide their views on TVET engineering qualifications and their experience on factors that they considered hinder the articulation of TVET engineering graduates to ECSA. Their responses are discussed in subsequent sub-sections.

5.4.10.1 Omission of key stakeholders from the development of the qualification

Participants raised concerns relating to the omission of some important stakeholders during the design and review of TVET engineering qualifications. This has led to qualifications that are not accredited by ECSA. There are differences in qualification standards as noted by Participant EP-2. Participant TP-8 highlighted the disconnect between TVET engineering qualifications and ECSA's quality expectations when he mentioned that:

"TVET college diplomas are not registered because they do not have the fundamentals that are required by ECSA. TVET qualifications do not meet the accreditation requirements from ECSA and when the qualifications were developed, the ECSA requirements were not considered".

Participant TP-12 also added to this argument by mentioning that:

"We are held up to the qualifications that are developed by the DHET and we are not involved, unlike universities that have research departments that design the qualifications ... You can't compare students who are coming from here with those from institutions where the qualifications are well researched and up to date".

The TVET engineering qualifications lack the requisite practical experience, and this was indicated by Participants TP-1, TP-2, TP-4, TP-7, and TP-10.

5.4.10.2 Outdated qualifications – irrelevant to the current market

The relevance of the TVET qualifications in today's environment was also raised with some participants who indicated that some of the qualifications had not been refreshed since they were developed. Participant TP-11 contributed to this view by indicating that *“some of the syllabus is still written in Afrikaans and were developed in the 70s”*. Participant TP3 indicated that old technology was still being used in some of the teaching materials whereas these are no longer relevant: *“... the curriculum is outdated e.g. the old type of TV is covered in the syllabus whereas the market is now using Smart TVs”*. Participant TP-5 also echoed the same point when he said, *“For the Nated qualifications, let me say we are training for the 80s, what we are teaching is no longer relevant now”*. Participant TP-8 added to this view by mentioning that *“the qualifications assist with taking people from the street but they are not good enough. Some of the qualifications were developed in 1982 and have never been revised”*.

5.4.10.3 Lack of sufficient advocacy on TVET Engineering qualifications

The insufficient knowledge about TVET qualifications coupled with the lack of information by TVET graduates, was also identified as a factor impacting articulation. Participants TP-1, TP-2, TP-6, TP-9, and SP-2 noted that insufficient knowledge of what ECSA offers by both the TVET colleges and the graduates, contributed to lack of articulation. TP-6 cited that:

“I think it will be the issue of advocacy, whereby perhaps students do not know that there is such a council. I mean, the only council we're interested in is where we get our matric certificates and that's it. I think, then the ECSA must go out there, especially to the TVET colleges to the universities, and they must introduce themselves and must be known as to what it is exactly they are for. I think that the people that will mostly know about the council will be the ones that are at the university as opposed to the ones that are at the TVET colleges. So, advocacy is what is needed”.

The lack of knowledge of the TVET qualifications has also contributed to some key stakeholders not trusting the TVET qualifications. This view was explained by

Participant SP-2 who indicated that *“the lack of knowledge about the qualification has generated perceptions of distrust about the qualification”*.

5.4.10.4 Misalignment between the TVET pass marks and entry requirements at Universities

There is a misalignment between the pass mark for TVET qualifications and the entry requirements at universities. TVET engineering qualifications are awarded with a minimum of 40% as a pass mark whereas at university the entry pass mark is 60%. This sentiment was shared by Participants TP-13 and TP-8 who had this to say:

“I think in that case, there is a gap between the institutions or the level of education, like if you look at the University of Technology and someone from the college. If you have N6, they will tell you, we are not going to credit you certain modules. So, if you go somewhere, they will tell you no, you must start afresh. So, I think what can help is to have, if we can have a bridging course ... if you have say N6, remember in the TVET, pass mark is 40. But when you go to the University of Technology, for example, they will tell you pass mark is 50. So, I come from here happy that I passed. So, I got my Diploma and I want to do BTech but when I get there, they say no, you must have 60 for entry”

5.4.10.5 The role of international accords in the ECSA accreditation process

ECSA's accreditation standards are guided by the International Accords and in their current form, the standards are more focused on the Higher Education Qualifications Sub-Framework (HEQSF) rather than qualifications from TVET colleges which fall under the Occupational Qualifications Sub-Framework (OQSF). Participant TP-13 explained:

“There is a problem with acceptance of TVET graduates at ECSA. ECSA is guided by the standards defined in the accords (Dublin, Washington, etc). The accords don't recognise the TVETs. There is no accord that is specific to the TVETs”.

This technicality creates a barrier for the TVET graduates to register with ECSA.

Albeit some of the concerns raised above, some participants indicated that they had a positive perspective of the TVET engineering qualifications. Participants SP-2, SP-3, TP-6, reflected that the practical component of some of the TVET qualifications made the qualifications competitive. Participant TP-6 lamented not having known better about the TVET qualifications before doing their tertiary education, *“I regret not knowing about the TVET engineering qualifications when I did tertiary education”*. Despite a few pockets of complementary perceptions about the TVET engineering qualifications, the popular view was that there were challenges with the perception of TVET qualifications. These challenges need to be addressed and the positive attributes of the TVET qualifications further embedded to facilitate the articulation of TVET engineering graduates to ECSA.

5.4.11 Potential solutions to the challenges

Participants were given a set of questions to answer seeking their views on what can be done to resolve some of the challenges mentioned as well as their perception of the levels of collaboration amongst the key stakeholders in implementing articulation. The majority of participants 20(77%) advocated for improved collaboration amongst the different stakeholders to ensure that articulation occurs.

These participants observed that various stakeholders were currently working in silos and there was not enough consultation and engagement. They also acknowledged the need for an effective feedback system in the development and revision of qualifications to ensure that the legitimate interests and concerns of the stakeholders are considered.

Twenty-five participants (96%) almost unanimously agreed that it is important to seek stakeholder views when designing qualifications. Participant TP-20 articulated that:

“In my view, they are all important because at the end of the day one, regardless of how big or small they are, they’ve got a certain contribution they’re making towards the economy, ... they’re playing a certain role but of all

these are these are stakeholders who have a clearer understanding and knowledge of what needs to be in place”.

Participant SP-1 proposed the expansion of the UPSET project to include professional bodies, which would ensure alignment between the learning outcomes at the TVET colleges and the entry requirements for registration at the professional bodies. Underpinning a project of this nature would be effective collaboration amongst the TVET colleges and the professional bodies such as ECSA.

Communication and more advocacy for the TVET college qualification was cited by 11 (42%) participants. The knowledge gap was identified as one of the challenges shaping some of the adverse perceptions about the TVET qualifications. The lack of critical knowledge about articulation at the TVET college level would also be addressed through more deliberate information sharing and communication.

5.5 DOCUMENT ANALYSIS

The study also used document analysis for collecting data and the following important points supporting the findings of the interviews were noted:

5.5.1 ECSA’s current registration requirements which are misaligned to TVET qualifications

According to the ECSA’s Engineering Qualifications in the Higher Education Qualifications Sub-framework (E-23-P) (2022) document, there are: “qualification types defined in the Higher Education Qualifications Sub-framework¹ (HEQSF) in the light of the education requirements for the various professional, candidate and specified categories defined in terms of the Engineering Professions Act”.

The document demonstrates the pathways that can be followed by the applicant when they become designees of ECSA. As illustrated in the table below, all the qualifications fall within the HEQSF.

Table 5.3: Pathways to benchmarks

Benchmark	Pathway	Qualifications on Pathway	Total Credits	HEQSF Level
1: "engineer"	P1.1	BEng/BSc (Eng)	560	8
	P1.2	BEngSci or BSc (prescribed curriculum) with advanced entry to BEng/BSc (Eng)	360–420 280	7 8
	P1.3	BEng Tech with advanced entry to BEng/BSc (Eng)	420 280	7 8
	P1.4	BEng Tech PGDip (Engineering) MEng	420 140 180	7 8 9
2: "engineering technologist"	P2.1	BEng Tech	420	7
	P2.2	Dip Eng Adv Dip Eng	360 140	6 7
3: "engineering technician"	P3.1	Dip Eng	360	6
4: "certificated engineer"	P4.1	As for engineering technologist route 1 with PCE-oriented content in BEng Tech	As for P2.1	7
	P4.2	As for engineering technologist route 2 with PCE-oriented content in Adv Dip Eng	As for P2.2	7
5: "specified category"	P5.1	H Cert (Eng) + specified category	140	5

Source: Adapted from Engineering Qualifications in the Higher Education Qualifications Sub-framework (E-23-P) (2022)

This study however sought to comprehend the pathways available to graduates from TVET colleges which reside with the OQSF and Umalusi NQF Sub-Frameworks. The specified categories, as well as the engineering technician designation, which has been argued to be currently accessible to the TVET college graduates, requires Higher Education (University) qualifications. This immediately places the designation out of reach of the TVET engineering graduates. The clear exclusion of the OQSF and Umalusi in the table creates a vacuum for the TVET graduates who find it difficult to register with ECSA, if at all considered. The pathway for the TVET graduates therefore remains elusive and relies on other alternative routes.

5.5.2 TVET qualifications quality assurance hosting

It must also be noted that the quality assurance of TVET qualifications that reside between two sub-frameworks, namely, Umalusi and QCTO, is a systematic issue that may hinder the articulation of TVET graduates to any sector. The Umalusi

website states that “Umalusi monitors and reports on the quality of the qualifications and curricula used in public schools, TVET colleges and Adult Learning Centres...”. Furthermore, the Report on the Quality Assurance of the April 2023 Nated Report 190/191 Engineering Studies N2–N3 Examination states that:

“As a Quality Council, Umalusi is mandated by the National Qualifications Framework (NQF) and General and Further Education and Training Quality Assurance (GENFETQA) Acts to develop and implement policy and criteria for assessment of the qualifications on its sub-framework. The NATED Report 190/191 Engineering Studies N1–N3 is registered by SAQA as a programme on the Umalusi sub-framework (Umalusi 2023: iii)”.

The report further explains that:

“... Umalusi has a mandate to ensure that the NATED Report 190/191 Engineering Studies N2–N3 examinations conducted each trimester are fair, valid and reliable. To perform this function, it is required to ensure that the quality and standard of all the assessment practices associated with the NATED Report 190/191 Engineering Studies N2–N3 examinations are set and maintained. (Umalusi 2023: iii)”.

The Quality Council for Trades and Occupations (QCTO) (2022:17) also quality assures TVET qualifications, as outlined in the QCTO Annual Report that articulates:

“The basic mandate of the QCTO is to develop and quality assure occupational (which includes trades) qualifications, part qualifications, and skills programmes as well as manage the Occupational Qualification Sub-Framework (OQSF)”.

The mandate relating to managing the OQSF encompasses:

“Overseeing the NATED Report 190/1 Part 2 qualifications (N4 to N6 and National N Diploma) along with the total revision of these qualifications”.

Although the Articulation Policy proposes that there must be clear articulation pathways within and amongst the NQF role players, the different sectors have worked independently of each other as they are statutory entities that have Acts that prescribe their roles and responsibilities. They therefore may have different qualification requirements for the qualifications in their spaces. Articulation requirements may also be in the respective Acts thereby creating barriers to clear articulation pathways for TVET graduates.

5.5.3 The impact of international accords on articulation of TVET graduates to ECSA

According to the “Policy on Registration in Professional Categories (R-01-POL)” (2018: 10-11), ECSA has accords that set the minimum requirements for entry into a professional designation. The accords are set out below:

Table 5.4: International educational agreements applicable to candidate and professional categories

Category of Registration	Educational Agreement
Candidate and Professional Engineer	Washington Accord
Candidate and Professional Engineering Technologist	Sydney Accord
Candidate and Professional Engineering Technician	Dublin Accord
Candidate and Professional Certificated Engineer	No Agreement

Source: Adapted from Policy on Registration in Professional Categories (R-01-POL) (2018: 10-11)

The international accords do not formally recognise TVET qualifications and as such, introduce a bottleneck on the admission of TVET graduates into professional engineering designations. It must be noted however, that there are also some professional designations that are not bound by the accords. These are currently out of reach of the TVET graduates as the ECSA accreditation framework gets finalised for implementation that will include TVET qualifications.

