The Evolution of an Interorganisational Network in Higher Education: the Case of a Provincial Health Authority and Health Sciences Faculties in South Africa

Fish, Therese

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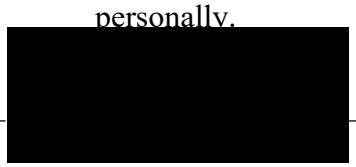
Declaration of any previous submission of the work

The material presented here for examination for the award of a higher degree by research has not been incorporated into a submission for another degree.

Declaration of authorship

I am the author of this thesis, and the work described therein was carried out by myself personally.



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Acronyms

BLA	Bilateral Agreement
MLA	Multilateral Agreement
RSA	Republic of South Africa
SA	South Africa
JAGC	Joint Agreement Governance Committee
HPC	Health Platform Committee
JSAC	Joint Standing Advisory Committee
JMT	Joint Management Teams

Preface

The Dream Deferred (with apologies to Thabo Mbeki)

I was born as a mixed-race child in a time in South Africa when the system of Apartheid had been in existence for 14 years. My father raised us (I had lost my mother just shy of my 6th birthday), emphasising the importance of education. A brilliant brain, he was 18 years old when the system of apartheid was legislated in 1948. He never had the opportunity to participate in a university education.

In my application to participate in this DBA program I wrote: 'I did my final year of schooling during the political turmoil of 1980. Despite school boycotts and the humiliating permit system of the University of Cape Town, I was selected to study medicine. Only 18 students of colour (10% of the class) were admitted to the first-year medical class. The degree was conferred in absentia in 1986. Because of the alienating experiences we had to endure at university, I and many others purposefully stayed away from receiving our degrees from an institution that had the capacity to do more.

I started working as a doctor in 1987 in deprived areas of South Africa. It soon dawned upon me that I had a different role to fulfil which went beyond individual patient care and I moved into municipal health services. After 12 years of public service, I decided to pursue my MBA studies with the halcyon idea to help improve the effectiveness, efficiency and governance of public sector institutions. I completed my MBA (cum laude) and received the award: "Best research project by an MBA student in the field of economics'. This led to an 'expansion'* post at the Stellenbosch University Business School. After 5 years, I was invited to apply for a Vice-Dean position at the Faculty of Medicine and Health Sciences (FMHS), a position I currently hold (in 2021)'.

The position straddles the health and higher education sectors for human capital development of health professions. I have come a full circle - trained as a doctor, working as one, managing health services and now educating the next generation of health professionals.

I am one of the senior women from the designated groups in the university. There is a dearth of women at professorial level and an even greater shortage of women of colour. Currently I do

* These were posts which historically white universities used to change the demography of academic staff.

not have a doctoral qualification largely due to the impediments borne by persons of my class, designated population group and gender. By completing my DBA, I intend to consolidate my experiences and skills with a doctoral qualification and in addition gain a greater national and global perspective of higher education and work towards developing innovative models to integrate training of professionals in the higher education sector in SA.

In my interview in 2005 for my position, my vision for the position was to spend most of my time in the community engagement component of the position and that the stakeholder engagement to create the enabling space for clinical teaching and training and research would be a minor aspect. I would be proven wrong as the latter become a key focus for me, consuming vast amounts of time and effort. A significant component of my portfolio was the process to facilitate a revised agreement with the Health Authority.

The idea for this thesis was borne out of the struggle in South Africa (which abounds with sound policies) to translate these into workable solutions. One such area is the strategic collaboration between Higher Education and Health to deliver a system of partnership for the improvement of the health of the people of South Africa. More than ten years into my position, this dream had not come to fruition. It is indeed a dream deferred that our internationally positioned Higher Education Institutions and Health System in South Africa have made limited progress in what is a critical partnership in South Africa. The COVID-19 pandemic reminds us of the need for there to be concerted efforts to ensure the human resources for health for our country and beyond, which hinges on amongst others, strong networks.

January 2021

Abstract

This study investigated the evolution of an interorganisational network between a Provincial Health Department and the four universities located in a province in South Africa. The five actors within this network negotiated and signed a multiparty agreement in 2012, which following a history of decades of negotiations, was intended to establish governance structures to regulate their relationship and to formulate fundamental principles that would form the basis of the four revised dyadic agreements between each of the universities and the health authority. There has been slow progress towards the operationalisation of the network and the finalisation of the dyadic agreements.

This research study was conceptualised within the context of academic health complexes. These complex organisations have a tripartite mission of delivering high quality research, health professions education and clinical care. In different national and international settings, various organisational entities have been established to govern the interdependence between the health and higher education entities. This research conceptualised such an organisational entity as an interorganisational network.

A conceptual framework drawn from the process framework for interorganisational relationship development, the theory of networks and governance network theory was used to frame the study. An interpretative case study using a qualitative methodology was used to explore the evolution of the network. This approach enabled a socially rich, in-depth understanding of a complex interorganisational phenomenon with the exploration of both context and process. In keeping with the characteristics of case study research, data were collected in different ways and used documentary review and semi-structured interviews.

Thematic analysis was done to examine the text data to identify patterns and key concepts within the data. The tool used to organise this was thematic networks. Thematic networks are web-like illustrations which facilitate a three-level staging process constituting of six steps to systematise and present the qualitative analysis.

Analysis revealed four thematic networks. The four Global Themes represented by the networks were concerned with the following areas: Network Evolution, Network Development, Network Management and Organisational Capabilities. Each Global Theme contained lower order

Organisational Themes and these in turn were comprised of Basic Themes. The four Global Themes were synthesised around an overarching theme of ‘networks as processes in flux’.

The findings show that the evolution of an interorganisational network between a health authority and regional universities is a complex and dynamic process. The network is influenced by exogenous and internal factors. These complexities included the legislative and policy disjuncture, a painful historical context and power asymmetry. The interdependence of the member organisations required a formalised structure to govern the relationships. A facilitative intervention developed twelve foundational principles which formed the basis for a transformative journey of collaboration. A number of shifts occurred which reflected the transformational interactions within the network. These were underpinned by the commitment of the actors to a journey of trust, strengthening of partnerships and the embedding of values within the network. Three key processes were critical in the evolution – the need for a change management and interorganisational learning process at a network level, a skilled team to drive the negotiations and careful consideration of the context specifically the historical context.

The conceptual framework used to frame the research was adapted to incorporate the components of context (specifically historical context), negotiations and change management. The revised framework could guide other networks on their journeys.

Word Count: 548

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A doctoral thesis is a team effort. I am grateful to the many people who supported me on this journey, particularly in the last 10 months as the unprecedented crises of the COVID-19 pandemic impacted the world:

My family (near and far) who kept my motivation high and supported me in ways to many to mention including my *furkids* who ensured a strict walking regime.

The Multilateral task-team and other network colleagues - your continued commitment to ensure that the future of the healthcare is embedded in competent, confident and caring health professionals. I am particularly grateful to Eben, Dimitri and Reno.

My supervisors (Christos and Dan) and Robin before – our long distance relationships were invaluable during the pandemic. Your constant reminder of the scholarly reason for this thesis guided my often wondering thoughts.

My colleagues in our management team who graciously fulfilled my duties and gave me space when I most needed it.

UTOPIA (united through our past in Africa) – 50 odd years of loving and prayerful friendships. Your ongoing commitment to seeing the new man in the new society continues to inspire.

My mentor and other mother, Pat. Our 52 years of friendship ended in December 2020. I promised you on your deathbed that I would complete this thesis in honour of you. Smile down on me from your heavenly home.

The people of South Africa, my participation in the DBA programme and this doctoral research study was made possible through public funds awarded by the DoHET to Nelson Mandela University.

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1 Introduction and Context

...partnerships are not so much about institutions and methods, as about attitudes and culture. It is a question of building mutual trust, of recognising differences and finding common grounds… (McQuaid, 2010).

1.1 Introduction

Interorganisational networks are structures which bring together diverse actors who have a common interest to address complex problems where the capabilities of any one on their own are unable to address the problem at hand (Nowell and Kenis, 2019, Provan and Kenis, 2008). As the complexity of the interactions between different organisations increases, adapted interorganisational governance structures, revised organisational capabilities and changed working processes are required (Klijn, 2008, Popp et al., 2014). The context in which these interactions develop, influences the path that such networks take as they form, are structured and reach maturity, and eventually transform and remain sustainable or demise (Popp et al., 2014, Berthod et al., 2017, Nowell and Kenis, 2019).

The network research agenda is diverse and extensive and continues to increase as scholars grapple with the multifaceted components of interorganisational networks to explain this phenomenon (Berthod and Segato, 2019, Popp et al., 2014) in order for such research to support and inform practice (Lemaire et al., 2019). Despite the wealth of reviews on interorganisational relationships and networks, Berthod & Segato (2019) highlight the need for research and practice to better understand the genesis and evolution of networks over time (Hu et al., 2016), the influence of the role played by managers as well as other endogenous drivers (Dagnino et al., 2016, Harini and Thomas, 2020) within the networks in the processes of their development, and the exogenous effects on the network (Nowell et al., 2019).

The higher education and health sectors have a long history of interorganisational collaboration/relationships. In 1981, Dainton (1981) described the interface between health systems/care entities and universities as a place where the future in health care could be nurtured in the present. Four decades later this interorganisational dream of the health and higher education sectors working together has not been realised (Detmer

et al., 2005). Traditionally, the education and training of future healthcare professionals occurs at universities. Many countries require health professionals to register with an accreditation body that issues graduates with a licence/certificate to practice within a specific scope of practice for such professional. These accreditation bodies, in partnership with universities, provide guidelines for the healthcare facilities where such training occurs. This could be in either private or public healthcare facilities (WHO, 2013) .

The body of knowledge exploring the interorganisational relationship between universities and health systems, frequently described as academic health science centres (AHSC), originated from North America and has proliferated in many other countries (Ovseiko et al., 2010, French et al., 2014, Weiner et al., 2001) where different nomenclature such as university medical centres and academic health complexes, describe the networks between the universities and the health system. Such entities frequently comprise '*a school which trains medical doctors, and / or allied health sciences professionals, nursing professionals, and one of more owned or affiliated teaching hospitals and health systems, and pursues research in the health professions*' (Ovseiko et al., 2014).

The defining characteristic of these organisational entities is the tripartite mission of quality health services, the education and training of healthcare professionals and the delivery of quality health research (French et al., 2014). The structure and composition of such entities are influenced by a variety of factors, both exogenous and endogenous (French et al., 2014, Ovseiko et al., 2010, Detmer et al., 2005). The scholarly work in this environment is largely descriptive case studies and normative with little social science theory underpinning the scholarship (French et al., 2014). There is limited literature on the social and organisational processes within such organisational entities or their genesis and evolution over time.

1.2 Statement of the Problem

The interface between higher education and health is complex as the environment in which both sectors function, are increasingly under exogenous and internal pressures.

In South Africa, the Health Act (no 63 of 1977) (Republic of South Africa, 1977) makes provision for Academic Health Complexes (AHC) which consist of health facilities at all levels of healthcare (primary, secondary and tertiary) and a

university/universities working together to provide quality health services, to educate and train healthcare professionals and to conduct quality health research (the tripartite mission). The two ministries (Higher Education and Health) have competing priorities as each ministry focuses on their respective mandates while contributing to this tripartite mandate (South African Committee of Medical Deans, 2018). The health authority's primary mandate is patient care and to provide the enabling environment for education and research (Health Act no 63 of 1977). Research and education, on the other hand, are the primary mandates of an university through its respective faculty. Within the legislative processes in RSA, certain Acts may require specific actions to the undertaken to further regulate aspects of the Act. In the case of the Health Act (no 63 of 1977) and the amended Health Act of 2003 (National Department of Health, 2019), regulations to establish AHCs have not been promulgated. The result is that, the legislative framework in which higher education and health should function to deliver on the tripartite mandate, does not exist. Despite the absence of such a framework, South African universities continue to contribute to the global supply of health professionals (Mills et al., 2011, Aluttis et al., 2014) and evidence based research to address the global burden of disease (Senkubuge et al., 2018).

In 2019, at the time of doing this research, there were 23 health sciences faculties in RSA (of which nine have medical programmes training undergraduate and postgraduate medical professionals). In the absence of the regulations to establish AHCs, there is no national framework to guide the establishment of the organisational entities to manage the interface between health and higher education. The different health authorities have varying contractual arrangements with the health sciences faculties, ranging from those with no legal agreements, to signed bilateral memoranda of agreement. The consequences of this are fragmented approaches to the effective delivery of mandates which often leads to tensions such as accountability for resource allocation, funding and human resources. The ability of the country to provide adequate human resources for health is dependent on the necessary framework.

1.3 Purpose Statement

My research study investigated the evolution of an interorganisational network in Higher Education in South Africa.

There is limited scholarly work on the evolution of interorganisational networks in general and specifically in the setting of a low to middle income country. This includes

the social and organisational processes at the interface between the higher education and health sectors.

This research addressed this gap through the application of an interorganisational network framework to consider this context. This is of importance as the actors within this setting have an interdependency in executing their missions of teaching and training of health professionals, research in the health sciences and health service delivery.

1.4 Research Questions

The aim of this research study was to investigate the evolution of an interorganisational network within the higher education sector in South Africa.

The literature review provided an overview of the existing research in the field and identified diverse areas for further inquiry (section 2.5). Linking back to the complex relationship between the health and higher education sectors and the need to understand the evolution of an interorganisational network within this setting, the identified areas for further inquiry assisted in framing the research questions.

Reflecting on the purpose of this professional doctorate, drawing from the context of my experience as part of the leadership in a health sciences faculty within a university, and acknowledging the complex dynamics between the health and higher education sectors including the impact of history on the evolution of the network, the following research questions were formulated:

RQ1: What are the drivers that influence the genesis and the emergence of an interorganisational network over time?

RQ2: How does the operating context of an interorganisational network influence its functioning?

RQ 3: How do actors within an interorganisational network influence the processes within the network?

This study investigated an interorganisational network between the provincial Health Department and the four universities located in that Province (called ‘Province X’ in this thesis) in RSA. The five actors within this network negotiated and signed a

multilateral agreement in 2012, which against a history of decades of various negotiations, intended to establish certain governance structures to regulate their relationship; establish and ensure equitable access by the universities to the health department facilities for training in a manner that is fair and transparent; and to formulate certain fundamental principles that would form the basis of the four revised dyadic agreements. Despite this contractual arrangement, there has been slow progress towards operationalisation of the network.

1.5 Positioning the Study

The study is positioned in the field of interorganisational networks with a focus on the context of an interface between higher education and public health systems. This interface (Wren, 1967)[ii] is complex as the environment in which both these sectors function, are increasingly under exogenous and internal pressures.

Health sciences faculties differ from other faculties within the same university in terms of the execution of the academic mandate. Different organisational structures, funding arrangements, human resources policies and operational practices exist. One of the key reasons for these differences is that such faculties' academic offerings have a statutory requirement to provide a significant (in some programmes, the majority) component of the experiential/clinical training of health professionals in the public health system (that is, external to the university structures) for these graduates to be registrable with the relevant professional statutory councils.

In South Africa (SA), there are two distinctive types of health sciences faculties: those with or without medical programmes; all of which form part of public universities. Relevant legislation in RSA makes provision for Academic Health Complexes (AHC) to provide quality health services, to educate and train healthcare professionals and to conduct quality health research (the so-called tripartite mission). This requires intersectoral collaboration across the higher education and health systems.

The funding streams from the RSA government's Ministries of Health and Higher Education, directly and indirectly affect and support the ability of higher education and health to execute their mandates. The policy frameworks as well as the administrative

[ii] *"the contact point between relatively autonomous organisations which are nevertheless interdependent and interacting as they seek to cooperate to achieve some larger system object"*

processes within higher education and health differ as each entity manages their respective resource bases.

The idea for this thesis was borne out of my area of interest from my current position in a university where one of my responsibilities is the strategic partnership with the health authority. Our country, which abounds with sound policies, struggles to translate these into workable solutions. One such area is the strategic collaboration between Higher Education and Health to deliver a system of partnership for the improvement of the health of the people of RSA. Different pieces of legislation and policy which influence this collaboration, are not aligned resulting in a fragmented approach to ensure appropriate and adequate human resources for health.

1.6 Overview of Methodology and Methods

A qualitative methodology within an interpretivist paradigm was used since I wished to gain insights into the "*context, process and meaning system*" of the social actors within the network (Naidoo, 2019). Interorganisational networks can be considered from two contradictory ontological approaches (Pilbeam, 2008). A positivist approach assumes that the network exists independently of any actor within the network. Alternatively, networks are influenced by the actors within the network and the network influences the actors and therefore a constructivist approach would be more appropriate.

A single case study was selected with a defined setting, context and time period and had the advantage of an in-depth examination of political, social and cultural influences of a particular interorganisational context (Naidoo, 2019). The unit of analysis was an interorganisational network between provincially located universities and the provincial health authority. In order to understand this complex setting I needed to select participants who would be likely to be able to generate rich, dense insights in this area and had the relevant experience in this setting (Curtis et al., 2000, Miles and Huberman, 1994). Purposive sampling was used to select a diversity of participants across the four dyads.

Data was collected through interviews and documentary reviews. Twenty-two individual semi-structured interviews were held. The second source of data were key output documents linked to process within the evolution of the network which were signed off by the highest governance structures within the network.

For qualitative research to be meaningful and yield useful results, a methodical and transparent approach needs to be followed. Within an interpretative paradigm, data collection and analysis can proceed simultaneously and iteratively. Within this study, data analysis commenced immediately after the first interview was completed. This was an important process as it provided me with the opportunity to adjust my interview strategy.

Thematic analysis was done to examine the text data to identify patterns and key concepts within the data. Different methods are used to record, organise, analyse and present qualitative data. The stages of analysis can be broadly spilt into reduction of the text, exploration of the text and integration of the exploration (Elliott, 2018). Coding is a decision making process made in the context of the research (Elliott, 2018). Both inductive and deductive approaches were used. The tool used in this study to organise the thematic analysis of the qualitative data was thematic networks (Attride-Stirling, 2001). Thematic networks are web-like illustrations which facilitate a three-level staging process constituting of six steps *to systematise and present the qualitative analysis* (Attride-Stirling, 2001).

1.7 The Structure of the Thesis

This chapter provided an orientation to the research. Chapter 2 provides an overview of the literature, explores the theoretical perspectives of interorganisational networks, identifies areas for further research and develops a conceptual framework for the research. In Chapter 3, the setting is provided for research into the dynamics of an interorganisational relationship between Health and Higher Education. Chapter 4 considers the ontology and epistemological approaches and describes the methodology used in this study with Chapter 5 presenting the results. Chapter 6 provides a synthesis of the findings and Chapter 7 concludes by highlighting the implications, limitation of the study and opportunities for further research.

2 Literature review

2.1 Introduction

The purpose of this chapter is to conceptualise interorganisational networks as a mechanism to manage complex problems. The literature review considers various areas of network scholarship with the intention to draw together theory and praxis as it considers the development/evolution of an interorganisational network with an emphasis on public universities and public health authorities.

This chapter is divided into four parts. The first part (section 2.2 and 2.3) considers the rationale for networks and the evidence for interorganisational networks as complex structures. The second part (section 2.4) contemplates interorganisational networks in the setting of Higher Education and Health. This is followed by considerations on network research (section 2.5) and identifies areas within the literature which require further inquiry. The final part draws together various theories and concepts (section 2.6) to propose a conceptual framework for the study (section 2.7).

Networks are structures which bring together diverse actors who have a common interest to address complex problems where the capabilities of any one on their own are unable to address the problem at hand (Nowell and Kenis, 2019, Provan and Kenis, 2008). These networks form in the not-for-profit space, in the public and corporate environment, as well as at the interface between these various entities. Network scholarship draws from diverse disciplinary approaches and while this heterogeneity is a strength, both researchers and practitioners need to consider the complexity of networks while simultaneously attempting to simplify, compare and generalise their findings (Lemaire et al., 2019) in order for research to inform practice. There is no single theory of interorganisational networks and scholars intertwine multiple theoretical approaches to explain the phenomenon of interorganisational networks and they suggest that more work needs to be done to build theories (Hu et al., 2016, Zaheer et al., 2010). The phenomenon itself is the subject of debate as the use of terminology and labels that are not clearly defined, limits the meta-synthesis of outcomes (Lemaire et al., 2019).

For the purposes of this study, an interorganisational network is conceptualised as a long(er)-term relationship between three or more organisations, as a purpose-orientated network (Nowell and Kenis, 2019, Provan et al., 2007) that is pursuing a

common purpose while also remaining independent and autonomous, (thus retaining separate interests) although commitment to the goal may vary amongst the participants. I will revert to this definition latter.

In an increasingly networked world, interorganisational networks are a commonly utilised phenomenon of organisational life, although what scholars (or practitioners) refer to may differ (Provan et al., 2007). Even the term network is not consistently used. Many have studied these inter-organisational arrangements under the rubric of partnerships, strategic alliances, inter-organisational relationships, coalitions, cooperative arrangements, or collaborative agreements.

The multidisciplinary approach to interorganisational relationships brings with it a richness with different approaches used in exploring network scholarship. Interorganisational relations theory, the process framework of relationship development, resource dependency theory, network theory and the theory of networks, network governance theory, the theory of organisational partnerships, and process theory are amongst some of the numerous theoretical frameworks/lenses which explore the relationships across organisations, how organisations evolve and work together as well as amongst others, the trust and power dynamics (Cropper et al., 2008, Koppenjan and Klijn, 2015, Ebers, 2015, Borgatti and Halgin, 2011, Cropper et al., 2011, Carboni et al., 2019, McQuaid, 2010, Van De Ven, 1995, Ring and Van de Ven, 2019).

The higher education and health sectors have a long history of collaboration/relationships. The body of knowledge exploring these relationships, frequently described as academic health science centres (AHSC), originated from the Americas and has proliferated in many other countries (Ovseiko et al., 2010, French et al., 2014, Weiner et al., 2001, Edelman et al., 2019) where different nomenclature such as university medical centres, university clinical enterprises and academic health complexes, to name a few, describe these organisational entities. Such entities frequently comprise ‘a school which trains medical doctors, and / or allied health sciences professionals, nursing professionals, and one or more owned or affiliated teaching hospitals and health systems, and pursues research in the health professions’ (Ovseiko et al., 2014). The scholarly work in this environment is largely descriptive, case studies and normative with little social science theory underpinning the scholarship (French et al., 2014). These entities fit the concept of an interorganisational

network as they are sets of actors (individuals, groups and organisations) with recurring ties (resource, friendship, or informational) that come together around a common concern or purpose (Oliver and Ebers, 1998, Provan et al., 2007).

2.2 Why Networks?

Scholars in the field of multi-organisational development (Ainsworth and E. Feyerherm, 2016, Lawler III et al., 2011, Provan and Kenis, 2008, Popp et al., 2014, Worley and Mirvis, 2013), have argued that the traditional organisational development tools/frameworks focussing on single organisations require new and innovative methods to explore the increasing complexity of relationships between organisations and uncertainty in respect of resources (Klein and Pereira, 2016, Nowell and Kenis, 2019). This is particularly of relevance in situations where such organisations wish to attain common goals, (while creating value), that are too large in scope for any single organisation working alone (Ainsworth and E. Feyerherm, 2016, Van Den Oord et al., 2017, Koppenjan and Klijn, 2015, Provan et al., 2007, Popp et al., 2014) and are interdependent in realising successful outcomes (Klijn and Koppenjan, 2012, Raab, 2015). One of the ways to manage these complexities is to foster relationships with other organisations to deliver on their mandate/perform their activities. In the case of uncertainty in the flow of resources, organisations are driven to find other organisations with these resources which will mitigate such uncertainty.

This growing complexity of interactions between different organisations requires adapted interorganisational governance structures, revised organisational capabilities as well as changed working processes, within both the public and private sectors as well as the interface between the two (Klijn, 2008). Interorganisational networks are such structures which bring together diverse actors who have a common interest to address complex problems but the capabilities of any one on their own are unable to address the problem at hand (Nowell and Kenis, 2019, Popp et al., 2014, Provan and Lemaire, 2012). The context in which such networks develop, influences the path that such networks take as they emerge, are structured, mature and remain sustainable and eventually transform or demise (Popp et al., 2014, Berthod et al., 2017, Nowell and Kenis, 2019). This context includes both the external environment in which such organisations function as well as the nature and characteristics of the organisations themselves (Provan et al., 2011, Harini and Thomas, 2020).

As the complexity of the relationships between organisations increases, so does the extant literature. Two systematic reviews in 2020 on interorganisational network evolution (Harini and Thomas, 2020) and interorganisational governance (Roehrich et al., 2020) yielded over 35 000 papers published over an approximately 40-year period. This further complicates the conceptual frameworks to systemise and generalize findings (Nowell and Kenis, 2019, Lemaire et al., 2019). To position this complexity, Nowell & Kenis (2019) frames the architecture of network complexity (Figure 2-1) *at the intersection of three areas, the operating context and the purpose orientation of the network; the emergent versus the engineered network structures and process, and the ambiguities in theorising across multilevel of analysis'* (p.191*)*.

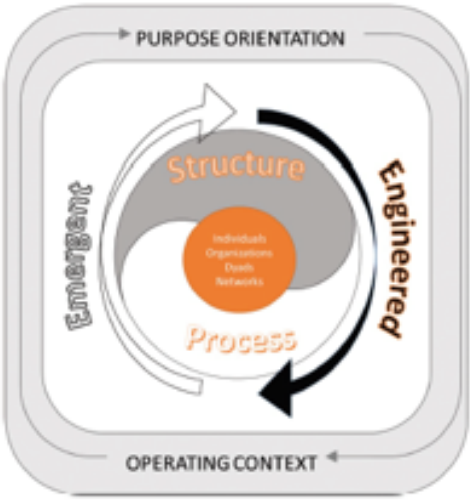

Figure 2-1: The Architecture of Complexity.

Source: Nowell & Kenis, (2019)

Carboni et al (2019) proposes that the boundary object around which networks are organised is its purpose orientation. When individual and organisations conceive of the need to organise around a common problem or opportunity within their operating context, a network will form. The structures, processes and members will be established/adapted as the purpose orientation and operating context evolves. These structures and processes may be engineered/mandated or emergent.

2.3 Networks as Complex Structures

This section explores interorganisational networks as complex multiplex structures (as opposed to single organisations). It will specifically consider what constitutes an

interorganisational network, how it can explain the relations of organisations within a goal-directed network and how this could frame the research question.

> *'Shifting from individual organisational framing to a collaborative perspective means that the interests of both (all) parties and their motivations for such a relationships and the end goals are sought and achieved'* (Worley and Mirvis, 2013).

Part of the complexity in the field of interorganisational relationships/networks for both researchers and interorganisational practitioners is one of nomenclature/labelling (Nowell and Kenis, 2019, Lemaire et al., 2019). There is a multiplicity of terminology/definitions utilised, which is often disparate, to describe the relationship between different organisations striving towards a common goal. This is captured by (Provan et al.) (2007, p. 480), that

> '*…although interorganizational networks are by now a commonly understood phenomenon of organizational life, it is not always clear exactly what organizational scholars [or people in practice] are talking about when they use the term'.*

Popp et al (2014) takes this further with the view that *'while it is essential to settle on a definition of networks for purposes of research and practice, it is neither possible nor necessarily desirable to capture a complex human phenomenon with one definition'.*

The complexity of networks as phenomena, the risk of over-simplification of networks as well as the difficulty of systemisation and generalisation of research findings particularly in the public sector environment, has shifted the thinking of goal-directed networks towards one which encapsulates the purpose-orientation of such networks (Nowell and Kenis, 2019) (section 2.3.2).

2.3.1 Attributes of Interorganisational Relationships and Networks

The literature on the attributes of interorganisational relationships and networks is diverse and confirms the complexity of the field. The key attributes of interorganisational networks are summarised in Table 2-1.

Table 2-1: Attributes of Interorganisational Relationships and Networks

	Descriptor	References (not exhaustive)
Who	Multi-actors 2 or more organisations	(Mountford and Geiger, 2018, Provan et al., 2007)
Why	Common purpose/goal/mutual interest	(Raab, 2015) (Oliver and Ebers, 1998, McQuaid, 2000)
	Solve complex problems	(Van Den Oord et al., 2017)
	Generate collective output	(Raab, 2015)
	Shared resources – finance, knowledge, human capital	(Gulati et al., 2011, Provan and Lemaire, 2012, Pfeffer and Pfeffer, 1981)
What	Goal-directed	(Van Den Oord et al., 2017, Provan et al., 2007)
	Complex human phenomenon	(Popp et al., 2014)
	Social phenomenon	(Kilduff and Brass, 2010, Buch-Hansen, 2014)
	Interdependent	(Raab, 2015, Klijn, 2008)
	Autonomous	(Cropper et al., 2008, Ebers, 2015)
	Independent	(Ebers, 2015)
	Mandated or emergent	(Van Den Oord et al., 2017)
	Formal or informal	(Popp et al., 2014)
	Strategic complexity	(Koppenjan and Klijn, 2015)
	Leverage of each other resources	(Gulati et al., 2011, Provan and Lemaire, 2012) (Pfeffer and Pfeffer, 1981)
	Enduring relations	(Weber and Khademian, 2008)
	Processes in flux	(Berthod and Segato, 2019) (Clegg et al., 2016, Harini and Thomas, 2020)
	Recurring ties – resources, friendships or information	(Mountford and Geiger, 2018, Oliver and Ebers, 1998)
Where	Business management, public administration, political science, sociology, anthropology, health and human services, psychology	(Carpenter et al., 2012, Oliver and Ebers, 1998, Ebers, 2015)
	Non-governmental organisations, non-profit organisations	(Popp et al., 2014, Provan and Kenis, 2008)
	Government	(Koppenjan and Klijn, 2015; Provan and Lemaire, 2012)

This overview of attributes substantiates the fact that networks are complex social phenomena, with recurring ties, which are goal-directed and pursue a common purpose. Berthod & Segato (2019), goes further and argues that networks are numerous processes which are in a constant state of review and which evolve over time (Harini and Thomas, 2020). The dynamic nature of networks is also influenced by actors within networks and partnerships in respect of their behaviour within the network and as they navigate their relationship (Chen, 2008, Saz-Carranza and Ospina, 2011).

2.3.2 Goal-directed Interorganisational Relationships and Networks

Interorganisational relationships and network could be formal (engineered) or informal. Formal networks have some form of deliberate agreement by the actors for its existence. This may be in the form of an agreement/contractual arrangement, a

mandate from government, or an enabling legislation/statutory requirement (Popp et al., 2014, Carboni et al., 2019, Ring and Van de Ven, 1994, Saz-Carranza and Ospina, 2011). This in itself does not mean that the presence of such a requirement is a prerequisite for a network. There has to be collective action, or a common purpose (Popp et al., 2014, Carboni et al., 2019, Nowell and Kenis, 2019, Isett et al., 2011) to drive such an arrangement.

Informal networks tend to be more organically derived and often arise when different actors come together to address a common issue/goal. This could take the form of protests, advocacy, sharing of information, decrease transaction costs or providing services. These networks tend to be based on a trust relationship (Stone, 2018, Van de Ven and Ring, 2006).

Increasingly, the term whole network (Nowell et al., 2019) is used to describe those arrangements that are formally established (Isett et al., 2011) , governed and goal-directed (Provan et al., 2007, Nowell et al., 2019, Saz-Carranza and Ospina, 2011) as opposed to those that develop and occur informally. Carboni et al (2019) argues for a reconceptualisation of goal-redirected network and proposes that goal-directed networks may be better positioned linked to the intention of purposeful networks (as opposed to serendipitous ones). The actors within the networks have a common pursuit for the network which they jointly try and achieve. This re-emphasises their interdependence. At the same time, their autonomy and independence allow for individual organisational goals that drive their own mission, and which may contribute to the purpose of the network.

This assists in defining a working definition for this research as an ‘interorganisational network as long(er) term relationships between and among a public health authority and four public universities as a purpose-orientated network (Nowell and Kenis, 2019, Provan et al., 2007, Carboni et al., 2019) pursuing a common purpose while also remaining independent and autonomous (thus retaining separate interests) although commitment to the goal may vary amongst the participants.

2.3.3 Interorganisational Networks in the Public Sector

The research setting in the public sector environment necessitates consideration beyond the corporate environment. The extant network literature has been dominated by the corporate environment although interorganisational networks as strategies for

public sector management has increased in the last two decades, this in part to address the changing ability of government to deliver on its mandate (Popp et al., 2014, Nowell and Kenis, 2019, Isett et al., 2011). The term network was not widely used in public administration literature prior to the 1980's after which the network concept was increasingly used as a theoretical framework to analyse amongst other, public policy and implementation processes (Klijn, 2008, Berry et al., 2004). Public sector network scholars consider networks from three different perspectives (Isett et al., 2011) Firstly, as an organising concept describing different organisations working together. Secondly as a term that describes methods and methodology that surrounds network (social network analysis) where the focus is on structure and the measurement thereof. And finally networks as an approach or tool to understand how the public sector works (Isett et al., 2011).

Public sector network practitioners have over the years utilised various structures to collaborate with others, develop policy networks and use various governance structures to coordinate their partnership and cooperate with each other, although it was not necessarily named as such . The conceptualisation and research of networks may explain that the increased presence of the public sector in network scholarship may not be real but rather that the outcomes of scholarly work has enabled the knowledge from network practitioners to be framed within the network research frameworks (Popp et al., 2014, Isett et al., 2011). This could suggest that public sector network scholars were starting to '*preach about what is already in practice'* (Isett et al., 2011).

Public sector network scholars draw significantly from the work done in private sector networking but also offer rich experience of the public sector. This under-studied area of public sector network scholarship tends to have a better understanding of whole goal-directed networks (management and governance) compared to the corporate world where dyad/egocentric relationships are more common . Networks were seen as increased flexibility to provide efficient, market driven public services which required increased productivity and were under pressure from the public to show increased accountability (Popp et al., 2014, Isett et al., 2011).

2.3.4 Multi-level Nature of Networks

Multi-organisational development models have been used by practitioners and theorists in various ways as a means to examine and explain the development of such

network relationship, as well as the successes and failures as a system (Worley and Mirvis, 2013, Ainsworth and E. Feyerherm, 2016). A key consideration in interorganisational networks is the recognition of its multi-level nature. The actors within the network can be defined at an individual level, a group level (within the respective organisations), the organisations themselves as well as at the transorganisational/interorganisational level (Ainsworth and E. Feyerherm, 2016, Nowell and Kenis, 2019, Brass et al., 2004).

Networks consists of ties which are all fundamentally dyadic (Borgatti and Foster, 2003). Research at a microlevel, focuses on the individual while the macrolevel research may omit the influence that individual in terms of their social phenomenon has on the organisation (Ring and Van de Ven, 1994, Saz-Carranza and Ospina, 2011, Moliterno and Mahony, 2011). Similarly, the organisation influences the individuals' behaviour within such networks. Increasingly researchers have started to consider the whole network as the unit of analysis (Provan and Lemaire, 2012, Nowell et al., 2019, Isett et al., 2011).

Given the multi-level structure of networks, defining the boundary of a network is important. Network boundary specification is considered differently by various scholars. Borgatti & Halgin (2011) differentiates between groups and networks. The former is circumscribed and has a boundary (members are insiders or outsiders of the group) whereas a network has a boundary which is often determined by the researcher on the basis that it must be linked to the research question. These boundaries could be fuzzy and movable and could be considered differently as the network evolves. Two approaches are suggested in considering the network boundary; a realist view approach relies on the actors' perceptions (self-reports) and is more frequently used in network research at an interpersonal /individual level. The nominalist view is that every research question generates its own network, and therefore uses the phenomenon of interest to define the actor sets/network boundary (Carpenter et al., 2012). Interorganisational network researchers frequently rely on the latter approach (nominalist view) to define and conceptualise the boundary based on the research inquiry.