The QCTO (2022:18) nevertheless reflects a shift in focus in terms of collaboration of the important role players in the TVET engineering space when it states that:

“The White Paper’s focus on expansion of TVET Colleges has been an important driver of the QCTO’s operations where substantial work has been performed on converting the NATED qualifications into occupational qualifications that have significant relevance to industry. For the 2021/2022 period this work will continue to be a major focus of the QCTO, and Engineering Studies are being reconstructed in conjunction with relevant stakeholders like DHET and the Engineering Council of South Africa (ECSA)”.

The ECSA Strategic Plan 2020-2025 document also reflects alignment with the QCTO Annual Report (2021/2022). One of ECSA’s strategic goals is to ensure that there is Quality engineering education and training programs which will be accomplished by setting and/or maintaining:

“... accreditation criteria, for institutions and create a pathway for TVET Colleges, Academies and programs for seamless integration into mainstream engineering qualification disciplines”.

Although this is in the strategic documents, the implementation thereof could not be determined from most interviews carried out as indicated in the interview results above.

The document analysis performed above indicates and confirms some of the practical impediments to the articulation of the TVET engineering graduates to ECSA. Strategic decisions have to be made to tackle these factors to ensure the smooth articulation of TVET graduates to ECSA.

5.6 IMPLICATIONS FOR ARTICULATION OF TVET GRADUATES TO ECSA

The analysis confirmed that direct articulation of TVET engineering graduates to ECSA is currently not happening, albeit the existence of clear policy directives on articulation pathways in the Articulation Policy. In the few instances where TVET engineering graduates have articulated to ECSA, their entry was through the

alternative RPL pathway, which is not directly linked to their TVET qualifications. Empirical data demonstrated that there are systemic and historical challenges that should be resolved to allow for effective articulation in the whole ecosystem in general and between the TVET colleges and ECSA in particular. The thesis has demonstrated that the existence of the Articulation Policy alone is not adequate for the realisation of the policy objectives, but effort is required to guarantee the successful implementation of the policy.

In analysing data, there were several elements that were identified by participants as critical to the implementation success of the Articulation Policy. Some of these relate with elements that were identified in chapter one to three of the thesis. Some of the elements will be considered when developing the Collaborative Implementation Framework in chapter 6. The elements emerging from the analysis of data are as listed below:

Table 5.5: Collaboration elements emerging from data analysis

Collaboration Elements Emerging from Data Analysis	
Communication	Co-production
Cooperation	Balance of Power
Coordination	Engagement
Alignment	Leadership
Advocacy	Capacity of Members
Student Support Services	Shared Objectives
Mutual Trust	

Source: Author's own

5.7 SUMMARY

The chapter presented the process followed in the gathering and analysis of data as well as the difficulties encountered during the collection of data. The chapter also identified the major themes emerging from the responses that were provided by the interviews, and these were further validated by the document analysis. The data analysis confirmed that articulation is not at present taking place as intended by the policy. Several potential reasons for this state of affairs were also highlighted and brought to the fore.

CHAPTER 6

SUMMARY OF THE CHAPTERS, REFLECTIONS, FINDINGS AND CONCLUSION

6.1 INTRODUCTION

Policy implementation is a complex exercise where several actors are involved. It takes place at many levels and needs consistent monitoring and evaluation, as indicated in Chapter 3. Due to the complexity of policy implementation, a Collaborative Implementation Framework could provide a solution to “why, how, and with what consequences” (Wood & Gray 1991:4) when organisations participate in multi-organisational problem solving. To guarantee that the Articulation Policy is implemented successfully, collaborations must be formed to address ineffective implementation. Wood and Gray (1991:5) identified several cases where collaborative alliances took place and established that it is often “messy” and “complex” for organisations as well as for single organisations to “fix intransigent problems that affect many organisations concurrently”. Therefore, the formulation of a Collaborative Implementation Framework seeks to address the following research questions.

1. What are the factors that affect the implementation of the Articulation Policy for the articulation of TVET engineering graduates to ECSA?
2. What are some of the international leading practices on implementation of articulation policies?
3. To what extent does articulation of TVET college engineering graduates to Engineering Council South Africa (ECSA) take place as required by the Articulation Policy?
4. What mechanisms can be established to enable the effective implementation of the Articulation Policy?

To respond to the research questions, a review of literature carried out in Chapters 1 to 4 and data were gathered and analysed in Chapter 5. The information emerging from the review and analysis assisted in identifying elements that are required for the development of a successful Collaborative Implementation Framework. Although there were some dominant elements that were identified and are included in this

framework, the less dominant elements are not precluded for consideration in other frameworks. Even though this Collaborative Implementation Framework may be used for the implementation of the Articulation Policy, the elements may also be considered for use when implementing other policies and legislation as several factors were considered based on the architecture, relationships and operations of modern-day organisations when collaborating. The complexity of modern-day organisations needs to be evaluated and understood from a multi-, inter- and transdisciplinary perspective (Uwizeyimana & Basheka 2017:1). The architecture of the Collaborative Implementation Framework is outlined in Chapter 7. Chapter 6 summarises and links the objectives to the chapters. A detailed summary is presented on the relationship of the objectives as addressed in each chapter. Although some research findings are presented in chapter seven, more and in-depth findings are presented in this chapter.

6.2 SUMMARY AND REFLECTIONS OF PREVIOUS CHAPTERS

The aim of this section is to synthesise the information from Chapters 1 to 5 in relation to the research objectives and the problem statement. The contribution of each chapter, in response to the research objectives and the link of each chapter to the research objectives, is highlighted.

To clarify the contribution of each chapter towards the research topic “*A Collaborative Implementation Framework of the Articulation Policy: case of TVET colleges and the Engineering Council South Africa*”, the following is an outline of the research thesis. Chapter 1 gave an overview of the research, the introduction and background and defines the main research concept of articulation. A literature review on articulation was also carried out. The discussions in Chapter 1 provided the basis for the research problem, significance of this study and the background to how and why the research questions were developed. The research methodology, which is a central and important component of this thesis as it provides the readers with a map of how the research conclusions were arrived at (Hofstee 2011:107), was also addressed in Chapter 1. The research methodology utilised in the thesis was explored in detail in Chapter 1, as a means to answer the research questions in pursuit of comprehending articulation, and how the Articulation Policy could be best implemented (Bantwini & Arowolo 2016:501). To provide an overview of objectives

one, two, three and four, Chapter 1 provided the context, theories and definitions of articulation as well as the orientation framework that spells out the scope of the study (Creswell 2014:25). The foundation of the thesis was also built by the literature review of other articulation studies carried out in Chapter 2.

Chapter 2 provided a detailed discussion of objective one relating to issues affecting the implementation of the Articulation Policy as well as the orientation of this study to P(p)ublic A(a)dministration. Notable in Chapter 2 is the discussion that describes how the implementation of the Articulation Policy falls within P(p)ublic A(a)dministration under public policy concurrently highlighting the developments in the field of P(p)ublic A(a)dministration that are of essence to this research thesis. The discussion on MIT studies in P(p)ublic A(a)dministration allowed this thesis to unpack the importance of multi-stakeholders' roles in policy implementation so that the main business of public administration survives "the intellectual fitness of time" (Kuye 2018:327) and that complexities that are encountered in public policy are understood from an MIT perspective (Kuye 2018:327; Uwizeyimana and Basheka 2017:1).

To expatiate on objective one that requires the thesis to determine factors affecting the implementation of the Articulation Policy, Chapter 2 highlighted some of the policy implementation challenges. Chapter 2 further elaborated on the difficulties that are encountered in policy implementation that are primarily caused by a multiplicity of perspectives and actors (Brynard 2007:39). The literature review in Chapter 2 identified some key factors that may be considered when implementing the Articulation Policy such as collaboration, student support services, as well as technical support and research. The observations made in Chapter 2 align to the view that the implementation of the Articulation Policy should be carried out using the bottom-up and top-bottom approaches (Mpedu and Holtzhausen 2018:179; Birkland 2016:340; Howlett et al 2009:155) as both approaches "provide useful insights into the implementation process" (De Coning & Wissink 2018:201).

Chapter 3 explained collaboration and co-production as main elements that should be considered when implementing the Articulation Policy, thereby addressing objective one which seeks to determine elements affecting the implementation of the

Articulation Policy. An in-depth exploration of the concepts of collaboration and co-production in Chapter 3 established that these two elements must be considered as key determinants for the implementing the policy successfully. Consistent with Emerson and Nabatchi (2015:16), collaboration is “an approach to solving complex problems in which a diverse group of autonomous stakeholders deliberates to build consensus and develop networks for translating consensus results”. Furthermore, co-production permits the citizenry to participate in the implementation or execution of public policies as emphasised by Pestoff *et al.* (2006:506).

Flowing from discussions in Chapter 3, objective two, which relates to exploring international leading practices on the implementation of articulation policies, is addressed in Chapter 4. International comparability on the legislative framework in Germany and the USA assisted in benchmarking and exploring if articulation practices in South Africa are consistent with what is taking place globally, thereby addressing objective two.

The data collection and analysis presented in Chapter 5 and the research findings presented in Chapter 6 address research objectives one, two and four. Evidence gathered from participants through interviews and document analysis address objectives one, two and four. Some of the findings in this chapter point out that it is critical that stakeholders in the implementation of any policy need to work together to achieve common objectives. Furthermore, collaboration assists organisations with “coping with complexity and turbulence in their environments and it has shown that it may resolve societal and organisational challenges (Wood & Gray 1991:3). Through the empirical results presented in Chapter 6 as well as literature review in Chapters 1, 2 and 3, collaboration emerged as one of the key elements for the implementation of the Articulation Policy.

As a consequence, the current study developed a Collaborative Implementation Framework to facilitate collaboration of the key stakeholders during the execution of the Articulation Policy, as presented in Chapter 7, thereby addressing objective four of the current research. The findings and literature review from Chapters 1 to 4, together with the data analysis in Chapter 5 were synthesised and considered in the design of the Collaborative Implementation Framework. The data analysis results

presented in Chapter 5, findings in Chapter 6 and literature review informed the elements that were included in the Collaborative Implementation Framework. The important elements in collaboration were also identified in Chapters 2, 3, 4 and 5. While the literature review in Chapters 1 to 4 and data analysis in Chapter 5 identified the key elements of this framework, it must be noted that other elements were excluded from this Collaborative Implementation Framework as they were not dominant during the collection of data, analysis and literature review phases. The study identified and included the dominant elements throughout literature review and data analysis.

Furthermore, as identified by Mahlangu *et al.* (2019:1), there are key elements that should also be present in any multi-sector collaboration, which were included in this framework such as structure, key drivers, mechanisms, administration, execution and evaluation. It must be pointed out that the research does not put forward the framework as “cast in stone” neither does it consider this framework a “panacea” (Mahlangu 2019:1), but it “remains critical” in resolving complex challenges that are encountered in policy implementation. The framework provides “innovative ways to make collaborations work given that no one sector can adequately address the complex challenges” (Mahlangu *et al.* 2019:1) in the Articulation Policy implementation.

The Collaborative Implementation Framework is the key recommendation of the current study, and while some findings are discussed in Chapter 6, further important findings and recommendations are also discussed in this chapter to exhaustively address the difficulties encountered in the implementation of the Articulation Policy.

6.3 RESEARCH FINDINGS

The research showed that there are challenges hindering the articulation of TVET graduates to ECSA. Articulation is required to create opportunities especially for graduates coming from low esteemed and occasionally stigmatised TVET colleges. The findings of the research are as follows:

6.3.1 Limited awareness of Articulation Policy

The general awareness of the concept of articulation and the Articulation Policy was relatively low at TVET colleges. A considerable number of participants (18%) were not aware of articulation and about 62% of TVET participants had limited knowledge of the Articulation Policy. The TVET colleges are a key stakeholder in the implementation and lobbying for articulation of TVET graduates to ECSA and in the absence of knowledge about articulation and the Articulation Policy, it becomes difficult for the policy to be implemented.