2.3.5 Determinants of Interorganisational Relationships and Networks

There are a number of fundamental contingencies on which interorganisational relationships are formed as well as the conditions under which these are able to predict

the formation thereof (Oliver, 1990, Popp et al., 2014, Carboni et al., 2019). These determinants may be occur on its own or as multiple contingencies with the conditions such as enforceable mandates/legislative requirements, external threats or constraints, interparticipant compatibility, relationship costs and benefits, environmental uncertainty and risk, and institutional disapproval or indifference influencing how such contingencies are influenced.

- **Necessity** – Linkages between organisations may be formed to meet necessary legislative or statutory/regulatory requirements. Mandated relationships differ from voluntary interactions as rationale and consequences of such relations predict different behaviour (Berthod and Segato, 2019).
- **Asymmetry** – The formation of relationships may enable one organisation to exercise power or control over another, or to access resources held by a more powerful actor (Saz-Carranza and Ospina, 2011, Ran and Qi, 2018). This may be done to avoid the loss of their own autonomy (or control) but seek to gain control over another. Such asymmetrical motives can stimulate the formation of relationships.
- **Reciprocity** – Reciprocity emphasises the motives of collaboration, coordination and cooperation in pursuit of common or shared goals, especially in circumstances of resource scarcity (Oliver, 1990). The actors in the interorganisational relationship recognise that the benefits of linkage outweigh the loss of control.
- **Efficiency** – Organisations may develop relationships with others in an attempt to reduce their own internal costs or to increase the productivity of their assets (Oliver, 1990). Rather than depending upon market-based transactions, which are individual and unique, organisations which have specific assets and recurrent transactions with the same partners may benefit from formalising relationships. Within the public administrative space, this may reflect in reduction of costs such as human resources or infrastructure.
- **Stability/predictability** – Uncertainty over environmental circumstances may lead to the formation of partnerships and networks in order to bring stability and therefore predictability to the environment. Stability helps to ensure a reliable flow of resources to the organisations (Oliver, 1990).
- **Legitimacy** – Establishing links to other organisations may improve the reputation of a focal organisation or demonstrate congruence with the prevailing environmental norms, where pressures to conform are high (Oliver, 1990).

2.3.6 Features of Successful Interorganisational Relationships

The evaluation of the success of interorganisational networks is complex given the diverse contexts in which such networks operate and function. Such evaluations could be done at the network level, organisational and/or individual levels. The evaluation of the different stages of the evolution of networks from formation, development and growth, maturation and death or transformation (Popp et al., 2014) would require different process and outcome indicators as well as milestones to both in order to assess progress (Provan and Lemaire, 2012). The success of networks could be measured against the desired purpose of the network which should include the processes which achieved such outcomes. This focus of process as well as the network outcomes has the potential to assist networks to evaluate and improve their fitness for purpose (Popp et al., 2014).

The factors contributing to successful partnership and interorganisational relations provide possible direction for both process and outcome indicators.

- A **clearly articulated strategy** which includes a shared commitment to the objectives (McQuaid, 2010). Commitment to the management of networks as well as management in the networks are considered as one of the key responsibilities of member of the managers within the network (Popp et al., 2014). This could create tensions as actors come to the table with 'diverging perspectives and priorities, varying levels of trust in the process, and differing tolerance for individual organisational needs in favour of the common goal' (Popp et al., 2014).
- **Leadership** which is strategic and capable of managing the change implicit in different entities working together. Leadership in networks are complex as the traditional organisational structure are not applicable. The leadership skills in their own organisation may not necessarily translate into network leadership. The components of integrative leadership (Silvia and McGuire, 2010) are those behaviours which reflect:
    - Treating all network members as equal
    - Freely sharing information within the network
    - Creating trust
    - Encouraging support from and keeping the network in good standing.
- The **importance of trust** between both individuals as well as organisations. This should include the value that the parties give to each other (section 2.6.2.2).

- A **partnership framework** to guide the implementation and operationalisation of the principles of such a partnership. A formalised agreement tends to signal the accountability and commitment to the arrangement (Casey, 2008). Excessive formalisation however may impede the relationship and cause conflict and mistrust (Ring and Van de Ven, 1994). Attributes which contribute to successful partnerships include power sharing, negotiation and the structure of the relationship (Casey, 2008, Ran and Qi, 2018), the former two being embedded in the structure of the relationship.
- **Relational capability** (Singh and Segatto, 2020) which include the capacity for cooperation (McQuaid, 2010), established networks for communication and the inclusion of organisations with the capacity and resources to engage in interorganisational relationships.
- **Management of the power dynamics** is a critical component in the success of network. Power is a relational concept (with at least two parties involved), and therefore a reality in interorganisational relationships and partnerships especially with different level of status and resources (Provan and Lemaire, 2012), and asymmetrical information. The sources and use of power need to be identified and acknowledged and managed (Purdy, 2012, Ansell and Gash, 2007). The sources are power include formal authority (who owns the process, voices at the negotiating table), resources (which include financial, human capital and knowledge and information) and discursive legitimacy (Purdy, 2012). Power over decision making and whose interests are being represented are critical within the context of interorganisational networks (Berry et al., 2004).

2.4 The Interface of Health and Higher Education as an Interorganisational Network

In 1981, Dainton described the interface between health systems/care entities and universities as a place where the future in health care could be nurtured in the present (Dainton, 1981). Four decades later, this interorganisational dream of the health and higher education sectors working together has not materialised (Detmer et al., 2005). The body of knowledge exploring the interorganisational relationship between universities and health systems, frequently described as academic health science centres (AHSC), originated from North America and has proliferated in many other countries where different nomenclature such as university medical centres, university clinical enterprises/centers and academic health complexes to name a few, describe

these entities (Ovseiko et al., 2010, French et al., 2014, Weiner et al., 2001, Edelman et al., 2019, Slade et al., 2017, Detmer et al., 2005). Such entities usually comprise 'a school which trains medical doctors (undergraduate and medical specialists), and / or allied health sciences professionals, nursing professionals, and one of more owned or affiliated teaching hospitals and health systems, and pursues research in the health professions' (Ovseiko et al., 2014).

Research in the field is dominated (more than 70%) by the response of AHSCs to the exogenous environments in which they operate, the missions of AHSCs and the tensions/conflicts between them (French et al., 2014). The remaining research, reflecting on the organisational and managerial components of such entities, noted that organisational models for such relationships are often complex, context specific and therefore often not comparable (French et al., 2014). There is limited literature on the social and organisational processes within such organisational entities.

2.4.1 The Response of AHSCs to Health System Contexts

The contextual impact on AHSCs vary. The early part of the 21st century saw a renewed interest in AHSC models such as those in the United Kingdom and Australia where a key driver of its establishment was the use of research to drive evidence-based health care (Edelman et al., 2018). This is in contrast to the literature in the latter part of the 20th century particularly from the North Americas which viewed the role of AHSCs from a market perspective (Blumenthal, 2000, French et al., 2014, Slade et al., 2017). This is in part explained by the context of healthcare systems and health service delivery. Market driven healthcare settings typically drive cost containment, efficiency and competition between different AHSCs. This in turn encourages research in the partnership between universities and clinical enterprises in terms of structure, control, and financial risk, the latter specifically in uncertain economic times. In the USA, this has resulted in a number of turnaround strategies which included divestment of university hospitals, mergers and joint ventures to mitigate some of these risks (Collins et al., 2015).

On the other hand, a system that considers health as a public good and pursues universal health coverage does not easily fit into a market driven policy framework for engagement of universities and health systems (Galea, 2016) as the state is more likely to take control of the regulatory framework. Government policy frameworks which determine funding for higher education and health often define the missions such as

the provision of health care and permits research and training (Blumenthal, 2000, Ovseiko et al., 2010). There is however limited representation on the governance and management structures of relevant stakeholders (Ovseiko et al., 2010).

There is a paucity of literature on the interface of higher education and health in low- and middle-income countries. In countries like SA, the health regulatory environment makes provision for the establishment of organisational structures called an academic health complex as part of the pursuit of universal health coverage and includes the specification of the composition of such complexes (Republic of South Africa, 1977). The regulations to establish academic health complexes have not been promulgated. In addition, the legislative and policy framework is not aligned to the policy on higher education (South African Committee of Medical Deans, 2018).

2.4.2 The Impact of Health System Reforms on AHSCs

Health system reform influences the higher education/health system interface. Health systems have shifted from hospicentric health care delivery to an integrated approach across various levels of care, both in health and social services (Frenk et al., 2010). This has resulted in a move away from hospital based AHSCs to network relationships (Ovseiko et al., 2010, Detmer et al., 2005). This impacts on how the health system is designed. The changes in Medicare in the USA saw a shift in ownership of academic/teaching hospitals. Similarly, in educational settings the strategy around decentralised training of health professionals requires training beyond the traditional training hospitals to a wider variety of clinical settings (Frenk et al., 2010, de Villiers et al., 2017, Gaede, 2018). This means that the ownership of universities in AHSC could result in a training platform that is insufficient. Detmer et al (2005) argues that academic health centres make little sense unless they are embedded within the health system which may include the shift away from university hospitals towards networks with stronger links to primary care (Van Zyl, 2004) and non-university hospitals.

2.4.3 Fragmentation at a Legislative and Policy Level

2.4.3.1 Strategic Fragmentation

In a number of settings, the health care and higher education systems are not structurally or fiscally linked (Ovseiko et al., 2014) dispersing the accountability between the parties. The literature highlights the uncertainty amongst experts on the mission of AHSCs and who benefits from them (Edelman et al., 2018, French et al.,

2014). Different agencies and departments have diverse interests and if there is no central overview of an integrated mission, this causes bifurcation of accountability and policy disjuncture. This is particularly of relevance in the case of publicly funded universities and health systems. Even if the parties are committed to the tripartite mandate of research, teaching/training and service delivery, it may not be feasible given the different policy and funding arrangements.

The United Kingdom and Australia, for example, have taken the approach of a competitive application for entities to become AHSCs. In the United Kingdom this is competing for resources whereas in the Australian setting this is not linked to public funds and may not even be linked to a university (Edelman et al., 2019, Blumenthal, 2000). In recent years, the United Kingdom has gone further and developed networks in which AHSCs are embedded in the health system and which assist these disparate entities to drive innovation between universities and health systems (Ovseiko et al., 2014).

2.4.3.2 Structural Fragmentation

Organisational leaders within different sectors prioritise according to their primary roles and responsibilities. Traditionally in universities, the leadership is under pressure to deliver on academic components as opposed to the clinical service delivery aspects. With austerity measures, the tendency is to focus on those components which may be deemed to be the primary mandate (Detmer et al., 2005). Research mandates (Blumenthal, 2000) have driven mergers to access more population groups and to provide more comprehensive training with the formation of larger more powerful clinical institutions. This has resulted in the distraction of leadership to manage these university-clinical enterprises often to the detriment of the full tripartite mandate. This is explained by the concept of strategic complexity which reflects on the fundamentally erratic and unpredictable nature of interactions based on the autonomy and independence of actors who don't necessarily pursue the common interest but place their own mandate first (Koppenjan and Klijn, 2015, Bateman, 2010).

2.4.4 The Interface of Higher Education and Health in South Africa

In RSA, the model of the education and training of health professionals is primarily located in public universities (Volmink, 2018). Universities partner with the various provincial departments of health through the use of public sector infrastructure and the

clinical staff as teachers and trainers. The former typically obtain their funding from government subsidies, student fees and third-stream income, while provincial funding is derived from the national fiscus via the equitable share formula and conditional grants, including a specific grant the Health Professions Training and Development Grant (HPTDG) administered by the National Department of Health (Republic of South Africa, 2020). In 2008, additional funding was introduced as it was recognised that the funding streams were insufficient which impacted negatively on the supply of qualified health professionals and the retention of highly qualified professional staff within the public sector (South African Government, 2017).

Similarly, universities collaborate with provincial health department to do clinical research (Mayosi et al., 2009) which contributes to health care at various levels of the health system resulting in the ability of the health system to deliver quality health care and promote good policy-making. A number of reviews of these partnerships and collaborations (Van Zyl, 2004, Mayosi et al., 2009, Volmink, 2018, South African Government, 2017) highlighted the need for a legislative and policy framework in South Africa to strengthen the interface between academic and clinical entities. The absence of such a framework translates into weakened governance structures, disjointed planning for human resources for health, fragmented and inadequate funding arrangements as well as erratic organisational practices for the tripartite mandate of the delivery of quality health care, research to inform such care and health professions education (Volmink, 2018).

Despite the absence of such a framework, South African universities continue to contribute to the global supply of health professionals (Mills et al., 2011, Aluttis et al., 2014) including innovative practices in health professions education (de Villiers et al., 2017, Gaede, 2018) and to produce evidence based research to address the global burden of disease (Senkubuge et al., 2018, Mayosi et al., 2009, Hedt-Gauthier et al., 2019).

2.4.5 Variation in Organisational Arrangements

The organisational arrangements in AHSCs vary and it is not always clear from the literature whether the university and medical school is one legal entity; whether a medical school includes the health professional education and training of other professionals (nursing, public health and therapists) as part of the integration; how the employment contracts of faculty are managed; the leadership and management model;

public ownership of the complex and the funding streams for health care and training (Collins et al., 2015). This affirms the view that the variability of AHSC limits the comparability in different contexts (French et al., 2014).

In conclusion, while there is extensive research of the role of university hospitals and university faculties as key components of university clinical enterprises, there is limited research around the evolution of such entities within the broader context of the health system. The literature around academic health systems is largely focused on the AHSC as an organisation and trying to find the perfect structure. This pursuit re-emphasises the limits of institutional thinking with too much engagement of university hospitals and universities (especially medical schools) to the exclusion of other health facilities in the health system and other non-medical academic institutions (Detmer et al., 2005).

It is the relationship between healthcare systems and health sciences faculties that are key to the delivery of the tripartite mandate. At the beginning of the 21st century, OECD leadership argued for the development of networks beyond university medical schools and university hospitals; the inclusion of humanities and operations research; and the consideration of the social determinants of health and stronger links to PHC and non-medical schools (Detmer et al., 2005, Gaede, 2018, Van Zyl, 2004).

Health and higher education specifically in the pursuit of good research (Detmer et al., 2005, Edelman et al., 2019), health outcomes and education of future health professional are interdependent. The literature is limited on a relationship that recognises the autonomy of the two entities with a goal directed initiative and a common purpose.

2.5 Researching Networks

Network scholarship draws its theoretical basis and conceptual frameworks from many different disciplines (including but not limited to sociology, political science, economics, economic geography and organisational sciences). In the mid-90s, Salancik (1995), reflecting on three decades of research in the field, posed the question as to whether, despite an increasing focus on the field of interorganisational relationships/network scholarship, network research had a solid theoretical basis. More than three decades later, researchers continue to focus on network research through different scholarly lenses with a degree of convergence on some components.

Continued fragmentation into silos of research (Ebers, 2015) brings with it the complexity of the generalisability of findings, application into practice, navigating ones way through the jungle of theoretical and knowledge perspectives (Cropper et al., 2008, Nowell and Kenis, 2019, Lemaire et al., 2019), while at the same time recognising that the specialisations occurring in the discipline brings with it the potential for cross-fertilisation (Ebers, 2015, Lemaire et al., 2019), which enriches the continued evolvement of interorganisational relationships as a field of enquiry.

The network research agenda is diverse and focuses on a multitude of areas. These include the antecedents and implications of networks in an organisational context (Kilduff and Brass, 2010), network governance and governance of networks (Koppenjan and Klijn, 2015, Dagnino et al., 2016, Roehrich et al., 2020), networks as social phenomena (Brass et al., 2004, Kilduff and Brass, 2010, Buch-Hansen, 2014), networks as dynamic processes (Berthod and Segato, 2019, Ring and Van de Ven, 1994, Dagnino et al., 2016, Harini and Thomas, 2020), network sustainability (Klein and Pereira, 2016) as well as social network analysis to display the structural properties of network (Moliterno and Mahony, 2011, Monaghan et al., 2017).

Despite the wealth of reviews on interorganisational relationships and networks, Berthod and Segato (2019) highlight the need for research and practice to better understand the genesis and evolution of networks over time (Hu et al., 2016), the influence of the role played by managers as well as other endogenous drivers (Dagnino et al., 2016, Harini and Thomas, 2020) within the networks in the processes of their development, and the exogenous effects on the network (Nowell et al., 2019). Networks are often examined in a cross-sectional and static approach (Dagnino et al., 2016). Increasingly recognition is given to the dynamic nature of networks (Ahuja et al., 2012, Clegg et al., 2016, Harini and Thomas, 2020) and the need to consider the temporal nature of networks.

Within the context of AHSCs, the research gaps as discussed in section 2.4 include the need to consider the social and organisational processes within interorganisational entities between health and higher education (French et al., 2014); the evolution of such entities within the broader context of the health system; the interdependence of the relationship between healthcare systems and health sciences faculties that are key to the delivery of their tripartite mandate as it relates to good research (Detmer et al., 2005, Edelman et al., 2019), health outcomes and education of future health

professional (Frenk et al., 2010) as well as a relationship that recognises the autonomy of the different entities with a goal directed initiative and a common purpose.

Network research is a maturing conceptual field (Carboni et al., 2019) and varies both in terms of conceptualisation and measurement. Two dimensions should be considered when engaging in research on networks in the interface between theory and practice. The one aspect is how best to synthesise the research outcomes in order to inform practice (Lemaire et al., 2019) as well as to identify the other aspect, that is, what are the gaps in the literature that warrant further inquiry. The complexity of networks as a multidimensional phenomenon creates a challenge for researchers and the users thereof as it results in the diffuse development of theory and impedes systematic knowledge development and bridging research-practice (Lemaire et al., 2019, Carboni et al., 2019). To address such challenges, Lemaire et al (2019) proposes that researchers make explicit the concept definition, epistemological assumptions, measurement, level of analysis, underlying time dimension and the operating context of such networks.

As network scholarship draws from such diverse disciplinary approaches, the key issues for future research are also diverse and extensive, depending on the research paradigm and the epistemological approach followed. The consequences of this is that the complexity of the terminology of networks (different labelling and different meanings) may make it impossible /unrealistic to conduct a comprehensive literature overview and to develop empirical research frameworks to make it useful for both researchers and practitioners alike to integrate findings from the diverse field (Lemaire et al., 2019).

In attempting to draw this together and to develop the basis for my research interest in interorganisational networks in the higher education/health interface (using a professional practice lens), I have used the definition of an interorganisational network (defined as a longer-term relationship between three or more organisations), as a purpose-orientated network (Nowell and Kenis, 2019, Provan et al., 2007) that is pursuing a common purpose while also remaining independent and autonomous (thus retaining separate interests) although commitment to the goal may vary amongst the participants. I have taken four of the key components within this definition to tabulate areas for further inquiry (Table 2-2).

Table 2-2: Areas for Further Research in Interorganisational Networks

Interorganisational network component	Key areas linked to the concept	Areas for further inquiry (not exhaustive)
Longer term relationships	Evolution of networks	The need for research and practice to better understand the genesis and evolution networks over time (Hu et al., 2016, Berthod and Segato, 2019, Provan et al., 2011, Harini and Thomas, 2020)
	Operating context	Capture of the context variables/conditions (Kilduff and Brass, 2010) The purpose and context behind the network in order to consider synthesis across different studies (Lemaire et al., 2019) The influence of exogenous factors on the whole network (Nowell et al., 2019) The context of AHSCs within a health system (Detmer et al., 2005)
	Process view of networks	How do participants in networks influence the process of evolution; and how do the competing tensions within networks affect the processes within networks and subsequent outcomes; endogenous drivers of networks (Berthod and Segato, 2019, Thomson and Perry, 2006, Ring and Van de Ven, 1994, Dagnino et al., 2016, Harini and Thomas, 2020)
	Role relationships	The influence of the role played by managers within the networks in the processes of development (Hu et al., 2016) Personal interactions/roles of individuals versus role as a member of an organisation (Ring and Van de Ven, 1994) The focus on how relational dimensions of negotiations affect negotiated outcomes, conflict and ongoing working relationships (Long et al., 2012)
	Governance and management	Decision making as it relates to formalisation of structure and which works best; governance indicators – integration; centralisation; formalisation; the influences of institutional, legal and cultural contexts on the relationship between governance, mechanisms and performance; influence of intentional governance; leadership role and capability (Lemaire et al., 2019, Koppenjan and Klijn, 2015, Dagnino et al., 2016, Harini and Thomas, 2020, Roehrich et al., 2020)
A minimum of three members	The membership size and form	Literature is scanty on how membership and size affect goal achievement/network effectiveness, whether membership is affected by the spectrum of voluntary to coerced rationale, how membership size impacts on outcomes; (Carboni et al., 2019) The embedded set of relationships amongst organisations that make independent decisions about organisational action but create contingencies (both facilitating ad impeding) for the interconnected actors (Carboni et al., 2019)
Common purpose	The reason for a purpose/goal-oriented network existence	The difference between goal and purpose; the absence of goal and purpose beyond being a static variable; how purpose adapts/evolves over time; how goal, purpose is formulated, how goal consensus is reached (Carboni et al., 2019)

Independent/autonomous but interdependent	Interactions within the network Joint effort/coordination	How interdependencies work; how joint effort and interdependencies manifest in a network, types and extend of joint effort and how they affect the network operations, outcomes and effectiveness (Carboni et al., 2019) Tensions within networks and how they manifest and are considered (Lemaire et al., 2019) Social and organisational processes in academic health sciences centres (French et al., 2014) The interdependence of health systems and higher education (Detmer et al., 2005, Edelman et al., 2019)

The table above demonstrates the extensive and diverse areas of further enquiry in the field of interorganisational networks. Reflecting on the purpose of this professional doctorate, drawing from the context of my experience as part of the leadership in a health sciences faculty within a university, and acknowledging the complex dynamics between the health and higher education sectors including the impact of history on the evolution of the network, the following research questions were formulated:

RQ1: What are the drivers that influence the genesis and the emergence of an interorganisational network over time?

RQ2: How does the operating context of an interorganisational network influence its functioning?

RQ3: How do actors within an interorganisational network influence the processes within the network?

2.6 Network Evolution – Towards a Framework

The overall approach in considering a conceptual framework for this research links to network scholarship's roots in many disciplines which enables different perspectives with each one equally legitimate (Lemaire et al., 2019).

Complexity and uncertainty require organisations to rethink their relationships and the capabilities required to create value. One way is to foster relationships with other organisations to deliver on their mandate/perform their activities. Uncertainty in the flow of resources drives organisations to find other organisations with these resources which will mitigate such uncertainty. Networks by their nature are associated with tensions, dualities and paradoxes (Saz-Carranza and Ospina, 2011, Popp et al., 2014).

The need for research and practice to better understand the life cycle of networks (the genesis and evolution of networks) has become more prominent in the literature (Hu et al., 2016, Berthod and Segato, 2019, Provan et al., 2011, Popp et al., 2014, Dagnino et al., 2016, Harini and Thomas, 2020). Networks are often examined in a cross-sectional and static approach (Dagnino et al., 2016). Increasingly recognition is given to the dynamic nature of networks over time (Ahuja et al., 2012, Clegg et al., 2016, Harini and Thomas, 2020) with numerous processes in a constant state of review (Berthod and Segato, 2019).

Context is a key aspect of understanding network evolution (Provan et al., 2011) (section 2.4.1– 2.4.2 and Chapter 3). The evolution of interorganisational network can be viewed from different perspectives both in the evolution of the relationships between the parties as well as the evolution of the structure (Harini and Thomas, 2020). This evolutionary pathway depends on both exogenous context as well as the internal action of the organisations involved (Popp et al., 2014, Harini and Thomas, 2020).

The interaction between network processes and structures are important across the life cycle of interorganisational networks. Balancing the development of network structures and processes from the planning stages, through the formation and maturation is important if a network is to thrive and achieve its goals (Popp et al., 2014, Nowell and Kenis, 2019). This includes the evaluation of the network processes and structures to provide the network with information about the functioning of the network.

2.6.1 Components of a Theoretical Framework

A key component of interorganisational relationships is the connectedness/embeddedness of the actors, whether as individuals or organisations, within a socially constructed network. The determinants of such interorganisational relations forms a foundation from which different theoretical perspectives can be used to frame this study: the process framework of relationship development (Van de Ven and Ring, 2006), the theory of networks (Monaghan et al., 2017, Moliterno and Mahony, 2011, Borgatti and Halgin, 2011) and governance network theory (Klijn and Koppenjan, 2012). These theories, drawn from the literature on inter/transorganisational relations/collaborations, provide perspectives to understand the complex social phenomenon and to consider the evolutionary process of an

interorganisational network from emergence, through structuring and maintenance, with a particular emphasis of the influence of context on its evolution.

2.6.2 The Process Framework for the Development of Interorganisational Relationships

A key aspect in exploring this complex phenomenon are the processes linked to why networks emerge, are structured and either dissolve or continue into perpetuity. The process framework developed by Ring and Van de Ven (1994) and adapted in 2019 (Ring and Van de Ven) argues for an iterative process as central to interorganisational relationships. These relationships go beyond input, structure and output and include the processes by which they unfold over a period of time and are frequently cyclical in nature. These non-linear processes (Figure 2-2) of development and evolution of the relationship include how the relationship is negotiated and executed, those processes which motivate/guide the continuance of the partnership through to maturation or demise (Ring and Van de Ven, 1994) as well as those interactions (both negative and positive) during the negotiation phases (Long et al., 2012).

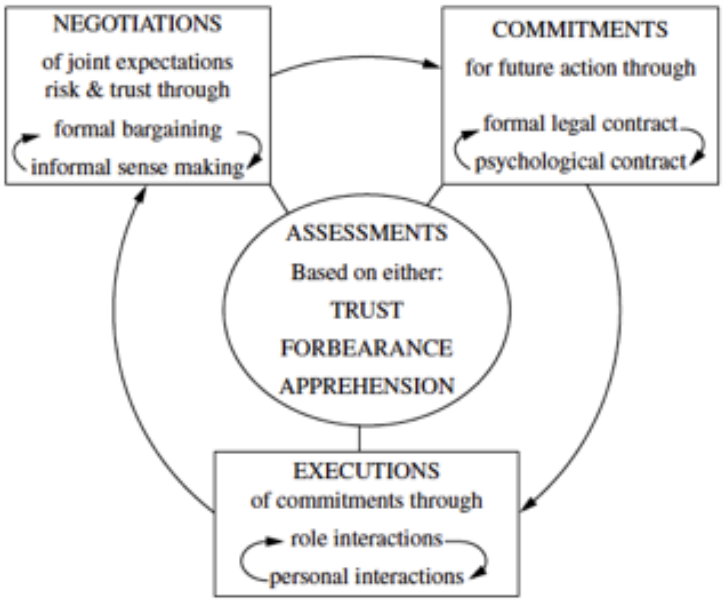

Figure 2-2: Process Framework of the Development of Cooperative Interorganisational Relationships

Source: Ring and Van de Ven, (2019)

In the negotiation phase, the emergence of networks begins based on an expectation that the parties need to work together to achieve a common output.

The focus in this phase is on the motivation for such a network. The parties consider possible terms and procedures for a potential relationship. During the negotiation stage the parties may place their positions (as statements where they stand in such negotiations). This is frequently not aligned to the interests of the relationship and may result in the parties being unable to reach an acceptable outcome (Katz and Pattarini, 2008).

In the commitment phase, the parties reach an agreement on the obligations and rules for the partnership. At this stage, terms and governances structures are established (structuration) and may be finalised in a formal relational contract or informally understood in a psychological contract amongst the parties (Ring and Van de Ven, 1994).

Finally in the executions stage, the commitments and rules agreed to are shared with the organisational subordinates in order to deliver on the agreement (implementation/maintenance) of agreement (Ring and Van de Ven, 1994). During this stage the social interactions of the actors drive the ongoing process.

Key to process is the reliance of trust in the goodwill of parties. These phases may overlap and the duration of the various phases rely on trust between the parties, uncertainty in the environment and role relationships. As trust declines or trust is not used as a relational bond in many cultural settings, additional relational bonds beyond a trust commitment have been proposed (Ring and Van de Ven, 2019). These include apprehension-based commitments and forbearance-based commitments. The former considers situations where commitments are made while a degree of distrust is present while the latter that they are not confident in the goodwill of the partner.

2.6.2.1 Negotiations

Negotiation is a process to manage interdependence and conflicts of interests between parties (de Andrade Lima and Morais, 2015) and is an important component in the iterative processes within the evolution of interorganisational networks. These negotiations are required for parties within these interdependent settings to define and redefine the terms of such relationships (de Andrade Lima and Morais, 2015) and tend to occur at different levels within the various organisations (Figure 2-3) (Borbély and Caputo, 2017).

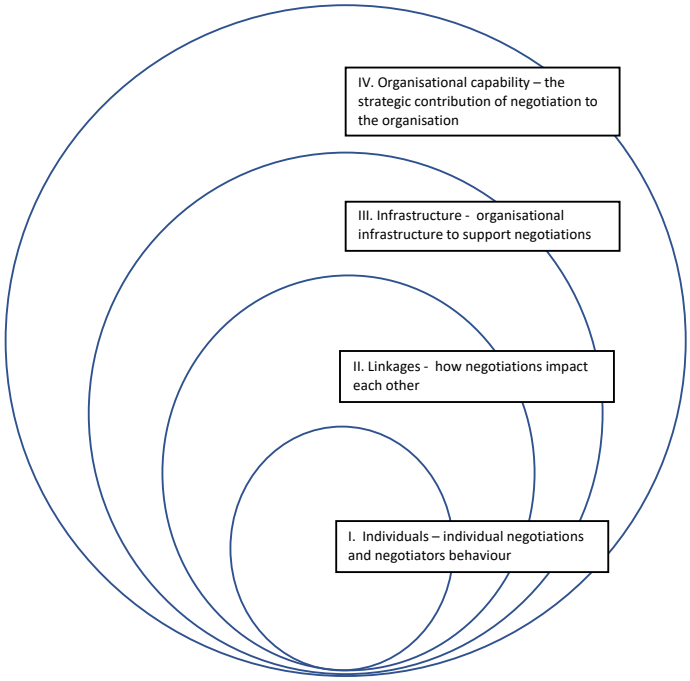

Figure 2-3: The Organisational Model of Negotiation

Source: Borbély & Caputo, (2017)

These levels (Borbély and Caputo, 2017) include an ego-level (Level I) where the individual's interpersonal relationships play a key role; this differs in Level II in that the shift is away from the individual and provides the basis for whether current or previous linkages influence how negotiations take place. This may draw from personal linkages of the negotiators as well as negotiations between parties who have previously had other or current negotiating activities.

Level III considers negotiations at a managerial level and poses the question how management negotiates across the organisation and for what purpose. The last level reflects on whether organisations capabilities include its abilities to negotiate both internal and external to the organisation. These four levels are not necessarily sequential and provide both theorists and practitioners the option to choose whichever lens best suits the situation (Borbély and Caputo, 2017).

Negotiations can be broadly divided into two types, namely distributive and integrative. Distributive negotiations tend to be characterised by the distribution of the object of the negotiation between the parties with one party trying for the largest slice at the expense of the other (de Andrade Lima and Morais, 2015). This is typified as a win-lose outcome. This is in contrast to integrative negotiations where the best position is sought and allows for win-win situations, joint gains and the best commitment by

the negotiating parties. Integrative negotiations are particularly of relevance in the context of lasting relationships, joint gains and consensus processes for conflict resolution.

A process approach considers negotiations from the perspective of relational and task-related dynamics. Task-related include substantive and procedural acts (Long et al., 2012). Substantive acts are at the heart of negotiations and include exchanges of information, offers and questioning whereas the procedural components helps to define the structure for such substantive exchanges. While relational activities may be task-related they primarily affect or reveal the relational positioning between the parties and support the relational capabilities of the parties involved (Singh and Segatto, 2020). Long et al (2012) separate these relational acts as acts of connections (those that drive a positive relationship) as opposed to acts of separation which drive a negative relationship. The latter are of particular importance because although negotiations are primarily used to provide solutions, they can also be a cause of conflict (Long et al., 2012).

2.6.2.2 Trust

Trust is a multidimensional concept which draws from many different disciplines. Within the management sciences, the implications of this are extensive and plays a prominent role in organisations at multiple different levels (Fulmer and Gelfand, 2012, Popp et al., 2014). Trust has been widely described as critical to successful collaborations (Popp et al., 2014, de Andrade Lima and Morais, 2015, Ansell and Gash, 2007, Silvia and McGuire, 2010). In an increasingly networked world, interorganisational relationships often have to consider divergent backgrounds of members increasing the complexity of the trust relationship (McQuaid, 2000, Popp et al., 2014).

The diverse disciplinary approaches in trust research, makes the definition of trust complex. The Oxford dictionary defines trust as the firm belief in the reliability, truth, or ability of someone or something. In the scholarly literature, there is no singular definition of trust. In the early part of 1990, Ring and Van de Ven, in their work on interorganisational relationships defined trust as confidence in the goodwill of others not to cause harm to you when you are most vulnerable (Ring and Van de Ven, 1994). Fulmer and Gelfand (2012), expand on this and identify two key dimensions of trust. Firstly, the positive expectations of **trust-worthiness**, which generally refers to

perceptions, beliefs, or expectations about the trustee's intention and being able to rely on the trustee, and secondly the **willingness to accept vulnerability,** which generally refers to suspension of uncertainty or an intention or a decision to take risk and to depend on the trustee.

Trust may be based on prior experience (both positive and negative) and the perceptions of how such trust-worthiness has been experienced (Van de Ven and Ring, 2006). This has implications for the interorganisational relationships when past experiences influences current dynamics (de Andrade Lima and Morais, 2015). Trust can be conceptualised at an interpersonal level as well as an organisational level (Fulmer and Gelfand, 2012). Individuals from the network organisations built up trust with their counterparts in the other organisations which influences how trust develops within interorganisational relationships.

de Andrade Lima & Morais (2015) argue for broader dimensions of trust which include openness, concern for the other, credibility within the linkage as well as the competence to do what is required of you. This aligns with Gulati et al. (2011) where trust includes receptivity (openness). They define '*interorganisational trust as the extent to which an organisation and its partners can rely on each other to fulfil obligations, behave predictably, and negotiate in good faith'* (p. 216).

Within the negotiation process, trust becomes a critical component. The ability of the negotiating parties to identify and built trust assists the process to manage conflict and pursue common goals (de Andrade Lima and Morais, 2015). They highlight that the ways of building and maintaining trust include actions such as:

- Dissemination and collection of information of a reciprocal basis,
- The presentation of good moral character and competence,
- Concern and empathy between the parties and
- The recognition of the breach of trust with developing remedial actions.

Building network trust is cyclical (Vangen and Huxham, 2005), which takes time to develop. They suggest five challenges that need to be considered during this journey which includes forming expectations, managing risk, dynamics, power imbalance and nurturing collaborative relationships.

Klijn and Koppenjan (2012) caution that trust should not be considered as an inherent coordination characteristic of networks as tensions such as conflicting interests and autonomy (Berthod and Segato, 2019) exist in such relationships. However trust remains an important asset to reduce strategic uncertainty and facilitate collaboration.

2.6.2.3 Role Relationships versus Personal Relationships

The individual as a unit of analysis in interorganisational networks (Borbély and Caputo, 2017) holds views and plays roles which could be a function of their person as well as their agency/organisational role. Working relationships tend to develop between people by virtue of their role within organisations and teams. If the individuals do not change, personal relationships increasingly supplement role relationships over time especially as trust develops (Ring and Van de Ven, 1994, Provan et al., 2011). These trust relationships may however not be possible when individuals act on behalf on their organisations. This may be overcome by informal discussions outside the formal structures.

Ring et al (1994) considers formal versus the informal processes in respect of interorganisational relationships. Psychological contracts *are those informal, unwritten and largely non-verbalised sets of congruent expectations and assumptions held by transacting parties about each other's obligations and prerogatives* (Ring and Van de Ven, 1994), the 'way things are done'. Psychological contracts can compensate or substitute for formal contractual safeguards as reliance of trust increases over time (Ring and Van de Ven, 1994). However in environments of high turnover, those entering the negotiation space need to develop new relationships with others in the team. They tend to rely on formal agreements or their role relationships in negotiations while their predecessors would have used informal / trust relationships. Individuals as actors within the network can choose to use the personal role or their organisational role to influence the network by facilitating or inhibiting the trust relationships in network development.

Provan et al (2011) argues that network interactions follow the trajectory from role-based interaction to personal ones based on the development of trust. Formalities change as personal engagements occur and trust develops. This is in contrast to Van Raak and Paulos (2001) who contend that in a regulatory environment, the formalisation of rules increases as power dynamics play out. Sydow (2004) and Provan (2011) counteract this and conclude that both these are possible and that the

distinguishing factors are the exogenous and endogenous environments in which such networks function.

2.6.3 The Theory of Networks

Networks as social systems/phenomena are well recognised (Kilduff and Brass, 2010, Buch-Hansen, 2014, Brass et al., 2004). Networks are composed of nodes (the actors in the networks) and ties (the relationships between such actors). The structure of the network is a composite of the nodes, the ties and the structural patterns that result from these connections (Dagnino et al., 2016). Gulati et al. (2011) described organisations as 'actors embedded in webs of social relations' although recognising that the interpersonal networks of individuals don't necessarily translate into network relationships and ties (Gulati et al., 2011). Network research considers the connections between these social actors, which could be human, corporate and government. These ties/relations between individuals, within organisations and between organisations, both form the actors and are formed by the actors (Crossley and Edwards, 2016). These relations in turn create conditions and social practices (Vaara and Whittington, 2012) which further influence outcomes or events and are dependent on the social actors.

Network theory and the theory of networks are differentiated (Borgatti and Halgin, 2011), with the former focussing on the mechanisms and processes that interact with network structures to yield certain outcomes for individuals and groups. In other words, the network is the consequences of the network variables. The theory of networks on the other hand, refers to the processes that determine why networks have the structures they do. The antecedents of network properties, for example, *'who forms ties with who, who is central, and what characteristics the network as a whole would have*' (Borgatti and Halgin, 2011). This includes the social practices which legitimise such networks (Vaara and Whittington, 2012). Borgatti and Halgin (2011) concede that network theory and the theory of networks are not disjointed and that in different contexts may mean different things.

Social capital (defined as the personal relationships that allows personal trust and the power of collective action) is a fundamental concept within network theory that influences the behaviour of the actors within the network (Borgatti et al., 2009, Borgatti and Foster, 2003, Gulati et al., 2011, Provan and Lemaire, 2012, Pratt, 2000). Lin (2017) suggests that social capital is captured from embedded resources in social networks and can be described as an investment in social relations which adds value

to the network. Through the network, individuals have the opportunity to access information and other resources in the network although the availability thereof could be influenced by their place (centrality, ties, hierarchical position) within the network (Stone, 2018). Social capital is considered the currency within such a social network and forms the bond that hold such networks together.

These bonds are influenced by the way networks are structured and the behaviour/practices of actors within the network. This practice-based approach has found wide resonance in organisation and management research (Vaara and Whittington, 2012) and finds it roots in social theory. This links to the concept that social structures such as power, identity, rules and norms, both influence the actors within networks and how the network is maintained or constrained by such practices (Berthod et al., 2017, Provan et al., 2007). Actors hold networks together and provide their relations with meaning and legitimacy by the social practices within the network (Pratt, 2000).

2.6.4 Governance Network Theory

Governance network theory considers the multi-actor nature of interactions settings, the presence of diverging and sometimes conflicting perceptions, and objectives and institutions as the starting point for analysis and management. This has consequences for the way governance network processes evolve and how these processes can be designed and managed (Koppenjan and Klijn, 2015, Isett et al., 2011).

Governance is used in different ways by various authors (Koppenjan and Klijn, 2015, Klijn, 2008). Interorganisational networks, as independent and autonomous entities, are often not legal entities (Popp et al., 2014), therefore the traditional governance structures in the corporate settings, are not applicable. For these networks to function and manage the complexity and potential tension amongst the actors, some form of governance is required. Network governance is defined as the use of institutions and structures of authority and collaboration to allocate resources and to coordinate and control joint action across the network as a whole (Provan and Kenis, 2008). On the other hand, networks can also be set up as a governance mechanism/structure which includes public policy making, implementation and service delivery through a web of relationships between autonomous yet interdependent government, business and civil society actors (Koppenjan and Klijn, 2015).

The concepts of governance network theory draw together components of interorganisational networks:

- Actors, dependency and frames: the interdependence of multiple actors is key to the effective functioning of networks. Their autonomy implies that they enter into these networks with their own perceptions/framing, utilising the network to achieve their specific strategic objectives.
- Interactions and complexity: different types of complexity are inherent to network governance (Koppenjan and Klijn, 2015) and include substantive, strategic and institutional complexity. Understanding the complexity dynamic in networks can help explain the impasses, deadlocks and breakthroughs which frequently occur within networks.
    - Substantive complexity considers the uncertainty, lack of consensus over the nature of problems, their causes and solutions and is often linked to different perceptions by the actors within the network. This may stem from different frames of reference and meanings of specific problems to the different actors.
    - Strategic complexity reflects on the fundamentally erratic and unpredictable nature of interactions based on the autonomy and independence of actors who don't necessarily pursue the common interest but place their own mandate first. In defining the problem, different strategies may be included as each actor selects strategies that will drive the own agendas.
    - Institutional complexity describes the fact that actors come from different institutional backgrounds and bring such complexities into the network. This often relates to the formal legal frames of the actors, different rules within the network and in deeply rooted informal convictions and practices.
- Institutional features: how actors in the network connect or interact forms patterns which can in itself become practices/rules and affects the nature of the network structure and performance. In emergent and orchestrated networks, the network of formal and informal ties can mean that the participants particularly of the lead organisation can intentionally influence the network structures and the key levels of governance structures. This is defined as intentional governance (Dagnino et al., 2016) where there is the conscious deliberate purposeful actions

of organisations operating in the network that intentionally influence network structures.

- Network management: despite the extensive scholarly work on leadership and management in organisations, there is still limited research on network leadership/management and its similarities or differences from leading in other organisational forms (Popp et al., 2014, Provan and Lemaire, 2012). The management of the network is an inter-organisational activity and given the complexity of interactions and the different perceptions of the actors within the network, management becomes a key function (Klijn, 2008). This is particularly relevant in intergovernmental relations where public sector actors are often guided in their role by the regulatory framework including the complexity of engaging across different levels of government. This links back to the institutional complexity referred to above.

2.6.4.1 Typology of Network Governance

The typology of network governance described by (Provan and Kenis, 2008) identifies three distant modes of network governance: shared governance, lead organisation/agency, and network administrative organisation. Table 2-3 provides an overview of the three models of network governance.

Table 2-3: Models of Network Governance

Governance Type	Description
Shared governance, consensual	All actors contribute to the management and leadership in the network. There is no formal administrative entity.
Lead agency	The network manager and administrative entity is one of the key network members.
Network administrative organisation	A separate administrative entity is established to manage the network with an employed manager.

Source: Popp et al., (2014).

With time, the application of these to practice has highlighted that the boundaries between these models are not distinct and have been adapted to what is appropriate for the actors within the network at the time (Popp et al., 2014). A number of key structural and relational critical contingences contribute to the effectiveness of the network (Popp et al., 2014). These include the distribution of trust, size of the network, goal

consensus, the nature of the task to be undertaken and decision-making as key predictors of the best governance structure for a network.

2.7 Proposed Conceptual Framework

The above three theoretical perspectives provide a conceptual framework to frame my research (Figure 2-4).

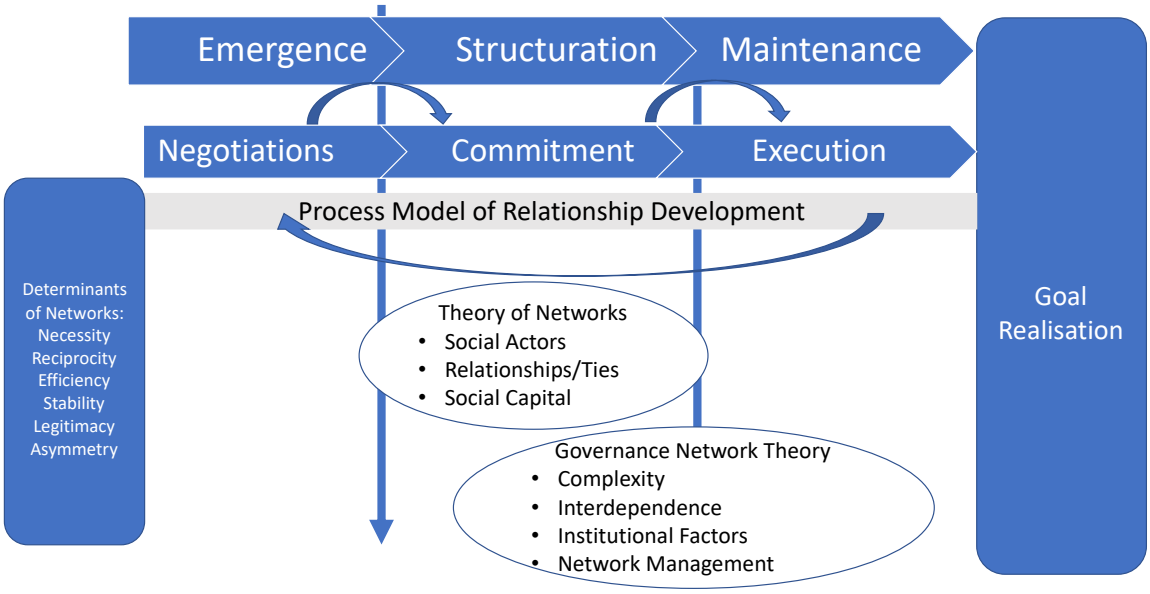

Figure 2-4: Initial Conceptual Framework for the Research

The process model developed by Ring and Van de Ven (1994) and adapted in 2019 (Ring and Van de Ven, 2019), provides a conceptual framework in which the evolution of the network through the various phases can be explored and explained:

- Emergence of the network through negotiation by the various actors, drawing from the theoretical principles of connectedness and interdependence of the actors, the influence of institutional factors and the knowledge that uncertainties exist in the environment
- Structuration of the network is driven by a commitment by the actors to proceed with the relationship/network and asking the question which structure best fits the network and how should it be governed and managed. Network governance and the various types of relationships are important in this phase. The behaviour / social practices influence how the structure of the network is formed as well as how the structure of the network influences the relations between the actors.
- Operationalisation and maintenance of the network (linking to the execution phase of Ring and Van de Ven (1994)) draws from the principles of shared decision

making and the complexity of the institutional rules / processes to develop new rules and norms for the network to deliver on its shared goals. This includes a system to resolve internal disputes. The attributes of the actors are critical in this phase.

However, the above framework omits the importance of the interaction between structures and processes and the operating context of a purpose-orientated network. Therefore, the conceptual framework for the evolution of an interorganisational network is adjusted to place at its centre the interaction of processes and structures which influence the emergence, structuration and maintenance of such network (Figure 2-5). This interaction is considered through the twin theoretical frameworks of the theory of networks and network governance theory. The outer framework of relationship development considers the three components of negotiations, commitment and execution which occurs in the context of the interface between health and higher education.

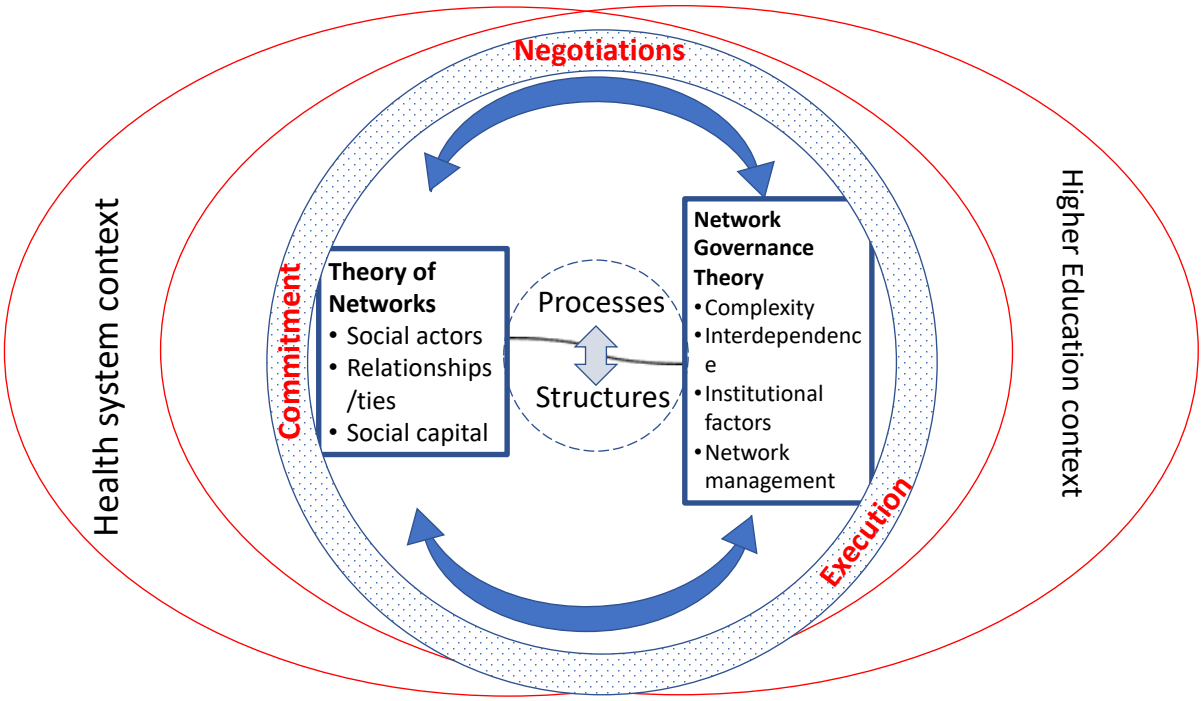

Figure 2-5: Revised Conceptual Framework for the Research

2.8 Conclusion to Literature Review

The literature on interorganisational networks is extensive and draws from the scholarly work of many different disciplines. The literature review provided an overview of the existing research in the field and identified diverse areas for further

inquiry (section 2.5). Linking this back to the complex relationship between the health and higher education sectors and the need to understand the evolution of an interorganisational network within this setting, the identified areas for further inquiry assisted in framing the research questions.

The literature review, in developing the framework for my research, draws on the key theoretical principles from the process model of relationship development, the theory of networks and governance network theory. The three theoretical perspectives provide a conceptual framework to frame my research (Figure 2-4) adapted in Figure 2-5 to include the interaction of processes and structures.

Reflecting on the purpose of this professional doctorate, drawing from the context of my experience as part of the leadership in a health sciences faculty within a university, and acknowledging the complex dynamics between the health and higher education sectors including the impact of history on the evolution of the network, the following research questions were formulated:

RQ1: What are the drivers that influence the genesis and the emergence of an interorganisational network over time?

RQ2: How does the operating context of an interorganisational network influence its functioning?

RQ3: How do actors within an interorganisational network influence the processes within the network?

In the next chapter, the context of higher education and health sectors within the researched setting will be explored.

3 Organisational Context

Chapter three sets the context for this study of an interorganisational network between a public sector health authority and four regional public universities with health sciences faculties within a South African province. These are autonomous entities within the current legislative framework for higher education and health.

3.1 Introduction

This chapter provides the reader with the historical perspective of the interface between higher education and health in South Africa. Berthod and Segato (2019) highlight the importance of researchers considering the evolutionary path dependencies, rooted in the historical context of a network. The health and education systems are influenced by the socio-political environment within South Africa. The dynamics of the interorganisational relationship studied in this thesis cannot be fully appreciated without the contextual setting of this socio-political backdrop.

3.1.1 The Socio-Political Context in South Africa

The apartheid policies of the National Party government prior to the dawn of democracy in 1994 have shaped the education and health sectors in South Africa. Apartheid as a crime against humanity (Lingaas, 2015), is defined as a system of institutionalised racial segregation, which existed in South Africa from 1948 until 1994. This research is being undertaken in the one of the nine provinces of South Africa. In the Apartheid era, the disenfranchisement of the Black African majority culminated in the establishment of five separate legislative and geographic entities: The Republic of South Africa (RSA) and four 'independent republics'; none of these 'independent republics' had international status (Figure 3-1). These four independent republics were part of ten homelands (bantustans[iii]) established by the Apartheid government as a major administrative mechanism for the removal of 'blacks[iv]' from the South African political system under the numerous apartheid laws and policies.

[iii] Bantustans: The Bantustans or homelands, established by the Apartheid Government, were areas to which the majority of the Black population was moved to prevent them from living in the urban areas of South Africa (https://sahistory.org.za).

[iv] The terms used for the different races are consistent with those in common use and employed by the South African national census, and do not imply acceptance of racial attributes of any kind.

Figure 3-1: Map of South Africa pre-1994

Source: www.sahistory.org.za

The other six non-independent homelands were not considered part of the RSA but were also not 'independent republics'. This was in line with the Nationalist government's strategy of segregation of keeping different ethnic, racial, or religious groups apart.

The health and the education system (from primary, through to secondary and tertiary/higher education) were also governed in terms of segregation policies and laws with differentiated expenditure for different racial groups (Cloete and Centre for Higher Education, 2002, Price, 1986). During the period of negotiation to a democratic dispensation, these systems and policies governing Higher Education and Health had to be transformed to align with a free and democratic South Africa. This transformation, based on the principles of the Freedom Charter of the African National Congress, would inform the Constitution of the Republic of South Africa (South African Government, 1996). However, the pre-democracy discriminatory processes

continue to influence both the health and education systems in a democratic South Africa.

3.2 The Higher Education Landscape under Apartheid

Education (primary, secondary and post school) in the apartheid era was designed to ensure that the ruling white minority received a higher standard of education. As early as 1959, the National Party promulgated the Extension of University Education Act No. 45, which extended the apartheid principles to higher education. The Act made '*it a criminal offence for a non-white student to register at a hitherto open university without the written consent of the Minister of Internal Affairs*" (Lapping, 1987). This law accomplished the segregation of higher education in South Africa. The Act decreed that Black, Coloured and Indian students[iv] would only be allowed to study at the formerly open universities (exclusively white) with a permit from the relevant minister. Over time, separate universities were established for Coloured students, Indians students and students of the different Black ethnic groups (a number of the latter were located in the Bantustans). Coloured students were only allowed at a few 'non-white[v]' universities. For example, the University of the Western Cape (UWC) did not train doctors, and Coloured students who wished to pursue such programmes had to go to another province or apply for a permit to study at other medical schools (for example at the University of Cape Town) (UWC).

This segregated education system was further entrenched in 1984 when a new constitution was introduced for the Republic of South Africa. This new constitution established what was known as the Tricameral Parliament. This Parliament was divided into three chambers: House of Representatives for the Coloured voters; House of Assembly for the white voters; and the House of Delegates for the Indian voters. No provision was made in this parliament for any representation for the Black people

v Non-white was a commonly used term in Apartheid South Africa to describe the collective groups who were not considered white by the government of the day. The Population Registration Act No 30 of 1950, "provided for the compilation of a register of the entire South African population into three racial groups: 'White', 'Black' ('African', 'Native' and/or 'Bantu') and 'Coloured'; the last of which was further subcategorized into 'Cape Malay', 'Griqua', 'Indian', 'Chinese' and 'Cape Coloured' (https://omalley.nelsonmandela.org).

even though this group represented at least 75% of the total population living in the RSA at that time. This also did not include the "independent homelands".

A fundamental strategy of the Tricameral Parliament was to designate education as an "own affair" for whites, coloureds and Indians. This resulted in the different chambers taking responsibility for primary, secondary and higher education for the respective racial groups. The education of Africans were considered a "general affair" in a specific department set up for this (the "Department of Education and Training") (Bunting, 2006).

By the beginning of 1985, a total of 19 universities had been designated for the exclusive use of Whites, two for the exclusive use of Coloureds, two for the exclusive use of Indians, and six for the exclusive use of Black/Africans (Cloete and Centre for Higher Education, 2002). The latter excluded seven institutions in the four 'independent' republics. To prohibit institutions enrolling students from other race groups, the National Party government required students to have a ministerial permit to study at an institution not designated for their race (for example as a South African born in the Apartheid years, I was registered as a Coloured person under the Population Registration Act No 30 of 1950. Appendix 1 is a copy of my permit obtained to study medicine at the University of Cape Town). Permits were granted only if it could be shown that the applicant's proposed programme of study was not available at any institution designated for the specific race group to which she/he was registered by law.

By the year 1994 (the year South Africa achieved democracy), two distinctive factors (based on race and knowledge) had formed the basis of a dual typology within the South African higher education system, that of mutually exclusive types of institutions of higher education: universities and Technikons (Bunting, 2006). Table 3-1 presents the spread of these institutions in the four years prior to the achievement of democracy in 1994, noting that the last four listed were situated in the homelands previously described.

Table 3-1: Public Higher Education Institutions in South Africa 1990 - 1994

Responsible Authority	Universities	Technikons	Total Institutions
House of Assembly (for whites)	11	8	19
House of Representatives (for coloureds)	1	1	2
House of Delegates (for Indians)	1	1	2
Department of Education and Training (for Africans)	4	2	6
Republic of Transkei	1	1	2
Republic of Bophuthatswana	1	1	2
Republic of Venda	1	0	1
Republic of Ciskei	1	1	2
Totals	21	15	36

Source: Bunting, (2006)

3.2.1 Organisational Changes of the Researched Universities

Prior to 1994, there were five different public universities in Province X[vi]. Bunting (2010) in documenting the higher education landscape under Apartheid, categorised universities into eight categories using racial division of such institutions, their key characteristics and their historical advantage status (Table 3-2). The institutions in this research project are extracted from the original table and anonymised[vi].

Table 3-2: South African Universities prior to 1994 – an extract

Categories	Institutions included	Key characteristics up to 1994	Historically Advantaged / Disadvantaged
Historically Black universities: RSA	**HEI_1**	Top management originally supportive of apartheid government	Historically disadvantaged
		Originally authoritarian institutions, which became sites of anti-apartheid struggle during the course of the 1980s	
		Intellectual agenda determined by instrumentalist notion of knowledge and function being that of training 'useful black graduates'	
Historically Black universities: TBVC[vii]	Not applicable		
Historically Black Technikons: RSA	**HEI_2**	Top management originally supportive of apartheid government	Historically disadvantaged
		Authoritarian institutions, which became sites of anti-apartheid struggle in the early 1990s	
		Intellectual agenda determined by instrumentalist commitment to vocational training	

[vi] As per the enrolling institution's guidelines the province in South African is anonymised as Province X. The Universities are anonymised as HEI_# where # is a sequential number given to each.
vii TBVC refers to the four Bantustans – Transkei, Bophuthatswana, Venda and Ciskei.

Historically Black Technikons: TBVC	Not applicable		
Historically White Afrikaans Universities: RSA	**HEI_3**	Authoritarian institutions, which supported the apartheid government	Historically advantaged
		Good management and administrative processes in place	
		Intellectual agenda determined by instrumentalist commitments and by severing of contacts with international academics during the academic boycott in the 1980s	
Historically White English Universities: RSA	**HEI_4**	Did not support apartheid government	Historically advantaged
		Collegial institutions at top levels of senate and heads of academics department, but authoritarian at lower levels	
		Good management and administrative processes in place	
		Intellectual agenda determined by commitments to knowledge as a good in itself, and strong international disciplinary teaching and research links	
Historically White Technikons: RSA	**HEI_5**	Authoritarian institutions, which supported the apartheid government	Historically advantaged
		Intellectual agenda determined by instrumentalist commitment to vocational training	
Distance Education Universities and Technikons	Not applicable		

Source: Bunting, (2010)

HEI_3 and HEI_4 were established to cater for Afrikaans speaking white students and English speaking white students, respectively. HEI_1 was established in 1960 as a university for Coloured people only as a direct effect of the Extension of University Education Act no 45, 1959. HEI_5 and HEI_2 were established in 1920 and 1962 respectively. The former for white students and the later for the steady growth in the number of Coloured apprentices in a variety of trades. By 1987, the latter two permitted all races to study at the separate institutions.

3.2.2 The Changes to Higher Education Post-Apartheid

At the dawn of the new democracy, Prof Bengu, the Minister of Education, stated that '*the higher education system must be transformed to redress the past inequities, to serve a new social order, to meet pressing national needs and to respond to realities and opportunities*' (Department of Education, 1997). In 2002, the Council of Higher Education (CHE), proposed the establishment of new institutional and organisational

forms in various regions of South Africa (Council for Higher Education, 2003). This resulted in thirty-six institutions being merged into twenty-one.

The impact on the universities within the network being researched were as follows noting that the focus is on the Health Sciences Faculties within the said universities.

HEI_6 was established in 2005, when the HEI_2 and HEI_5 merged. This merger was part of a national transformation process that transformed the higher education landscape in South Africa. There were also changes in the merger of dental faculties and nursing programmes resulting in two dental faculties from a historically white Afrikaans university merging with a historically black university to form one faculty located within the latter faculty. A common teaching platform for undergraduate nurse education saw the merger of three nursing programmes into one at the historically black university.

3.2.3 A Brief Overview of the Health Sciences Faculties in Province X

SA has a dual typology for health sciences faculties: those with and those without medical programmes; all of which form part of public universities. All four public universities in the Province X train various health professionals. Currently only HEI_3 and HEI_4 train medical doctors and medical specialists.

Each of the faculties have, since their establishments, had different relationships with the Provincial health services (such relationships were established in the pre-1994 era). Health Sciences faculties differ from other faculties in a university in terms of how they execute their academic mandate. They have different organisational structures, funding arrangements, human resources policies and operational practices. One of the key reasons for these differences is that such faculties' academic offerings have a statutory requirement to provide a significant (in some programmes, the majority) component of the experiential/clinical training of health care professionals within the public health system. The Health Act (no 63 of 1977) (Republic of South Africa, 1977), amended in 2003, makes provision for Academic Health Complexes (AHC) which consist of health facilities at all levels of healthcare (primary, secondary and tertiary levels) and a university working together, to provide quality health services, to educate and train healthcare professionals and to conduct quality health research (the so-called 'triple mandate'). This component of the Health Act has never been promulgated. The National Health Insurance Bill (2019) released in August 2019 for comments makes

provision for amendments to the Health Act of 2003 (National Department of Health, 2019). The Bill is silent on Academic Health Complexes.

These health sciences faculties, offering professional qualifications in health, need to ensure that their graduates are registrable with the relevant professional statutory council. These professional statutory councils have specific criteria for such registration. These include, in most cases, that experiential training is done in partnership with public health facilities (which are governed by provincial health departments) to ensure that profession specific skills and competences are met. It is within this context that various agreements exist.

3.3 Overview of the Historical Context of Province X Health Department

South Africa's colonialist and apartheid past has had a significant impact on its people, as well as a pronounced effect on health policy and services (Coovadia et al., 2009). The health system, like the rest of society, was structured according to race. This affected access to basic resources for health and health services. Health facilities were already racially segregated as early as the late 19th century. When the homelands / bantustans were established, this further entrenched the health system as each had its own health department with non-profit (especially missionary) organisations supporting such health systems. At the dawn of democracy, there were 14 regional health departments (one for each of the four provinces in South Africa and one in each of the 10 homelands) and one national department of health. The current structure of the democratic South Africa has nine provinces each with a provincial health department, thus the 14 health departments were merged into the nine provinces. The national department of health continues to plan and provide policy direction for healthcare in South Africa.

In 2011, South Africa launched its National Development Plan, which highlighted the legacy of apartheid and the challenges of transforming institutions and promoting equity in development (South Africa Government, 2015). Healthcare is further fragmented by a two-tiered system with a strong private sector and a struggling public sector (van der Heever, 2019). The discourse in 2020 was on the establishment of a National Health Insurance (NHI) system which is planned to support a move to universal health coverage. The National Health Insurance Bill was promulgated in August 2019 (National Department of Health, 2019).

The National Department of Health derives its mandate from the National Health Act of 2003 (Republic of South Africa, 2004), which requires that the department provides a framework for a structured and uniform health system for South Africa. The Act sets out the responsibilities of the three levels of government in the provision of health services, national, provincial and local government.

Provincial health departments are mandated to provide healthcare services, while the role of the national department is to formulate policy, and coordinate and support provincial departments in fulfilling their mandates.

Funding for the public health system is sourced through taxation. The funds are pooled and allocated on a per capita basis through the National Treasury (provincial equitable share). Provincial departments are responsible for purchasing and delivery of health services and can however determine how such funding is spent in terms of its various mandates.

The National Health Act makes provision for the public health sector to support the training of health professionals (Republic of South Africa, 2004). This is financed through the Division of Revenue Act (Republic of South Africa, 2020) making funding available for provincial authorities to provide certain specialised health services as well as to provide the training platform for universities to train health professionals and do research. These earmarked grants also support other health related activities such as HIV treatment, and the provision of tertiary health services (Republic of South Africa, 2020).

3.4 The Relationship between the Four Universities and the Provincial Department of Health

HEI_ 4 first signed an agreement with the Health Authority in 1927. HEI_3 signed a similar one in 1977. These agreements served to govern the relationship between the respective university and the health authority. As the context of health and higher education changed over the last three decades, the need was identified to strengthen and formalise the relationship (through contractual agreements); individually between all the regional faculties and the health authority, as well as the various health sciences faculties as a collective, and the health authority. In 2012, all four universities in the province were included and five parties signed a multiparty agreement (known as the Multilateral Agreement – MLA (Doc_1)).

3.4.1 The Multilateral Agreement (MLA)

The development of the MLA was driven by a task team from the four universities and 'Province X: Health' on instruction by the Minister of Health and the Vice-Chancellors of the four universities. The purpose of this MLA, was primarily to address and regulate access for academic purposes, of the various health sciences faculties to the different health facilities in Province X. A further important reason for the MLA was to ensure an appropriate framework within which the funding for tertiary health sciences education can be negotiated to the benefit of all parties concerned. The existing bilateral agreements dating back many years, depending on which universities, did not reflect the current practical realities in the changing landscape of health professions education and the delivery of health services.

The MLA opens with the following preamble:

'AND WHEREAS *the Parties are now desirous of entering into an overarching multilateral agreement which provides, inter alia, for –*

i. certain governance structures to regulate their relationship;

ii. establishing and ensuring equitable access by the Institutions to the Service Platform in a manner that is fair and transparent; and

iii. formulating certain fundamental principles that shall form the basis of their Revised Bilateral Agreements' (founding statement of the MLA, 2012).

The Agreement makes provision for the health services to share their clinical staff and the clinical setting (that is, patients and infrastructure) with the universities to enable undergraduate and postgraduate student training and for researchers to conduct research. The university, on the other side, through its staff and students, assists in the delivery of health care services and shares its knowledge base (research output) with the health services to ensure the practice and delivery of evidence-based healthcare.

3.4.2 From Multilateral to Revised Bilateral Agreements

Clause 17.1.6 of the MLA states that… '*upon concluding the above processes the parties to the Revised Bilateral Agreements shall sign the Revised Bilateral Agreements by no later than the first anniversary of the Commencement Date'*. At the time of the first anniversary of signing of the MLA (31 May 2013), these revised bilateral agreements had not been signed. A bilateral agreement template was

completed in 2014 and signed off by the highest governance structure between the entities, the Joint Agreement Governance Committee (JAGC). During the period of 2014 to 2017, the process to sign off the four bilateral agreements made limited progress. In 2017, the parties agreed to commence a facilitated process. This process (explored in the research study) resulted in the BLA template being adjusted to include the following 12 foundational principles (Doc_3):

- Building trust through openness and transparency
- Commitment to fairness, in light of historical inequity
- Adopting an enabling approach
- Commitment to the spirit of partnership
- Commitment to building positive organisational culture
- Commitment to collective change management
- Realistic expectations, in light of resource constraints
- Commitment to address power imbalance and control
- Acknowledgement of the "Medical Model bias" in the MLA
- Commitment to the spirit of the MLA
- Sharing technical expertise across the parties
- Commitment to fundamental transformation and equity

3.4.3 Governance Structures within the MLA

The MLA makes provision for a number of governance structures which provide the framework in which the parties engage. These are at a multilateral and a bilateral level. The multilateral structures (all five parties) have two levels, one at the highest political level (the provincial minister of health and the four university vice-chancellors) named the Joint Advisory Governance Committee (the JAGC) and a structure at the level of the health department and the faculties of health sciences (the Health Platform Committee – the HPC). At a dyadic level, each university has joint structures with the health department which governs the bilateral relationships at both strategic and operational levels.

In addition to the structures above, the Health Platform Committee has established a MLA task team (MLA TT) to facilitate the process of finalising the bilateral agreements. The MLA TT has representation from the four dyads linked to each

university. These four teams have representation from both the faculty and the Province X: Health.

3.4.4 Managerial Structures within the Faculties

Each faculty has its unique organisational structure both at the level of the Dean's executive team as well as at a departmental level. Depending on the human resources strategy of the respective university, the departments that require undergraduate and postgraduate clinical training within the health authority may differ from those that do not do such training.

At a faculty level, the organisational structures differ in that in some settings, the Head of Department has joint responsibility for the health services and the academic system. In the medical and dental disciplines, the Heads of the Academic Environment fulfill this dual role as the Head of the Provincial Health Department at a service level in the tertiary and dental hospitals. This is important in the relationships between the faculties and the health department as they have leverage in terms of access to the clinical settings where teaching and training of students and where research occurs.

3.4.5 Managerial Structures within the Health Department

Province X's Health Department has a specific organisational structure which has changed over time since the signing of the MLA. This relates to the strategic plans of the Health Department as they have a legislative mandate to deliver health services for the uninsured population of Province X.

3.5 Summary of Organisational Context

In summary, the four universities and the Health Authority signed a multilateral agreement in 2012. This against a historical context of a system of segregation (Apartheid) until 1994 with the dawn of a democratic government. The five parties to the agreement have been in a process since 2012, to implement the MLA. The MLA was intended to establish governance structures to regulate their relationship and to formulate fundamental principles that would form the basis of the four revised dyadic agreements between each of the universities and the health authority. There has been slow progress towards the operationalisation of the network and the finalisation of the dyadic agreements.

It was against the socio-political backdrop of South Africa and the delayed implementation of the agreement, that the setting was provided for research into the dynamics of an interorganisational relationship between Health and Higher Education.

4 Methodology and Methods

This chapter describes the methodological approach taken and specific methods used to answer the research questions as it relates to the evolution of an interorganisational network within the higher education sector in South Africa.

4.1 Introduction

The approach, design and method of the study was based on an evaluation of the theoretical frameworks drawn from a review of the literature, with philosophical assumptions about the nature of the social world framing the approach to the empirical work. This chapter maps out the context of the study and its research questions, reflecting on the methodological approach taken, how this shaped the design of the study, and why particular research methods were selected. It describes the framework for data collection, presents the criteria for the participation selection and measurement, describes the data analysis process and ethical issues that were considered in designing the research process.

4.2 Aim of the Research

The aim of this study was to investigate the evolution of an interorganisational network within the higher education sector, with a focus on a case study in South Africa.

From the overview of areas for further inquiry in section 2.5, and the context for research into the dynamics of an interorganisational network in Higher Education, the following three questions were formulated:

- RQ1: What are the drivers that influence the genesis and the emergence of an interorganisational network over time?
- RQ2: How does the operating context of an interorganisational network influence its functioning?
- RQ3: How do actors within an interorganisational network influence the processes within the network?