6.3.2 TVET Colleges' minimal involvement in articulation initiatives

The TVET colleges had the least involvement and initiatives related to articulation. About 71% of the participants were involved in peripheral activities that are not directly focused on articulation. Nineteen percent of participants were not involved in any articulation related activities. The majority of these participants were from the TVET colleges. Furthermore, 19% of participants reported that their institutions were not engaged in any articulation related initiatives with 46% reporting that their institutions were engaged in limited activities to improve articulation. The majority of these participants belonged to the TVET sector. Though the lack of articulation initiatives could be foretelling of other challenges such as financial resources, the adverse effect on the implementation of the Articulation Policy is obvious. In contrast, ECSA and SAQA were running strategic initiatives targeted at enhancing the implementation of the articulation process.

6.3.3 Practical challenges hindering articulation

As was already established through document review and confirmed through the interviews, articulation pathways are clearly documented in policies and embedded in the TVET qualifications. However, empirical evidence indicated that there were practical challenges inhibiting the implementation of the Articulation Policy. The interview results demonstrated that 69% of the participants pointed out that there were concerns about the TVET graduates and qualifications. Consequently, TVET graduates have found it difficult to progress to ECSA membership. Some of the concerns noted include the following:

- The exclusion of ECSA and other key stakeholders in the design of TVET qualifications;

- Outdated qualifications especially the Nated qualifications that are irrelevant in the market;
- Misalignment between the TVET pass marks and the university entry requirements for TVET graduates seeking to do degree programmes;
- The function of international accords in the ECSA accreditation process. The accords are mainly focused on the HEQSF qualifications and not the OQSF and Umalusi TVET qualifications.

These concerns some of which relate to the quality of the TVET qualifications which have created barriers for the effective articulation of TVET graduates to ECSA. These shortcomings have also exposed the absence of operative collaboration amongst key stakeholders to the implementation of the Articulation Policy.

6.3.4 Fragmented stakeholder collaboration

In terms of the Articulation Policy, there are several stakeholders participating in the articulation process and each has an important and unique task in ensuring that articulation takes place. SAQA, QCTO, TVET colleges, professional bodies and the DHET are some of the key stakeholders. These stakeholders are working in silos in as far as articulation of TVET graduates to ECSA is concerned. Empirical findings of the interviews indicated that stakeholders were largely working in silos and 77% of the participants advocated for improved collaboration amongst the different stakeholders to ensure that articulation takes place.

6.3.5 Lack of top leadership engagement

The implementation of any policy requires buy-in from top leadership. There has to be visible support from the highest decision-making body otherwise there will not be any strategic oversight on the implementation. Empirical data indicated that articulation is discussed at boards/councils for 42% of the institutions. For 19% of participants, articulation was not discussed at the highest decision-making levels within their institutions. For 10/26 (38%), the participants were not aware if articulation is discussed at their institution's highest decision-making levels. This has an adverse effect on the adoption and implementation of the Articulation Policy and

initiatives. All participants where articulation was not discussed at their institution's highest decision-making levels were TVET colleges.

6.3.6 Misalignment between TVET qualifications and ECSA standards

TVET colleges qualifications are not accredited with ECSA which creates misalignment between the standard of qualifications expected by ECSA and the current standards of the TVET engineering qualification. TVET colleges and engineering qualification thus needs to be assessed by ECSA before they can be accredited. This lack of accreditation makes it difficult for TVET graduates to articulate directly to ECSA. This misalignment means that the TVET college graduates find it difficult to articulate to ECSA because they fail to satisfy the minimum entry criteria.

6.3.7 Dual quality assurance of TVET qualifications

TVET qualifications are quality assured by two different Quality Councils. TVET qualifications are quality assured at QCTO and Umalusi. The Quality Councils have their own requirements in terms of the standards of qualifications. The fact that the TVET qualifications belong to two sub-frameworks may adversely impact articulation due to the misaligned qualification requirements.

6.3.8 Technical exclusion of TVET qualifications

In terms of the NQF, the exit level for TVET graduates is pegged at an NQF level 6 qualification on the OQSF. The registration requirements for ECSA designations targets the HEQSF qualifications at NQF level 5 upwards. This makes it difficult for the TVET students to register with ECSA. This technical exclusion of TVET graduates thus means that TVET graduates cannot be admitted into ECSA, hence no articulation between TVET colleges and ECSA even though the Articulation Policy provides for this type of articulation pathway. Empirical evidence indicated that the TVET graduates can use the RPL route to register with ECSA but the process is onerous and very few, if any, TVET graduates were registered using this pathway.

6.3.9 Legacy stigma on TVET qualifications

The historical and social context also has an influence on the articulation of TVET graduates. Historically, in the pre-democratic South Africa, TVET colleges were a

tool for keeping the black population busy and away from the streets but with no meaningful economic contributions at the end of the day. TVET qualifications did not afford the holders an opportunity to join and contribute to the mainstream economy. Even though the post-apartheid government has dedicated substantial resources towards TVET colleges, there is a legacy stigma that is still associated with the TVET qualification. Unfortunately, this stigma has continued to plague TVET qualifications in the employment market.

6.4 RECOMMENDATIONS AND COMMENDATIONS

The nature of the challenges identified above can best be solved through an integrated approach. The isolated efforts of the individual stakeholders may not fully resolve the challenges due to their nature and complexity. True to Uwizeyimana and Basheka's (2017:1) assertion that the challenges in public administration and specifically in public policy, may not be resolved by people with a single disciplinary focus. As discussed in Chapter 2, Section 2.5, the Multi-, Inter-, and Trans-disciplinary (MIT) perspective should be taken into consideration given that the findings noted above are complex and involve several organisations. Section 3.13.1 in Chapter 3 further suggests a multi-sectoral approach to resolve challenges from several angles for sectors involved in governance. This approach is usually utilised when the problem in question is beyond the resources and scope of one sector. Multi-sectoral Approach (MSA) is important as it addresses pertinent contextual factors such as education, and health that can increase inequalities. Multi-sectoral Collaborations (MSC) which are also known as cross-sector collaborations are adopted to address such problems. Multi-sector collaboration has now become a desirable and necessary strategy to address development challenges (Mahlangu *et al.* 2019:1). The review of literature in Chapters 2 and 3 is used to ensure that a sufficient recommendation in form of a Collaborative Implementation Framework which marshals the efforts of all stakeholders, is proposed to tackle the concerns identified in this chapter.

The existence of the Articulation Policy, which recognises the need for TVET graduates to have mobility within and across the sub-frameworks of the NQF, is commendable. Furthermore, the policy acknowledges the importance of professional bodies in the articulation process albeit the need for more clarity on these roles.

ECOSA has developed an alternative articulation pathway for TVET engineering graduates even though it is currently difficult for the TVET graduates to access this pathway. ECOSA is also engaged in a consultative process with the TVET colleges to develop a framework with specific pathways for TVET graduates. This framework will also be used to accredit TVET colleges and qualifications further improving the seamless articulation of TVET graduates.

6.5 SUMMARY

The review of literature from Chapters 1 to 3 as well as the data analysis contributed to the summary of findings above. The elements that hinder the implementation of the Articulation Policy were analysed and discussed in detail in Chapter 3. Chapter 6 summarised the findings from the data analysis together with observations made from Chapters 1 to 3 to ensure that a Collaborative Implementation Framework is designed in an informed manner. Chapter 7 outlines in detail the Collaborative Implementation Framework thereby addressing objective three of this thesis which is to recommend a formal Collaborative Implementation Framework to enhance the implementation of the Articulation Policy.

CHAPTER 7

PROPOSED COLLABORATIVE IMPLEMENTATION FRAMEWORK

7.1 INTRODUCTION

In this chapter, objective four of the current study is addressed. This objective proposes the development of a formal Collaborative Implementation Framework for enhancing the implementation of the Articulation Policy. The framework integrates insights from the findings and review of literature in Chapters 1, 2, 3 and 4, as well as the analysis of data in Chapters 5 and findings in Chapter 6. Chapter 5's data analysis and Chapter 6's findings informed the framework's design, highlighting essential elements of collaboration identified across Chapters 2 to 5. The review of literature across Chapters 1 to 4, coupled with the analysis of data in Chapter 5, identified and incorporated the framework's key elements, omitting those less prominent in the research phases.

7.2 PURPOSE OF THE COLLABORATIVE IMPLEMENTATION FRAMEWORK

The main characteristics of modern organisations are their complexity as well as trans, cross- and multi-disciplinary teams, as identified in Chapter 2, which are expected to deliver quality work in an efficient manner, innovate and implement change. The complexity of modern organisations was discussed in depth in Chapter 2 where it is suggested that the future of public administration and public policy needs to be understood from the context of multi-, inter- and transdisciplinary perspectives (Uwizeyimana & Basheka 2017:1). Collaborative frameworks therefore promote peer-to-peer collaboration and knowledge sharing on critical aspects to cater for these complex organisations. They also function as multi-stakeholder platforms for collaboration and coordinated efforts, uniting private, public, non-governmental and intergovernmental entities to aid and expedite the implementation of the Articulation Policy. Working collaboratively assists in improving pathways and outcomes. Collaboration also promotes flexibility and initiates innovation to enable access, mobility and progression of graduates in the PSET system.

This Collaborative Implementation Framework is designed to reflect the processes and management of collaboration. There must be a clear direction for the implementation of the Articulation Policy as this will ensure the successful implementation of the Articulation Policy. Brynard (2007:38) laments that although policy development, finalisation and approval usually take place, there is usually no implementation plan in writing.

Research findings show that key stakeholders in the implementation of the Articulation Policy operate in silos and little to no consideration is given to the interconnectedness of their inputs towards the effective implementation of the policy. Even though some of the key stakeholders attend to their mandates and responsibilities in executing the policy, the result of empirical evidence suggests a general lack of coordination, common vision and collaboration amongst key stakeholders. This framework seeks to provide a mechanism and platform for coordinating the individual and joint actions of the key stakeholders towards the implementation of the Articulation Policy.

The objective of this Collaborative Implementation Framework is to provide professional bodies, TVET colleges and other important stakeholders with a tool and platform to work together to facilitate the implementation of the Articulation Policy. The Collaborative Implementation Framework identifies the crucial stakeholders and provides them with a platform, clarity of roles and responsibilities, governance structures and processes for effective collaboration. The framework allows for teams across the PSET landscape to collaborate leveraging Information Technology (IT) tools and minimising the time taken to execute the policy in accordance with collaborative relationships and decision-making. Wood and Gray (1991:4) further emphasise that collaboration will assist with the transfer of technology, foster the development of new technologies and enhance competitiveness in global markets. In line with Rupprecht *et al.*'s (2017:91) assertion, this Collaborative Implementation Framework offers "efficiency gained when bringing diverse areas of expertise together, i.e., teams of experts from various disciplines, all necessary to come up with acceptable concepts".

The Collaborative Implementation Framework ensures that there are coordinated approaches to ensuring that articulation takes place. It develops seamless and agreed-upon articulation pathways and ensures improved communication, cooperation and coordination amongst NQF partners for the effective implementation of the Articulation Policy. It further creates opportunities for all role players to share information, knowledge, resources as well as experience to ensure the implementation of the Articulation Policy.

Having discussed the purpose of the Collaborative Implementation Framework above, the objectives must be outlined to highlight the intent of the Collaborative Implementation Framework.

7.3 OBJECTIVES OF THE COLLABORATIVE IMPLEMENTATION FRAMEWORK

Mahlangu *et al.* (2019:9) argue that for collaboration to be successful, clarity of aims and objectives is required before committing to working together. A common perspective and vision of what the collaboration seeks to attain should be shared by all the stakeholders. The key objectives of the Collaborative Implementation Framework are to:

- Promote the interaction, cooperation, and negotiation amongst the different stakeholders within the PSET environment for the shared goal of ensuring the implementation of the Articulation Policy. (*Communication*).
- Define the responsibilities and roles of different stakeholders towards the implementation of the Articulation Policy (*Accountability*).
- Espouse shared values of respect and trust amongst the different stakeholders (*Values*).
- Promote innovation towards the implementation of the Articulation Policy. (*Innovation*).
- Engage with all key stakeholders on the objectives of the Articulation Policy and strategies for improved implementation of the policy. (*Engagement*).
- Accelerate the implementation of the Articulation Policy in line with the government priorities and the African Union Agenda 2063 (*Accelerate*).