4.3 Research Approach

My approach to this study draws from the context of my experience as part of the leadership in a health sciences faculty within one of the universities in the study and

grappling with the complex relationship between the health and higher education sectors and the impact of history on relationships in this setting in a post-apartheid South Africa. Therefore, the broad context of the interorganisational network from a socio-political, with a strong historical perspective and a legislative framework were important factors when defining the research paradigm. My underlying assumption is that the network and context shape each other (Lemaire et al., 2019, Crossley and Edwards, 2016).

A research paradigm is a set of common beliefs that guides the actions of a researcher. Within the management sciences, a number of different approaches are taken (Naidoo, 2019). These are characterised by various ontological, epistemological and methodological assumptions. A wide range of world views are represented from the positivist position that holds that a single reality exists and it can be observed and measured (Bhattacherjee, 2012), to the more interpretivist position which holds that there are multiple realities with meaning situated in one's experiences. The various paradigms most commonly used to inform research range from positivists and the more modern post-positivist, constructivists, interpretivists and critical paradigm (Gray, 2013).

4.3.1 Research Philosophy: Ontological and Epistemological Considerations

Network research has its roots in many disciplines and the ontological approach varies depending on the researcher's assumptions concerning the nature of reality. This reality hinges on the relationship between the researcher and the object being researched, that is, the network. A positivist approach considers the reality as independent of the observer and can be observed objectively. On the other hand, from the constructivist view, the reality is created, shaped and interpreted by the interaction of actors within the network (Lemaire et al., 2019).

Two ontological contradictions exist in the consideration of interorganisational networks (Pilbeam, 2008). On the one hand, networks exist independently of any actor within such network. These networks are defined and can be observed and measured thus a positivist approach could be considered as a research paradigm. On the other hand, networks can and are influenced by the members within such a network and thus a constructivist view may be more appropriate. I will revert to this later.

Networks as social phenomena are well recognised (Kilduff and Brass, 2010, Buch-Hansen, 2014, Brass et al., 2004) with interactions occurring between the actors at multiple levels (interpersonal, intra-organisational and interorganisational levels) within a specific context (Nowell and Kenis, 2019).

Given my assumption that the network and context shape each other, two options were possible in considering the research paradigm. Chapter three set the context of a socio-political setting with a strong historical basis where power (linked to discrimination) was evident. A critical paradigm which suggests that reality is historically established and where the goal is exposing societal inequities and conflicts (Rashid et al., 2019), could have driven the choice. On the other hand, interpretivism allows the researcher to have multiple views for a research problem allowing the researcher to see the world through the eyes of the participants. In this paradigm, individuals construct the world and to understand their world, their reality needs to be understood. The participants use their own words to relate their experiences and beliefs.

As the researcher I am part of the network and am interested in the specific context of this network (Costley, 2010, Fleming, 2018). I have an understanding of the context and acknowledge the important role that the participants bring to the study in terms of their own reality and knowledge. My role was to understand how people construct meaning in their natural setting (Naidoo, 2019). I am dependent on participants' views of the situation being studied (Creswell, 2014) in order that I can acquire an in-depth understanding of the complexities of their experiences within the context of the network. Part of my role within the research was to interpret the perceived reality of the participants within their context and to use this to describe the characteristics and structure of the network as well as to co-create this reality.

Against this background, an interpretative epistemology was therefore chosen as networks are viewed as socially constructed and the approach allows for understandings the social reality of individuals and the organisations within such a network. This approach taken enables a socially rich, in-depth understanding of a complex interorganisational phenomenon with the exploration of context and process (Naidoo, 2019). To answer the research questions, a qualitative methodology was chosen. The three fundamentals assumptions of an interpretative-qualitative methodology are applied: a holistic view, an inductive approach and naturalistic inquiry (Patton and Appelbaum, 2003). The holistic view enables an understanding of

the whole network recognising that the whole is different from the sum of the constituent actors (Nowell et al., 2019, Lemaire et al., 2019). Secondly, an inductive approach allows the researcher to consider specific observations and develops patterns that emerge from the data. Finally, the naturalistic inquiry is suitable for understanding the network phenomenon in its natural context.

4.3.2 Rationale for an Interpretative Case Study

Case study research arose from the need to understand complex social phenomena such as interorganisational networks. Yin (2018) describes this as a case study allowing for an investigation to retain the holistic and meaningful characteristics of real life events. The use of a case study in the management sciences recognises that organisational issues are more than structures and include their intersection with human beings (Patton and Appelbaum, 2003). The focus of a case study is on a defined setting, context and/or time-period and potentially captures a rich array of contextual data. Case research can be employed in a positivist manner for the purpose of theory testing or in an interpretative manner for theory building and elaboration. An interpretative case study attempts to understand the phenomenon by consideration of the meanings that participants assign to them (Myers and Avison, 2002), and has the advantage of the examination of the political, social and cultural influences in an organisational context (Naidoo, 2019).

Based on the above, I argue that a case study design is appropriate as it allows for an in-depth exploration of the interface between two sectors (health and higher education) in a common pursuit and permits the examination of the influence of context on an interorganisational network. A single-case design allows researchers to gain an in-depth understanding of a complex organisational phenomena from a variety of perspectives (Ozcan et al., 2017). Ozcan et al. (2017) further argues that single cases allow researchers to study a complex process over a very long period of time that would not be practical through multiple cases.

Interorganisational networks are influenced by both the external environment as well as the human entities/internal actors who constitute such networks (Nowell et al., 2019, Nowell and Kenis, 2019, Popp et al., 2014). Organisations such as businesses, hospitals or universities are complex systems with varying processes and components which are constantly in flux and as such constitutes not a single entity but rather an integrated system (Patton and Appelbaum, 2003). The conditions in which

interorganisational networks operate and therefore are researched cannot be controlled as would occur in the natural science setting. The researcher determines the boundary of the network (see section 4.3.3).

This supports the views of Nowell et al (2019) of the complexity of interorganisational networks linked to its context as well as Berthod & Segato (2019) who claim that interorganisational networks are numerous processes in a constant state of flux. The structures, processes and human agents within interorganisational networks intersect thus supporting the need for an approach which includes the qualitative (structural) as well as the social context of the phenomenon.

In summary the unique strengths of case research (Yin, 2018, Naidoo, 2019, Bhattacherjee, 2012) are that:

- the constructs of interest need not be known in advance, but may emerge from the data as the research progresses;
- it allows modification of the research questions as the data is collected and interpreted;
- case research enables the researcher to delve into a specific context and obtain rich and context specific array of data and
- the phenomenon of interest can be studied from the perspectives of multiple participants and using multiple levels of analysis (e.g., individual and organisational), an aspect relevant to interorganisational networks.

These strengths are a strong motivation for the use of an interpretative case study to explore the complexity of interorganisational networks within a particular context.

Case study research also has its criticisms including lack of statistical generalisation and non-representativeness as well as the lack of rigor especially linked to the bias introduced by the subjectivity of the researcher. Many of these aspects are viewed from a positivist construct (Naidoo, 2019) and are thus embedded in the ontological and epistemological assumptions of these critics. In this research study, the key design aspects from research question formulation, the philosophical assumptions, its qualitative approach, case study strategy as well as data generation and analysis and ethics processes, were considered to ensure congruency with the ontological, epistemological and methodological assumptions for interpretative studies (Walsham, 2006, Naidoo, 2019).

4.3.3 Defining the Case

Scholars differ in their views of boundary specification for networks. Van den Oord et al (2017) argue for a clear boundary of a goal-directed network while Borgatti and Halgin (2011) places the responsibility for the boundary within the control of the researcher. A distinguishment between groups and networks is made. The former is circumscribed and has a boundary (members are insiders or outsiders of the group) whereas a network has a boundary which is often determined by the researcher on the basis that it must be linked to the research question. As described in section 2.3.4, the nominalist view is that every research question generates its own network, and therefore uses the phenomenon of interest to define the actor sets/network boundary (Carpenter et al., 2012). Interorganisational network researchers frequently rely on the latter approach (nominalist view) to define and conceptualise the boundary based on the research inquiry.

The unit of analysis of a case study (Miles et al., 2014) is referred to as 'a phenomenon of some sort occurring in a bounded context'. The unit of analysis in this case was the interorganisational network between provincially located universities and the provincial health authority (circumscribed by the signed agreement). The level of analysis went beyond dyads or ego-networks and used the entire / whole network as is called for by various scholars (Berry et al., 2004, Provan et al., 2007, Provan and Kenis, 2008, Nowell et al., 2019, Lemaire et al., 2019).

Each of the health sciences faculties is organisationally located within their respective university and is not an independent entity. Similarly, the health authority is a directorate within the provincial government. The Multilateral Agreement was signed by the Vice-Chancellor of each university and the Provincial Minister of Health and not the respective deans of the faculties and head of the health authority, who are not authorised to sign such agreements. While the university(s) and provincial government are integral to the network, their constituent faculty or health department respectively could be considered separate actors within the network. Potentially two interlocking networks exist (Carpenter et al., 2012): network one - that of the health ministry and four universities or network two - the health authority and the health sciences faculties. The former network which mirrors the legal agreement as signed in 2012 (Doc_1) was considered as the whole network in this research. The boundary of the case is defined more narrowly and links to the research questions (Borgatti and Halgin, 2011) where

the individuals in the governance structures and a number of the managerial structures in the four dyads (section 3.4.3) who were tasked with the process of finalising the dyadic agreements, would have knowledge of the genesis and evolution of the network.

4.4 Position as an Insider Researcher/ Participant Observer

Researchers play multiple roles within a research project and are described as a continuum of complete outsider to a complete insider (Breen, 2007). The research topic was inspired by my being within an interorganisational setting operating in a complex environment. Insider researchers frequently choose to study a group to which they belong (Costley, 2010, Hanson, 2013). Professional doctorates recognise the role that professionals have in the contribution to new knowledge (Maxwell, 2002) and the resultant tensions that such researchers experience between the role of a researcher and that of a professional with their organisational environment (Hanson, 2013). Breen (2007) argues that despite this, a researcher must consider ways to satisfy the rigor of research. The opportunity enabled me to co-create knowledge within the network and to facilitate network learning (Popp et al., 2014). I therefore considered myself to be an insider participant (Costley, 2010).

As a member of the MLA task team pursuing the conclusion of the dyadic agreement with the health authority of behalf of my university, I had a dual role in the process. I was the primary representative of my institution in various negotiations (chief advisor to the Vice-Chancellor and Dean) as well as an active and long-serving participant in the MLA process per se. In the period of 2012 – 2015, I chaired the MLA task team. The latter was a particularly powerful role. This added to the complexity of the multiple roles that insider researchers hold (Hanson, 2013).

There are both advantages and disadvantages of being an insider researcher. The advantages include ease of access to research setting, understanding the culture /context and the degree of knowledge (both tacit and explicit) (Breen, 2007, Costley, 2010, Ross, 2017). The ability to establish rapport with the participants based on existing relationships and the interpretation of the data with a deep knowledge of the political and historical context (Ross, 2017) was an advantage for me as an insider.

On the other hand, the disadvantages includes, researcher bias, greater familiarity that can lead to loss of objectivity, making wrong assumptions (having pre-assumptions

especially about situations and persons), the respondents saying what they thought I want to hear (Breen, 2007) as well as the power of having held a leadership role within the negotiations (Ross, 2017).

I needed to be aware of this throughout the process – in the design of the research questions, during permission for access, data collection and analysis as well as the ethical aspects of confidentiality, sensitive information, and compliance. No research within the context of an organisation is completely objective irrespective of whether the researcher is an insider or an outsider (Smyth and Holian, 2008, Ross, 2017, Costley, 2010, Hanson, 2013). In the process of designing the research question, my insider status allowed me to develop questions that I, in some cases, thought I knew the answers. The guiding eye of my supervisors and the identification of the gaps in the literature, enabled me to design questions that could assist the network but more importantly contribute to gaps in the literature.

As an insider researcher, the permission to conduct the research is often seen as an advantage. Given the context of doing research in a health setting, the protocols were much more stringent and had to follow the route of six ethics review/research approval committees (section 4.8).

My position as an insider is transparent in the writing up of this thesis in respect of the various roles I was involved in. An additional bias is possible if I had line management function over any of the participants (Smyth and Holian, 2008) and could coerce such participants. This is not the case as I work in one of the five entities being explored, each of which have their own governance and managerial structures.

4.5 Research Design

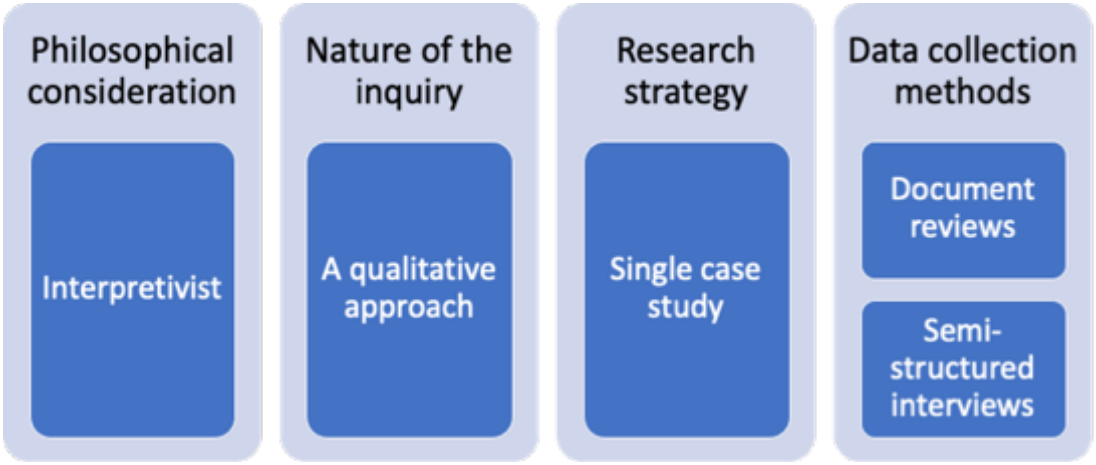

Figure 4-1: Research Design for the Study

The research design (Figure 4-1) was guided by the overarching research aim (and questions) in order to generate adequate and appropriate data to fulfil the research objectives.

Case studies use a combination of interviews, observations and document reviews to collect data (Bhattacherjee, 2012, Naidoo, 2019). Semi-structured interviews and documentary review were used to answer the three questions in this research study. Recognition of my role within the network influenced the design with specific care taken to ensure academic/research rigor for an insider researcher (Costley, 2010).

4.5.1 Research Setting: Location

The research study was carried out in Province X in South Africa where the four public universities described in section 3.3 partner in an interorganisational manner with the health authority to train various categories of undergraduate and postgraduate health profession students, conduct research and deliver health services. The province with its four universities was selected for the following reasons. This is a complex environment where the benefits of the relationship between the health and higher education sectors balanced against the tensions which exists between the various actors provides a setting for scholarly activity. The research topic was inspired by my being within this interorganisational setting and recognising that as organisations, we were operating in a context of uncertainty and complexity. This research allowed me to leverage off the experience of other network colleagues. A key aspect was bridging the gap between theory and praxis and to provide professionals like myself, the

opportunity to contribute to the production of knowledge within the context of such application (Maxwell, 2002, Breen, 2007).

4.5.2 Research Setting: Participants

As a senior manager in my faculty, I was known to all the participants. My role as an insider-researcher is discussed further in section 4.4. Networks evolve over time. The number of actors (member organisations) within the network is fixed at five (one health authority and four universities). The individuals in the governance structures and a number of the managerial structures change over time as portfolios evolve or individuals entered or exited the system. These changes are important as the institutional memory and the ability to form connections would vary over time. Those individuals who remained in the network for extended periods would have more time-based institutional memory and could have more connections than those who have recently entered the network. The length of time the selected participants were in their member organisations is included in Table 4-1.

In planning the sampling strategy, a number of aspects needed to considered. The participants should be likely to generate rich, dense, focused information on the research question to allow the researcher to provide a convincing account of the phenomenon; participants should produce believable descriptions/explanations and the plan had to be feasible (Curtis et al., 2000, Miles and Huberman, 1994). The approach I chose in the determination of participants from the network was driven by both the literature in defining the boundary of such network, the knowledge of the context of the network as well as a degree of practicality during the pandemic.

Participants were therefore purposively recruited from the four dyads to the agreement. The participants were all employed by one of the actors within the network. They had participated in the various structures within the multiparty structure, namely,

- The Health Platform Committee which is the governance structure below the political structure within the MLA, the Joint Agreement Governance Committee (JAGC) – section 3.4.3.
- The MLA task team which was mandated by the HPC as agents (to negotiate the revised agreements (Long et al., 2012)). As this group's membership had changed over the period 2012 – 2020, there were two additional criteria which determined their inclusion

- Part of the facilitated process from 2017 - 18
- Present at the January 2019 MLA workshop where the proposal was made to recommend to the JAGC sign off the 4 dyadic agreements.

- Participants were asked to advise if there were additional individuals within the dyads who could contribute to the process of answering the research question. A number were suggested (n = 5). Four of these responded. Of the latter, two had supported the technical work within the task team.

4.6 Data Collection

Case studies can use a combination of interviews, documentary reviews and observations (Yin, 2018). In this case study two sources were used, namely interviews and document reviews. The choice of these data sources served to harness the strength of case research in that the contextual data from both the interviews and the document reviews might assist to delve deeply into the social complexity of interorganisational networks. It also provided the opportunity to explore the perspectives of the participants as individuals in their organisations as well as members within the network. Observations were not possible over the longitudinal time-frame of the research (2012 to 2020).

Figure 4-2 indicates the timelines for data collection which started in December 2019 and concluded in October 2020.

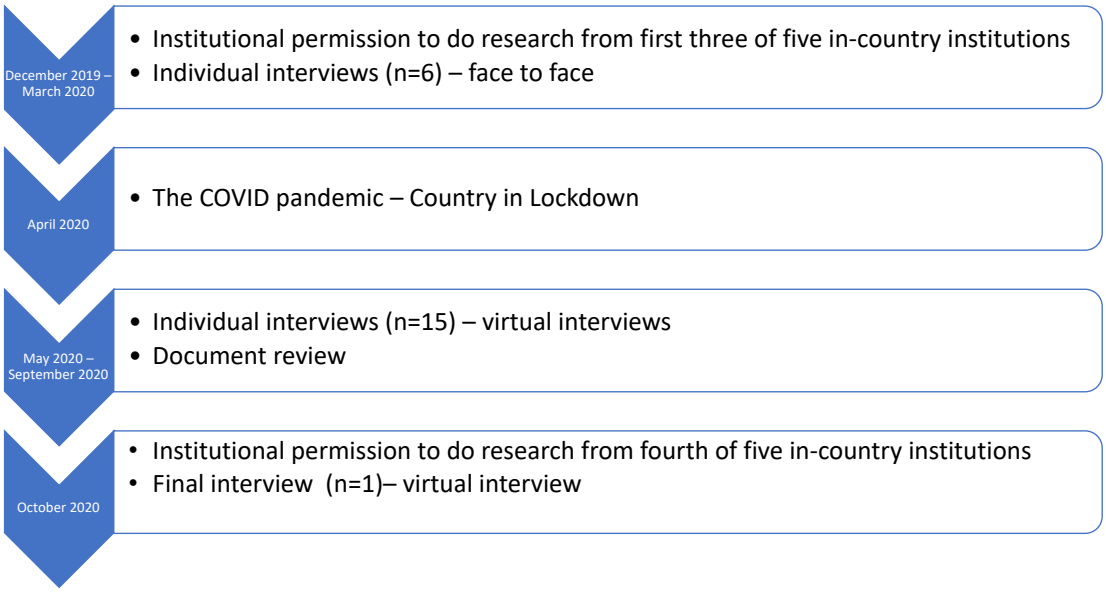

Figure 4-2: Summary of Data Collection Timelines

4.6.1 Interviews

In the development of my research protocol in 2018, I engaged with the MLA task team to explore my intention to embark on this research study. There was affirmation that this would be valuable for the parties to the agreement. The initial intention was to conduct the interviews over a 4-month period. Two developments impacted on this; namely the extended multiple in-country institutional processes to obtain permission to do the research (section 4.8) as well as the COVID-19 pandemic which impacted on the availability of potential participants as the health services were overwhelmed during the pandemic.

Twenty-two individual semi-structured interviews were held. The advantages of semi-structured interviews allowed for empowering the participants in the research process, opportunities for engagement with the researcher including around points of clarification, allowing the researcher access to the actual words of the participants (Bless et al., 2006), opportunities for participants to be open and frank (which could be inhibited in focus groups) and the opportunity for probing relative to the participants inputs (Flick, 2014). The disadvantage was that it is time consuming, generated large amounts of data and was labour intensive and honesty of participants cannot be guaranteed newcomer.

The interview guide is included as Appendix 2. The guide was developed drawing from the literature review, as well as through my reflection on my involvement, preconception and knowledge of the network (Fleming, 2018).

Table 4-1 below provides an overview of the participants as well as their tenure within their respective organisations including their experience at a managerial level. Of the 22 participants interviewed, 12 were from the universities and 10 from the health authority. The participants are coded as HA_# with HA indicating a participant from the health authority and # the sequential number of being interviewed. Similarly, UNI_# indicates a university participant and sequential order of interviews.

Table 4-1: Summary of Participants

Pseudonyms	Tenure[viii] in years	Management in years	Format of interview

[viii] Tenure refers to the length of time the participant was employed by the member organisation

HA_1	19	19	Face to face
HA_2	15	15	Virtual
HA_3	28	8	Virtual
HA_4	13	13	Virtual
HA_5	20	18	Virtual
HA_6	10	10	Virtual
HA_7	18	18	Virtual
HA_8	14	14	Virtual
HA_9	28	17	Virtual
HA_10	15	15	Virtual
UNI_1	15	14	Face to face
UNI_2	14	10	Face to face
UNI_3	46	5	Face to face
UNI_4	29	7	Face to face
UNI_5	30	2	Face to face
UNI_6	42	28	Virtual
UNI_7	31	10	Virtual
UNI_8	20	20	Virtual
UNI_9	20	10	Virtual
UNI_10	8	8	Virtual
UNI_11	7	3	Virtual
UNI_12	12	11	Virtual

HA = health authority participants; UNI = university participants

The initial six interviews were done in person; this was adjusted to remain compliant with the pandemic regulations and the balance was done virtually (via MS Teams or Zoom). All the interviews were audio recorded with the participant's permission. These were transcribed verbatim by a third party. The participants were all known to me and even though non-verbal cues were not possible in the virtual interview, the interviews were frank and engaging.

The total duration for the interviews covered 1456 minutes (24, 2 hours) of which 6,7 hours were face to face, and 17,5 hours were conducted as online interviews.

4.6.2 Document Review

Documents can provide a mechanism and vehicle for understanding and making sense of social and organisational practices (Bowen, 2009). Documents are socially defined, produced and then consumed and therefore require a reflexive practice in their analysis

(Coffey, 2014). The analysis of documents strengthens qualitative case studies (Yazan, 2015, Yin, 2018). In the analysis of documents, the focus could be on the product or the process of development per se, considering such documents as background information and context. The MLA task team participated in the construction of the documents and as social actors were deeply embedded in the process (Flick, 2014).

The advantages of document analysis include an efficient method for analysis, availability, cost-effectiveness, stability and coverage with the disadvantage of insufficient data, low retrievability and selection bias (Bowen, 2009).

The purpose of the document review in this study was to provide data as a secondary source of the context of the network. The source of data was five key output documents linked to processes during the evolution of the network as well as the minutes (30 sets) of the two governance structures of the network (the JAGC and HPC - section 3.4.3). While there were various other documents of processes and meetings held at various times during the timeframe since establishment of the network, legal opinions provided by some of the actors, as well as actor specific documentation, there was no verifiable repository of such documents. As an insider researcher, I had access to a few of these documents. The five documents, of which three were the legal agreements signed by the highest governance structures of the actors and other two approved for execution were all approved by the JAGC (section 3.4.3).

The documents (listed in Table 4-2) as well as the minutes of the governance structures (Appendix 3) were identified to form part of the documents to be analysed.

Table 4-2: Output Documents identified for Documentary Review

Document Pseudonym	Name of Document
Doc_1	Multi-Lateral Agreement Final 2012 - JAGC approved
Doc_2	Bilateral Agreement Template 2014 - JAGC approved
Doc_3	JAGC supported Multilateral Agreement Task Team Report - September 2018
Doc_4	Revised Bilateral Agreement Template 2018 - JAGC approved
Doc_5	Consensus Position to Inform Transitional Arrangements for the Bilateral Agreements, December 2019 - JAGC Approved

As a participant in the MLA task team and having lead my institutional dyad, I actively engaged in the construction of the first three documents in Table 4-2. In the case of Doc_2, I co-lead the process with the health authority legal head. I anticipated that the value of analysing the documents through the conceptual framework that informed this study, would add context to the study and provide data triangulation (Flick, 2014).

4.7 Data Analysis

Qualitative data analysis is a complex process and relies heavily on the analytical and integrative skills of the researcher as well as the knowledge of the context (Bhattacherjee, 2012). Many researchers offer guidelines for how to conduct such analysis (Miles et al., 2014, Flick, 2014). For qualitative research to be meaningful and yield useful results, a methodical and transparent approach needs to be followed. This involves a process of sense-making of the data to better understand the phenomenon being studied.

Within an interpretative paradigm, data collection and analysis can proceed simultaneously and iteratively. Within this study, data analysis commenced immediately after the first interview was completed. This was an important process as it provided me with the opportunity to consider my interview approach in using the interview protocol differently. For example, for the initial five interviews, I shared my definition of an interorganisational network at the start of the interviews. From interview six, I did this at the end. From interview six after the initial introductory components, I initiated the interview by asking the participants about how their involvement in the partnerships. The last nine interviews commenced with the opening comment – 'tell me about your journey with the agreement'. Interview guide adjustment is a strength of semi-structured interviews and allows for the agility of researchers to refine the guide after the first interview, the first round of interviews as well as periodically thereafter (Newcomer et al., 2015, McGrath et al., 2019).

Different methods are used to record, organise, analyse and present qualitative data. The stages of analysis can be broadly spilt into reduction of the text, exploration of the text and integration of the exploration (Elliott, 2018). Coding is a decision making process made in the context of the research (Elliott, 2018). This is driven by the need to make sense of dense text data which was generated during this study and sees the researcher '*getting to grips with their data, to spend time with it and ultimately to render it into something we can report'* (Elliott, 2018).

The terminology used by the literature to describe the coding process is a semantic mire (Elliott, 2018) and the terminology is not used consistently. Elliot (2018) suggests that there are broadly two levels of terminology representing different orders of concept. The first level coding is, as described by Saldaña, (2015) a '*word or short phase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data'.* This first level coding forms the basis for higher level inference (second order codes) which goes beyond the data and starts to aggregate code patterns to construct common ideas.

Thematic analysis was used to examine the text data to identify patterns and key concepts within the data. Both inductive and deductive approaches were used. A deductive approach uses a predetermined framework based on theory or existing knowledge (Saldaña, 2015). An inductive approach uses the actual data to structure the analysis. While the latter is more time consuming and comprehensive, it does allow the researcher the opportunity to garner rich data from the experience of the social actors; the themes emerge from the data (Bhattacherjee, 2012). I used both approaches; initially an inductive approach was used for the transcripts of the interviews and as I became more familiar with the text, I included key concepts from my theoretical framework (Figure 2-5) to supplement and modify my inductive themes.

The thematic analysis of the documents applied the aggregated categories from the interview transcripts to the documents. '*Predefined codes are used especially if the document analysis is supplementary to the other research methods'* (Bowen, 2009) such as interviews.

4.7.1 Process of Data Analysis

The tool used in this study to organise and visualise the thematic analysis of my qualitative data was thematic networks (Attride-Stirling, 2001). Thematic networks are web-like illustrations which facilitate a three level staging process constituting of six steps (Figure 4-3) '*to systematise and present the qualitative analysis'* (Attride-Stirling, 2001).

The initial phase, stage A, followed a process of reduction of text with the intention of coding the text, identifying abstract themes from the coded text, and arranging these abstract themes into three levels of themes (Basic Themes, Organising Themes and Global Themes). Each Global Theme contained lower order Organisational Themes

and these in turn were comprised of Basic Themes. The three levels of themes were illustrated as the thematic networks. Stage B explored the text by describing the various thematic networks and summarising them. Finally, in stage C, the integration of exploration, brought together the summaries of the thematic networks and the relevant concepts from the theoretical framework. The process then returned to the research questions to address these with discussion linked to the patterns that emerged in the exploration of the text.

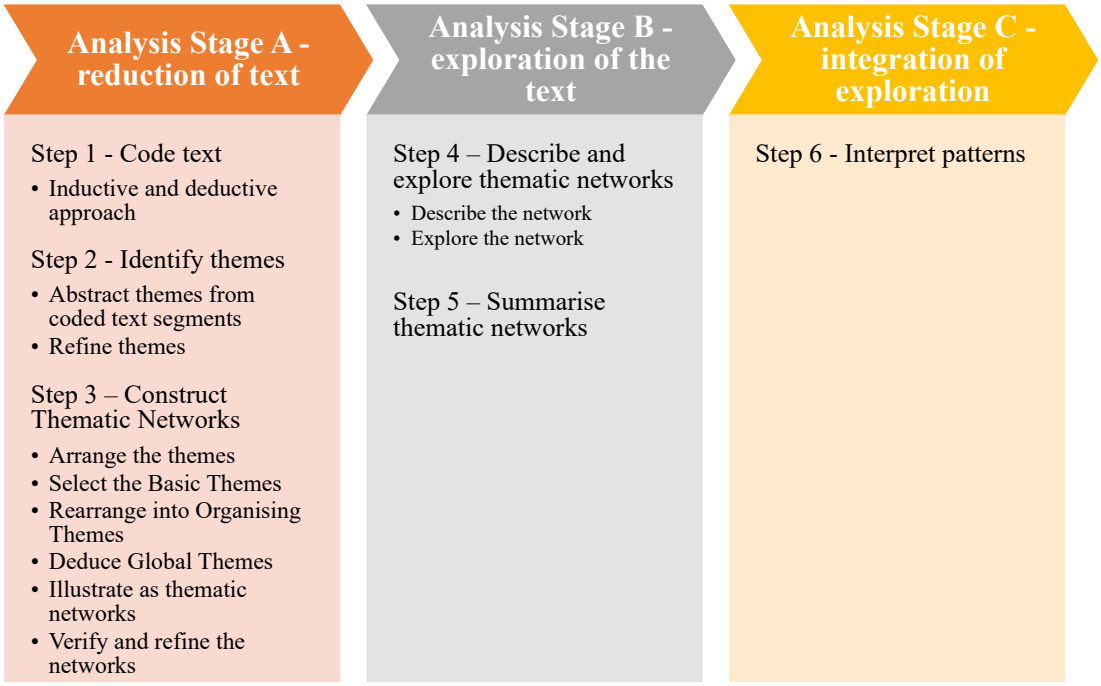

Figure 4-3: Three Stage Process of the Thematic Network Analysis

Source: Adapted from Attride-Stirling, (2001)

4.7.2 Analysis Stage A - Reduction of Text

4.7.2.1 Step 1: Coding the Material

The coding of the interview transcripts and the documentary review are reported separately. The interviews were all audio-recorded, archived and transcribed by a third party. The transcripts were anonymised. The transcripts were read for technical errors which provided the initial opportunity to familiarise myself with the text. The interview transcripts were initially coded inductively using open coding. The transcripts were coded manually on paper; transcripts were uploaded into NVivo12[ix] and coding done in NVivo12. This repeated examination of the raw data in an iterative

[ix] nVIVO 12 was used as a repository and for sorting of the data; auto-coding was not used.

manner through reading and re-reading the transcripts, correcting transcript errors, coding by hand and coding in NVivo12 was invaluable as I engaged in sensemaking of the data. The first six interviews were data-driven coding. A sample of the transcript coding extracted from NVivo12 is shown in Appendix 4. In the next analysis phase, I started to aggregate these initial codes by grouping those which overlapped or were similar. This resulted in 19 initial categories (Appendix 5) and these were used as aggregate codes to code transcripts seven to ten while still being open to new emerging codes.

The 11th to 22nd transcripts were coded using these initial categories as well as a deductive structured approach linked to theory (DeCuir-Gunby et al., 2011). For example at this stage, the 'grouping' of complexity was expanded to three types of complexity (section 2.6.4) linked to theory.

The coding of the transcripts in three stages (Table 4-3) was linked to my ability to access the participants for interviews. The pandemic resulted in lockdown in South Africa on 27 March 2020 as reflected in section 4.6.1.

Table 4-3: Timing of Semi-structured Interviews

Interview #	Dates
1 - 6	12 Dec 2019 - 11 March 2020
7 - 10	13 – 14 April 2020
11 - 22	1 July – 12 October 2020

The documentary review followed the same deductive-inductive approach of using these 19 initial categories as aggregate codes to code the documents. A sample of the document coding is shown as Appendix 6.

4.7.2.2 Step 2: Identification of the Themes

Step two involves revisiting the coded text segments through re-reading the segments of texts (both in the transcripts as well as the documents) to further identify and define the emerging themes by considering patterns and possible structures of the codes. This iterative process required the categories to be moulded and adjusted to be '*specific enough to pertain to one idea, but broad enough to find incarnation in various different text segments'* (Attride-Stirling, 2001).

This process resulted in additional categories (n =31) being identified. These formed the basis for the first step of the construction of the thematic networks. The mapping of the 31 categories against the initial categories is shown in Appendix 7.

4.7.2.3 Step 3: Construction of the Networks

The initial themes derived from the text were considered and clustered into similar coherent groups. The decision on how to group themes was made on the basis of content of the text as well as theoretical grounds. The thematic networks were created with the objective of summarising particular themes in order to create larger unifying themes drawn from lower level concepts an ideas.

- The codes were organised into 31 Basic Themes: these Basic Themes are aggregates of the initial coding and started to consider patterns within the data.
- Organising Themes group together several Basic Themes such that they are clusters of similar issues. Eleven Organising Themes were identified. The relationship between the Basic Themes and Organising Themes is mapped in Table 5-2, Table 5-3, Table 5-5 and Table 5-6.
- Global Themes are groups of Organising Themes. They are a summary of the main themes and interpretation of the texts. Four Global Themes were identified. The relationship between the Organising Themes and Global Themes is mapped in Table 5-2, Table 5-3, Table 5-5 and Table 5-6.

The four Global Themes formed the basis for the construction of the thematic networks conceptualised around an Overarching Theme (Networks as Processes in Flux) (Attride-Stirling, 2001):

- Network Evolution: This thematic network includes the Organising Themes of the Operating Context in which the network evolved, as well the Negotiations within the network.
- Network Development: This thematic network presents the conceptualisation of the Framing of the Network and Design of the Network.
- Network Management: This thematic network groups the Organising Themes of Change Management, Tensions and Resourcing within the network.
- Organisational Capabilities: This thematic network is conceptualised as those intangible assets which enables these institutions to use their networks, experience and resources, and social capital to influence the system. It brings together the

Organising Themes of Leadership, Partnerships, Power and Governance of Complexity.

A summary of the theme outline of the Basic, Organising and Global Themes is attached as Appendix 8.

4.7.3 Analysis Stage B - Exploration of the Text

The description and exploration of the thematic networks (step 4), as well as the summarisation of the thematic networks are covered in detail in Chapter 5. Each of the four thematic networks will be discussed in their constituent themes (Basic, Organising and Global) which were progressively grouped from the initial codes. I will exemplify each thematic network with illustrative quotes from text data. For each thematic network a tabulated summary of the coding process from the code across the various categories of themes is presented.

4.7.4 Analysis Stage C - Integration of Exploration

Finally in stage C, the sixth step is to interpret the networks in the context of the theoretical framework and the research questions. The purpose is to bring together the key conceptual findings from the four thematic networks in a cohesive manner and relate them back to the original questions and the relevant theory described in Figure 2-5. Chapter 6 covers this in detail.

4.8 Ethical considerations

The following ethical considerations were applicable to the study:

The right to participate: a participant information form detailing the purpose and nature of the research was provided to all potential participants who had the choice to be part of the study or not (Appendix 9).

Informed consent: the informed consent form (Appendix 10) was approved by all the institutional ethics approval structures. All participants were required to sign the form. Given the constraints of the pandemic, this was done electronically and, in some cases, verbally (this is part of the audio recording of the interviews in the case of the virtual interviews).

Anonymity of participants: no names of participants or their institutional affiliation are reflected in the thesis and the identity will not be disclosed except through me. In the transcripts, the names of individuals were redacted in quotes used in the thesis.

Data protection: the data is protected as per the doctoral data management plan submitted in July 2019 to Bath University.

Institutional authorisation for research: The ethics review process through my enrolling programme (the University of Bath) provided the permission /approval for the research to proceed (July 2019). This approval however did not cover the approval of the research at a country level, that is, within South Africa. Health research must, in terms of the Health Act No 61 of 2003 (Republic of South Africa, 1977) be approved by an accredited research ethics committee, prior to the start of research activities that anticipate interaction with human participants. This research initiative which considered the interface between a health authority and four universities therefore required multiple approval processes in South Africa. Each of the five entities had different processes for approval to do my research making the regional approval a lengthy one. The health authority process required approval by at least one of the four regional university ethics committees before it gave approval for the research. None of the four regional universities have a reciprocity arrangement for research done across the institutions. Appendix 11 – Appendix 15 include the institutional authorisations with consideration given to the anonymity requirement.

The research approval processes commenced in June 2019 at the enrolling university (Bath University) and the four of the five South African entities processes occurred over 12 months. This raised challenges in that the adapted data collection strategy started with those participants where I had received institutional approval. The fourth and fifth ethics committees asked for changes to the proposal which was the basis for the research approval by both enrolling institution as well as three others. These were not substantive but raised the question how one would manage such a process. The eventual data collection was staggered over 11 months.

4.9 Credibility and Trustworthiness

The trustworthiness and validity of qualitative research depends on what the researcher hears and then gives meaning to it. In the interpretative paradigm, the following quality criteria need to be considered such as credibility, dependability, confirmability, and

transferability (Lincoln and Guba, 1986, Breen, 2007). This includes multiple sources of data and methods of data collection, audit trails, discussion about interpretation with informants and detailed description of both the setting and the informants involved in the study so that readers could determine the credibility and transferability of findings to different contexts based on the level of similarity between research and other settings.

The following strategies were used to support this research (Noble and Smith, 2015, Breen, 2007):

- I was deeply aware of my position at every stage of the research process and had to carefully reflect on this at all times – section 5.4.1.3 reflects a direct statement to the institutional privilege I held as well as the privilege of access which students were afforded.
- One of the strategies to ensure credibility and transferability is to ensure that the participants have the experience to discuss the phenomenon being discussed (Curtis et al., 2000, Miles and Huberman, 1994). Table 5-1 summarises the tenure of the participants, including their time at a managerial level with a median of 12 years in a management role in the network. This allowed a level of confidence that the participants would be knowledgeable about the phenomenon. The experience of the participants together with an overview of context provided a '*detailed description of both the setting and the informants involved in the study so that readers could determine the credibility and transferability of findings to different contexts based on the level of similarity between research setting and other settings'* (Breen, 2007).
- Meticulous record keeping, demonstrating a clear decision trail and ensuring interpretations of data was consistent and transparent. The use of NVivo12, the recorded and transcribed interviews and thematic analysis using the thematic analysis tool supported the record keeping of data and demonstrating the process followed in the project.
- Prolonged engagement with the participants and data – the time spent with the 22 participants from the various dyads as well as the process of in-depth engagement with the data through reviewing the transcripts/documents, coding and recoding and developing the thematic networks, provided the opportunity to have a deep understanding of the phenomenon.

- The inclusion of rich and thick verbatim descriptions of participants' accounts to support findings used to illustrate key themes from the research which also served to support the results of the study.
- Respondent validation: there are different views on the utility of respondent validation (Thomas, 2017). This process includes inviting participants to comment on the interview transcript and whether the final themes and concepts created adequately reflect the phenomena being investigated. The transcripts were verbatim record of the interview and where there was uncertainty, these were returned to the participants. There were no substantive comments. The thematic networks, final conceptual framework and key findings (Appendix 16) were tested with participants. The responses reflected on the positioning of themes in different thematic networks and provided a degree of affirmation on the findings. By example: '*It's fascinating, resonates with me, and makes me wish to read the thesis in its entirety. The stages in the process are well captured as well as the asymmetry of power, attitudes and experience' (UNI_6)*. UNI_5 commented: '*Congratulations for the scholarly work you have produced. It was a pleasure participating in the study both as participant and representative on the MLA Task Team. I am fully agreeing that your findings are a true reflection of the data related to the MLA . However, I am recommending that arrows be used to reflect the relational dependency in Figure xx'.* In response to the key finding of 'Three key processes were critical in the evolution – the need for a change management process at a network level, a skilled team to drive the negotiations and careful consideration of the context specifically the historical context', UNI_9 responded: '*Support these and can clearly relate to it as someone who was part of the process*'. HA_10 feedback was that: '*This is an excellent summary of a very complex study – it captures the essence*'

4.10 Summary

This chapter provided an overview of the rationale for a single case study to explore the evolution of an interorganisational network in higher education in South Africa. The goal has been to build knowledge that is helpful to the theory and practice of interorganisational networks. The philosophical underpinnings of the study, the choice of research design, and the data collection including the tool of thematic network have been described. Chapter 5 will use stage A and B of the thematic network analysis

framework to provide an in-depth description of the analysis and the findings that emerged from the data.

5 Findings

5.1 Introduction

This chapter reports the findings from this study by theme, as identified in the data analysis process outlined in section 4.6. I could have alternatively decided to structure the findings under research questions, or to link the findings to the four dyads comprising the interorganisational network. The latter would have the ethical consideration of maintaining anonymity. The second option is a frequently selected one although it conflicts with one of the strengths of interpretative case that is that research questions can be modified during the research process if the original questions are found to be less relevant or salient which is not possible in any positivist method after the data is collected (Bhattacherjee, 2012). The thematic approach was therefore selected to report the findings.

The tool of thematic networks, used to visualise and organise the thematic analysis of the qualitative data, was described in Chapter 4 (Figure 4-3). Stage A of the thematic network framework, incorporating steps one to three (reduction of text) was previously outlined in section 4.7.2 and will be further expanded here. Stage B of the analysis process, comprising the description and exploration of the thematic networks (section 4.7.3), as well as the summarisation of the thematic networks will also be covered in detail.

In addition, the chapter includes a brief overview of the participants' years of professional experience working within the network. This provides an overview of the interview sample whilst demonstrating that participants have the necessary experience to knowledgably discuss the phenomenon being researched (section 4.9).

5.2 Participant Managerial Experience

Table 5-1 provides an overview of the participants in the study. The collective experience of the participants is 423 years with more than half of this experience being part of the respective actors' management structures. The total years in management varied amongst the 22 participants with a range of 1.5 years to 28 years. Management was considered as being part of the faculty management or more senior in the universities and at the level of chief director and higher in the health authority. The participants who were in the MLA task team as part of the negotiating teams over the

period of the study had 317 years of sector experience of which 188 years were in management positions. At a personal level, I have excluded my experience as an insider participant in the summary of experience (section 4.4). My tenure was 14 years in my current position at a leadership level.

Table 5-1: Managerial Experience of the Participants (n = 22)

	Total	Mean	Median	Interquartile Range	
Tenure[x] in years	423	20,6	18,5	14	28,8
Years in a Management Role	265	12,5	12	8,5	16,5

5.3 Construction of the Thematic Networks

The four thematic networks described and explored below can be conceptualised around an Overarching Theme of 'Networks as processes in flux". The dynamic nature of the process became clear after the initial interviews and although participants did not articulate this as processes in flux, the journeys that they described over the seven-to-eight-year period since the signing of the MLA, spoke to the changing processes within the network during this time. This overarching theme will be discussed at the end of this chapter (section 5.8).

Applying the analytic tool of thematic networks to the text, the data was grouped into four thematic networks as described in section 4.7.2.3. Each thematic network is named according to its Global Theme, namely:

1. Thematic network 1 - Network Evolution
2. Thematic network 2 - Network Development
3. Thematic network 3 - Network Management
4. Thematic network 4 – Organisational Capabilities

Each of the four thematic networks will be discussed in their constituent themes (Basic, Organising and Global) which were progressively grouped using the process outline in section 4.7.2.3. I will exemplify each thematic network with illustrative quotes from text data (section 4.7.4). For each thematic network, an illustration of the thematic network will be presented, followed by a tabulated summary of the coding process

[x] Tenure refers to the length of time the participant was employed by the member organisation

from the code across the various categories of themes. Each Organising Theme will commence with the illustration of the theme and its constituent Basic Themes.

Figure 5-1 presents the four Global Themes in relation to the Overarching Theme of 'networks as processes in flux'.

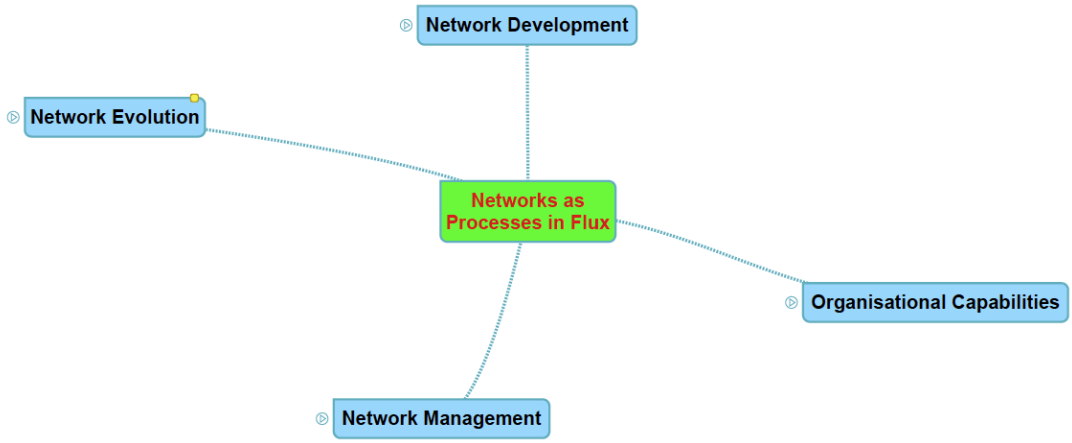

Figure 5-1: Total Thematic Network Structure

5.4 Thematic Network 1: Global Theme: Network Evolution

The Global Theme Network Evolution consists of two Organising Themes and six Basic Themes (Figure 5-2). This thematic network includes the Organising Themes of the operating context in which the network evolved, as well the negotiations within the network.

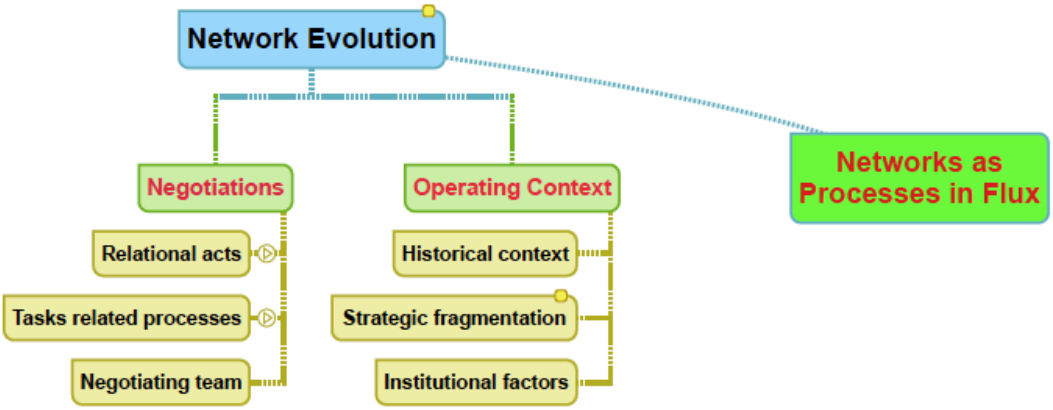

Figure 5-2: Thematic Network 1: Network Evolution

Using the process outlined in section 4.7.2, six Basic Themes on the basis of conceptually related content (section 4.7.2.2) were created. These were further grouped into larger shared concepts to create two Organising Themes of Negotiations and Operating Context. Finally, these two Organising Themes were grouped together to form the Global Theme of Network Development which encapsulates the broadest level of thematic analysis of the interview and document data. The construction of Thematic Network 1 from codes to themes is summarised in Table 5-2.

Table 5-2: Network Evolution - from Codes to Themes

CODES (step 1)	BASIC THEMES (step 2 and step 3)	ORGANISING THEMES (step 3)	GLOBAL THEME
Historical inequity	HISTORICAL CONTEXT	OPERATING CONTEXT	NETWORK EVOLUTION
Apartheid legacy			
Policy disjuncture	STRATEGIC FRAGMENTATION		
Legislative framework			
Equity of access	INSTITUTIONAL FACTORS		
Definiton of equity			
Educational factors			
Negotiating voices			
Acts of separation: lack of trust	RELATIONAL ACTS	NEGOTIATIONS	
Acts of separation: self preservation/territoriality			
Acts of separation: conflict			
Acts of separation: lack of transparency			
Acts of connection: commitment			
Acts of connection: transparency			
Acts of connection: openness			
Substantive acts	TASK RELATED PROCESSES		
Procedural acts			
Skill set	NEGOTIATING TEAM		
Seniority of team			
Tenure of team			

5.4.1 Operating Context of the Network

This Organising Theme considers the operating context in which this interorganisational network has emerged. The research study extended over a period of 2012 – 2020, however the relationships between the actors as organisations have a much longer history. The participants had varying involvement within the operating context which changed over time, prior to the signing of the multilateral agreement (MLA), through the facilitation process until the end of the study period.

> *"I think in hindsight, if we wanted to do* the *MLA, and I know it's a lot of years that went into it, but in hindsight, it was a different era. So probably it would be unfair to say the MLA, the people that worked on the MLA, would have been able to do it because for the context in which they worked, it was a brilliant achievement for the context. With the context that we have now, we could have done it differently, but then the problem would have been you would have had to have changed significant factors in the context to have been able to have done it differently" (HA_9).*

The three Basic Themes within the Organising Theme of Operating Context are:

- The historical context
- Strategic fragmentation
- Institutional factors

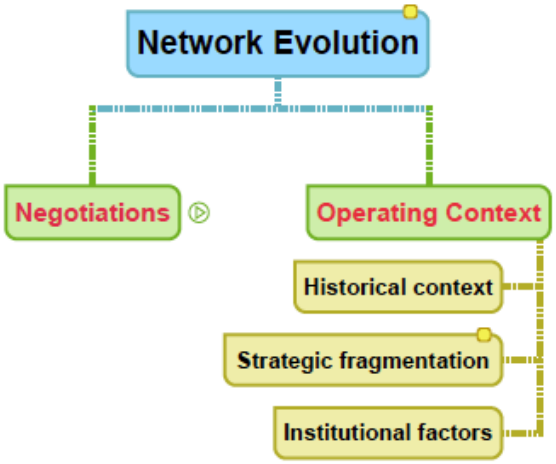

Figure 5-3: The Operating Context Organising Theme

5.4.1.1 Historical Context

The historical context as a Basic Theme emerged and was expressed in many different ways, on how it influenced the genesis and emergence of the network. This was closely linked to the theme of equity/fairness (section 5.4.1.3). Participants articulated this differently and shared their experiences that extended from the pre-MLA period (prior to 2012) to the negotiations during the eight-year bilateral agreement processes (until 2019/20). Two broad areas emerged; one was the legacy of apartheid and how the system of higher education was designed and the other the consequence of such design, and thus the historical inequity.

In the foundation statements of the MLA, "*the Parties recognise that apartheid and other discriminatory laws and practices of the past resulted in inter alia historically black Institutions, and in certain instances other Institutions, not having equitable access to the Service Platform… and wish to redress past discrimination by entering into this Agreement...*" *(Doc_1, p3).*

> *"Our history is so fractured, and I think the history laid a range of perceptions, and those perceptions, very often people look for confirmation" (HA_1).*

The practices of universities in the pre-94 era were deeply embedded in the political system of the time and influenced the universities differently as described in Chapter 3. The leadership of universities through their Vice-Chancellors engaged in different ways such that the white residential universities and the so-called 'state universities' (the 'non-white' universities) had different leadership structures (CUP – the Committee of University Principles for the former and CUR – the Committee of University Rectors for 'state universities'). Within the white residential universities there were two 'camps' the 'broederbond[xi]' universities (Afrikaans universities) and the so-called open universities (English). The four universities in the researched network had their establishment within these different groupings.

> *"I had to arrange four separate venues for* [redacted] *CUR meeting and then for the CUP meeting, ... So basically, the broederbond universities met as a group, and the so-called open universities met as another group. ... You had the broederbond universities caucusing, and you had the open universities caucusing, and they went in, armed with their positions, to the joint meeting (with the CUR)…" (UNI_6).*

The two faculties with medical programmes were established in the Apartheid era (section 3.2.1), one linked to a historically English university and the other to a historically Afrikaans university. The large tertiary hospitals (teaching hospitals) were built and were co-terminous to these faculties. One of these universities with a medical programme owned the land on which the teaching hospital was built. This required specific commitment in the agreements to ensure access of students for training from other universities (Appendix 3: HPC_5). This design provided the faculties with medical programmes easier access to such training facilities. In addition, the financial and organisational arrangements were closely linked. This resulted in the resourcing for staffing heavily weighted in favour of those faculties with medical programmes. The health authority, given the centrality of doctors in the health system (section

[xi] **Broederbond** was a secret society of Afrikaner Nationalists committed to securing and maintaining Afrikaner control over important areas of government (Collins English Dictionary).

5.7.3.1 - medical hegemony), leveraged off this to enable the signing of the MLA. The consequence was that the non-medical programmes within the health sciences faculties with medical programmes as well as the faculties without medical programmes were left behind during the negotiation periods.

> *"I think we realised the importance of getting the Multilateral and getting the big frameworks in place, and leaving some of the other stuff for the next process. I think it was a strategic decision" UNI_12.*

The strategies of *"bringing the past into the future, if one can call it that, and how do we navigate that space" (UNI_9)* were emphasised. While recognising the value of the work done in terms of finalising the MLA in 2012, an area that was not adequately navigated was how to address the historical inequities:

> *"Part of the reason why I say that is because as somebody who was in the process prior to 2012 and then being involved in the facilitated process, the recognition that the process up to 2012 and the signing of the multilateral agreement was in fact a process which was skewed in a way that did not sufficiently recognise the inequities within the system" (HA_2).*

The historical resourcing linked to the position of the medical programmes to the Health Authority as well as the networking of the faculties as 'historically advantaged universities' (section 3.2.1) gave them the advantage. They were seen to have deep pockets ('old money') which facilitated the capability of these actors:

> *"...they are institutions that have networks that have been in this environment a very long time. That's one aspect of the inequity and the intellectual capital that goes with it, but then institutions that are blessed in that way, and advantaged in that way, historically, also then have systems that allow for data and information to come through, that enables you in negotiations" (UNI_12).*

> *"Often we might refer to deep pockets, where institutions simply have got resources to fall back on. So that applies to almost everything, not only health sciences. ... So if there is a higher education crisis like we had with the student unrest, 2016/17, certain institutions simply have*

the backing to do more, take certain measures, that others can't do" (UNI_4).

The biomedical model, linked to the medical programmes (section 5.7.3.1) was recognised as a mechanism for continuing the practices of the past, whether this was through resourcing (staff or financial), representation of the head of health in the bilateral structures (section 5.5.2.2.) as well as whose voice was heard at the table. The drivers behind getting the MLA signed were those dyads who potentially had more to lose: that is, those with medical programmes:

"...from a constitutional perspective between the four HEIs, there are very clear historical arrangements and differences in terms of historical means, historical voice, historical power to influence decisions" (HA_9).

"Province saw the power of these institutions with their medical schools" (UNI_12).

"The issue of, well, obviously our history, and the issue of trust, and the lack of trust and the building of trust, that we had to over this time actually get to. It's the whole thing of having a TRC [xii] and opening the wound and covering the wound again. Here, in this case, I believe that we did it the other way" (HA_7).

All twenty-two participants were educated in South Africa at one of the universities described in Chapter 3; the majority in the pre-democracy era. References to the Apartheid system was expressed in various ways. The consequences of the system were as reflected in the aforementioned paragraphs. Participants used the frame of reference to Apartheid in different ways reflecting the reality of the system within their lived experiences, for example: '*we now have a democratic government, and all of those laws have been changed, if you ask any person who has been on the receiving end of the unfairness, whether they fully trust, if you ask the disadvantaged whether they trust the formerly advantaged, I think the answer will be no" (UNI_4)* or *"it's like*

[xii] TRC – South Africa established a Truth and Reconciliation Commission to help deal with what happened under apartheid. The TRC was based on the Promotion of National Unity and Reconciliation Act, No 34 of 1995.

saying so what would we experience in apartheid" (HA_7). I was reminded of the Apartheid's discriminatory practices of segregated universities and the need for a permit to study as a doctor (Appendix 1).

5.4.1.2 Strategic Fragmentation

The strategic intent of the network required that the actors, the health authority and universities, whilst acknowledging their interdependence, work collaboratively to achieve the desired goals. The problem was policy disjuncture at various levels. The policy framework between the national ministries, the National Department of Health and the Department of Higher Education and Training in respect of funding for health professions education is unresolved. A third ministry, the National Treasury, is responsible for the allocation of such funding:

> *"Well, the constraints have been the issue of funding, but also, you know, there has been this whole move on what is the role of the National Department of Health, versus the National Department of Education, versus the Provincial Department versus the universities. That is something that we as the leaders and the stewards, that is something that has been impeding, and preventing us from moving" (HA_7).*

The Health Authority receives funding from National Treasury (the Health Professions Training and Development Grant, HPTDG) to compensate for the fact that they host the training of health professions students within that province. The universities on the other hand receive the Clinical Training Grant (CTG) from the Department of Higher Education and Training to support clinical training of health professions students.

One of the purposes of the MLA was to ensure an appropriate framework within which the funding for tertiary health sciences education can be negotiated to the benefit of all parties concerned. The instruments to make this possible for provincial health authorities and universities to appropriately resource health science education requires a clear policy framework. This framework was at the time of the research been in abeyance for many years.

The other area of policy disjuncture is the mandate for the health authority is funded at a provincial level in terms of service delivery, while the universities' mandate is funded and monitored via a national process (Appendix 3: JAGC_2). The drafting of

agreements (at a regional/provincial level) therefore occurs in a national policy vacuum:

> *"So in fact, there's a lot more that needs to be done at a National level to enable Provinces and universities, higher education institutions to derive the best benefit from that relationship" (HA_2).*

Historically the national funding framework was focused towards the training of medical doctors and not the other health professions required for a well-functioning health care system. This has not changed and has resulted in tension in how the training of these other health professions is resourced:

> *"The original Health Professions Training and Development Grant wasn't in fact that. .... It was never designed to deal with the other faculties of health sciences. So when you then start to draft agreements that try to ensure that all health faculties, or health science faculties rather, are adequately funded in terms of their mandate, one then needs to find out where are the instruments that make that possible" (HA_2).*

The role of the prevailing socio-economic and socio-political environment continues to influence the policy framework. In the words of a senior university administrator*: 'all those Task Teams at National level, and all the policy balls-ups, and policy initiatives and policy dreams requires new way of thinking and a new way of doing' (UNI_12).*

5.4.1.3 Institutional Factors

The last Organising Theme considers the operating context at an institutional level. I will report on findings under this theme in terms of two of its constituent codes: equity/fairness and educational factors. The definition of equity is included in the former and the last constituent code, the negotiating voice is include in the discussion of historical context and power dynamics.

Equity/Fairness

Equity and fairness were raised from a number of perspectives. There was no consensus on the definition of equity. The document produced as a result of the

facilitated process (Doc_3) calls for a "*more objective, quantified and definitive audit of the presence and extent of the historic inequity that is referred to in the MLA".*

The health authority approached this in a dichotomous way. On the one hand there was an expectation that the universities were calling for equity and therefore should provide a definition:

> *"We did pose the question in a different way to the four universities, to say that everybody calls for equity. Please give us your definition of equity, and since then until now, we could not get that definition. That led us to then say, from our perspective, what would we like to see equity of access to the service platform, and equity of access to resources" (HA_1).*

On the other hand there were an acknowledgement that the negotiations, (as a collective) prior to the MLA, finalisation did not adequately explore inequity:

> *"But essentially, the challenge that one has is that you have a history, and that in taking the process forward, what we failed to do, ... during the development of the multilateral agreement, we didn't delve sufficiently into the issue of inequity – where does it come from, why is it there, what is the nature of this inequity, and how does one ensure that this inequity is dealt with in a very open and transparent and fair way, and as I said, in good faith" (HA_2).*

There were varying definitions of equity which participants used interchangeably with fairness. This was driven by the lens through which equity was considered and included having a voice at the negotiating table, equity linked in inputs and outputs, as well as resourcing. A few quotes to illustrate this include:

> *"That we have an equal voice in negotiating what will happen" (UNI_5).*

"…if you've got equity of access to those requirements of the HPCSA[xiii], that should be regarded as one of the criteria for equity" (HA_1).

"it was clear to me that it would take a long, long time to start seeing through the same pair of spectacles…. as I began to learn where money came from and where it went to and how it was spent, I began to realise the extraordinary historical anomalies, the things that weren't working" (UNI 7).

Two broad areas of equity were raised. One was linked to resourcing and the second to access of undergraduate students to health facilities for training.

The universities linked equity to the resourcing received from the health authority and specifically how they were treated by the health authority in respect to differential support for the medical programme; both the funding arrangements as well as staffing.

"HEIs[xiv] expectation to be handled equally by the province" (UNI_3).

Access of undergraduate students to training facilities (with its concomitant support of the supervisory capacity) had a historical link in that the medical schools were built attached to the large hospitals which gave these facilities easier access for training. The expectation is that all students from all universities should be given equal access:

"…that we had to share that service platform equitably, that doesn't mean equally, between the four institutions" (UNI_6).

The treatment of students by health staff at facilities where they were not traditionally given access to training, was criticised:

"In the same breath, those same nursing Sisters will help a registrar, a ortho registrar, ortho paeds registrar, or a cardiac registrar, you know, one of the other registrars, because they're [redacted]. So the equality wasn't just financial. ... The equity was "listen here, this is not your platform man". [redacted] is not [redacted]s platform, neither [redacted]

[xiii] HPCSA – Health Professions Council of South Africa.

[xiv] HEI – Higher Education Institution

[redacted]*s.* [redacted] *is not* [redacted] *platform. The platform belongs to the government. It doesn't belong to you guys, and we want access, just like everybody else has access. You can't get first dibs at access, just because historically you have been associated, you know" (UNI_11).*

Equity as a goal was expected:

> *"there is an attempt to approach the – I don't know if I want to call it the matter – in an equitable fashion. So I think that is one, equity is definitely one of the goals of the network. And there is, although we go backwards and forward on it sometimes, you know, when we raise certain issues, I get the sense that there is an attempt for equity" (UNI_9).*

The importance of acknowledgement of inequity was summed up by HA_9: "*I think the most powerful thing about it is to name it and to recognise it and to acknowledge it for what it is. That's the most powerful thing. If there is one thing that's happened in this whole negotiated thing and where we got to, is actually the only thing we have done, as we say, actually, we acknowledge it".*

Educational Factors

The statutory requirements for the various undergraduate health professionals require different training periods. This complicates the measurement of access as well as the costs related to such training. The cost of training students includes the opportunity costs of students in the health facilities and costs of supervisors (Appendix 3: HPC_8). The benefits for having students in the health service were an area of discord (section 5.6.2.3):

> *"The other issue that one needs to look at is the duration of training. So, medical students train usually longer than other groups of students, so it will inevitably cost a bit more to train a medical student than for instance an Allied Health Professional or nurse. I think the other thing that comes into play is the remuneration of the supervisors" (HA_8).*

5.4.2 Negotiations

The negotiation processes to establish the network through a multiparty agreement in 2012, had extended over a number of years. There were the negotiations during the pre-MLA signing, negotiations prior to the facilitation process and negotiations after the facilitation process.

> *"The various attempts to reach agreement on a process to conclude the re-drafting of the Joint Agreements, stretched over a period of more than 20 years" (HA_2).*

The 2012 MLA was signed, with the intention that the four dyads would conclude their four dyadic agreements within one year (Doc_1). The process to negotiate and sign these has, at the time of this research in 2019/2020, not been concluded.

Three Basic Themes constitute the Negotiations Organising Theme (Figure 5-4):

- The relational acts
- The task-related processes
- The negotiating team

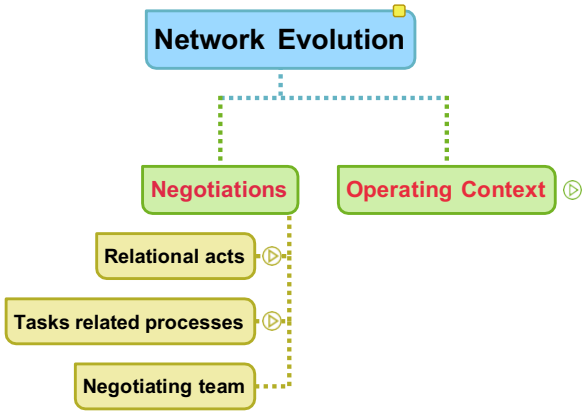

Figure 5-4: Negotiations Organising Theme

5.4.2.1 Relational Acts

All participants reflected on relational dynamics between different actors within the network during the various phases in the negotiation process. These relational acts suggested bidirectionality – those acts which reflected a negative relationship (acts of separation) and others which drove a positive relationship (acts of connection). Each

of these is a constituent code of the Basic Theme of Relational Acts, which will be reported on separately.

Acts of Separation

Insufficient trust, preservation of self-interests and conflict/animosity at various levels in the network (Appendix 3: HPC_12) were key areas that reflected the negative components influencing the negotiations and evolution of the network:

> *"... the Department and the parties involved got to a point where the multilateral agreement was signed, and there was an assumption that the joint, the bilateral agreements would be signed within a period of let's say 12 to 24 months. That didn't happen, and there were two main reasons ... lack of trust between the parties, and a lack of or a sense of good faith between the parties, but also transparency…" (HA_2).*

> *"The journey with trust .... Institutions collectively mistrusting the Department, the intention and the motives of the Department, and as articulated of saying well, you say this, but that one said this, and this is that, and this comes from there, as articulated in terms of the behaviours of specific people in the Department" (HA_9)*

> *"... so our relationship was stormy, ... you actually feared some of those meetings [chuckles] because of the animosity…" HA_7.*

The historical relationships between the medical programmes and the large hospitals gave exclusive use of certain training sites to the faculties with medical programmes (Appendix 3: HPC_5). There was hesitancy to relinquish such existing training facilities and their accompanying resourcing with actors holding onto positions. The facilitation process assisted in a shift from fixed positions to a more collaborative approach:

> *"...was that each university pursued its own goals, or own relationships with the Province, and a lot of that was based on the historical basis of pre 1994…" (UNI_3).*

> *"...my pound of flesh at the expense of the other, you're not going to go further ... So, that constraint led to, therefore, that every one of the*

parties would then use every potential opportunity when they perceived that the other party was trying to move forward to get something at their expense, would then put an obstacle in the way" (HA_9).

"I think it's fighting for territory almost, that constrained the relationship. So sometimes I think we all got very territorial about what belongs to us and what doesn't belong to us, and fighting over that" (UNI_8).

Acts of Connection

Acts of connection were those actions which drove a positive relationship. While the negotiations took much longer than intended, the length of the negotiations enabled trust to develop between the parties. This occurred particularly after the facilitation process:

"But I actually think that the one big plus related to the length of time it has taken, is that we have had time to build a relationship between ourselves, and build trust over time, which has helped us to have really good conversations about issues such as equity and so forth" (UNI_2).

The need to intentionally develop trust between the parties during the facilitation process, meant that the parties had to have hard conversations especially on the historical privilege that existed in the network. This trust was reflected in the behaviour of the individuals and it was through these actions that trust evolved. The behaviours included openness and transparency in engagement including in the disclosure of resourcing:

"we are where we are at the moment because there's trust, and the trust is based on openness and transparency and honesty and respect, dignity, integrity" (UNI_11).

Personal linkages played a key role especially as the negotiating teams' tenure in their organisations meant that the individuals either knew each other prior to joining the process or developed interpersonal relationships through the processes:

> *"...reasons why this process even worked to the extent that it did, is because the people around the table knew each other. I mean, [chuckles] we were all contemporaries and we all had a basic understanding of each other's position, and of course a basic trust and to a certain extent, respect and like for each other" (HA_6).*

Over time, the parties working within their own organisations as well as in the network meant that shared values developed. The commitment to make the network work especially in the interest of the health of the country became a key driver with the need to live out these values in order to make the dyadic and multiparty processes work:

> *"Shared values, which I believe we do have, because that could also take you in different directions if you don't have shared values" (UNI_2).*

> *"But we also know that things don't happen because it's on paper. It's people that are actually going to have to implement and exhibit and inculcate those underlying values that we have agreed to in living out those BLAs" (UNI_5).*

The facilitation process resulted in *a re-commitment to a Common Vision, Common Purpose and Common Values and to find Common Solutions in a spirit of partnership' and 'good faith recognising that this demands honesty, fairness and reasonableness' (Doc_3).* The pre-facilitation impasse in the process was reversed after the facilitation process.

5.4.2.2 Task-related Processes

Within the negotiation process, there were two areas of task-related processes - substantive and procedural activities. The facilitated process confirmed that '*the MLA is still substantively appropriate to guide the partnership between the parties' (Doc_3)* although *'what the parties did with the principles in terms of the own interpretation" (HA_9),* is what differed.

The substantive activities of developing the bilateral template (Doc_2) during the negotiations occurred primarily in the MLA task team who were mandated to negotiate the revised agreements. Prior to the facilitation process, a number of sub-groups were established (Appendix 3: HPC_1). The need to have data and information to inform

negotiations was important to drive the processes going forward. Initially the focus on financial modelling in the sub-groups was a source of conflict/mistrust as the actors had not yet developed the spaces to engage on such disclosure with openness and trust (Appendix 3: HPC_7):

> *"I think the discussion was on the wrong footing because it was all about the financial discussion, the parties wanting to try and work out as quickly as possible what the financial implications for each would be, instead of working on the principles and the intention of the agreement, of what is the role of the parties" (UNI_1).*

HA_3 summed up the procedural components which took time but were needed: *"in our drive to have a formal agreement, and to reduce it to paper and, you know, everything that goes with doing that, it does become – it tends to become almost legalese, and it tends to become very formal".*

The MLA task team was tasked within the governance structures to execute the technical work; this in various attempts to share information and do comparative analysis on the distribution of resources especially as the aspect of redress became a key issue. One of these procedures was the signing of the bilateral agreement template which was signed off in 2014 (2 years after the MLA was signed and one year after its deadline) (Appendix 3: HPC_6).

Technical work to consider to the funding arrangements linked to the student access to the health facilities (Appendix 3: HPC_7) was initiated:

> *"...to serve as technical support to look at key information and principles that would help shape this Multilateral Agreement largely from a funding and resource perspective" (HA_8).*

> *"...part of a costing, you need to know where students are. So from access to the clinical platform side, that became another work stream actually, to specifically look at access and where students actually rotate, and the whole process of getting approval for access, and the students on the platform, is there overcrowding at a facility. .. There are so many variables, the clinicians' time, the time that they actually*

spend with the students, the teaching component, the clinical teaching component, clinical training component." (UNI_10).