- Align objectives, policies and strategies of all key stakeholders to guarantee the effective and efficient implementation of the Articulation Policy (*Alignment*).

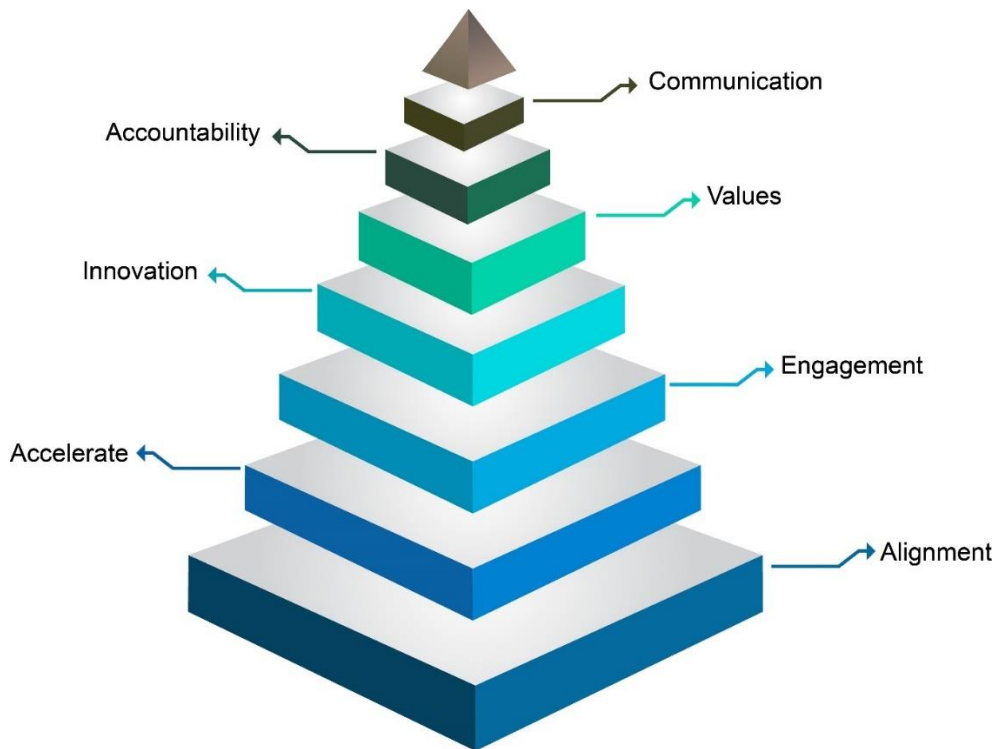


Figure 7.1: Objectives of the Collaborative Implementation Framework

Source: Author's own

7.4 COLLABORATIVE ARCHITECTURE

A blend of multi-sector and organisational collaboration has been adopted in this framework. Organisational collaboration refers to people in one organisation working with people in another organisation, which Huxham (1996:22) referred to as inter-organisational collaboration. Multi-sector collaboration has now become a desirable and necessary strategy to address development challenges (Mahlangu *et al.* 2019:1). Mahlangu *et al.* (2019:1), assert that multi-sectoral collaboration is critical when more than one sector is involved when solving complex challenges in society, usually resulting from several determining factors that might not be able to be addressed by one sector working alone.

The multi-sectoral collaborations have become an increasingly important and helpful strategy when addressing development challenges. The difficulties associated with the implementation of the Articulation Policy are complex and cannot be solved by one stakeholder. The combined effort of all key stakeholders namely SAQA, TVET colleges and ECSA, is paramount to the effective implementation of the policy. As argued by Mahlangu *et al.* (2019), the collaborative framework that adopts a multi-sectoral approach, permits huge responsiveness to situations that are complex and leverages knowledge, expertise, resources, reach and innovation from various and combined capabilities of multiple sectors.

Mahlangu *et al.* (2019:2) point out that “whilst the case for multi-sectoral collaboration has been widely established, there has been limited clarity about the process of collaboration”. According to the research carried out by Mahlangu *et al.* (2019:2), the focus that has been placed on multi-sectoral collaboration has been on explaining the main requirements which lead to the success and outcome of collaboration. “There has been limited process explanation and the implementation in practice...” Limited research has been carried out on implementation. After reviewing collaborative frameworks, Mahlangu *et al.* (2019:5) note that focus has been placed on the “process elements” yet limited discussions have been carried out on the action that should be taken for the process to be implemented. This limitation has created a “black box” and is also the “least understood part of collaboration” (Wood & Gray 1991:15).

This Collaborative Implementation Framework therefore focuses on the implementation of the Articulation Policy. The Collaborative Implementation Framework will address the difficulties encountered during the implementation of the Articulation Policy, as identified in Chapters 1 and 3. The findings of this study and the review of literature also reflect differences of outcomes to the stated goals and objectives due to a “multiplicity of participants and perspectives”, which are also challenges faced during policy implementation (Bryman 2007:37). It is therefore important that governance structures are established, to deal with such challenges.

7.4.1 Governance structures

The Collaborative Implementation Framework focuses on the structures governing the collaboration. As supported by Mahlangu *et al.* (2019:5), processes and governance structures are important for implementation frameworks. The Collaborative Implementation Framework therefore ensures that focus is placed on governance structures that provide the leadership and oversight role towards ensuring effective collaboration and ensuring the implementation of the Collaborative Implementation Framework. Mahlangu *et al.* (2019:6) argues that there has not been much literature that has dealt with structure. Most research has focused on the processes rather than the organisation. Mahlangu's study emphasises the critical role of governance structures in the development of the framework.

As indicated earlier, leadership is key to any collaborative relationship. Mahlangu *et al.* (2019:9) posit that facilitative leadership creates an enabling environment for collaboration that is effective (*cf.* Chapter 3 Section 3.4.3). The role of leadership in collaboration must be linked to an organisation for continuity and not to an individual. The research findings in Chapter 6 established that there is no governance oversight for the implementation of the Articulation Policy at TVET colleges. Nineteen percent of participants highlighted that articulation was not discussed at the highest decision-making levels within their institutions. Thirty-eight percent of participants were not aware if articulation is discussed at their institution's highest decision-making levels.

According to the CHE (2016:108), governance is defined as the informal and formal way of regulating organisations that involves the interaction of different role-players at the institutional and system level of any organisation. The framework addresses this gap through the establishment of governance committees to oversee the collaborative efforts of the different stakeholders and ensure the implementation of the Articulation Policy. The Collaborative Council, which is constituted by senior representatives from each key stakeholder organisation is responsible for collaboration oversight. The work of the Council is supported by the Operational Committee, which is responsible for the operational matters relating to the implementation of the policy.

The Collaborative Implementation Framework operates in a networked environment that allows people to work jointly or independently on the design of qualifications and any other documents required to enhance the implementation of the Articulation Policy. The framework allows teams working in different environments to work, collaborate and create synergies in their work. Specified technologies are used to have a safe, secure and efficient platform that allows for coordination, collaboration and co-production.

7.5 PROPOSED COLLABORATIVE IMPLEMENTATION FRAMEWORK

The Collaborative Implementation Framework highlights the need for role players in the NQF landscape to work collectively to the achievement of a common vision and goal. The various role players have a responsibility of ensuring that there is “a single integrated national framework for learning achievements” (South Africa 2008: section 5 (1)(a)). The Collaborative Implementation Framework further addresses the following issues observed by the Ministerial Committee on Articulation Policy (*cf.* Chapter 1 Section 1.1.1).

- Unclear learner progression routes and articulation arrangements;
- Dead-end NQF registered qualifications;
- Lack of consistency amongst the sub-frameworks of the NQF;
- Lack of precise arrangements in terms of articulation amongst the different qualifications and the types of institutions;
- Disorganisation in providing training and education;
- Lack of equality between vocational and academic qualifications; and
- Lack of adequate responses to the different requirements of the socio-economic environment, particularly to the aspirations of youths and adults who are active participants in employment, training and education. Those mainly affected are those who wish to have a second chance in training and education opportunities (Ministerial Committee on Articulation Policy 2014:11).

The Collaborative Implementation Framework is presented below and each of its elements is discussed thereafter.

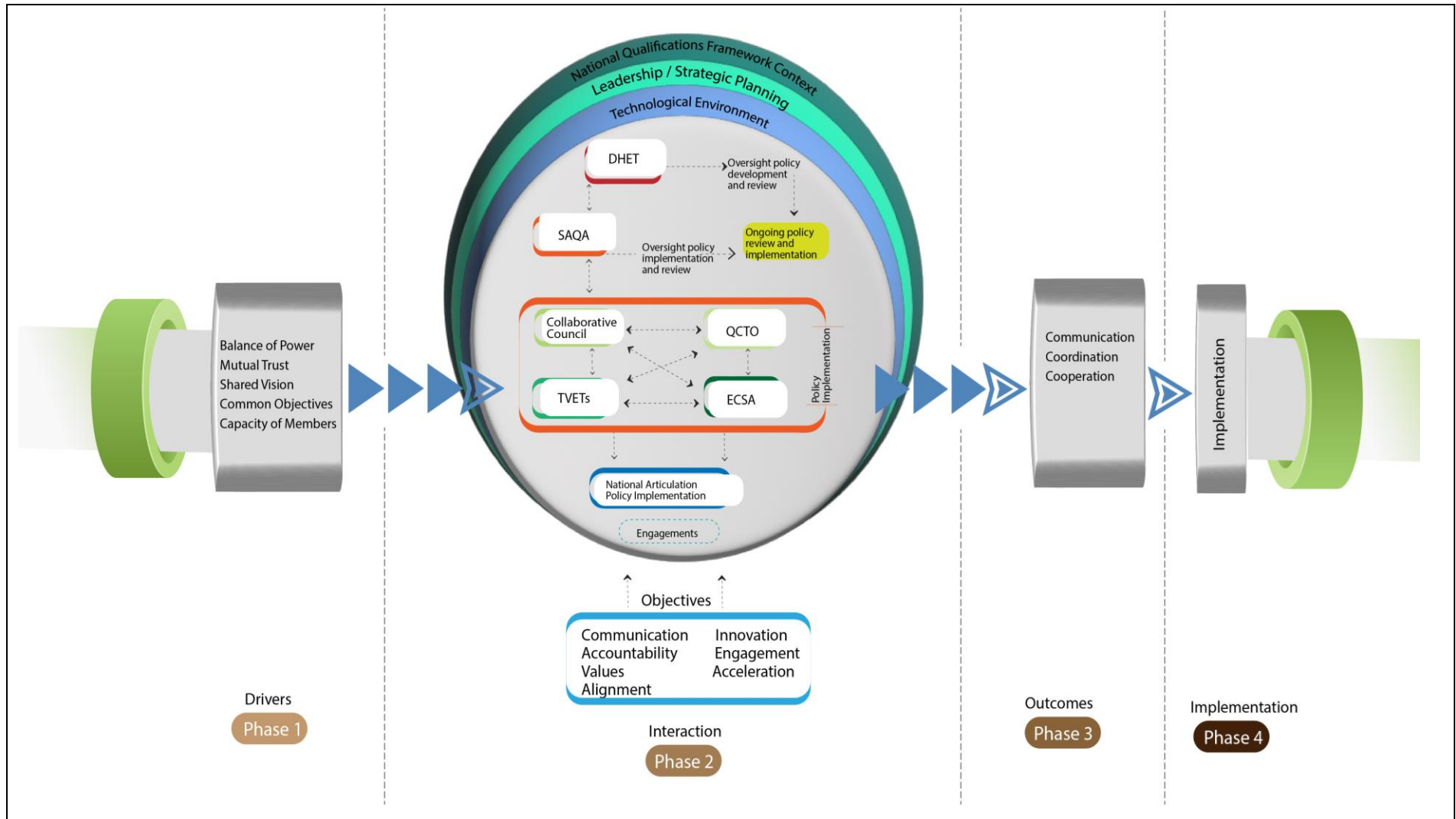


Figure 7.2: Proposed Collaborative Implementation Framework

Source: Author's own

7.5.1 Phase 1: Collaborative drivers

The foundational elements, which are balance of power, mutual trust, shared vision and understanding, common objectives, capacity of members and technology, are critical elements that must be built into the framework from the beginning. These elements can also be the drivers for successful collaborations. According Rosly *et al.* (2020:5) and Mahlangu *et al.* (2019), these elements are necessary and key to successful collaborations (*cf.* Chapter 3).