In addition, the importance of reasonable data and information was gathered to ascertain the flow of resources in the network. This was not yet completed at the time of the interviews. The asymmetrical nature of input from the various actors resulted in partial completion of the task:

"But as far as the resources of people and money are concerned, in health sciences, I would believe the jury is still out. I think if you want to make negotiations of more equal power, and you are able to get to an open and transparent sharing of your data and information, I think it just helps everybody that has an analytical lens to put that on the table" (UNI_12).

During the facilitation process, the shift towards a more pragmatic approach in preparation of the dyadic agreements was taken by all. One of the key components was an agreement to sign off the dyadic agreements with specific transitional arrangements for a period of five years.

5.4.2.3 Negotiating Teams

The knowledge, skills and experience of the negotiating teams were an important factor in the negotiation process. Table 5-1 reflects this by demonstrating the relatively long tenure of the participants and their years in management positions. The fact that the actors used their senior staff in the negotiating teams indicated a strong commitment to the process:

"I think the fact of the matter is that both the university and the Province takes the issue seriously by virtue of the fact that there are actually high-level appointments that actually deal with this" (HA_6).

This was tempered by the transient nature of some of the senior leadership as the institutional knowledge impacted the negotiations. This is further discussed under tenure in leadership (section 5.7.1.3).

5.4.3 Summary of Thematic Network 1: Global Theme - Network Evolution

The operating context and negotiation process were central to the evolution of the network. The actors within the network had to negotiate various processes which were deeply rooted in an historical context that had consequences at various levels. It impacted the health and higher education systems at a national level with resultant structural and policy influences at a provincial level. One of the historical components was the relationships of the health authority with selected universities who had medical programmes. This had to be re-negotiated to take into consideration redress and revised strategies within the network.

The voices of individuals and organisations (often not clearly delineated) expressed the experiences of individuals under Apartheid. The Apartheid system was used as a point of departure in expressing lived experiences within the network and beyond.

The negotiation processes were delegated to a skilled team and included both relational as well as task-related processes. The relational processes included acts of connection as well as acts of separation. Challenges of trust, self-interests, and animosity had to be navigated. The facilitation process assisted with open and frank conversations with a shift towards shared values.

5.5 Thematic Network 2: Global Theme - Network Development

The MLA (Doc_1) committed the five parties to the Agreement, which makes provision for: '*certain governance structures to regulate their relationship; establishing and ensuring equitable access by the Institutions to the Service Platform in a manner that is fair and transparent; and formulating certain fundamental principles that shall form the basis of their Revised Bilateral Agreements' (founding statement of the MLA, 2012).* The JAGC was formally constituted immediately after the 2012 signing of the MLA (Appendix 3: JAGC_1).

Network Development (Thematic Network 2) consists of two Organising Themes and six Basic Themes (Figure 5-5). This thematic network presents the conceptualisation of the framing of the network and design of the network.

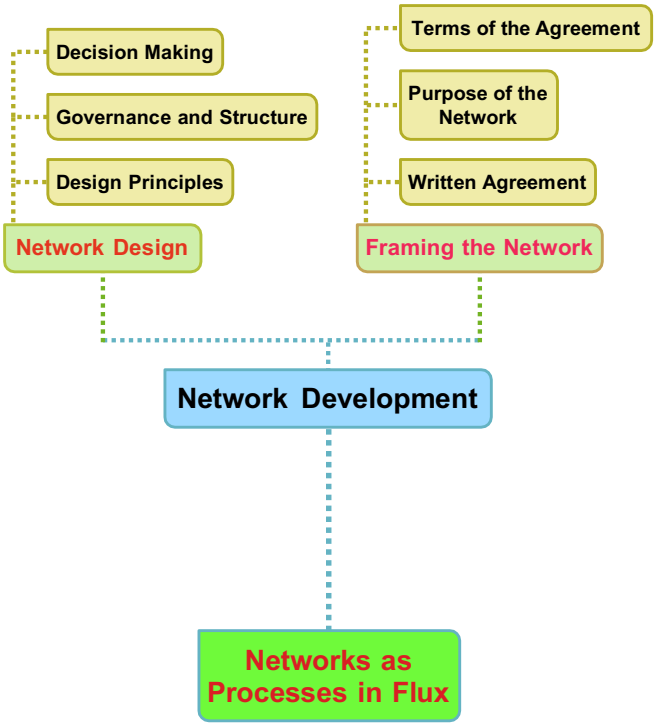

Figure 5-5: Thematic Network 2: Network Development

The construction of thematic network 2 is illustrated in Table 5-3.

Table 5-3: Network Development - from Codes to Themes

CODES (step 1)	BASIC THEMES (step 2 and step 3)	ORGANISING THEMES (step 3)	GLOBAL THEME
operationalise BLA	WRITTEN AGREEMENT	FRAMING THE NETWORK	NETWORK DEVELOPMENT
agreement utility			
unwritten part of agreement			
agreement content			
different perspective of mandate	PURPOSE OF THE NETWORK		
benefit of new agreement			
infinite relationship			
benefit for all			
common purpose			
purpose of agreement			
interdependance			
future generations	TERMS OF THE AGREEMENT		
guidelines of how to interact			
dispute resolution			
decision making			
definitions			
resource optimisation			
operationalise BLA/MLA			
monitoring and evaluation			
foundational principles	DESIGN PRINCIPLES	NETWORK DESIGN	
funding arrangements			
organisational arrangements			
governance arrangements			
students on the platform			
governance structures	GOVERNANCE AND STRUCTURE		
governance effectiveness			
governance roles			
decision making in governance structures	DECISION-MAKING		
decision making and relationships			

5.5.1 Framing the Network

This Organising Theme reflects the facilitation of the agreement as regard to its construction, rules, purpose, and the need to reduce the agreement in writing.

The decision to commit to a formal contract (agreement) was considered an important aspect of the network development, which included a framework to guide implementation and monitoring of the network. The three Basic Themes of framing the agreement were the need for a written agreement, the terms of such agreement as well the need to define the purpose of such network (Figure 5-6).

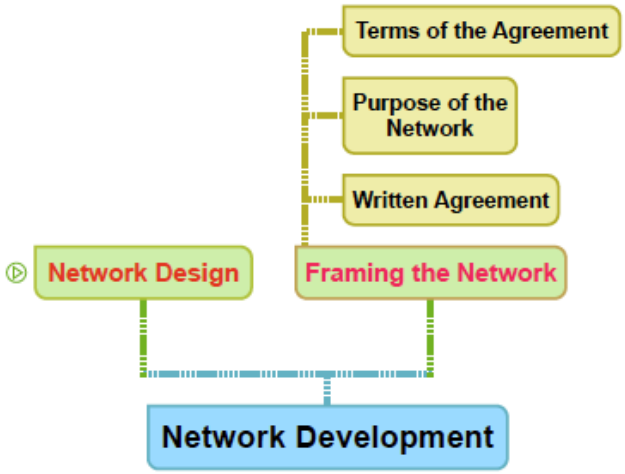

Figure 5-6: Framing the Network Organising Theme

5.5.1.1 Written Agreement

There was strong support to go beyond a good faith/informal agreement between the actors in support of a process that codified the relationship into a formal relational contract. The reasons given were diverse and are broadly categorised into the reasons of such agreement and the governance structures:

> *"if you don't have such an agreement and a good sound working relationship, then in fact you don't achieve your full potential" (HA_2)*

but worry that it could be a constraint in the way the relationships are managed:

> *"On the other hand, we're hoping that it's not going to hamper some of our relationships with some of the places" (UNI_9).*

There was an awareness that an informal agreement may not be adequate when the relationships were not optimally functioning:

> *"...we have to recognise that gentleman's agreements hold while things are going well, but we explicitly agreed that we have to make sure that if things don't go well, what is the fall-back. What are the principles, what are the critical aspects that actually find the parties, and actually call on each party to commit itself" (HA_1).*

A critique of the MLA was that while it was well constructed: "*I think that the forefathers and the scribes and the founders of the MLA that was signed in 2012, I*

think they did brilliantly" (UNI_11), there were gaps in that there was not enough technical work done:

> *"So I think there wasn't a lot of technical work done when the original Multilateral Agreement was signed" (HA_8).*

While reducing the agreement to writing was supported, the concern was raised that the difficult and uncomfortable conversations and discussions that happened during the course of negotiations especially during the facilitation process was not captured in the written agreement although it was suggested that this may have been captured in the 12 foundational principles (section 3.4.2):

> *"The difficult conversations, and that may not have been recorded accurately, or is not reflected in the MLA and the BLA, those difficult conversations are hinted at by the 12 principles" (UNI_11).*

One of the participants linked this back to the context of Apartheid in South Africa in that even though everything is written down, there still needs to be additional discussions, conversations and an enabling environment to progress:

> *"I mean, it's like saying so what would we experience in Apartheid? We can't write everything down. It doesn't mean because it's written down, that everybody will get to read it. It is in the engagement and in the way we treat each other, in the way that we have conversations, that I believe we build and we create enabling environments" (HA_7).*

The terms of such written agreement overlapped with the purpose of the network discussed below.

5.5.1.2 Purpose of the Network

All participants responded in various ways to the purpose of the network. This was conceptualised differently with a number considering the purpose of the network and others the purpose of the agreement. The adjective most commonly used was 'common' while the nouns varied: goal, mandate, remit, vision and purpose. Some of the participants considered the immediacy of the network while there was also reflection on the philosophical aspect of doing good for the betterment of society. The

sentiment for the 'benefit for all', 'in the interests of all' and the 'value of working on relationships that work' was frequently expressed.

The purpose of the network was broadly described as excellence in healthcare and in the teaching and training of health professionals as well as creating a supportive environment for furthering the frontiers in medical research.

Participant UNI_12 narrated a view of a collaborative project which would position the region as a model for the country:

> "*So I always thought a well-run Provincial health authority that certainly had, in my view, vision 2030, vision 2050, that wanted to be the best run Provincial – not Provincial – regional health authority in the world, with such world class institutions, both public and private, could develop new models of cooperation where each of us understood each other's strengths, and together would produce health professionals, health researchers, produce research, that would benefit not only the regional population, but the South African population. I thought there was a major, major dream that could have been realised, and led the way for what I would think could have been a South African way in the health system, and higher education system".*

This concept of collaboration was further expanded by the commitment to a '*social compact that we actually are doing this for the greater good, and it is better to work collaboratively with another institution, or with other institutions, or with many institutions, towards the greater good, and then to find in that journey the things that drive us collectively towards that point. … I believe happened in the last two to three years' (HA_9).*

The interdependence of the parties is documented in the preamble to the MLA and participants emphasised the importance of that they *'have to do it together' (UNI_3)* and for the benefit for all.

> *"AND WHEREAS the DOH and the Institutions have historically collaborated with each other with regard to interdependencies of*

Health Services and Health Sciences Academic Activities and wish to continue this collaboration on redefined terms" (Doc_1),

"...and the fact that if you are going to render the best health service, you need to be working with higher education institutions that have the knowledge and expertise at a very high level in terms of both academic, technical, clinical expertise, but also in terms of academic knowledge and research, and being at the forefront" (HA_2).

While acknowledging this interdependence, the autonomy of the entities, given to them through a legislative framework, required of them to prioritise their specific roles and responsibilities: the service mandate of the health authority and the academic mandate of the universities. The overlap of responsibilities is that component of clinical training within the health facilities where both the health authority and the universities have responsibilities. However, tension existed in terms of where the financial responsibility lay:

"The one is mandate, and the other one is responsibility. I think that the parties do understand their responsibility for both, but in terms of what is the mandate of each party individually, because the mandate then determines who pays for what, at the end of the day, who pays for what? Based on whatever your mandate is, that is what you need to ensure there is adequate funding for" (HA_2).

This theme is further explored in section 5.6.3.

5.5.1.3 Terms of Agreement

The reasons given for the agreement were diverse and are summarised below (Table 5-4) with an illustrative quote from participants:

Table 5-4: Terms of the Agreement

Code	*Illustrative quotes*
To guide future generations	*"...an agreement is there also not for the current generation, but also for future generations in terms of normalising, standardising, putting an agreement on paper, which just makes it easier for the next five, ten, twenty years, post the*

	current role players to understand what the intention was of putting it in writing" (UNI_1)
Guidelines on how to interact	*"...need guidelines for our interaction with each other, the way we make decisions etc, that are cast in some kind of stone, that provide guidance for us going forward, regardless of who the leadership is" (UNI_2)*
Dispute resolution	*"We need to have a written document because there is always something that we can go back to in terms of dispute" (UNI_8)*
Decision-making	*"So the MLA and BLA will give guidance as to how these decisions should be made" (UNI_2)*
Definitions	*"be as clear as possible around definitions, and work on a consensus approach" (HA_1)*
Resource optimisation	*"... by having an agreement, like the multilateral and the BLA, it not only forces the parties to focus on what are the resources available, and how could the resources be utilised and optimised to ensure that all the parties to the agreement can get the best benefit from that"* (UNI_1)
The operationalisation of the MLA /bilateral agreement	*"We can name a bunch of issues that became real, and that we knew it was thought through in the MLA, but it wasn't testing in practice. That's how it actually became real over the last couple of years, and we are seeing the benefits of it actually playing out, having the agreement in place. Even in the subsequent agreements, like the bilateral agreement, we obviously always go back to the MLA if there is any point that we are unclear of, and we use that. As we go along, it actually just grew and became a strong document" (UNI_10)*
Monitoring and evaluation	*"... just have a document which is signed, standing on a shelf ...We want to have a living relationship between the parties, and in order to do that, you need to have interactive feedback mechanisms in place to manage it" (UNI_9)*

5.5.2 Network Design

The second Organising Theme within the Global Theme of Network Development describes the design of the network. The three Basic Themes of Design Principles, Governance and Structure and Decision-Making (Figure 5-7) are exemplified below.

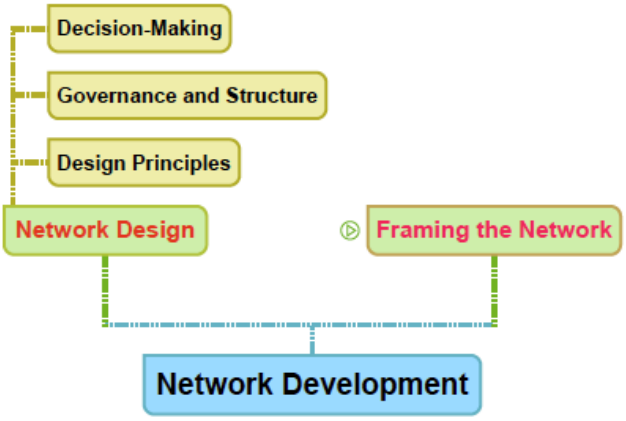

Figure 5-7: Network Design Organising Theme

5.5.2.1 Design Principles

The design of the network covered a number of components and included the governance structures (section 5.6.3) which were negotiated in the finalisation of the MLA in 2012, financial arrangements and funding of the activities within the network as well as how students particularly undergraduate students were managed on the clinical platform.

The facilitated process (section 5.7.1.2) five years after the signing of the MLA, developed the 12 foundational principles which were acknowledged as an important approach for the process going forward; both in terms of the design of the network as well as assisting the parties to negotiate the content of the dyadic agreements. Prior to the facilitated process, there was a strong focus on the financial arrangements (Appendix 3: HPC_5) between the parties and how this would be designed and executed and less attention to relational aspects:

> *"The 12 foundational principles that speak to trust, and also which speaks to the whole notion of fairness and ensuring that transformation and historic inequities get addressed, to me was really a fundamental shift in the way we had then, as a collective, started approaching various issues" (HA_10).*

> *"... in the beginning, there was a very strong focus on the claims and counterclaims processes, and lots of detailed work that was being done in the background, and modelling in terms of academic hours and modelling in terms of service hours. I think we really pushed very hard on that in the beginning, only to come to the realisation that that wasn't getting us anywhere, and that the only way to unlock that was again going back to the foundational principles" (HA_8).*

The second design principle which was included in the MLA (Doc_1) and was further clarified in the facilitation process was the organisational arrangement as it relates to human resources. This was weighted in favour of the doctor-driven, tertiary hospital settings and was a source of mistrust. The process after the facilitation process clarified the principle with a shift from human resources in general to relate this to "*the principles for the organizational arrangements for human resources required for students on the Service Platform*" (Doc_3).

The process of student placement for the clinical rotations in the health authority facilities consisted of a number of different aspects. There were ideas for shared resourcing of the platform, a centralised way of placement of students and ways of how students would be placed by direct engagement with the health authority. A revised and clearer process of access for students to training facilities in a decentralised matter linked to the health services structure was accepted.

The presence of students in the health facilities was raised as an area of conflict. This related to whether in the process of training, health professional students support service delivery, and what benefit such students bring to the health services. This was further linked to the health service contribution of those university staff supervising such students. This tension will be discussed further in section 5.6.2.3 but is exemplified below:

> *"...there are institutions that were not dependant on nursing agencies, as long as there is continuous flow of students, whether first, second, third and fourth years. It covers that gap, although they still need to be supervised, but they can do elementary tasks and chores, such that the institutions, there were institutions that were not depending on agencies. But the minute there were no students, the demand for agency increases" (HA_4).*

An area of network design which overlaps with the previous theme of strategic fragmentation (section 5.4.1.2) is the role of different arms of government in the design of such a network where different government ministries interface, without a clear policy framework for the operationalisation of the differing mandates of health and higher education:

> *"...there has been this whole move on what is the role of the National Department of Health, versus the National Department of Education, versus the Provincial Department versus the universities. That is something that we as the leaders and the stewards, that is something that has been impeding, and preventing us from moving" (HA_7).*

This fragmentation influences how the mandates of the parties are funded as reflected in the words of HA_1: '*The most difficult part has always been who funds what. Where does the money come from'?*

The current resourcing of the interface between higher education and health is not aligned at a policy level for two reasons; one is that the current funding is a national competence and this influences how this regional network functions. A further design aspect is that the financial model for funding for health professional student training was based historically on medical student numbers and what the impact that this has currently:

> *"...based on a ratio or a factor that took into account the number of medical students. So the system discriminated in that way against all other health science faculties. So I don't think it was a question of fairness or unfairness. It was the way the system was designed. What we then tried to do with a multilateral agreement and the new joint agreements is to then retrofit how the supply to other health science faculties, when the original design of the conditional grants did not have that intention. So it is a National problem and not just a Provincial problem" (HA_2).*

5.5.2.2 Governance and Structure

The MLA (Doc_1), makes provision for a number of governance structures which provide the framework in which the parties engage. These are at both multi-party and dyadic levels. The multi-party structures (all five actors) have two levels, one at the

highest political level (the provincial minister of health and the four university Vice-Chancellors) namely the Joint Advisory Governance Structure and a structure at the level of the health authority and the faculties of health sciences (the Health Platform Committee) (section 3.4.3). At a bilateral level, each university has joint structures with the health authority which governs the bilateral relationships at both strategic and operational levels.

The purpose of the governance structures is '*to solidify the partnership…* and *to give effect to both the Multilateral Agreement process as well as the Bilateral Agreement process' (HA_10).*

Structures as Governance

All parties to the agreement supported the health authority as the custodian of the contractual agreement and as such takes the overall responsibility for the dyadic agreements to be finalised aligned to the MLA as well the mechanism for ensuring fair access to the training platform for students:

> *"Concept that there was an MLA, and then there were going to be four BLAs, and that the custodian of this process would be the Department of Health" (UNI_11).*

> *"We, as the Department are the platform custodians, it is then important how we do the negotiation, like we've put the mechanism in place for access to the platform, and those platform managers and the next level is all coherent and there is fairness" (HA_9).*

Concerns were raised whether the Health Authority as the lead organisation had too much power which was further intensified by the embedded nature of the presence of individuals in multiple levels within the governance structures (section 5.7.3.2):

> *"So I think that happened because with each BLA, there was a common party, the Department of Health. But I think what then automatically happened was that instead of it being a custodianship, and instead of it being a facilitation role and so forth, it actually became a power" (HA_6).*

The formal governance structures were established in the MLA and fulfilled both strategic and operational roles. JAGC, the highest level governance structure, fulfilled a key strategic role and was scheduled to meet annually. The members of the JAGC are supported by the senior colleagues within the five entities. Six meetings of the JAGC were held in the period of 2012 – 2020 with various reasons for their delay/cancellation such as the non-availability of the Vice-Chancellors, the national elections and slow progress of the technical work being done by the MLA task teams (Appendix 3: JAGC_minutes).

The current practice is that the bilateral governance structures are established linked to the four universities. The question of whether structures should be developed around universities, around health services entities or clinical disciplines across all four universities, was a point for future evaluation. A suggestion was that the route to follow was irrelevant as the more important principle was the development of solid partnerships:

> *"The intention would still be the same. It's just how do we organise ourselves. From a service perspective, it's how do we get economy of attendance, make attendance effective, so that they don't have a manager who has to attend five, six meetings, but that we make it effective. I think that mapping has to happen…. Because it's ultimately about relationships…."(HA_1).*

Networks have a history and such history determines some aspects of present network structure. The faculties with medical programmes had governance structures prior to the signing of the MLA and such governance structures were included in the MLA. A consequence was that these continued. The faculties without medical programmes established new bilateral structures after the MLA signing where the representation of the health authority was not the Head of Health but a lower ranking official, creating the perception that these faculties were less valued:

> *"So that caused it, and also the frequency and the respect that was given to the universities by attendance of the HoD or not the HoD, or who Chairs the stuff and who doesn't Chair the stuff, who gets invited and who doesn't get invited. So really again it goes back to our history" (HA_7).*

Role of the Governance Structures

The structures fulfilled a number of roles both at a strategic and operational level. They were considered places where concerns at a bilateral or multilateral level could be raised. The governance structures were especially important during the negotiation process to guide the work of the MLA task team who conducted the negotiations to conclude the dyadic agreements on behalf of the actors.

A key aspect was to '…*define governance as the active process of how you make fair decisions and move an organisation or the entity that you govern, into the right direction. So therefore, one component of governance is the structures. The more important part of governance is how you utilise the structure to make the fair, and the right and the difficult decisions collectively as intended by the governance structure…' (HA_9).* This shifted the principle of governance towards a more inclusive process.

Bilateral structures (Joint Management Teams) - which have an operational role in the faculties with medical programmes - were in existence pre-2012. This is linked to the organisational arrangements in that the medical specialities have joint structures in the health facilities and universities. This structure positioned the medical programmes to have greater power in the network (see medical hegemony, section 5.7.3.1). The other health professionals/faculties do not have such structures. The two universities without medical programmes established interim bilateral agreements in 2012 (Appendix 3: JAGC_2) to provide a mechanism for them to engage with the Health Authority whilst the broader negotiations were occurring.

Effectiveness of the Governance Structures

There were different views on whether the governance structures were fulfilling the roles that they were intended to do. There were views that they were working well and allowed the leadership to fulfil their governance role and no adjustment was required. The power shift to a cooperative governance system was lauded. This links back to governance beyond structures:

> *"…absolutely vital structures, where joint decisions can be made and as we moved from a power dynamic, we shifted into a network management cooperative and a system of cooperative governance…" (HA_3).*

Other views were that the governance structures had failed and that the impasse leading to the facilitation process was a result of a failed governance process. The delays of the parties to conclude their dyadic agreements were part of a failed governance structure:

> *"So it was really not only about getting the governance structure working, but getting the culture within the governance structures to get that agreed to in terms of the way of working, and the whole question of transparency and goodwill, and trust, to ensure that the governance structures function with that in mind, and with that clear intent in mind, being demonstrated in how the governance structures function" (HA_2).*

There was also a view that not enough strategic discussions happened in the governance space and that the engagements had become formulaic and procedural. A different view was that the governance structures had not failed and that it was the actors within the structures who had failed the system and that the discussions within those structures had become 'sanitised'.

5.5.2.3 Decision-Making

The third Basic Theme in Network Design is Decision-Making. As autonomous entities, each party has institutional rules which influence how decisions are made. The evolution of the network from the multilateral agreement signing in 2012, through facilitation towards the finalisation of the four dyadic agreements affected how the participants considered decision-making during the 8-year time period. There was a diversity of views on how and where decisions are made.

Prior to facilitation in 2017/18 (between the signing of the MLA in the 2012 and the facilitated discussion), there was a hardening of positions especially within the Health Authority with ongoing centralisation of decision-making to the health authority, especially in respect of resourcing:

> *"It was my sense that, particularly on the side of the Department of Health, there seemed to be a hardening of the position of the Department of Health in terms of its willingness to recognise the mandate and the role of the other parties, and the whole question of – let me call it inequity in terms of the power balance. That in fact, my*

opinion, what was intended by the multilateral agreement, the sense which I had, which in fact as I said earlier, which led to the facilitated process, was precisely because the spirit of what was intended with the multilateral agreement, where parties are expected in a multilateral agreement, the parties are expected to be equal. That certainly did not translate to practice, and therefore the need for the facilitated process" (HA_2).

At the time of the facilitation process, the health authority had strategically driven a process of decentralisation of decision-making. The MLA with its principles enabled decision-making at a lower level within the health structures. It was acknowledged by both the universities and the health authority that the transparency and openness, improved after the facilitated process.

The joint governance structure (JSAC – Joint Standing Advisory Committee), one for each dyad (the university and the health authority), was the place were decisions were jointly made. The opinions of whether this was successfully implemented differed. There was apprehension that these 'decisions' were only recommendations which would then be sanctioned at the appropriate level of authority. This relates to the institutional complexity discussed in section 5.7.4.3:

"you see, most of the decisions are made through various structures, to the point where they are approved. Let's say for instance if you check how the JSAC works, they will make recommendations that will then be approved at the appropriate level. So, both parties have got a platform to bring on the table, to say that we were thinking this can't work, this can work, and then it can then be agreed and approved and sanctioned at the appropriate level of authority" (HA_4).

There was a concern that some JSAC decisions entrenched existing positions and may not necessarily be done to the benefit of all four dyads. The role of the Health Authority as custodian of the processes across all the four bilateral structures was questioned.

University participants were sceptical and indicated that decisions were still made in "Wale Street"[xv] or that as the health platform/facilities were the responsibility of the

[xv] [redacted] Street – the head office of the Health Authority

health authority, in '*terms of the clinical platform, there are still certain things that they would make the decision on, … it's their platform' (HA_9).* When decisions were made in the joint structures it was done within a defined financial envelop, which placed restrictions on the extent on such decisions.

The new agreements provide the framework where decisions should be made and the desire to make this happen in the spirit of transparency and openness was stressed:

> *"It will provide an important framework in which the decisions are made, and will be a transparent process. So we all have agreed we've signed this document, we've agreed about how this decision should be taken, so let's just do it" (UNI_2).*

> *"It's not a one-sided decision making process. The university can't make decisions that impact on the Province on their own, and similarly from the Department of Health side, they cannot make decisions that impact on our side. Once again, more transparency and openness in the debate" (UNI_10).*

It was notable that there was better communication and a more collegial approach in the structures which were enabling for decision-making.

5.5.3 Summary of Thematic Network 2: Global Theme - Network Development

Network Development integrates the two Organising Themes of Framing the Network and Network Design. Framing the Network included how the actors considered the purpose of the network, the terms of the agreement and the importance of a written agreement. The actors had differing perspectives of the purpose of the network, ranging from the immediacy of having such a network (to guide the day-to-day activities) to a more philosophical aspect of doing good for the betterment of society.

The Network Design was framed within the historical perspective, linked to a medical programme bias which influenced the design of the network, the governance structure as well as decision-making processes. These were root causes of mistrust which formed part of the facilitated processes. The foundational principles (an output of the facilitated process) formed the basis for the finalisation of the dyadic agreements which included a revised network design.

5.6 Thematic Network 3: Global Theme - Network Management

The third thematic network consists of three Organising Themes and nine Basic Themes (Figure 5-8). This thematic network groups the Organising Themes of Change Management, Tensions and Resourcing within the network into the Global Theme of Network Management.

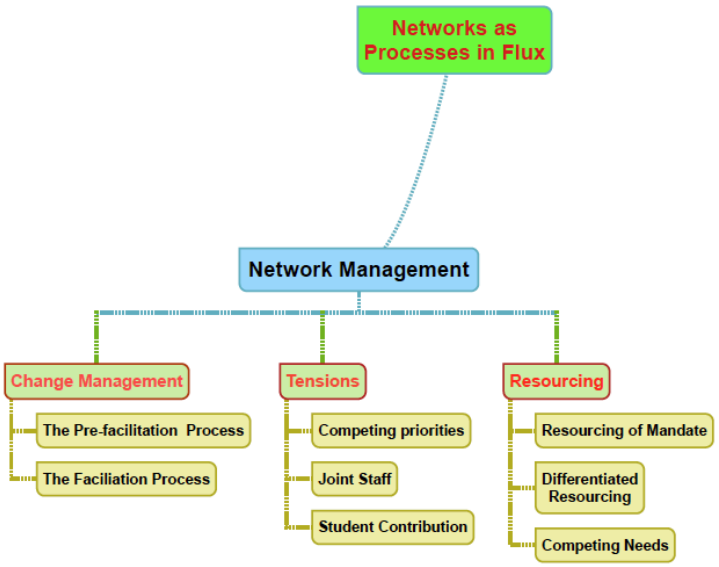

Figure 5-8: Thematic Network 3: Network Management

The construction of thematic network, Network Management is illustrated in Table 5-5.

Table 5-5: Network Management – from Codes to Themes

CODES (step 1)	BASIC THEMES (step 2 and step 3)	ORGANISING THEMES (step 3)	GLOBAL THEME
resistance to change inertia power/dominance mistrust no change management unrealistic expectations	**PRE-FACILITATION PROCESS**	**CHANGE MANAGEMENT**	**NETWORK MANAGEMENT**
conversations skilled facilitator foundational principles buy-in from constituents	**FACILITATION PROCESS**		
research takes away from research different mandates funding of mandates strategic fragmentation	**COMPETING PRIORITIES**	**NETWORK TENSIONS**	
serving two masters access to joint posts medical programme joint staff	**JOINT STAFF**		
not joint staff service by proxy service defintion	**STUDENT CONTRIBUTION**		
clinical training funding of mandates responsibility versus accountability	**RESOURCING OF MANDATE**	**RESOURCING**	
differentiated funding access to resources historical resources	**DIFFERENTIATED RESOURCING**		
austerity measures national vs provincial different programmes	**COMPETING NEEDS**		

5.6.1 Change Management

The management of change within the network is integrally linked to the historical context, power and trust which is embedded in relationships, both past and present. The story of change management is narrated by one of the health authority participants who linked the change to the need of the actors to embrace the democratic change within South Africa:

> *"So to me, that was the big sort of change management transformational change, was embracing the partnership with the trust sense of partnership. I think that to me was a big thing, and then*

clearly, I think what emanated from that was when we went into these discussions, we were also quite acutely aware that our organisations also needed to embrace the new South African reality, the new South Africa that we wanted to see, and the new Health Science graduate that we wanted to collectively see emerge in the future, and that the opportunity in terms of how we then engaged with having a transformational hat, and having a transformational lens in every single engagement in the broader sense, not in the very narrow sense of transformation, but in the broader sense, that we were willing to engage in that way and to ensure that the agreements would give effect to that in a particular way. Because I think all of us were agreed that that was where we wanted to go. So I think that was the second big part of the transformation process, was the higher order transformation realisation that all of us took as part of the partnership. Maybe when we had to translate the Multilateral Agreement into a Bilateral Agreement process, that is where we should have started the first change management endeavour, and I think we failed. We went the wrong route, and if we had maybe have had the adoption of the foundational principles first, or first have gone to a principle sort of approach, and a common sort of cause approach, you know, following the signing off of the Multilateral Agreement, maybe the trust would have been developed much earlier, rather than later in the process" (HA_10).

The failure to engage on the principles of inequity and redress in the pre-MLA negotiations had an influence on the subsequent processes. The process of translating the multiparty agreement into the four dyadic agreements was hindered by the lack of a strategy to manage the change particularly prior to the facilitated process (Doc_3). The focus on the technical components without have relational actions being considered added to the slow progress:

"I think they were certainly meaningfully addressed during the facilitated process, and that didn't happen with the process that led up to the signing of the multilateral agreement…" (HA_2).

There were different views about the process of change; how and when it happened. The university actors were of the view that the universities operated as a collective in opposition to the health authority. For example, this was described by one of the university participants that it: '*made a difference in terms of the role player, from the Department of Health, and their vision and their opinion. That for me was the biggest change. I didn't think that we as HEIs were necessarily on different pages. I think the Department of Health and us were on different pages, and that made a difference' (UNI_4).*

On the other hand, the health authority was of the view that the conflict/mistrust was in the interface between the universities and that the change had to happen in that space (section 5.7.2.3).

The Change Management Organising Theme is structured around the facilitation process (Figure 5-9).

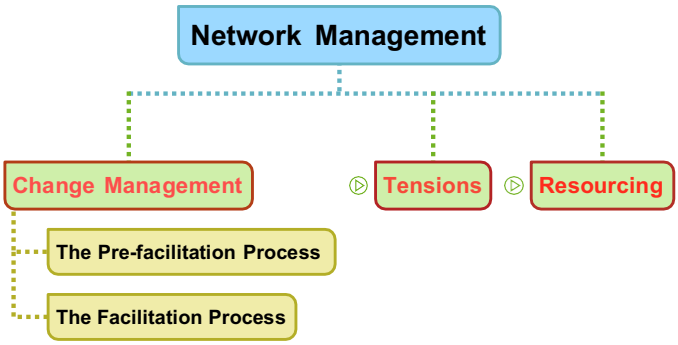

Figure 5-9: Change Management Organising Theme

5.6.1.1 The Pre-Facilitation Process

The Pre-facilitation Process included the period prior to the signing of the MLA. The period was described as acrimonious and that the conditions would not conductive to a partnership. There was mistrust, lack of transparency and fear. The health authority was considered to be autocratic:

> *"It became very clear in 2001 that the journey of trying to get to an agreement was noted, but the critical thing that I noted was the relationship between, there was not a commitment between the Province and the universities for a kind of partnership relationship. It was acrimonious…" (HA_1).*

" There were real issues about whether there was value for money that the university was bringing to the Province, and vice versa" (UNI_12)

"That wasn't surfaced before, for you all to say to Province well, you want to be big brother and you want to ram things down our throats, and only your context matters, and you don't have an appreciation for the context we work in. And then you come to us with this story that you have the money, so therefore you have the power, and you use power" (HA_9).

The facilitation process highlighted the eight key factors that had impeded the process of finalisation of the dyadic agreements (Doc_3). These included relational aspects and well as process matters. The relational matters covered a range of issues including '*uneven power relations, the experience of control and dominance, unfairness and mistrust*, *working in an oppositional manner rather than in partnership, and a mismatch in organizational culture' (*Doc_3*).* One of the process aspect was the unrealistic expectations (in light of the real resource constraints) as there was an expectation that the health authority would provide additional resources to the network. The failure of "*concerted joint change management process" (*Doc_3*)* was noted as a failure of the governance structures.

At the time of change of leadership in the Health Authority in 2015, the Health Authority '*embarked on a change within our organisation to be less adversarial in terms of the people we engage with, and move more into a collaborative and adaptive governance arrangement based on respect and collaboration and finding common ground' (HA_9).*

5.6.1.2 The Facilitation Process

The facilitation process was mandated by the multiparty governance structure when the negotiating teams acknowledged an impasse (Doc_3). A *'trusted voice by all parties*' (HA_9) facilitated a series of conversations which resulted in a revised Bilateral Agreement template (Doc_4), which served as a roadmap for a revised process to complete the dyadic agreements as well as a reflection of the historical trauma of actors within the network (Doc_3).

The facilitation process assisted trust building by initiating a series of conversations. These conversations were often difficult and allowed the pain and hurt experienced by those universities who felt disadvantaged in the processes to surface:

> *"if it wasn't for the facilitated process, I don't think that the trust would have been embedded in the manner that it ultimately has been embedded" (HA_10).*

> *"So I believe that the facilitated process at the time cleared painful – cleared the space and the air, because then actually we were truthful towards one another…" (HA_7)*

The facilitation helped the negotiating teams to move away from fixed positions and, building on the foundations of the network, to move towards finalisation of the dyadic agreements. This process was considered an important journey of learning through hard conversations and reflection where the team could listen and hear each other. It was acknowledged that the team who participated in the process was small in number and that the change management would need to be expanded to broader teams within the member organisations. The team members held senior positions. The facilitator was acknowledged as leading the facilitation process:

> *"After the facilitation there wasn't that consistent block. There wasn't that tension in the room anymore. People were free to say what they wanted to say" (HA_5).*

> *"It calms people down such that they do not stick to their position" (HA_4).*

> *"in every tough set of negotiations where people have an impasse, you do need, in policy work they call it a policy coupler or (un)coupler, and I think that's the role that [redacted] played" (UNI_12).*

5.6.2 Network Tensions

A number of tensions are present in the network. These were expressed as tensions linked to the competing mandates of the higher education and health sectors, joint accountability, and students' roles and functions (Figure 5-10).

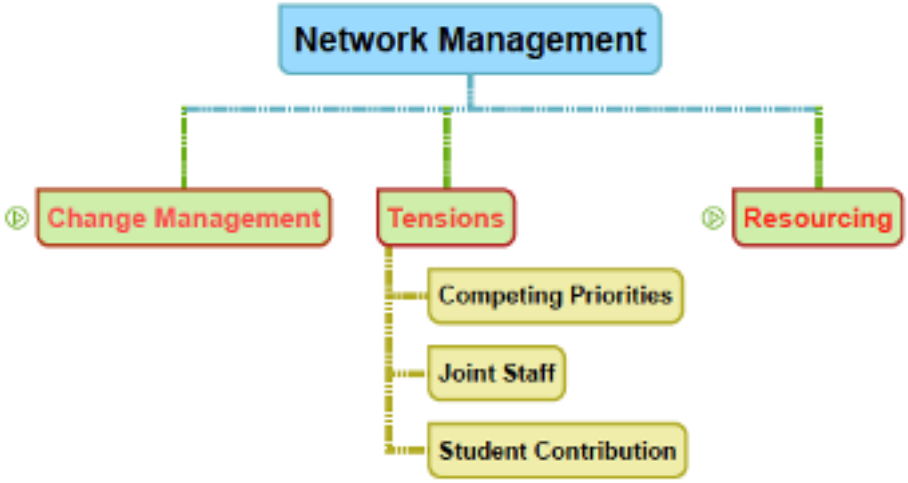

Figure 5-10: Tensions Organising Theme

5.6.2.1 Competing Priorities

One tension within the network was balancing the needs of the network versus the needs of the member organisation. The Health Authority has a statutory obligation to provide public health services while the universities have to deliver on their academic mandate. The legislative and policy disjuncture was discussed under Strategic Fragmentation (section 5.4.1.2). At an operational level the tension affects how the actors balance the need to prioritise their own mandates versus the joint effort of the network:

> *"It's an issue that will always be a point of tension, because you will always have the service need saying well, people are doing too much research, and you will have the universities saying the service needs pushing out our legitimate research time" (UNI_6).*

> *"...kept complaining that they have too many students on the clinical platform, and that their role was not in teaching, but their role was clinical training, their role was only to do services" (UNI_8).*

> *"I think from Province's side, that certainly was their top – must be their top priority, and they saw teaching and learning splicing into that, dovetailing into that, whereas the universities saw teaching and learning as the thing you look to, into which you splice service. ... Finances were driving the arguments" (UNI_7).*

5.6.2.2 Joint Staff

The contractual agreements made provision for joint staff (Doc_1, Doc_2 and Doc_4). During the negotiations, the definition was a source of tension. This stems from a historical context of the medical programmes having joint agreements with the health authority and being linked to the teaching hospitals. This required staff, who were designated the title of joint staff, to have competing responsibilities for both health service and academic matters, that is, serving two masters:

> *"... after a very prolonged process, and I think we went through very, very different sort of twisting and winding pathways, was getting to the definitions of the joint staff in the various formats, that ultimately came up in terms of the joint staff posts role, and in terms of who goes on a joint staff post list, and you know, who gets* recognition *in terms of person to incumbent and how all of that could be opened up in terms of giving the effect to the human resources for the Bilateral Agreement" (HA_10).*

The resourcing for joint staff was biased towards the medical programmes which increased the perception of unfairness. It was perceived that the historical bias would be protected during the reallocation of resources within the network:

> *"...terms of the joint staff post role, this process has primarily served the purposes of the Department of Health in terms of rationalising their financial challenge and commitment" (UNI_4).*

5.6.2.3 Student Contribution

The complexity of joint staffing was linked in part to the students in the health settings. A matter that caused conflict was the benefit derived by having students in the health facilities. The tension existed whether the health services were strengthened by the presence of students and whether the students could be considered joint staff.

A case was made for the dental students who '*provide the bulk of the service that is provided on the platform' (UNI_11).* The situation was similar in the training of nurses and other senior students who supported service delivery:

> *"I am Facility A and there are students in my platform, depending on their level of training, whether they are final years or fourth years or*

third years, it gives me more leverage to breathe and do other things that I will normally not do if I don't have those students in the platform. ... It covers that gap, although they still need to be supervised, but they can do elementary tasks and chores…" (HA_4).

"That grey has to do with the service benefit that is derived from students on the platform, as well as trainers, supervisors, student supervisors on the platform. To be quite honest with you, I myself don't have a clear or very hard opinion on that" (HA_2).

The view that those academic staff who were involved in student supervision could use this as the mechanism to provide health services in terms of the agreement (DOC_5) was a cause of mistrust. This was particularly within the non-doctor professions and further exacerbated the tension in the network:

"…so clearly remember the very kind of actually quite brutal conversation, I guess, about understanding what joint staff means, and this issue about the definitions in the MLA as it relates to whether students are part of joint staff and whether that is regarded as a proxy to – now that is a complexity that we eventually surfaced as a root cause for many other mistrust issues, and many reasons why there were stop-starts in this process... So the issue eventually when we got – what I would call a one-liner in the MLA, and we got eventually through consultation and facilitation a four-point clarification of the one-liner, is what I identify as complexity" (HA_9).

"I think that's how the service definition issues probably I think managed to unfold in a particular way, that there was then agreement that wherever there was going to be an involvement of clinical staff, or academic staff, that that was really to ensure that the academic staff maintained their skill sets, relevant to in fact being able to deliver training in a particular way in terms of supervision. So I think that was quite a big one on the people management side in relation to the services" (HA_10).

5.6.3 Resourcing

The leverage of resources is a key strategy within networks:

> "*…it not only forces the parties to focus on what are the resources available, and how could the resources be utilised and optimised to ensure that all the parties to the agreement can get the best benefit from that" (UNI_3).*

> *"whether the principles of resourcing that have been agreed will be adhered to, given the fact that we agree there is this five year or four year transition. But if we are to move to the principles of service rendered funding, based on services rendered, the big question will be, will we ever realise that" (HA_4).*

These resources include financial resources, human resources as well as physical infrastructure. Figure 5-11 depicts the three Basic Themes within the Organising Theme of Resourcing:

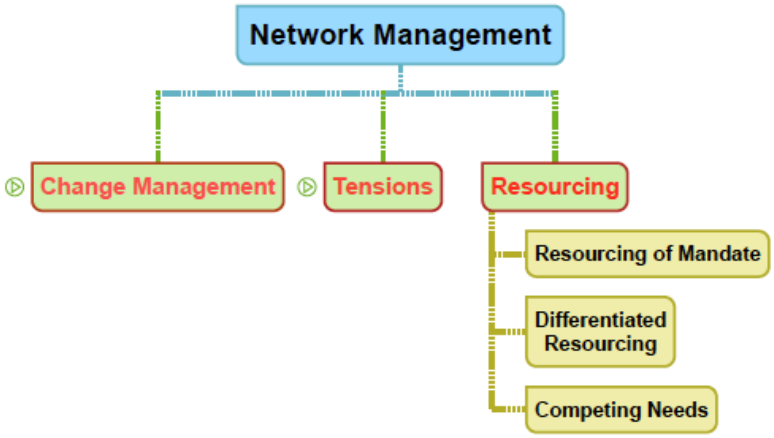

Figure 5-11: Resourcing Organising Theme

5.6.3.1 Resourcing of Mandate

The actors within the network are funded through various mechanisms which are linked to their statutory mandates. The health authority is funded for the service delivery mandate, the universities for academic mandates. Agreement on the contentious matter of who funds the interface of clinical training, was realised:

"I think that was probably one of the big things that emerged in the financial discussions, was the realisation by all the organisations that with respect to clinical teaching and training, that each party should then take responsibility for clinical teaching and training in their own spaces, rather than subject back to a counterclaim process" (HA_10).

"...both sides are contributing resources. The Province, because the service load is the greater provider of resources for staffing, and where the Province recognises, and I think this varies from time to time and it varies from chief medical superintendent upwards, from one hospital to another. Where the Province recognises that giving the good clinician research time, helps the clinical service, but it also helps the clinical service attract and retain the calibre of staff it needs, is in the clinical service areas interests" (HA_2).

5.6.3.2 Differentiated Resourcing

The resourcing of the network, particularly in the flow of funding to those university actors with medical programmes, was perceived to be unfair. One of the faculties without a medical programme and who had jointly funded positions had the anomaly that such posts were not funded through a similar process as those universities with medical programmes:

"funding arrangements were different – against head office" (UNI_3).

Technical work to develop a comprehensive picture of the flow of financial resources is, at the time of collecting this data, incomplete. The facilitation process intended that this would be a component of the finalisation of the dyadic agreements (Doc_5).

Differentiated resourcing also linked to the access of different programmes to large teaching hospitals especially as it related to those faculties without medical programmes:

"..other two universities that were not linked directly to these tertiary hospitals, it was like almost coming in when there was space, or when there was time*, or when there were off periods or so" (UNI_3).*

5.6.3.3 Competing Needs

The management of individual organisational resources and shared resources in an environment with competing needs impacts on how the actors are able to engage. The risk to the network, in the face of shrinkage of resources, places pressure on relationships and could be mitigated by the presence of clear principles within the agreement:

> *"I think the critical thing is the more our resource-base reduced and shrunk, the more difficult relationships can become if there is not explicit clarity about relative roles and processes and procedures, and principles" (HA_1).*

The network functions within a broader context and the national fiscus would impact it dually as resourcing from both the health and higher education sector impacts on the joint and individual activities:

> *"But now, the realisation that we have to work together if we want to achieve the best for the Province with what we have. The National government doesn't treat us any differently. It treats us according to the guidelines that they have for the allocation of resources to the Provinces, based on head counts and infrastructure needs and whatever else. So we're not going to get more than what we got. We have to make the best with what we have. We have to do it together" (UNI_3).*

5.6.4 Summary of Thematic Network 3: Global Theme - Network Management

In summary, Network Management consists of the three Organising Themes of Change Management, Tensions within the network and Resourcing. Given the context of the network, these three areas require ongoing joint management to realise the network purpose.

A change management process commenced through a facilitated process when an impasse was reached in the negotiations. This process helped the four dyads to commence a journey of learning and to move towards finalisation of the agreements.

The failure to commence the change management process after the signing of the MLA was acknowledged during the facilitation process as a shortcoming by all actors.

Networks have intrinsic tensions and require the actors to specifically manage these. These tensions included competing mandates (which links back to strategic fragmentation), the role and function of joint staff and the contribution of students who, while training, support health service delivery.

Finally, resourcing the network, given the historical inequities (and its resultant differentiated resourcing at faculty level) and the current needs of the actors measured against the availability thereof, remains a management activity for the network.

5.7 Thematic Network 4: Global Theme - Organisational Capabilities

The fourth and final Thematic Network: Organisational Capabilities, is conceptualised as those intangible assets which enables these institutions to use their networks, experience and resources, and social capital to influence the system. This thematic network brings together the Organising Themes of Leadership, Partnerships, Power and Governance of Complexity under the Global Theme of Organisational Capabilities. The construction of Thematic Network 4 is illustrated in Figure 5-12 and Table 5-6.

Figure 5-12: Thematic Network 4: Organisational Capabilities

Table 5-6: Organisational Capabilities – from Codes to Themes

CODES (step 1)	BASIC THEMES (step 2 and step 3)	ORGANISING THEMES (step 3)	GLOBAL THEME
senior management role of the dean higher level role	LEADERSHIP ROLE	LEADERSHIP	ORGANISATIONAL CAPABILITIES
dispersed leadership facilitatory role supportive social capital	LEADERSHIP STYLE		
transient positions institutional knowledge	TENURE OF LEADERSHIP		
joint processes joint staff joint spaces	JOINTNESS	PARTNERSHIPS	
relationships as structures conflict organic nature working together investment in relationships	RELATIONSHIPS		
role of facilitation multilayered slow process built trust	TRUST		
dominance of bio medical model link to tertiary hospitals medical school advantage leadersip with medical degrees	MEDICAL HEGEMONY	POWER	
role of the DOH decision making medical advantage health system power	POWER DYNAMICS		
perceptions incorrect focus different views	SUBSTANTIVE COMPLEXITY	GOVERNANCE OF COMPLEXITY	
strategic fragmentation institutional preservation	STRATEGIC COMPLEXITY		
PFMA univeristy rules	INSTITUTIONAL COMPLEXITY		

5.7.1 Leadership

The importance of leadership was a recurring theme and included positional leadership and the role of Deans/Vice Deans and the senior Health Authority individuals. The Basic Themes within this Organising Theme reflected the Leadership Role during the negotiations, Leadership Style as well as the Tenure of Leadership (Figure 5-13):

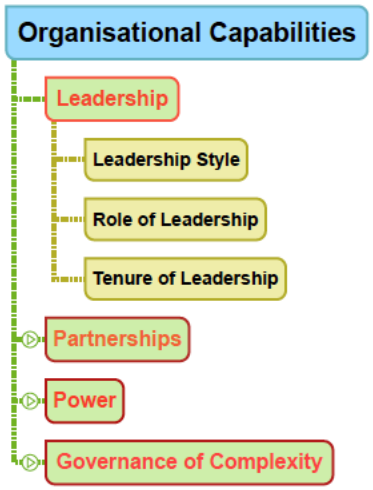

Figure 5-13: Leadership Organising Theme

5.7.1.1 Leadership Role

The leadership roles included the role of the leadership of the faculties particularly at the level of the Deans, who fulfilled the roles of advisors to the institutional leadership, as facilitators leading their teams, and the commitment of management to oversee the negotiations.

The Vice-Chancellors are members of the highest governance structures within the network with the provincial Minister of Health, the JAGC (section 3.4.3). The Deans were important advisors to their Vice-Chancellors as the Deans were closest in proximity to the activities within the network. This was particularly relevant at JAGC meetings when the Vice-Chancellors schedules limited their attendance (Appendix 3: JAGC_minutes). Similarly, the senior health authority leadership advised the Minister of Health.

> *"The thing is, the Vice Chancellors have lots of other responsibilities. So this is not their only responsibility, whereas the Dean of a Faculty, that's more or less your only – at that level, that's your only responsibility. So, and because you're involved at an operational level as well, you know, you have first-hand information about that is happening, how things have evolved, because sometimes what you have on paper is an end product of a lot of discussions that have happened along the way, but the Vice Chancellors are not privy to that" (UNI_3).*

The commitment of the actors to the agreement was affirmed through the seniority of the individuals appointed to deal with the negotiations.

5.7.1.2 Leadership Style

The style of leadership facilitated the negotiations as well as the culture with the organisations during these complex times. The social capital of the leadership was important at different times during the process. The way that the relationships had strengthened over time was reflected in the story of a difficult conversation between the leadership of two of the actors to the agreement:

> *"...that investment, that openness, that willingness to listen, that willingness to walk the journey, talk things through, invest and not be autocratic and take decisions. That type of approach will help"(HA_1).*

The Deans as leaders of the faculties fulfilled their roles to advise the Vice-Chancellors as well as to facilitate the engagements with the external and internal stakeholders:

> *"I believe that I am one of the people that needs to create the environment in which the network can function. So it starts with internally with the support that I provide to my team, but also the extent to which I engage with my counterparts in the other academic institutions, but also the head of health, and to maintain a healthy relationship there is really quite important. Because I think that plays a facilitatory [sic] role for everything else that follows. I think also to, you know, when there are issues when we don't agree, to work towards unblocking that through more intense engagement at that point, that's not combative or obstructive, but it is supportive and facilitatory" (UNI_2).*

The Health Authority (in 2015) committed to a journey of transformation of dispersed leadership. This happened at the start of the tenure of a Head of Health:

> *"...conscious commitment that we've made since 2015 to invest in dispersed leadership, and to give people authority and autonomy for decision making. So we have given people freedom to do that, yet what they need is policy clarity, and the multilateral agreement has given*

that policy clarity on many aspects, so that you then can entrust people to take decisions there. And very often, there is sufficient communication to say how do I deal with this, how do I deal with that, and for people to reach consensus" (HA_1).

At a faculty level, '*it's been the Deputy Deans that have been instrumental in stabilising the relationships' (UNI_8).*

5.7.1.3 Tenure[xvi] of Leadership

During the eight-year period from 2012 when the MLA was signed until 2020, a number of changes occurred at the level of the two most senior positions in both the universities (the Vice-Chancellor and the Health Sciences Dean) and the health authority (the Health Minister and the Head of Health). Table 5-7 provides a summary of the turnover of the senior leadership.

Table 5-7: Turnover of Leadership

Executive position (# of positions within network)	No. of incumbents in period 2012 - 2020
Minister of Health (1 position)	3
Head of Health (1 position)	3
Vice-Chancellors (4 positions)	10
Deans (5 positions)	15

The prolonged process of the evolution of the network meant that the leadership as well as the negotiating teams changed. This had the effect that institutional knowledge may have been lost for some of the actors to the agreement. The concern was that this influenced the negotiation processes:

"because it gave the sense that the leadership of that party wasn't taking the process seriously, you know, because people came in without an understanding … Break in university powers because in ours many changes…We were all new. So we were all finding our feet and learning together" (UNI_5).

[xvi] In the context of this study, tenure means the holding of office in one of the member organisations

"So I think the changing of the guard that happened more frequently I think had a major influence on the process…" (HA_3).

5.7.2 Partnerships

The reference to jointness, trust and relationships was a frequent occurrence in the interviews. Prior to the MLA signing in 2012, the dyads called their agreements, 'joint agreements'. In the negotiation of the MLA, recognition was given of the need to have a multi-party agreement between the five actors and the nomenclature moved away from joint agreements to multilateral and bilateral agreements. The Organising Theme of Partnerships (Figure 5-14) has three Basic Themes:

- Joint Processes
- Relationships
- Trust

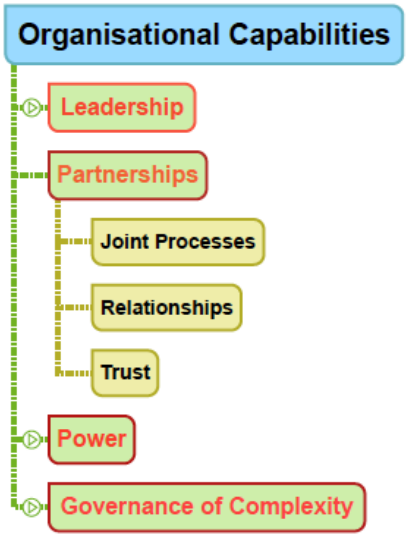

Figure 5-14: Partnerships Organising Theme

5.7.2.1 Joint Processes

There were references to joint processes, joint staff, joint spaces and joint decisions to *'ensure the integratedness [sic] of the academic side, the clinical teaching and training'* (HA_10):

"So that jointness, is what binds the two parties in terms of services and just developing the health professionals of the future. Obviously and research, because clearly, the relevance of the research, that is

also very joint. Although driven by the universities, it is facilitated very often by the services, and very often driven by the services. So again, there is a jointness of purpose, although the legislative mandates are very clear" (HA_1).

The joint use of the resources (pooled funding) added value to the common purpose:

"if you want to optimise your resources, there is value in pooling resources and making sure that you apply the resources for the purpose it was intended for" (UNI_1).

"collectively saying that our resources together can give effect to something much bigger, moving forwards" (HA_10).

The concept of joint staff, in terms of definition, role and responsibilities, the joint processes of recruitment, appointment and funding, in order to give effect the human resources within the network was a difficult process:

"...sort of twisting and winding pathways, was getting to the definitions of the joint staff in the various formats, that ultimately came up in terms of the joint staff posts role, and in terms of who goes on a joint staff post list, and you know, who gets recognition…" (HA_10).

"...appointments to the joint staff, in terms of the multilateral agreement and the joint agreements before that, have to be approved by both parties…" (UNI_6).

The joint staff had dual responsibility which "*post allows them to perform clinical and academic functions" (HA_5).* This includes the acknowledgment of both the Health Authority and the university in their academic outputs. This was discussed earlier as one of the network tensions.

A number of joint processes are in place such as the co-chairing of the bilateral structures by university and health authority leadership (Appendix 3: HPC_9), and joint disciplinary processes of joint staff. This facilitated the shared decision-making spaces. The institutional complexity (section 5.7.4.3) however constrains components of pooled funding:

"I think now we are more having equal power. That's why even the JSAC, the sharing of chairmanship, to does show that it's not big brother coming with a stick. We are taking co-responsibility for the process. So I think there is more even power, because now there is also principles that have been agreed to" (HA_4).

The importance of speaking about jointness in joint spaces is reflected in the comment of HA_1: "*is that kind of when one finds oneself in joint space - ...the more one talks and you have the language of, if the Dean talks, if you talk, if the heads of departments talk, they talk about our partnership relationship with the Province, not* ***The Province*** *(*my emphasis*)*".

5.7.2.2 Relationships

Relationships as structures were covered in the theme of network design (section 5.5.2.2). This Organising Theme considers the nature and meaning of relationships. The importance of relationships was repeatedly reported. This covered periods when the relationships were not optimum between the Health Authority and the universities as well as when the inter-university relationships were poor (pre-facilitation process - section 5.6.1.1). But it also spoke to the organic nature of such relationships over time as well as the role that the facilitation process played:

"We want to have a living relationship between the parties, and in order to do that, you need to have interactive feedback mechanisms in place to manage it" (UNI_9).

The importance of working together while recognising the constraints within the system was emphasised:

"... worth a thousand words. ... there's a part of it that the relationships that we've built up over time, and the ability to be able to work together like this in this network anyway, is there, and for me it's a good thing" (HA_3).

Investing in relationships at different levels within the network would strengthen the network. This should be the responsibility of all levels of managements. This links back to the importance of the governance processes discussed in section 5.5.2.2:

"So a) communication and b) relationships. I think that we perhaps could work a little harder in getting the support of people in different levels of management, by developing structures that make them feel that they are actually not just being used, but they're being supported, and that we're on their side. Sometimes I think some of our HoDs for example could do more in building those relationships with the lower level managers in the system" (UNI_2).

"It can't only be when things go wrong that we need one another to make it right. It has to be that when things are going right and we're having good relationships and good resources that we are open and honest to show one another how exactly we can reach that point of greater equity" (UNI_8).

5.7.2.3 Trust

The mistrust in the network was evident even though a multiparty agreement had been signed with all five actors as signatories to such agreement in 2012. This mistrust existed between the universities and the health authority as well as between the universities. This lack of trust was noted by several of the participants even to the extent to being apologetic and passionate:

"…trust was a big issue, and the trust was not where it should be, and the parties were not trusting one another. So we found ourselves, the Department on the one hand, the *HEIs on the other hand, and even between the HEIs, there were some trust problems because of the two medical Faculties versus the other two" (UNI_7).*

"I'm sorry, for me it's very simple, it's just trust. It's just trust because without that, nothing else will happen. I mean, we are where we are at the moment because there's trust*, and the trust is based on openness and transparency and honesty and respect, dignity, integrity. Yoh, it's based on the 12 principles of the MLA facilitated session. There's my answer. That's what makes it work. if we don't have those, if we don't abide with those, nothing… (UNI_11).*

The lack of trust was multi-layered; not only between the health authority and the universities but also between the universities, within disciplines[xvii] across the network, and mistrust of the processes. Questions were raised about whether parties were open and transparent:

> *"The joint agreement has always been – up till that stage, always been regarded with* suspicion*, and certainly clinicians were never made aware of it and what's going on. There were never any updates or anything like that" (HA_6).*

The role of the facilitation process to build trust was seen as important:

> *"And then to talk about what would make us to trust each other, and I think an external facilitator then assisted to say what would trust look like" (HA_1).*

> *"I think the key lesson part of that engagement was I think that people started learning to trust each other during that period" (HA_10).*

The length of time taken to achieve a point of signing the dyadic agreements had a positive consequence for the building of trust:

> *"But I actually think that the one big plus related to the length of time it has taken, is that we have had time to build a relationship between ourselves, and build trust over time, which has helped us to have really good conversations about issues such as equity and so forth" (UNI_2).*

5.7.3 Power

Power influenced the formation and the evolution of the network and was seen as operating on a number of fronts. Power could be both negative and positive as it refers to the possession of power as well as the influence over others and processes. Two Basic Themes constitute the Organising Theme of Power: Medical Hegemony and Power Dynamics (Figure 5-15):

[xvii] Referring to the health professional disciplines.

Figure 5-15: Power Organising Theme

5.7.3.1 Medical Hegemony[xviii]

This was raised by many participants. The dominance of what was called the biomedical model was reflected in different ways. This was expressed through the dominance of medical professionals in decision making, resourcing for medical programs, and professional qualification of the senior teams being medical doctors (two Vice-Chancellors and a number of the Chief Executive Officers[xix] of hospitals within the network were medical doctors). The participants felt that the 'tribe' was speaking. This was increased given the historical links of the tertiary hospitals to those faculties with medical programs:

> *"...hospitals or the health facilities that we are asking for access to, are in general managed by CEOs. Those CEOs come from a medical background, mostly. So, medical schools, sat in the same classes..." (UNI_4).*

The centrality and power of the discipline of medicine in the health care systems and the medical trainees being considered preferentially for access to training facilities was apparent:

[xviii] Medical hegemony - Medical hegemony is the dominance of the biomedical model, the active suppression of alternatives as well as the corporatization of personal, clinical medicine into pharmaceutical and hospital centred treatment. WEBER, D. 2016. Medical Hegemony. *Int J ComplementAltMed [Internet],* 3.

[xix] Within the SA context, Chief Executive Officers of Hospitals are employees of the Health Authority unlike in other Academic Health Complexes in other Health Systems.

"I do think medical schools will always have a different strength, simply from the nature of the Department of Health and what their business is…" (UNI_4).

"It was the power of the doctor dominated professions, which is not necessarily the biomedical model" (UNI_12).

"There is a difference in those health sciences faculties or schools, with and without medical schools. I think we have to accept that medicine is the largest driver of this cooperation between the Provinces and the universities, because that is almost – the healthcare worker that demands the most cooperation between these two entities. Other healthcare workers can be trained with lesser cooperation, or lesser exposure to all the aspects, the need for input from all the actors, whereas medicine, it's almost impossible to do that, because that's where they're going to be based during and after qualification, is in the delivery of healthcare services" (UNI_3).

The organisational power and the hierarchy between the disciplines by a doctor-driven system both in the universities as well as the health system impacted on the other professions (nursing and rehabilitation):

"It was a historical thing that I think the Allied Health positions – let me put it the other way around. The heads of medicine and surgery particularly, obstetrics and anaesthetics I would say, so the clinical heads, the clinical medical heads, were far more powerful people" (HA_6).

"…whereas the medical divisions consider themselves as one department, between the university and the clinical service…. There is like a big differentiation between what the university does for those non-medical parts of teaching and training" (HA_5).

"…in the university as well, the big clinical departments that exercised significant power over the so-called non-clinical departments. And hence, when you negotiated, the Department of Health and

Rehabilitation sciences felt their interests weren't negotiated but the Department of Medicine was…" (UNI_12).

5.7.3.2 Power Dynamics

The location of power was viewed from opposite perspectives. The university participants considered that the power still lay primarily within the provincial structures, although there was a shift towards power-sharing within the relationship as trust developed:

"…the power lies within the Western Cape Department of Health, because they are the ones who actually are controlling the purse strings. Because the universities are dependant, or have been up till now, on the provision, we have to now negotiate and modify our whole idea of training, to fit into their plan. So I think, because I'm saying they are the power brokers…" (UNI_5).

"*He who has the gold makes the rules" (HA_2).*

"So the issue about correcting the power balances, the issue about respecting all the parties equally, the issue about respecting those things that live in the 12 foundational principles, my sense would be the MLA, if the context allowed, and the maturity allowed, should have been that the 12 foundational principles should have been set right upfront to guide the process. But as I say, the context didn't allow for it in terms of that…" (HA_9).

On the other hand, the health authority participants felt that the universities with medical programmes, wielded power both at a university level as well as in the health authority:

"The power dynamic is still within the medical fraternity" (HA_ 7).

"I think the Province would like to think that the power has shifted to the Province now. But throughout the engagements, there was certainly a lot more power in the larger HEIs compared to the others. And it's also who came with that background knowledge. ... So the power was really with the people who were consistently there…" (HA_5).

> *"...have had the experience of the power, specifically using the word power now, having had that experience of a power relationship that has shifted from the university to a power relationship that has shifted to Provincial government, and I think neither of them work well" (HA_3).*

It was acknowledged that within health sector reform across the world, the dominance of medical professionals over and above other health professionals continues to create tensions:

> *"The extent to which the biomedical model dominates, I mean, I accept that that's how health systems around the world struggle with health sector reform" (UNI_12).*

> *"So you have previously advantaged universities, who also have the medical schools, and the system that we are based on, is medically driven" (UNI_11).*

The power dynamic within the health services influenced the network, with the dominance of the metropolitan services over rural services and the large tertiary hospitals over other parts of the health care system. This influences where and how students are trained:

> *"But I saw across the system different forms of power. The Metro (health services - my addition) is another form of power in the Province, over the sort of rural regions, and then certainly the central hospital power over the programs…" (UNI_12).*

There has been a shift in the health authority for the voices from other categories of health workers to be heard:

> *"...but there is definitely a shift to move away from that biomedical model, and really consider other categories of healthcare workers as also essential and critical to health services, and also creating a bit more space and access for them. Even if at that point of time it was just creating forums and platforms for managers of other programs to raise their voices and concerns…" (HA_8).*

Mechanisms for dealing with power imbalances saw the establishment of the Health Deans Forum comprising the deaneries of the university. They engaged collectively with the health authority:

> *"I think the Health Deans Forum has achieved that particular goal of being kind of speaking with one voice when it comes to the Department of Health" (UNI_8).*

> *"The one-on-one relationship changed to a one to four" (UNI_3).*

The decision-making theme was discussed in section 5.5.2.3 as part of network design. The power dynamics were also referred to how the different interests of the parties were represented and who had power over decisions within the negotiation processes:

> *"So in this journey, it was very clear that you have to be conscious about power, a power distribution and what are the type of catalystic [sic] roles or approaches or people that can actually step into spaces. You have to identify who those are, and then I think critically is to be able to listen differently, and to try and see things from other people's perspectives" (HA_1).*

5.7.4 Governance of Complexity

The complexity of the interaction between the five parties to the agreement has been partly discussed in the various other thematic networks as it refers to equity, strategic fragmentation, medical hegemony and managing the network. This final Organising Theme within the thematic network of Organisational Capabilities considers the capability of the network to govern the complexities inherent in the network.

Three Basic Themes of complexity are included within this Organising Theme: Substantive Complexity, Strategic Complexity and Institutional Complexity (Figure 5-16):

Figure 5-16: Governance of Complexity Organising Theme

5.7.4.1 Substantive Complexity

Substantive Complexity considers the uncertainty, lack of consensus over the nature of problem, their causes and solutions and is often linked to different perceptions by the actors within the network (Koppenjan and Klijn, 2015):

> *"...that is part of the complexity of how – let's call it individuals that engaged this process, experienced what they would say a sense of unfairness and a sense of unwillingness of the other to acknowledge the viewpoint, or just acknowledge the hurt or the feeling of being hard-done-by in this process" (HA_9).*

The MLA was signed as an agreement between five actors with the autonomy and interdependence of each actor recognised. The health authority however viewed the four university actors as one entity partnering with the health authority:

> *"...each party, and if I call it 'party' here, it's all the universities as a party, and the Province as a party" (HA_1).*

Different perceptions of the funding arrangements and definitions within the MLA caused mistrust and delayed the process of finalisation of the dyadic agreements:

> *"I think that's probably one of the lessons we probably learnt, is that we approached this from a completely – in my view, maybe the wrong part of the whole process, because that – the focus was largely on*

finances. I think that's probably where people started digging their heels in, and as far I could see, the first sort of fracture lines developing in those spaces when the money became the most important focus, rather than the relationship" (HA_10).

5.7.4.2 Strategic Complexity

Strategic Complexity reflects on the fundamentally erratic and unpredictable nature of interactions based on the autonomy and independence of actors who don't necessarily pursue the common interest but place their own mandate first. This aligns with the concept of strategic fragmentation where the health authority and higher education systems are not structurally or fiscally linked (section 5.4.1.2):

"...let's call it individual institutional preservation at the expense of others. So, for me, when I came into this thing, I had a sense that everyone was in this thing for what they can get out of it, for lack of another word of saying that" (HA_9).

"So, the initial intention was to do it in one year. The complexity of the relationship and the level of mistrust, was present. Although we achieved the signing of a multilateral agreement that was quite high level, ...When we then say now you have to apply those principles to a bilateral relationship in the revised agreements, it's more detailed and it's more direct, and some parties had more vested interest in the status quo" (HA_6).

"...position themselves in such a way that they protected their own organisations' interests at all costs" (HA 10).

5.7.4.3 Institutional Complexity

Institutional Complexity describes the fact that actors come from different institutional backgrounds and they bring such complexities into the network. This relates to the organisational maturity of the member organisations as well as the formal legal frames of the actors within the network.

Differences exist in the organisational maturity of the member organisations and this impacts on the ability of the network as a whole to progress:

"…each person that sits at that table has an institution behind it, and almost have the responsibility to bring organisational maturity to bear when they come to that table…" (HA_9).

"…if we are going to wait for another level of maturity, I think it's going to take, yoh, it's going to be long… (UNI_12).

In the public health environment, the Public Finance Management Act (PFMA) requires sound financial management of public funds:

"So they (the health authority) are very much regulated and ruled by government policies and whatever, …they get caught up in their own policies and regulations, and not wanting to execute, even on things that we say in the MLA and where we collectively try and work together, …we see it in employment equity, their non-ability to follow short processes, just because of the bureaucracy and so forth, you know" (UNI_1).

"…the sustainability of that agreement becomes questioned. It becomes very rocky to sustain that agreement. The other thing is, should you find yourself being subjected to audits. You will have stuttering and stumbling to try to establish an audit trail, what is the source document. You see, the problem in government is in terms of PFMA. You need to have a source document of everything that you do, rightly or wrongly, but there must be a source document" (HA_4).

The universities do not always recognise the differences between the health sciences faculties especially when clinical services are involved and other faculties. This is seen in performance appraisal processes as well as academic promotions:

"So, we just came through an ad hominem process where people applied for promotion from senior lecturer to associate professor. This is a centrally driven thing at the university, and the committees look at certain guidelines. My thoughts there, or my submission at that committee was that you have to look at faculties differently, because the loads of the different faculties are different. If there's a faculty that doesn't have a (clinical) service load, it's not anything negative about

it, but then you expect something else to be higher. But if it's a Faculty that has a service load, then you have to look at things" (UNI_3).