Figure 7.3: Key elements of the Collaborative Implementation Framework

Source: Author's own

- **Balance of power**

Within the Collaborative Implementation Framework, stakeholders and their different roles and responsibilities must be evaluated to ensure that there is a balance of power in decision-making and driving the collaboration. When power is balanced, it ensures that the ideas of the different stakeholders are well represented during all engagements. It also assists in building trust as well as a strong relationship that will lead to the success of the collaboration (*cf.* Chapter 3 Section 3.4.1).

- **Mutual trust**

Trust forms the foundation for successful collaboration due to the presence of multiple stakeholders. Mutual trust ensures that the required commitment from all the

stakeholders is established. According to Mahlangu (2019:11), the application of good governance principles that include equality, transparency and fairness are important in building mutual trust in collaboration. Furthermore, it is equally important that knowledge and information are shared, as well as demonstrating competency, executing commitments and good intentions to ensure that mutual trust is built in the Collaborative Implementation Framework (*cf.* Chapter 3 Section 3.3; 3.5.1).

- **A shared understanding of the problem and a common vision**

Based on the results of the study, there is a lack of common understanding of the responsibilities, vision and policy expectations for the different stakeholders of the Articulation Policy. Mahlangu *et al.* (2019:9) also underscore the importance of a shared vision amongst the stakeholders by positing that for collaboration to be successful, clarity of aims and objectives is required before committing to working together. A common perspective and vision of what the collaboration seeks to attain should be shared by all the stakeholders (*cf.* Chapter 3 Section 3.4.1).

Stakeholders should recognise the importance of interaction and their understanding and awareness of each other continuously evolve as the collaborative relationship matures. Stakeholders should manage resources, exchange information, request details as needed, and combine their resources to enhance shared understanding and determine what is necessary to effectively implement the Articulation Policy.

The Articulation Policy empowers TVET graduates to articulate to ECSA. The common vision of this framework is for the various stakeholder organisations to participate within the responsibilities set out in this framework and ensure the articulation of TVET graduates to ECSA. The framework provides a platform through which the challenges inhibiting the implementation of articulation by each of the key stakeholders are identified and discussed for resolution. Negotiation of the difficulties and concerns impacting the effective implementation of the Articulation Policy by each of the key stakeholders should form part of the agenda of the Operational Committee. Initially, there might be different perspectives, but negotiation allows everyone to have clarity as well as express their concerns. There should be connections and clarity on roles that must be sought by the different stakeholders including understanding the benefit of the organisation in the bigger collaborative

project. Concerns or challenges that are brought to the attention of the Operational Committee and cannot be fully resolved by the Operational Committee should be referred to the Collaborative Council for resolution.

- **Capacity of members**

For collaboration to operate optimally, the members' capacity is important. The best-suited strategies to address complex problems lie with the people who can come up with innovation and ideas. Process skills as well as reasoning, negotiation including listening are important competencies needed by collaborating members to effectively represent their different stakeholder organisations and make meaningful contributions. Each of the stakeholders should avail suitably qualified and experienced staff to the Operational Committee as well as the Collaborative Council. The Chairpersons of the Operational Committee and the Collaborative Council should facilitate the acquisition of skills and capacity from the stakeholder organisations. As argued by Mahlangu *et al.* (2019:9), some of the skills will be acquired through experience (*cf.* Chapter 3, Section 3.4.4).

- **Common objectives**

The basis and driver for a successful relationship is the presence of a common vision and a common goal. If organisations are to work together, there is a need for multiple organisations to reach the same goal. According to Mahlangu *et al.* (2019:8), to establish successful collaboration, there must be recognition of a need for interdependencies between and amongst organisations. Participants and organisations must recognise that there are interdependencies when moving towards the common vision or goal (*cf.* Chapter 3 Section 3.3).

Edwards (2007) further articulates that relational agency involves the ability of one's actions and thoughts to be aligned to those of others. Relational agency theory, therefore, concurs with the research carried out by Hakkarainen and his colleagues cited in Edwards (2007:4) on "reciprocity and mutual strengthening of expertise and competence for the enhancement of the collective competence of the communities".

- **Technology**

The interdependence and inferdependence of the different parties should be supported by e-collaboration. The right tools enabling effective and efficient decision-making, need to be chosen. Knowledge and information sharing enabled by affordable and relevant tools, should be seamless. e-Collaboration, using technology, promotes understanding and sharing of knowledge with different parties who are in locations that are geographically dispersed (Varty *et al.* 2017). e-Collaboration is, therefore, necessary to allow these different views to be shared without limiting people to their geographical locations. The different stakeholders in the implementation of the Articulation Policy are geographically dispersed and collaboration will benefit from the adoption of e-collaboration technology. The TVET colleges are spread across South Africa and will benefit from the use of technology to share resources, and exchange views and insights across space and time (*cf.* Chapter 2, Section 2.13; Chapter 3, Sections 3.9.2, 3.9.3; Chapter 4, Section 4.4.2.2).

The Collaborative Council should consider the use of appropriate technology to promote e-collaboration amongst the various stakeholders. The technology platform should promote the following pillars to the implementation of the Articulation Policy.



Figure 7.4: Technological Pillars

Source: Author's own

Co-production: The co-production of qualifications must take place amongst the different role players. The research findings indicate that one of the factors limiting effective articulation is concerns expressed by ECSA on the level and delivery of the TVET qualifications. The framework provides a platform for the co-production of the TVET engineering qualifications by all key stakeholders to ensure that quality concerns are addressed at the qualification design level. Based on the feedback from the market and consumers of engineering services as gathered by the professional bodies, the TVET colleges develop qualifications that respond to market needs. The QCTO, professional bodies, as well as SAQA, will review the TVET colleges' qualifications and provide feedback through the e-collaboration technology platform.

Decision making: The various stakeholders should have access to information relating to the implementation of the Articulation Policy to facilitate ease of decision-making.

Approval: Approval of the TVET college qualifications and key Collaborative Council decisions are approved by the Collaborative Council through the technology platform.

Reporting: Reporting on the Articulation Policy implementation progress must take place. The Collaborative Council should define the metrics and KPIs that are used to track and monitor the implementation of the Articulation Policy.

The presence of these key elements will lead to “collaborative advantage” as suggested by Huxham (1996:14) in Section 3.9.4: “Collaborative advantage will be achieved when something unusually creative is produced – perhaps an objective is met that no organisation could have produced on its own and when each organisation, through the collaboration, is able to achieve its own objectives better than it could alone”. The above-discussed key elements are key to the success of the Collaborative Implementation Framework and once in place, will lead to collaborative interaction.

7.5.2 Phase 2: Collaborative Interaction

Collaborative interaction relates to teams from SAQA, ECSA, and TVET colleges developing a relationship built on trust in order to share knowledge and common objectives through a technology platform. According to Akinsola and Munepapa (2017:4), collaboration is essential in the public sector to assist in meeting the aspirations of stakeholders, comprising citizens and several parts of communities in the country. The realisation of articulation of TVET graduates to professional bodies such as ECSA, requires the presence of the above elements which form the bedrock for effective collaboration. Leadership and strategic planning are fundamental elements that bind collaborations (*cf.* Chapter 3 Section 3.4.2).

Strategic planning provides concrete and defined steps on how the objectives of the collaboration should be achieved. It is therefore key that the leadership in a collaborative environment has the appropriate technology that drives the collaboration.

- **Strategic Planning**

Strategic plans are designed by top management and the focus is on the entire organisation. A strategic plan assists in guiding and monitoring the progress as well as the outcomes evaluation (Mahlangu *et al.* 2019:9). According to Smit *et al.* (2016:131), strategic plans ensure the alignment of the organisation as a whole amid ongoing changes in the external environment. There should be concrete and defined steps on how the objectives of the collaboration should be achieved. The plan has to specify activities and objectives, outcome measures, an indication of how financing will be done for the plan, timelines and costs. A plan will also assist in guiding the monitoring of the progress as well as the outcomes evaluation (Mahlangu *et al.* 2019:9) (*cf.* Chapter 3 Section 3.4.2). A strategic plan will assist in guiding the monitoring of the progress as well as the outcomes evaluation (Mahlangu *et al.* 2019:9).

Empirical evidence indicates that even though there are policy-defined responsibilities for the implementation of the Articulation Policy for each of the stakeholders, these imperatives have not been elevated to the strategic levels of some of the stakeholders. Implementation of the Articulation Policy remains an operational issue without sufficient airtime at the board level, hence impeding implementation. The framework recommends that conversations pertaining to the implementation of the Articulation Policy be elevated to the board level through its inclusion in the respective strategies of the key stakeholder organisations. This improves the monitoring and evaluation of the implementation of the policy.

- **Leadership**

Mahlangu *et al.* (2019:9) posit that leadership is a critical enabler in the policy implementation process. Facilitative leadership creates an enabling environment for collaboration that is effective. The leadership should drive the agenda for collaboration.

Leadership is key. It is the glue that puts everything together. The complexities can be overcome when there is strong leadership. Mahlangu *et al.* (2019:9) posit that

leadership is an important enabler in the implementation process. Facilitative leadership creates an enabling environment for effective collaboration. According to the CHE (2016:108), leadership promotes and establishes the direction of institutions and systems as well as the development of strategy, policies and priorities aligned to the rules that would have been established (*cf.* Chapter 3 Section 3.4.3).

The Collaborative Council, as provided by its charter, shall provide strategic leadership for all collaborative efforts of the different stakeholders. Senior leadership such as the Chief Executive Officer or equivalent from the various stakeholder organisations will constitute the Collaborative Council. The Collaborative Council oversees the implementation of the collaborative framework and ensures that articulation takes place. The Chief Executive Officers (CEOs) of the stakeholder organisations or their nominees shall constitute the Collaborative Council. The leadership position should be taken by a person who is credible and has the power to influence and convene other stakeholders' decisions in terms of the programmes to be prioritised (Mahlangu *et al.* 2019:9). The Chairmanship of the Collaborative Council will be rotated on an annual basis. The leadership of collaboration must be linked to an organisation for continuity and not to an individual (*cf.* Chapter 3 Section 3.4.2; Chapter 5, Section 5.6).

If collaboration is to be effective, it is important that for each of the key stakeholders, the responsibilities and roles towards policy implementation be elevated to the stakeholder's strategy.

- **Key stakeholders**

Freeman (1984:46) defines a stakeholder as “any group or individual who can affect or is affected by the achievement of the organisation objectives”. Stakeholder identification can begin from this definition and zoom into the stakeholders using the theory of stakeholder salience, which identifies the stakeholders. The theory of stakeholder salience goes beyond stakeholder identification. Consideration is given to the inherent complex dynamics that exist in each relationship. These dynamics are not explained with the stakeholder theory. The theory of stakeholder salience “explains to whom and to what managers actually pay attention”. Reddy and Govender (2014:172) explain that distinguishing between policy role stakeholders

and players is important before identifying policy role makers. Stakeholders in policy can be identified as having a direct or indirect influence during policymaking. Stakeholder salience theory identifies stakeholders by having some of the following characteristics:

- The authority that the stakeholder has in influencing the organisation;
- The stakeholder's legitimacy regarding the relationship with the organisation; and
- The pressing nature of the claims made by the stakeholders on the organisation (Mitchell *et al.* 1997:854).

The most important stakeholders in the implementation of the Articulation Policy are the DHET, SAQA, TVET colleges, QCTO and professional bodies. The relationship amongst these key stakeholders is characterised by interdependency and mutual benefit. The independent actions of the DHET, SAQA, TVET colleges, QCTO and professional bodies have a bearing on the outcomes of the Articulation Policy. It is therefore critical that the key stakeholders realise the significance of collaborating and sharing in the common vision of making articulation from TVET colleges to professional bodies a reality. The different responsibilities and roles of the stakeholders are presented in Figure 7.5 and discussed thereafter.

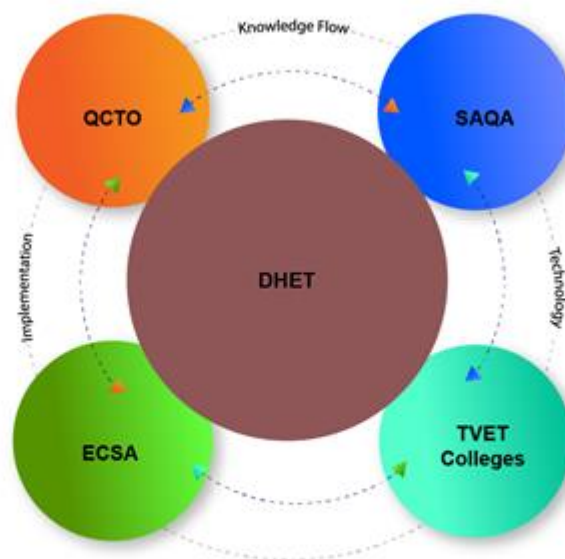


Figure 7.5: Key stakeholders' collaborative implementation model

Source: Author's own

- **Department of Higher Education and Training (DHET)**

According to Section 18 of the Articulation Policy, DHET's role is to ensure the overall implementation of the Articulation Policy in the PSET system. Furthermore, the DHET must ensure that there is a policy framework and guidelines that guide articulation across the PSET system. The DHET further clarifies and simplifies the roles that must be played by the different entities in an evolving PSET system. The DHET also commissions research into emerging praxis and theory relating to the development and implementation of articulation across the training and education system. The DHET develops guidelines aimed at improving the implementation of articulation. It is also responsible for working with other governmental departments such as the Departments of Labour and Basic Education in eradicating outdated legislation and policies relating to or impacting articulation. The DHET must also ensure that there is parity of esteem for all qualifications when it comes to employment opportunities. Therefore, the DHET must lobby the Department of Labour to take into consideration trade certificates when setting standards within the engineering profession (DHET 2017a:7-8).

- **South African Qualifications Authority (SAQA)**

According to the Articulation Policy (DHET 2017:8), SAQA's role is in ensuring that there is the implementation of the articulation by the QCs. The general oversight in the implementation of this framework is the responsibility of SAQA and this includes the overall secretariat roles relating to the various governance and management structures set up in this framework.

- **Quality Council for Trades and Occupations (QCTO)**

According to the Articulation Policy (DHET 2017a:9), the QCTO's role is to work collaboratively with SAQA and ensure that all the submitted qualifications have clear articulation routes. The QCTO must also work with education and training providers in developing and implementing progressive CAT, access and articulation policies. It must also monitor, report and evaluate the implementation of articulation across the training and education system. The QCTO must also ensure that it identifies and eliminates dead-end qualifications and work with the DHET in ensuring the development of learning and occupational pathways. The QCTO should also work with accredited education and training providers and ensure that they have fair and credible articulation policies in line with the Articulation Policy.

Empirical evidence suggests that QCTO does not always work closely with professional bodies or with the relevant people within the TVET colleges which has created gaps in the identification of the relevant skills and labour market needs to be included in qualifications. This has resulted in the development of qualifications that are not in sync with the labour market being offered by education and training providers, including TVET colleges. The QCTO must ensure that learning programmes taught at TVET colleges must have simulated practice and theory and then articulate into a workplace-based component, as indicated in the Draft Articulation Policy (DHET 2016:25).

- **Engineering Council of South Africa (ECSA)**

Although professional bodies are active role players in the NQF, the policy does not make specific mention of the role that they should play in this space regarding articulation. Empirical evidence shows that the omission of professional bodies

leaves a huge gap in ensuring the holistic implementation of the policy. The Articulation Policy (DHET, 2017a:12) observes that because of the mismatch of the labour market needs, the skills in the country and the programmes, people most likely remain unemployed. Since professional bodies are at the nexus of the labour market and education institutions, it will be onerous to ensure that the Articulation Policy is explicit in defining the role that professional bodies play to address the identified gap by the inclusion of professional bodies.

As SAQA's recognised statutory professional body recognised on the NQF, ECSA is required to comply with the Articulation Policy and *Policy and Criteria for Recognising a professional body and registering a professional designation for the purposes of the NQF (as amended, 2023)* as set out by SAQA. This includes removing barriers and allowing the articulation of TVET graduates to the professional body. The current study's findings point out that ECSA had concerns relating to the quality and level of TVET engineering qualifications which prevented articulation from taking place. The involvement of ECSA in the development and modification of the TVET qualification assists in addressing some of these challenges. To this end, the Collaborative Implementation Framework proposes the following roles to enhance the participation of ECSA in the development of TVET qualifications.

ECSA shall be responsible for setting the standards for the enrolment of TVET students and contributing to the TVET colleges' curriculum to enhance the quality and esteem of the qualifications. The professional body shall also be charged with the responsibility of identifying competence gaps between the graduates and what is required by the engineering labour market. ECSA shall partner with the other stakeholders in the development of the standards required for TVET qualifications specifically focusing on the review of the proposed qualifications and changes to qualifications. ECSA shall align its internal policies to ensure that there are articulating pathways for both new and updated engineering qualifications.

- **TVET Colleges**

The findings of the study indicated that TVET colleges design their engineering qualifications in isolation without feedback from some of the key stakeholders in the implementation of the policy, specifically ECSA. The study also confirmed the public

perception relating to poor quality graduates being produced from TVET colleges and this has significantly impacted the implementation of the Articulation Policy. The framework suggests additional roles to the TVET colleges, such as developing qualifications in consultation with all key stakeholders and the delivery of the curriculum which responds to the professional needs of the labour market.

TVET colleges should review existing qualifications and develop new engineering qualifications in consultation with ECSA, the QCTO and SAQA. The qualifications should be shared on the electronic collaboration platform for comments and inputs from ECSA, the QCTO and SAQA before finalisation and approval by the Collaborative Council. TVET colleges should also respond to qualifications change or refresh requests from ECSA, the QCTO and SAQA or any other key stakeholder.

Empirical findings indicated that the TVET graduates lack essential information on articulation to ECSA. TVET colleges should thus create awareness of the articulation pathways available to their students after completion of qualifications and support students through career guidance, as highlighted in Chapter 2. The active marketing of TVET qualifications and graduates in the labour market will improve the esteem of TVET engineering qualifications. Furthermore, TVET colleges shall negotiate and enter into a Memoranda of Understanding (MOU) with employers and professional bodies to facilitate the mobility of the TVET graduates. As articulated by SAQA (2020:32) and highlighted in Chapter 2, section 2.11.2, articulation can be improved by establishing, committing to and implementing formal articulation agreements such as a Memorandum of Understanding (MoU) and/or a Memorandum of Agreement (MoA).

Secondary stakeholders to the implementation of the Articulation Policy should create an interdependence network. Chapter 3, Section 3.15 explains that the interaction of influence and dependency creates interdependency, which can be one-directional or bi-directional. The parties enjoy dependence and influence. Stakeholders may not be dependent upon each other, but their independent actions may influence the common outcome (Rupprecht *et al.* 2017:94). Though these stakeholders are not dependent upon each other, their independent influence impacts the outcomes of the Articulation Policy.

Workplaces, government departments such as the Department of Labour and politicians are some of the secondary stakeholders. The Department of Labour is responsible for creating an environment with fair employment opportunities that allow everyone to access and progress in workplaces, notwithstanding their educational background. Government departments indirectly contribute to the Articulation Policy when they implement fair labour practices and desist from discriminating against some education and training providers' qualifications and politicians dictate policy direction. Therefore, the improvement and implementation of the Articulation Policy would be successful when politicians seriously lobby for all stakeholders to implement it.

Through stakeholder collaboration, impact awareness and shared knowledge should promote the implementation of the Articulation Policy. For collaboration to be successful, it requires interdependency and interdependency relationships. For collaboration to be effective, stakeholders should closely work together in a mutually beneficial relationship that is interdependent amongst stakeholders. To ensure that all key stakeholders are identified and their legitimate interests are taken into account by the Collaborative Council, the identification of key stakeholders should be refreshed periodically.

In the Collaborative Implementation Framework, there are key role players and secondary stakeholders, as highlighted above. It is also important to illustrate how these stakeholders co-exist during the implementation of the Articulation Policy. The collaborative model depicts the relationships that will be in existence in this Collaborative Implementation Framework.

The Collaborative Implementation Framework also allows the use of e-collaborative tools and ICT to enable better decision-making. The use of e-collaboration enables decision-makers to receive and share information to enrich their insights and support decision-making (*cf.* Chapter 3 Section 3.14.2). The interconnectedness that exists amongst the key stakeholders should be considered in the Collaborative Implementation Framework. Bringing together several participants in the PSET sector provides the opportunity for coordination and communication that assists

policy implementers in continuously checking the alignment of objectives, goals and outcomes.

As indicated earlier, various role players in the collaborative workflow have different responsibilities and bring about a variety of expertise. These key stakeholders are the DHET, SAQA, ECSA and TVET colleges. During the implementation of the Articulation Policy, stakeholders need to communicate when sharing information and ideas and during decision-making. Pérez Vega *et al.* (2021:8) state that a “successful collaborative process involves a philosophy of emphatic interactions that acknowledge the diverse languages, perspectives, skillsets, backgrounds, and expertise of each domain”. Collaboration involves interaction amongst the different stakeholders and to ensure effective interaction.

This phase of the Collaborative Implementation Framework allows participants to respond at any decision point during the process of implementation of the Articulation Policy. This reaction from policy implementers determines if implementation takes place or whether it should be returned to the agenda or any other stage of the model. This depends on the point where that conflict took place (Brynard 2007:36). The diagram (Figure 7.6) provides the iterative process that could serve as a guide during the implementation of the Articulation Policy.

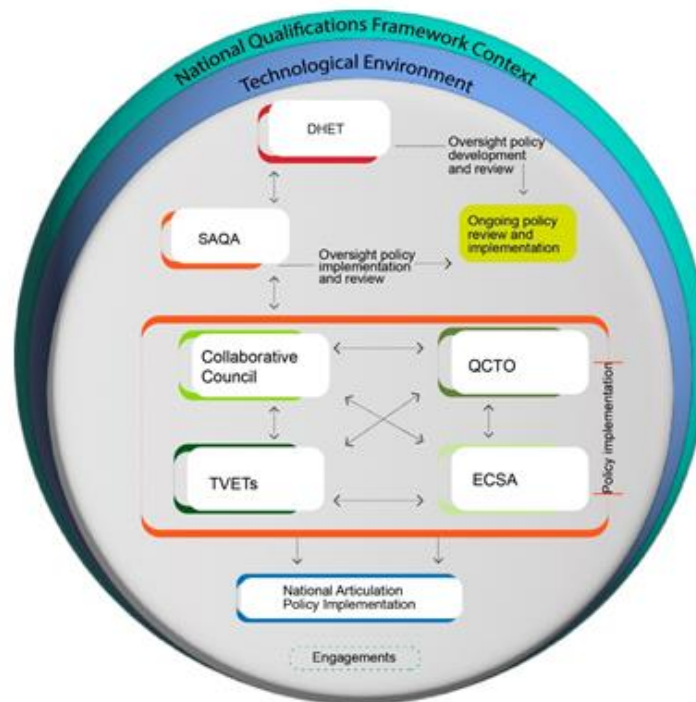


Figure 7.6: Interactive model for key stakeholders

Source: Author's own

In the diagram above, the DHET is responsible for responding to the challenges associated with the articulation of TVET graduates into the world of work and professional bodies through policy formulation. This is currently characterised by the Articulation Policy. The key role players in the implementation of this policy namely: SAQA, Quality Councils, professional bodies and TVET colleges, consider the policy and its implementation providing feedback on any perceived implementation challenges to the DHET. The comprehensive and consolidated feedback is submitted to the Collaborative Council for consideration. The Collaborative Council is responsible for communicating the implementation challenges and potential recommendations to the DHET for consideration in policy updates. The National Treasury, through the DHET, avails the financial resources to support the implementation of the Articulation Policy and the different role players are responsible for ensuring that managerial capacity is in place. At any point in this phase, the different role players have open access to the Collaborative Council and the DHET to raise concerns about the implementation of the Articulation Policy.

7.5.3 Phase 3: Collaborative outcomes

Effective collaboration will foster good communication, coordination and cooperation. In Chapter 3, Morley and Cashell (2017:212) explain that communication enhances other determinants of collaboration such as trust and respect. Communication among members is another critical requirement that supports collaboration. It synchronises approaches that guarantee that the agreed goal is achieved (Rupprecht *et al.* 2017:94) and thus coordination and cooperation of operations with the strategically selected role players is key (Marqui *et al.* 2013:199). Through cooperation, coordination and effective communication, the stakeholders can effectively implement the Articulation Policy.

- **Communication**

The exchange and flow of information between and among stakeholders is important as it conveys stakeholder attitudes and values. The interaction with others demonstrates the essence of teamwork and the direction in which communication flows. Effective communication is critical in building a mutual understanding (Wilczenski *et al.* 2001). Mahlangu *et al.* (2019:10) point out that there must be dialogue, transparent dialogue and assertive discussion as these are “critical communicative practices for meaningful participation”.

The findings of the thesis have also indicated that communication amongst the key stakeholders has been limited especially between the TVET colleges and ECSA. The content of the communication could also be improved to focus on critical issues concerning the implementation of the Articulation Policy. This framework establishes consistent and focused communication amongst the key stakeholders in the implementation of the policy. The communication will also focus on key metrics to the execution of the policy such as the count of students who articulated, and challenges inhibiting the articulation of TVET graduates among others (*cf.* Chapter 3 Section 3.5.1; Chapter 5 Section 5.6).

- **Coordination**

Teams must work together to achieve common goals. Strategic partners must coordinate to guarantee the realisation of collaborative aims. Coordination is at a

higher level than cooperation. It involves a movement of important information continuously with the utilisation of information technology (Farouk *et al.* 2020:3). Coordination is important as it harmonises the efforts of different organisations. It becomes even more crucial when it includes organisations at various levels as it prevents redundant efforts and the ineffective utilisation of resources (Mahlangu *et al.* 2019:10) (*cf.* Chapter 3, Section 3.3, Section 3.8; Chapter 5 Section 5.6).

- **Cooperation**

Cooperation is key in this Collaborative Implementation Framework. If stakeholders do not work together, collaboration might not be successful. The importance of collaboration must be understood by all stakeholders so that they cooperate with each other. All role players must buy into the ideas that will be proposed. It is therefore important that all stakeholders are given equal opportunities to present their ideas and the ideas must be considered to ensure that everyone in the collaboration feels valued. According to Farouk *et al.* (2020:3), to meet the needs of clients at minimum costs, there is a need for close cooperation from autonomous organisations which are involved in the collaboration. When organisations cooperate, they exchange information and develop long-term relationships necessary for collaboration (*cf.* Chapter 3, Section 3.3; Chapter 5, Section 5.6).

7.5.4 Phase 4: Implementation

The implementation phase encapsulates monitoring and evaluation which are explored in detail in the following sections. When the Collaborative Implementation Framework is implemented, monitoring and evaluation is key. Monitoring encompasses the gathering, analysis and providing data reports on outputs, inputs, impacts, outcomes, activities and external influences, all aimed at enhancing policy implementation (The Presidency, 2007:1) (*cf.* Chapter 7, Section 7.5.4). Rabie and Cloete (2018:273) explain that policy evaluation is encapsulated in the question “what difference will or does/did the policy, programme or project make?” (*cf.* Chapter 2, Section 2.8.4).

- **Monitoring and Evaluation (M&E)**

Monitoring encompasses collection, analysis and reporting of data on outputs, inputs, outcomes, impacts and activities, together with external influences, in ways of supporting effective management (The Presidency 2007:1). Monitoring targets to offer other stakeholders, managers and those who make decisions with consistent implementation updates on results and development relating to the implementation of the Articulation Policy. Monitoring of results provides an early warning system for any problems to ensure timely remediation, which entails the evaluation of actual performance against expected performance. Empirical findings of this study have also indicated the lack of consolidated monitoring and evaluation of the performance of the key role players towards the implementation of the Articulation Policy. Most stakeholders do not even have Key Performance Indicators (KPIs) that relate to the implementation of the Articulation Policy; hence this is not monitored.

The importance of implementation evaluation is cited as an important stage during the public process (*cf.* Chapter 2, Section 2.8.4). Implementation evaluations take place at the inputs, activities, outputs and outcomes levels. It also evaluates what is happening and why it is happening (DPME 2011:10). The framework recommends periodic monitoring and evaluation of performance towards implementation of the policy. Evaluation as a periodic and time-bound activity is meant to offer useful and credible information to respond to questions to assist in the making of decisions by policymakers, managers and staff (The Presidency, 2007:2). Evaluations may be utilised to assess efficiency, relevance, effectiveness, sustainability and impact. The evaluation may also be utilised for extracting lessons that are crosscutting from operational unit experiences thereby shaping any need for modifying strategic results frameworks.

Evaluation is time-bound and should be carried out on a quarterly and annual basis. The comparison of current performance to baseline targets enhances the implementation of the policy through the identification of performance gaps and the adoption of appropriate remedial actions to ensure the achievement of performance targets. The monitoring and evaluation of the implementation of the Articulation Policy provides a window of opportunity for the governance committees, providing

oversight to monitor the optimal and productive use of public resources towards the attainment of articulation (Ile 2014).

The Operational Committee is responsible for identifying the different responsibilities of each key stakeholder towards the implementation of the policy and establishing Specific, Measurable, Achievable, Relevant and Time-Bound (SMART) KPIs for each stakeholder. Each key stakeholder organisation is responsible for generating management information and reports tracking the KPIs assigned to it under this framework or through its legal mandate. On a quarterly and annual basis or any other frequency as determined by the Operational Committee, the key stakeholder organisations shall submit their performance information reports for discussion during the Operational Committee meetings. The reports are submitted to the Collaborative Operational Committee to check, challenge and review by the members of the Operational Committee. The consolidated report showing the KPIs and achievements of all key stakeholder organisations is submitted to the Collaborative Council for review. It is the Collaborative Council's responsibility to guarantee that appropriate remedial action is adopted where significant performance gaps are identified.

To effectively implement the Articulation Policy, certain strategies to monitor and evaluate will be deployed, as indicated in subsequent sections.

- **Quality improvement strategy**

Quality management is central to monitoring and evaluation. Quality management should be seen as integral to monitoring processes. There should be quality checks throughout the monitoring process that includes developing and implementing monitoring plans that contribute to the Articulation Policy's effective implementation. Tools namely, peer reviews, reports and action plans should be utilised to support the achievement of quality (Ile 2014:194). The quality improvement strategy is adopted during the implementation of the Articulation Policy to enhance quality in the processes and results.

- **Inclusive and participatory M&E approaches**

The quality of any monitoring and evaluation can be improved if it becomes participatory (Ile 2014:195). All stakeholders will perform reviews of the information shared through the Operational Committee meetings to enhance the quality of information. Feedback relating to reports quality shared through the Operational Committees meetings should be shared during the meetings for purposes of recording and effective tracking of action plans. The reviews performed at the Operational Committee meetings do not replace the responsibility of each key stakeholder to ensure that its internal quality management tools are utilised.

- **Developing a learning culture and insights sharing**

Monitoring and evaluation thrive in an organisational culture that supports information sharing as well as learning (Ile 2014:196). Organisations and teams become effective where the culture and relations that underlie the partnerships are sound. Leadership and stakeholder organisations must therefore invest in creating the right culture in the Operational Committee meetings, Council meetings and throughout all engagement to ensure that the learning culture is embraced over time. The feedback received during these engagements should not be viewed as punitive but rather as a support activity that will assist with the delivery of results.

When executing M&E, there is an important role evidence plays (Ile 2014:196). Stakeholder organisations should ensure the availability of reliable evidence to support the reported performance. The national articulation implementation progress is tracked on the performance information reports which should be based on valid, complete and accurate supporting evidence.

- **Use of benchmarking strategies**

Benchmarking is important as it assists policy implementers in gaining perspective on how other policies have been implemented. When the best benchmark is selected, it sets a target that is above average for measuring against, and to improve upon in practice (Ile 2014:197). The Operational Committee is responsible for benchmarking and the adjustment of the KPI targets for the key stakeholder organisations.

- **Peer M&E strategies**

M&E of peers by other peers should be carried out to reduce “the risk of policy failure at service delivery points” (Ile 2014:197). The lack of adequate M&E may lead to several policy challenges that may not be picked up and may eventually lead to several challenges for the implementers of the Articulation Policy (Ile 2014:197).

7.6 A FINAL WORD

The Collaborative Implementation Framework was developed from elements derived from literature review in Chapters 2 and 3 as well as the data analysis in Chapter 5. Several elements, which play different roles and occupy different levels within the Collaborative Implementation Framework, are important when collaborating; however, leadership and technology play a pivotal role as enablers of successful collaborations. Key to successful collaborations are good relationships and a network of expertise amongst the stakeholders, whose roles are vital, particularly with regard to how these stakeholders interact within the Collaborative Implementation Framework.

This study aids the practice of public administration in the field of policy implementation. The proposed Collaborative Implementation Framework is scalable and can be adopted to the specific setting and context of the different public policies to be implemented (Ananiadou *et al.* 2019:156). The Collaborative Implementation Framework provides a blueprint to assist policy implementers manoeuvre the complexity of public policy implementation. Additionally, the framework provides public functionaries with a structured approach to coordinating and promoting collaboration amongst the different key stakeholders. It can be applied by practitioners to design formal oversight and governance structures to monitor collaboration and implementation of public policies. The Collaborative Implementation Framework contributes to public administration literature on collaboration and offers an opportunity to inform future theory development.

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APPENDICES

APPENDIX A: INTERVIEW QUESTIONS

OBJECTIVE ONE

1. In your opinion, what is your understanding of articulation?
2. What is your understanding of the Articulation Policy?
3. What is your involvement in Articulation?
4. What is your institution's involvement in articulation?
5. What initiatives does your institution have towards the implementation of the Articulation Policy?
6. In your understanding, what progression pathways are available to engineering graduates from TVET colleges?
7. What articulation pathways are embedded in the engineering qualifications from TVET colleges?

OBJECTIVE TWO

8. In your view, what is the attitude of the industry, professional bodies, and the Engineering Council of South Africa (ECSA) towards the TVET Engineering graduates.
9. In your experience what factors do you consider hinder the articulation of TVET engineering graduates to ECSA?
10. How do you perceive TVET engineering qualifications considering their acceptability by ECSA?
11. In your view, what factors could assist the implementation of the Articulation Policy?

OBJECTIVE THREE

12. In your opinion, is there sufficient collaboration amongst the different stakeholders such as ECSA, TVET colleges and professional bodies to assist the implementation of the Articulation Policy?
13. Are there systems in place to allow for input and feedback from the various key role players towards the development of TVET engineering qualifications?
14. What do you think are the solutions to address those challenges?
15. What is your opinion of soliciting key stakeholder views and feedback when designing TVET Engineering qualifications to ensure successful implementation of the Articulation Policy?

APPENDIX B: PHASE 1 ETHICAL CLEARANCE BY THE UNIVERSITY OF PRETORIA



RESEARCH ETHICS COMMITTEE

Faculty of Economic and Management Sciences

Approval Certificate

12 April 2023

Department: School of Public Management and Administration

Dear Mrs N Mukari

The application for ethical clearance for the research project described below served before this committee on:
2023-04-06

Protocol No:	EMS010/23
Principal researcher:	Mrs N Mukari
Research title:	A collaborative implementation framework of the articulation policy: case of TVET colleges and the Engineering Council South Africa
Student/Staff No:	17236887
Degree:	Doctoral
Supervisor/Promoter:	Prof N Holtzhausen
Department:	School of Public Management and Administration

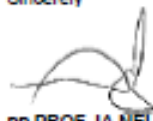
The decision by the committee is reflected below:

Decision:	Approved
Conditions (if applicable):	Phase 1 of project approved.
Period of approval:	2023-04-01 - 2023-12-31

The approval is subject to the researcher abiding by the principles and parameters set out in the application and research proposal in the actual execution of the research. The approval does not imply that the researcher is relieved of any accountability in terms of the Codes of Research Ethics of the University of Pretoria if action is taken beyond the approved proposal. If during the course of the research it becomes apparent that the nature and/or extent of the research deviates significantly from the original proposal, a new application for ethics clearance must be submitted for review.

We wish you success with the project.

Sincerely



pp PROF JA NEL
CHAIR: COMMITTEE FOR RESEARCH ETHICS

Fakulteit Ekonomiese en Bestuurswetenskappe
Lefapha la Disaense tsa Ekonomi le Taolo

APPENDIX C: PHASE 2 CONDITIONAL ETHICAL CLEARANCE BY THE UNIVERSITY OF PRETORIA



Faculty of Economic and Management Sciences

RESEARCH ETHICS COMMITTEE
 Tel: 012 420 4381
 Email: shannie.maharaj@up.ac.za

Approval Certificate - Conditional

23 August 2023

Department: School of Public Management and Administration

Dear Mrs N Mukari

The application for ethical clearance for the research project described below served before this committee on: 2023-08-18

Protocol No:	EMS170/23
Principal researcher:	Mrs N Mukari
Research title:	A collaborative implementation framework of the Articulation Policy: case of TVET colleges and the Engineering Council South Africa
Student/Staff No:	17236887
Degree:	Doctoral
Supervisor/Promoter:	Prof N Holtzhausen
Department:	School of Public Management and Administration

The decision by the committee is reflected below:

Decision:	Conditionally Approved
Conditions (if applicable):	Please clarify the collecting of certain biographical information (i.e. race, gender) in this specific study. If not important to reach research objectives, rather do not request these biographical information. If the sample should be representative of population or diverse in order to answer the research questions or test hypothesis, then include a motivation for their inclusion.
Period of approval:	2023-09-01 - 2023-12-31

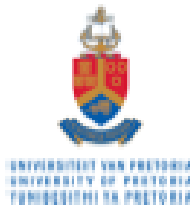
Sincerely



PROF JA NEL
 CHAIR: COMMITTEE FOR RESEARCH ETHICS

Fakulteit Ekonomiese en Bestuurswetenskappe
 Lefapha la Disaense tsa Ekonomi le Taolo

APPENDIX D: FINAL ETHICAL CLEARANCE APPROVAL BY THE UNIVERSITY OF PRETORIA



Faculty of Economic and Management Sciences

RESEARCH ETHICS COMMITTEE

Tel: 012 420 4381

Email: shannie.maharaj@up.ac.za

Approval Certificate

6 September 2023

Department: School of Public Management and Administration

Dear Mrs N Mukari

The application for ethical clearance for the research project described below served before this committee on: 2023-08-18

Protocol No:	EMS170/23
Principal researcher:	Mrs N Mukari
Research title:	A collaborative Implementation framework of the Articulation Policy: case of TVET colleges and the Engineering Council South Africa
Student/Staff No:	17236887
Degree:	Doctoral
Supervisor/Promoter:	Prof N Holtzhausen
Department:	School of Public Management and Administration

The decision by the committee is reflected below:

Decision:	Approved
Period of approval:	2023-09-01 - 2023-12-31

The approval is subject to the researcher abiding by the principles and parameters set out in the application and research proposal in the actual execution of the research. The approval does not imply that the researcher is relieved of any accountability in terms of the Codes of Research Ethics of the University of Pretoria if action is taken beyond the approved proposal. If during the course of the research it becomes apparent that the nature and/or extent of the research deviates significantly from the original proposal, a new application for ethics clearance must be submitted for review.

We wish you success with the project.

Sincerely



PROF JA NEL
CHAIR: COMMITTEE FOR RESEARCH ETHICS

Fakulteit Ekonomiese en Bestuurswetenskappe
 Lefapha la Disaense tsa Ekonomi le Taolo

APPENDIX E: APPROVAL LETTER BY THE ENGINEERING COUNCIL SOUTH AFRICA

ENGINEERING COUNCIL OF SOUTH AFRICA



30 May 2023

Ms N Mukari
South African Qualifications Authority
1067 Arcadia Street
Hatfield
Pretoria
0002

By email: nmukari@sqa.co.za

Dear Mrs Mukari

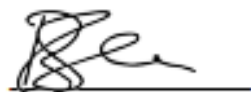
REQUEST TO CONDUCT INTERVIEWS AT THE ENGINEERING COUNCIL OF SOUTH AFRICA (ECSA) FOR THE RESEARCH TITLED: A COLLABORATIVE IMPLEMENTATION FRAMEWORK OF THE ARTICULATION POLICY: CASE OF TVET COLLEGES AND THE ENGINEERING COUNCIL OF SOUTH AFRICA

I acknowledge receipt of your request to conduct interviews at ECSA for your research titled: *A collaborative implementation framework of the Articulation Policy: case of TVET colleges and the Engineering Council of South Africa.*

THE ENGINEERING COUNCIL OF SOUTH AFRICA (ECSA) has evaluated your request and it is my pleasure to inform you that your request to conduct interviews for the above-mentioned research topic has been granted.

Your research topic is of great interest to ECSA. It will therefore be appreciated if you could share your research findings with ECSA upon completion of your research.

Yours sincerely



Dr Bridget Ssamula
Chief Executive Office

www.ecsa.org.za

ENGINEERING COUNCIL OF SOUTH AFRICA
1st Floor Woorview Corner 2 Ernst Oppenheimer Ave Bruma
Private Bag 1691 Bruma Johannesburg South Africa 2004
Tel: +27 11 607 9600 | Fax: +27 11 623 9295 | Email: engineer@ecsa.org.za

APPENDIX F: APPROVAL LETTER BY THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY



Postnet Suite 248
Private Bag X 06
Waterkloof, 0145
SAQA House
1067 Arcadia Street
Hatfield, 0083

☎ (+27 12) 431 5000
🌐 www.saqa.org.za



Ms N Mukari
South African Qualifications Authority
1067 Arcadia Street
Hatfield
Pretoria
0002

By email: nmukari@saqa.co.za

Dear Mrs Mukari

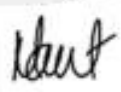
REQUEST TO CONDUCT INTERVIEWS AT THE SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA) FOR THE RESEARCH TITLED: A COLLABORATIVE IMPLEMENTATION FRAMEWORK OF THE ARTICULATION POLICY: CASE OF TVET COLLEGES AND THE ENGINEERING COUNCIL OF SOUTH AFRICA

I acknowledge receipt of your request to conduct interviews at SAQA for your research titled: *A collaborative implementation framework of the Articulation Policy: case of TVET colleges and the Engineering Council of South Africa.*

The South African Qualifications Authority (SAQA) has evaluated your request and it is my pleasure to inform you that your request to conduct interviews for the above-mentioned research topic has been granted.

Your research topic is of great interest to SAQA. It will therefore be appreciated if you could share your research findings with SAQA upon completion of your research.

Sincerely



MS NADIA STARR
CHIEF EXECUTIVE OFFICER
DATE: 2023-05-17

Board Chairpersons: Professor Pulewa Lohene.
Board Members: Dr James Keavy, Ms Anne Kathleen Oelshoeb, Mr. Ashley Benjamin, Mr Bonville McLaren Gertle, Ms Jo-Anne Christine Agulhas Dr Unde Meyer, Dr Mafu Rakomela, Mr Mark Mamele Mafaa, Dr Thabo Shadrack Mashongore, Ms Trudi van Wyk, Mr Vlijsen Naidoo & Dr Whitfield Green.



APPENDIX G: APPROVAL LETTER BY THE DEPARTMENT OF HIGHER EDUCATION AND TRAINING ON BEHALF OF TVET COLLEGES



**higher education
& training**
Department:
Higher Education and Training
REPUBLIC OF SOUTH AFRICA

Private Bag X174, PRETORIA, 0001, 123 Francis Baard Street PRETORIA, 0002, South Africa
Tel: (012) 312 5911, Fax: (012) 321 6770
Private Bag X9192, CAPE TOWN, 8000, 103 Plein Street, CAPE TOWN, 8001, South Africa
Tel: (021) 469 5175, Fax: (021) 461 4761

Enquiries: Mrs S Makalima; Tel: (012) 312-6297; e-mail: Makalima.S@dhet.gov.za

Mrs N Mukari
1067 Arcadia Street
Hatfield
Pretoria
0002

By e-mail: mukarinyaradzai@gmail.com

Dear Mrs N Mukari

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN TECHNICAL AND VOCATIONAL EDUCATION AND TRAINING COLLEGES: A COLLABORATIVE IMPLEMENTATION FRAMEWORK OF THE ARTICULATION POLICY: CASE OF TVET COLLEGES AND THE ENGINEERING COUNCIL SOUTH AFRICA

I acknowledge receipt of your request for permission to conduct research in Technical and Vocational Education and Training (TVET) Colleges regarding the research titled: *"A collaborative implementation framework of the Articulation Policy: Case of TVET Colleges and the Engineering Council South Africa"*.

The Department of Higher Education and Training (the Department) has evaluated your request and it is my pleasure to inform you that your request for permission to conduct the above research has been granted.

As part of your research, it is noted that you have proposed to collect data through interviews with ten College Principals, ten Campus Heads and ten Heads of Departments.

You are advised to obtain further permission from the participants before commencing with your study. You are also requested to attach the following documents when communicating with participants:

1. Copy of this letter from the Department;
2. Copy of the "completed application form" to conduct research; and
3. Ethics Clearance Certificate from the University of Pretoria.

Higher Education and Training • Hoth Oudersya en Opleiding • Inzindvo Laphakama Nkomoosha • Ifundo Eplakamako Nibandilo
Imfundo Eplakamako Nkomoosha • Imfundo ePlakamileyo noQosho • Oyoondro ya le Fashile na Vakitari • Pflanzo ya Nkha na Vhangudai
Thuto ya Godimo le Tshilo • Thuto e Phakameng le Thupelo • Thuto e Kgotlatshe le Katso

APPENDIX H: INFORMED CONSENT LETTER



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Economic and Management Sciences

Combined Letter of Introduction and Informed Consent

Department of Public Management and Administration

A collaborative implementation framework of the Articulation Policy: case of TVET colleges and the Engineering Council South Africa

Research conducted by:

Ms N Mukari

17236887

0729123447

Dear Participant

You are invited to participate in an academic research study conducted by Nyaradzai Mukari, a PhD student from the Department of Public Management and Administration at the University of Pretoria.

The purpose of the study is to understand the challenges faced by technical and vocational education and training (TVET) colleges and professional bodies with specific reference to the Engineering Council South Africa (ECSA) in implementing the Articulation Policy.

Please note the following:

- This is an anonymous study and your personal information will not appear on any transcript. The responses you give will be treated as strictly confidential as you cannot be identified in person based on the answers you give.
- Your participation in this study is very important to us. You may, however, choose not to participate and you may also stop participating at any time without any negative consequences.
- I understand that all data collected for this study will be stored on a safe and secure platform as governed by the University of Pretoria's Research Data Management Policy.
- During the interview please answer the questions as completely and honestly as possible. The interview should not take more than 45 minutes of your time.
- The results of the study will be used for academic purposes only and may be published in an academic journal. We will provide you with a summary of our findings on request.
- Please contact my study leader, Prof N Holtzhausen, natasja.holtzhausen@up.ac.za if you have any questions or comments regarding the study.

In research of this nature the study leader may wish to contact respondents to verify the authenticity of data gathered by the researcher. It is understood that any personal contact details that you may

provide will be used only for this purpose, and will not compromise your anonymity or the confidentiality of your participation.

Please sign the form to indicate that:

- You have read and understand the information provided above.
- You give your consent to participate in the study on a voluntary basis.

Participant's signature

Date