5.7.5 Summary of Network 4: Global Theme – Organisational Capabilities

The fourth and final thematic network: Organisational Capabilities, is conceptualised as those intangible assets which enables these organisations to use their networks, experience, resources, and social capital to influence the system. This thematic network brings together the Organising Themes of Leadership, Partnerships, Power and Governance of Complexity under the Global Theme of Organisational Capabilities.

The senior leadership within the network since the signing of the MLA in 2012 had changed frequently, which, for some actors, impacted on the processes to finalise new dyadic agreements. The style of and roles taken by the leadership was important as part of support and facilitation of the processes. Positional and dispersed leadership assisted the actors at different levels in the network to negotiate the terms of the agreement as well as to put in strategies to facilitate the finalisation of the dyadic agreements and the ongoing functioning of the network.

The interplay of joint processes, relationships, and trust draw together those components needed to effect the partnerships between the actors. The joint processes cover those activities which assist the network to achieve its goals. Relationships can either constrain or enhance the network. Interdependence binds the actors and in the pre-facilitation process, the relationships were strained as mistrust was evident. Trust was key in the partnership and the journey of trust reflected the shift of trust between the actors. Mistrust was a root cause of the delay in the signing of the dyadic agreements.

Power between the actors and their constituencies together with a culture of dominance of doctor driven systems (despite this being a health sector challenge beyond the network), required a concerted effort by the actors to drive a culture of partnership. This was influenced by the historical context discussed in section 5.4.1.1.

Finally, various types of complexity (strategic, substantive and institutional) which are inherent to the network are highlighted as aspects to be managed.

5.8 Networks as Processes in Flux

The network established by a signed contractual agreement did not follow a linear process in terms of the evolution of the network. There were a number of different iterative processes which occurred, and which are captured in the Thematic Networks exemplified above. To capture the non-linear, iterative nature of this process I have synthesised the four Global Themes described in sections 5.4 to 5.7 into a single Overarching Theme of 'Networks as Processes in Flux'. Table 5-8 summarises these processes over the time-period since the formalisation of the network, proposing the facilitation process of 2017-18 as a breakthrough event. This event, as I argued in section 5.6.1.2, moved the negotiating parties forward to a consensus position at a multiparty level and facilitated the process towards finalisation of the dyadic agreements as well as ongoing functioning of the network.

Table 5-8: Networks as Processes in Flux

Network Levels	Pre-facilitation				Post-facilitation
	2012			2017-2018	2020
Network	Exogenous	Policy disjuncture		FACILITATION PROCESS	National competency - ongoing process
		Historical context			Continued influence at various levels of the network
	Endogenous	MLA	Signed in 2012		4 dyadic agreements - 2 were signed by the time of completion of data collection
		Negotiations	Distributive		Integrative
			Task driven		Relational
		Commitment	Apprehension based		Trust based
		Student access	Medical bias		Health system linked
		Human Capital Management in Joint Space	Medical bias		Human resources linked to student access
		Technical work	Financial modelling		Pragmatism /transitional financial arrangments
		Decision making	Centralised		Shared decision making
		Intersectionality	Linked to context		Multi layered
Dyadic	Joint Agreements between health authority and faculties with medical programmes				Continues to be a key driver linked to health system design
Organisation	Organisational capability		Linked to historical resources		Different levels of capability of member organisations
	Organisational maturity		Varying levels		Multi levels of maturity of member organisations
Individuals	Personal networks (Often discipline specific); Role relationships				Strengthened relationships particularly in negotiations team

At a network level, these processes were exogenous and internal to the network. The two external processes were policy disjuncture and the historical context. The former, as a national competence, requires ongoing intervention at the appropriate level. The impact of the latter (historical context) affects the functioning of network and beyond it. The facilitation process commenced a journey of transformation.

The internal processes at a network level included the signing of two of the four dyadic agreements during the data collection period. The negotiations which were distributive in nature (section 2.6.2.1) and task-driven shifted towards a more integrative approach with a focus on the relational aspects within the negotiation process. The original commitment to the network was apprehension-based commitment (section 2.6.2) and shifted to a trust-based commitment after the facilitation process. The focus was on strengthening relationships through commitment to a shared vision and purposefully working on trust. Student access which had a bias towards the medical programmes transitioned towards linking the statutory requirements for training to the health system. The human capital management in the joint spaces which had historical links to the medical programmes was guided by the principles for the organisational arrangements for human resources required for students training in the health service settings. Technical work which had been dominant in the pre-facilitation process shifted to support the strategic intent of the network. This took the form of pragmatic arrangements which included transitional arrangements for a five-year period. Centralised decision-making shifted towards shared decision-making with recognition of legislative prescripts who may hinder the shift. Intersectionality linked to the complexity of the network (historical context, power and the health system design) is multi-layered and is an ongoing process for the network.

At a dyadic level, some pre-MLA arrangements (between the health authority and the faculties with medical programmes) were incorporated into the MLA. This power dynamic remains a key driver linked to the health system design.

At an organisational level, the organisational capacity and organisational maturity of the different member organisations vary. The impact of these differences will need to be carefully managed in the ongoing functioning of the network.

Finally, at an individual level within the network, personal and role relationships had both positive and negative influences. In member organisations where turnover was

high, there was more reliance on role relationships. Personal networks remain an important factor, particularly within the negotiation team.

5.9 Key Findings of Research Study

The key findings of the study are:

i. There was a need to formalise the network to govern the interdependent relationships between the Health Authority and the regional universities.
ii. The historical context of the various member organisations within the network influenced its establishment and its ongoing functioning.
iii. The complexity of the interface between higher education and health sectors at a regional level was influenced by both exogenous and endogenous factors.
iv. The universities are heterogeneous in respect of resourcing, organisational maturity and organisational capacity.
v. The negotiation process was a key driver within the network including a catalytic facilitated process which commenced the journey from transactional engagement to one of transformational interactions. These were underpinned by the commitment of the actors to a journey of trust, strengthening of partnerships and the embedding of values within the network.
vi. A facilitative intervention developed twelve foundational principles which formed the basis for a transformative journey of collaboration.
vii. Various tensions were identified in the network.
viii. Intersectionality linked to the complexity of the network (historical context, power and the health system design) is multi-layered and had an influence on the network at various levels and times.
ix. The operationalisation of the multiparty agreement proceeded while negotiations continued on key components of the agreement.

5.10 Summary of Thematic Networks

The network comprising the five actors (the Health Authority and the four regional universities) signed an multi-party agreement (MLA) in 2012 to govern their relationships and to commit the actors to work together under such agreement. Within the framework of this agreement, four dyads (each university with the health authority as a common partner) agreed to sign off revised dyadic agreements within one year. There were a number of factors that delayed the intended one-year timeframe (post-

MLA) to sign these four new dyadic agreements as well as the functioning of the network.

Using thematic networks, the findings were reported in this chapter were integrated under one overarching theme of 'Networks as processes in flux' (Table 5-8).

The four thematic networks (including the Organising and Basic Themes) and the overarching theme are represented in Figure 5-17.

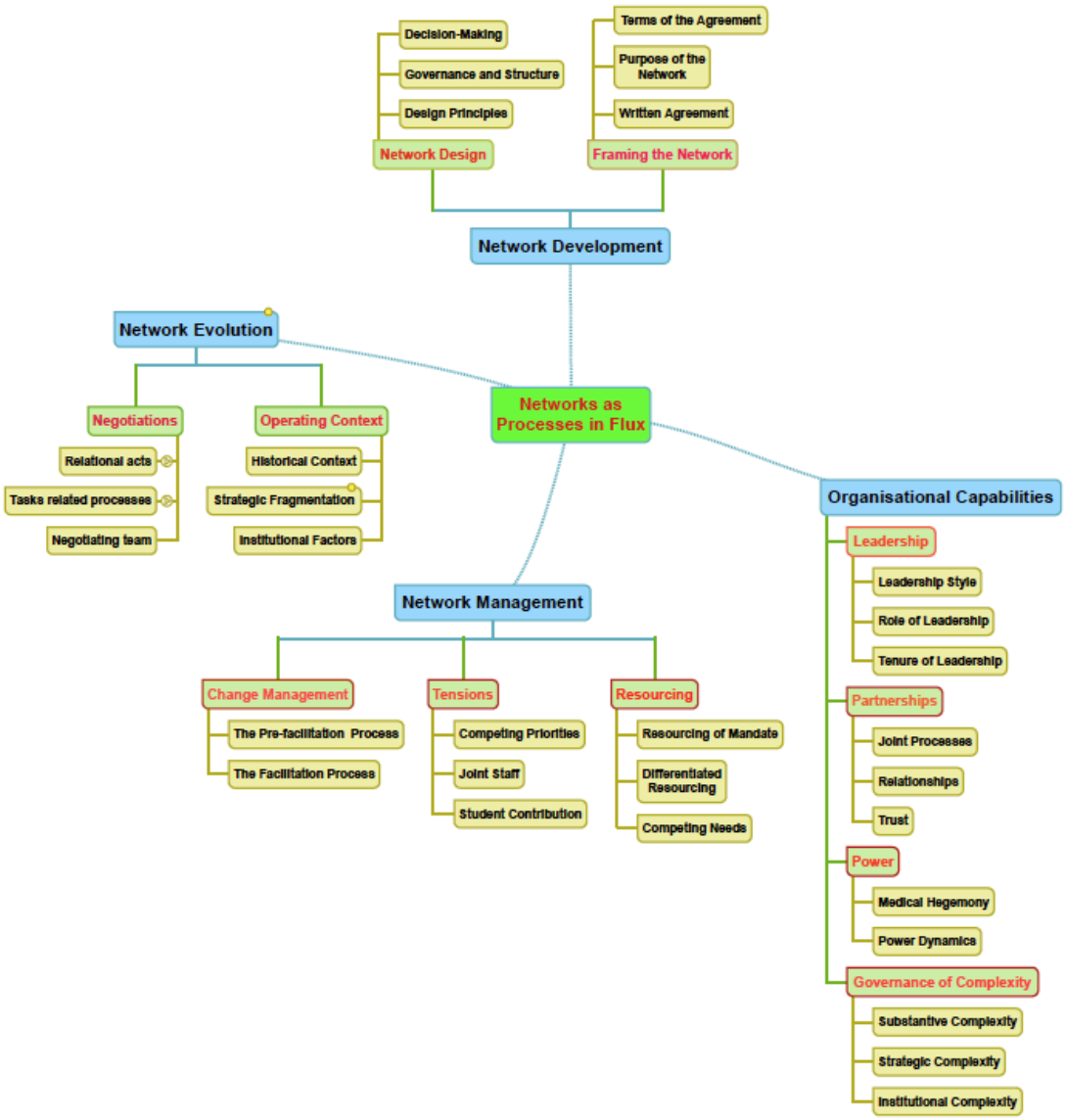

Figure 5-17: Complete Thematic Networks for Study

5.11 Summary

Chapter 5 described the thematic networks and synthesised them into the overarching theme of "Networks as processes in flux" (Table 5-8). The key findings of the study

as well as a summary of the thematic networks (Figure 5-17) provide the setting for the final step in the thematic network analysis process where the patterns that emerged from the data, and were summarised in these thematic networks, will be linked back to the original research questions and the theoretical underpinning of the research.

6 Discussion

"Some of the most valuable conversations that we have are probably the most uncomfortable that we have" (UNI_11).

6.1 Introduction

This chapter includes a discussion of the major findings of my research on the evolution of an interorganisational network between four university Faculties of Health Sciences and a Provincial Health Authority in South Africa.

In this chapter I will synthesise the findings presented in Chapter 5 against my original research questions and the theoretical framework underpinning the research study. In doing this, I will complete the final stage (Stage C) of the thematic network analysis. I will conclude the chapter by proposing a revised conceptual framework to explain the evolution and development of interorganisational networks as processes in flux.

6.2 Linking Thematic Networks to the Research Questions

Table 6-1 maps the three research questions (RQ) against the thematic networks of findings explained and exemplified in Chapter 5 (Figure 5-17). As can be seen in Table 6-1, different thematic networks map against more than one research questions, and vice versa.

Table 6-1: Mapping of Research Questions against the Thematic Networks

Research Questions		Global Themes	Organising Themes
RQ1:	What are the drivers that influence the genesis and the emergence of the network over time?	Network Evolution	Context
			Negotiations
		Organisational Capabilities	Leadership
			Partnerships
			Power
			Complexity
RQ2:	How does the network operating context influence its functioning?	Network Development	Framing the Network
			Network Design
		Network Management	Change Management
			Resourcing
			Tensions
		Organisational Capabilities	Complexity
RQ3:	How do actors within an interorganisational network influence the processes within the network?	Organisational Capabilities	Leadership
			Partnerships
			Power
			Complexity
		Network Management	Change Management
		Network Evolution	Negotiations

6.3 Synthesis of the Findings linked to the Research Questions and the Literature

6.3.1 The Drivers that influenced the Genesis and the Emergence of the Network over time (RQ1)

There are several drivers that influenced the genesis and emergence of the network over time.

6.3.1.1 Historical Context

The findings in Chapter 5 indicated that the network is deeply rooted in the historical context of higher education and health in South Africa. South Africa emerged from a period in its history in which race determined the socio-political structure of the country including in the health and higher education sectors. The dyadic relationships of the health authority with the two faculties with medical programmes (historically white universities) (section 5.4.1.1) was deeply embedded in this socio-political environment. This gave these dyads the positional power which was used as the

base/norm for future negotiations. These included a number of structures and processes which were subsequently incorporated into a new multiparty agreement (section 5.4.1.1). This supports the claims that a network's history determines aspects of the present network structure (Harini and Thomas, 2020, Sydow et al., 2009).

These historical processes and structures were a source of mistrust as those additional faculties (considered as previously disadvantaged) to the agreement had to struggle for legitimate inclusion in the network (section 5.4.1.1).

In the same way, imprinting of Apartheid was evident in the narratives of participants (section 5.3.1.1) particularly in the facilitated process where deep held feelings of historical disadvantage were expressed (section 5.6.1.2).

6.3.1.2 Interdependence of the Member Organisations

The second driver which influenced the network's emergence and evolution is the interdependence of the two sectors in terms of resource optimisation to respond to the human resources required for healthcare. Despite the strategic intent in the founding document to drive this interdependence, the findings highlighted fragmentation at a legislative and policy level (section 5.4.1.2). Both strategic and structural fragmentation (Ovseiko et al., 2014, Detmer et al., 2005) were present. Accordingly, the different government agencies, the national health ministry and the national higher education ministry together with the provincial health system, have different primary interests and there is no clear overarching strategy to integrate their missions (section 5.4.1.2). They are not '*structurally or fiscally linked'* (Ovseiko et al., 2014) resulting in policy disjuncture. Given the former, the network functions within a national policy vacuum.

6.3.1.3 The Evolution of Trust

The dynamics of trust during the evolution of the network was important to enable the actors in the network to achieve a consensus for what appears was essentially a negotiated settlement at the establishment of the network (section 5.7.2.3). Despite signing a multiparty agreement in 2012, the parties were unable to deliver on a key output of a one-year deadline for the finalisation of four dyadic agreements. Mistrust was a key factor in the network at its establishment (section 5.7.2.3). This is a paradox in itself as the five parties signed the agreement despite this mistrust.

As reported later, the health authority and faculties with medical programmes were instrumental in driving the process to finalise the multiparty agreement (section 5.4.1.1). Building network trust is a cyclical matter (Vangen and Huxham, 2005), which takes time to develop and was a key strategy for the leadership (integrative leadership reference (Silvia and McGuire, 2010)). The historical experiences of trust (both positive and negative) influences the journey of trust in interorganisational networks (Van de Ven and Ring, 2006). Gulati et al. (2011) includes in the definition of trust, that the parties 'negotiate in good faith'. The MLA (Doc_1) includes good faith in the foundational statements of the agreement (and is expressed eight other times in the agreement). Despite this, one of the perceptions highlighted during the facilitation process was that the actors were not negotiating in good faith (section 5.4.2.1).

The assumption is that trust and good faith (Gulati et al., 2011) is the basis of commitment to an enduring interorganisational relationship. Ring and Van de Ven's (2019) adapted process framework for the development of interorganisational relationships may explain this paradox. They argue that the commitment by the actors is based on their willingness to tolerate a degree of risk and uncertainty and that the relational bond in this case, is one that they call an apprehension-based commitment. As a result, parties relying on such commitments engage in lengthy activities as they negotiate the terms of the agreement. This was the case in terms of the actors in the network attempting to sign off the dyadic agreements. However, the facilitation process was a clear signpost of a positive change in the trust relationship enabling a process towards finalisation of the new dyadic agreements (section 5.6.1.2).

6.3.1.4 Intersectionality

Intersectionality (reflecting on aspects of equity and fairness) is discussed as a driver of the genesis and emergence of the network and straddles section 6.3.2 (RQ2) which has both a historical context and a role in the current operating context. Equity and fairness was a significant concern (section 5.4.1.3). The lenses through which these were viewed were broad and multilayered. For instance, a link to the historical context of the Apartheid regime where legislation/policy determined how higher education (and health services) were designed and funded (section 5.4.1.1). As a result, academic programme offerings at different universities and resourcing from government to the various universities, still advantaged those universities considered as previously white

universities (section 5.6.3.2). This gave them the historical means, voice and power to influence decisions.

This was further influenced by the power dynamic within health systems where a doctor driven health system (medical hegemony) supported by a health system where a bio-medical model was the norm (section 5.7.3.1), manifested in the power differential in the health services between rural and metro health services, levels of health care delivery and health professional disciplines (for example, doctors and the 'others' professionals) (section 5.7.3.2). This dovetailed with the historical privilege that universities with medical schools had in the pre-democracy period. Given this advantage, the findings suggested that the negotiations to a new dispensation within the network where the member organisations would have equal opportunity to participate in the network, was largely driven by the universities with medical programmes (section 5.4.1.1). This could be that those actors had the most to lose. Alternatively, this could be that their historical privilege meant that they had more institutional capacity to participate in and negotiate in this space (section 5.4.1.1).

Equity was also linked to equity of access for training of undergraduate students with a bias towards the medical programmes (section 5.4.1.3). Casey (2008) highlights in her work on the partnership between nursing education and health services, that the very nature of individuals from a university working with health service individuals precludes equality as the parties bring different skills and expertise to the setting. She goes further to link equity to participation in decision making and where one of the principles of equity could be out-comes based and not only a process-based one. A significant delay in the network was linked to the inability of the parties to agree to a definition for equity (section 5.4.1.3).

6.3.1.5 Negotiation Process

The negotiation process was a key aspect within the network (section 5.4.2). The network was established in 2012 after many years of negotiation. A team designated to drive the negotiations after the network's establishment were senior staff members from the various actors (section 5.4.2.3). This supports the value of having in-house teams (as opposed to individuals or agents) negotiating on behalf of the actors (Long et al., 2012). These teams '*increase the breadth of knowledge and information processing capacity'* (Long, 2012) and can diffuse individual hostility. However, the potential drawback is that of group think and in-house hostility towards other teams.

A key activity immediately after the signing of the agreement was to develop the template for dyadic agreements. These negotiations were initially task-driven with a focus on technical work including financial modelling (Long et al., 2012). In the absence of a change management process (section 5.6.1), the relational aspects within the network were neglected (Saz-Carranza and Ospina, 2011).

A key activity within the negotiations was to move away from the historical (which included territorial) positions within the network to one that would be to the benefit of all (section 5.4.2.1). This affirms the integrative approach (Borbély and Caputo, 2017, de Andrade Lima and Morais, 2015) to negotiations which is relevant to networks which are lasting relationships. However the findings don't support this with the actors reaching an impasse 5 year after signing the contractual arrangement (section 5.5.1.1). Subsequent to the facilitation process, a more integrative approach was followed (section 5.6.1.2).

6.3.2 The Influence of a Network's Operating Context on its Functioning (RQ2)

The second question considers the influence of the operating context on a network's functioning. All interorganisational networks operate within a particular context. This network functions within the higher education/health sector interface. Since the MLA was signed at a time when the relationships were acrimonious, mistrust was high, parties had fixed positions (section 5.6.1.1), and the health authority and the universities with medical programmes were the power brokers (section 5.7.3). However, the operating context in which the parties negotiated the process of translating the multiparty agreement to four dyadic agreements changed over time.

6.3.2.1 Network Design

The correct governance structure is important to make the network work effectively (Provan and Lemaire, 2012, Provan and Kenis, 2008). Notably, the evidence for an appropriate governance structure was ambiguous in the findings.

This research showed that the actors stressed the importance of a written agreement (section 5.5.1.1) which included the need to guide future generations as well as manage the network in times of conflict (section 5.5.1.3) (Ring and Van de Ven, 1994). The network is an example of a formal interorganisational network which the actors agreed to form to govern their relationship (section 5.5.2.2), although it was not mandated in

terms of a statutory requirement (Popp et al., 2014, Isett et al., 2011). Section 2.6.4.1 described the typology of governance: shared governance, a lead agency, and a network administrative organisation. The MLA (Doc_1) described a shared governance structure which was reported by a few of the participants. At the same time, the legal and fiscal structures are quite specific and separate among the member organisations and in the Health Authority is a legislative prescript (section 5.7.4.3). Since financial resourcing is a key activity within the network and the health authority is the custodian of the health service to which the universities require access (section 5.5.2.1), the governance structure aligns more with a lead agency governance structure. It follows that even though 'decision making' occurs in the joint governance structures, the final decisions are approved within the member organisations with a key decision-maker being the health authority. This confirms the recognition of the increasingly hybrid forms of network governance which respond to the need of the network, as is described by Provan and Lemaire (2012).

This may be a consequence of the finding which was ambiguous as to whether the network clearly distinguishes between its goals and purpose. Of importance, the purpose of the network was broadly described as excellence in healthcare and in the teaching and training of health professionals as well as creating a supportive environment for furthering the frontiers in medical research (section 5.5.1.2). Berthod et al (2019) argues that purpose is broader than goals and is the reason for the existence of the network. The purpose is not easily quantifiable whereas the goals are measurable and more concrete. No specific measurable goals were found in the study, bar the one-year timeframe for the conclusion of the dyadic agreements. This may be explained by the institutional complexity (section 5.7.4.3) where the prescripts of member organisations creates the tensions of network resourcing versus organisational resourcing (Klijn and Koppenjan, 2014, Huerta et al., 2006) and interdependence versus autonomy.

6.3.2.2 Change Management and the Facilitation Process

Notably the findings indicate that a joint change management process had not been initiated at the signing of the agreement (section 5.6.1.1). This impacted on the ability of the network to make progress. Uneven power relations, the perception of unfairness and mistrust was present. A *'trusted voice by all parties' (HA_9)* facilitated a series of difficult conversations after an impasse was reached (section 5.6.1.2). Klijn and Koppenjan (2014) describes the situation when blockades and stagnation is reached

when actors don't adequately deal with the complexities within the network. However, the process of facilitation was a breakthrough moment (Klijn and Koppenjan, 2014) and assisted the team through a journey of learning which saw shifts away from territorial positions (section 5.4.2.1) to one of collaboration and shared vision. The processes in the engagements at the negotiation level moved from transactional to transformational with agreements of compromise and a more collaborative relationship (section 5.4.2.1) (Ystrom et al., 2019). Nevertheless, this may create other tensions in the network as the facilitation process and the negotiations occurred within the negotiating teams and not more broadly within the member organisations.

6.3.2.3 Network Management of Network Tensions

A number of tensions inherent to the network were reported (section 5.6.2). The competing mandate tension has been discussed earlier (section 6.3.1.2). The tensions, such as the joint human resource management (section 5.6.2.2) and the contribution of students (section 5.6.2.3) in the network are part of the structural dimensions (forms and functions) of network management (Saz-Carranza and Ospina, 2011).

There are a number of the relational tensions in the network which were identified as the root causes of the impasse during the negotiation period: '*uneven power relations, the experience of control and dominance, unfairness and mistrust*, *working in an oppositional manner rather than in partnership, and a mismatch in organization culture' (*Doc_3*).* These relational tensions are part of what a network as a whole has to manage (Saz-Carranza and Ospina, 2011) and would include processes such of decision-making, the intersectionality which was evident, power dynamics, as well as trust and partnerships.

6.3.2.4 Complexity

The different types of complexities (section 2.6.4) were evident in the findings. Dealing with the complexities and tensions in the network is a key role of network management. These complexities and tensions are not discrete and interact and overlap with each other. Identification of the specific complexities assisted the actors to deal with them. For this reason, the impasse is partly explained by different perceptions of the problem and definitional differences (especially as it related to joint staff and student contribution to service delivery) (Doc_3). In addition, the facilitation provided a frame reflection (that is, setting the stage for the actors to engage) (section 5.6.1.2)

which helped the actors to consider the system anew (Klijn and Koppenjan, 2014, Saz-Carranza and Ospina, 2011).

6.3.3 The Influence of the Actors in the Network on the Process of Evolution (RQ3)

The network influences the actors and the actors influences the network (Crossley and Edwards, 2016, Saz-Carranza and Ospina, 2011). This research question considers the influence of the actors on the evolution of the network.

6.3.3.1 Role of Leadership

The findings show that the leadership in the network played a critical role in the evolution of the network (section 5.7.1). This varied from the facilitative role played by individual leaders at an organisational level (section 5.7.1.1) as well as the leadership as a collective when it was clear in 2015, that the negotiating parties had reached an impasse and required assistance to take the process forward. For instance, the governance structure purposefully chose facilitation (section 5.6.1.2) as opposed to mediation or non-binding arbitration (Ansell and Gash, 2007) to help the parties navigate a process towards consensus building. The multiparty agreement (Doc_1, Doc_2 and Doc_4) makes provision for mediation and a dispute resolution process and given the commitment to the relationship, the governance structure opted for facilitation. Consensus building was a key outcome of the facilitation process, which paved a way for a renewed commitment to sign off the dyadic agreements. By illustration, the leadership was willing to make compromises (Singh and Segatto, 2020) as described in the documentation (Doc_5).

In addition, the leadership also committed senior colleagues to act as the negotiators in the process (section 5.4.2.3). Leadership and management are key responsibilities in the non-hierarchal structure of networks (Popp et al., 2014).

6.3.3.2 Partnerships and Interdependence

Of importance, the partnership between the member organisations in the network is embedded in its interdependence which is included in the multiparty agreement (Doc_1). Interdependence is defined as a separateness of the actors but a connectedness of outcomes (Carboni et al., 2019). The autonomy of the member organisations was recognised and the governance structures (Doc_1) were established to oversee this connectedness. A number of joint initiatives (section 5.7.2.1) were

reported which were core to the network – these include joint processes, joint staff, joint spaces and shared decision making. Notably, the processes give effect to the recognition that the interface, at both a strategic and operational level, are important to realise the purpose of the network. Within the current legislative context, this network should be enduring (Weber and Khademian, 2008).

Partnerships are more than just structures and processes. To illustrate, the importance of trust and behaviours and attitudes of the member organisations (McQuaid, 2010) and well as individuals, was reflected in the way that the network navigated the journey of trust (described in section 6.3.1.3) recognising their differences (and compromising on the dyadic agreements) and finding common ground (Doc_4) through the development of the foundational principles. Networks must manage their relationships with each other in order to create value and promote benefits for all parties (Singh and Segatto, 2020).

Of importance, the MLA process was not without casualties (section 5.4.1.1). For example, the medical programmes were heavily invested in the resourcing and structures at the time of negotiations of the MLA such that the final agreement was, as was raised in the facilitation process, biased towards medical professionals (Doc_3). One of the tensions in networks is efficiency versus inclusiveness (Provan and Kenis, 2008, Saz-Carranza and Ospina, 2011): the need for administrative efficiency in the network or negotiations versus the need for inclusive processes. The former was present at the establishment of the network with a shift towards inclusiveness post the facilitation process.

6.3.3.3 Power

As described, the power relationship in the network was a key finding (section 5.7.3.2). This power asymmetry emanated from a number of different sources (Purdy, 2012): first, the power of the health authority as the formal custodian of the health facilities and various other resources such as financial and human capital (section 5.6.3), second, the power of doctor-driven processes (medical hegemony) (section 5.7.3.1) and third, the power of those actors who had benefitted from the previous political dispensation (historically white institutions – section 5.4.1.1). This resulted in mistrust and suspicion. Given the above, the role of the health authority and those faculties with medical programmes as power brokers could have driven the process to retain the power asymmetry (Ansell and Gash, 2007, Berry et al., 2004). This suggests that the

contractual agreement in 2012 did not appear to mitigate this power dynamic. In fact, a component of the facilitation process was to tackle the power asymmetry (Doc_3).

Ultimately, the recommitment to the process and foundational principles (Doc_3) agreed to in the facilitation process assisted the actors to reached consensus with compromises to sign off the dyadic contracts. This together with the trust which developed in the post-facilitation process could form the basis for a shared power arrangement in a collaborative governance structure (Ran and Qi, 2018).

6.3.3.4 The Role of the Lead Organisation

As discussed above, the health authority is the legitimate custodian of the process. Consequently, the multiparty agreement is not valid if the health authority withdraws (Doc_1). This legitimacy and authority (Berthod and Segato, 2019) gave them the right to determine how the network could function. by illustration, the facilitation process highlighted the perceived autocracy (section 5.6.1.1). However, the conscious commitment by the health authority towards a dispersed style of leadership and decentralised decision-making (section 5.7.1.2) shifted the network towards collaborative engagements.

6.4 Towards a Conceptual Framework for Networks as Processes in Flux

The conceptual framework informing this research integrated components of the process framework for interorganisational relationship development, the theory of networks and governance network theory (section 2.6). I will explore each of the three phases in the evolution of an interorganisational network from my original conceptual framework (Figure 2-4 below), before integrating my findings on the interaction between structures and processes (from Figure 2-5) into a new model (Figure 6-1).

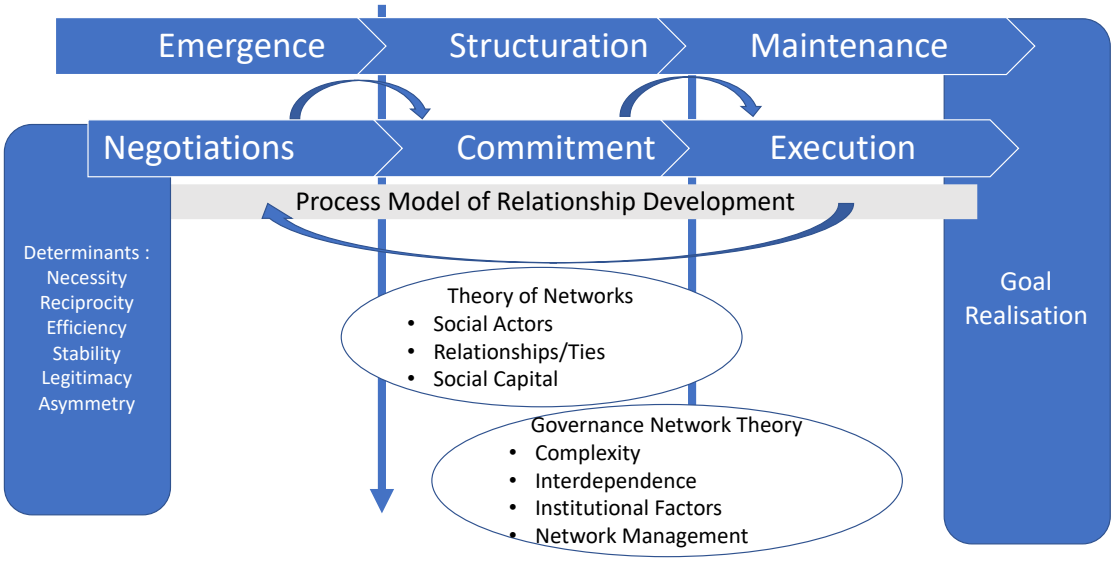

Figure 2-4 Original Conceptual Framework

6.4.1 Emergence of the Network

'Emergence of the network through negotiation by the various actors, drawing from the theoretical principles of connectedness and interdependence of the actors, the influence of institutional factors and the knowledge that uncertainties exist in the environment' (section 2.7).

The interdependence of the actors was a key driver for the actors to negotiate a written contractual agreement. However, the autonomy of the actors brought with it a complexity that highlighted the diverging and conflicting aspects of the individual actors (Koppenjan and Klijn, 2015). The findings indicate that the negotiation process aligns with the iterative process described by Ring et al (1994) and affirmed that the period of negotiation extended beyond the emergence stage and continued through all the subsequent phases. In the connectedness of the social actors influenced the emergence in different ways. On the one hand, the personal and role relationships were important factors in the negotiation process (Ring and Van de Ven, 1994) and played a facilitation role. On the other, the historical context of such relationships especially that between the health authority and the faculties with medical programmes was a root cause of mistrust.

6.4.2 Structuration of the Network

'Structuration of the network is driven by a commitment by the actors to proceed with the relations/network and asking the question which structure best fits the network and

how should it be governed and managed. Network governance and the various types of relationships are important in this phase. The behaviour / social practices influence how the structure of the network is formed as well as how the structure of the network influences the relations between the actors' (section 2.7).

After many years of negotiations, the actors, given their interdependence, proceeded to sign off the contractual agreement. This agreement paved the way for the dyads within the network to finalise dyadic agreements and for the network to be operationalised. The findings highlighted that despite the commitment through such agreement a significant amount of mistrust still existed in the network. This is explained by the argument of Ring and Van de Ven's (2019) that the commitment by the actors to the interorganisational relationship is based on their willingness to tolerate a degree of risk and uncertainty and that the relational bond in this case is an apprehension-based commitment. As a result, the parties relying on such commitments engage in lengthy activities as they negotiate the terms of the agreement.

The research found that the governance structure straddled a lead agency versus a shared governance structure. This confirms the recognition of the increasingly hybrid forms of network governance which respond to the need of the network, as is described by Provan and Lemaire (2012).

The processes and structures within the network had a strong bias towards the dominant member organisations. This power asymmetry influenced the intention of the network to address power imbalance and control. The assumption in the framework is that the university actors are homogenous. However, the research reflected the differences at various levels. These differences could be explained by the complexity (section 2.6.4) described in the governance network theory as actors come into the network with different perceptions, capabilities and organisational maturity (Koppenjan and Klijn, 2015). In addition, the impasse reached is a likely outcome of the overlap of complexities. Identification of the complexities during the facilitation process provided a frame reflection which helped the actors to consider the system anew. This breakthrough was an important event in the network (Klijn and Koppenjan, 2014).

6.4.3 Maintenance of the Network

'Operationalisation and maintenance of the network (linking to the execution phase of Ring and Van de Venn, 1994) draws from the principles of shared decision making and the complexity of the institutional rules/processes to develop new rules and norms for the network to deliver on its shared goals. This includes a system to resolve internal disputes. The attributes of the actors are critical in this phase' (section 2.7).

The research findings showed that components of the network were operationalised while negotiations continued. The premise of this phase of evolution is that the network would shift into a space where new rules and norms would be developed for the network to deliver on its shared goals. However, the delay in the initiation of a joint change management process resulted in an impasse.

Notably, the breakthrough after the facilitation process saw renewed commitment to the network through the development of the foundational principles to guide the engagement and processes to manage the tensions within the network. Moreover, the negotiating team commenced a journey of learning which saw shifts away from territorial positions to one of collaboration and engagement processes which moved from transactional to transformational with agreements of compromise (Yström et al., 2019). This included a degree of pragmatism around the transition of resourcing over a five year period.

6.4.4 Interaction of processes and structures

As illustrated in Figure 2-5, my original conceptual framework for the evolution of an interorganisational network was adjusted to place at its centre the interaction of processes and structures which influence the emergence, structuration and maintenance of such network.

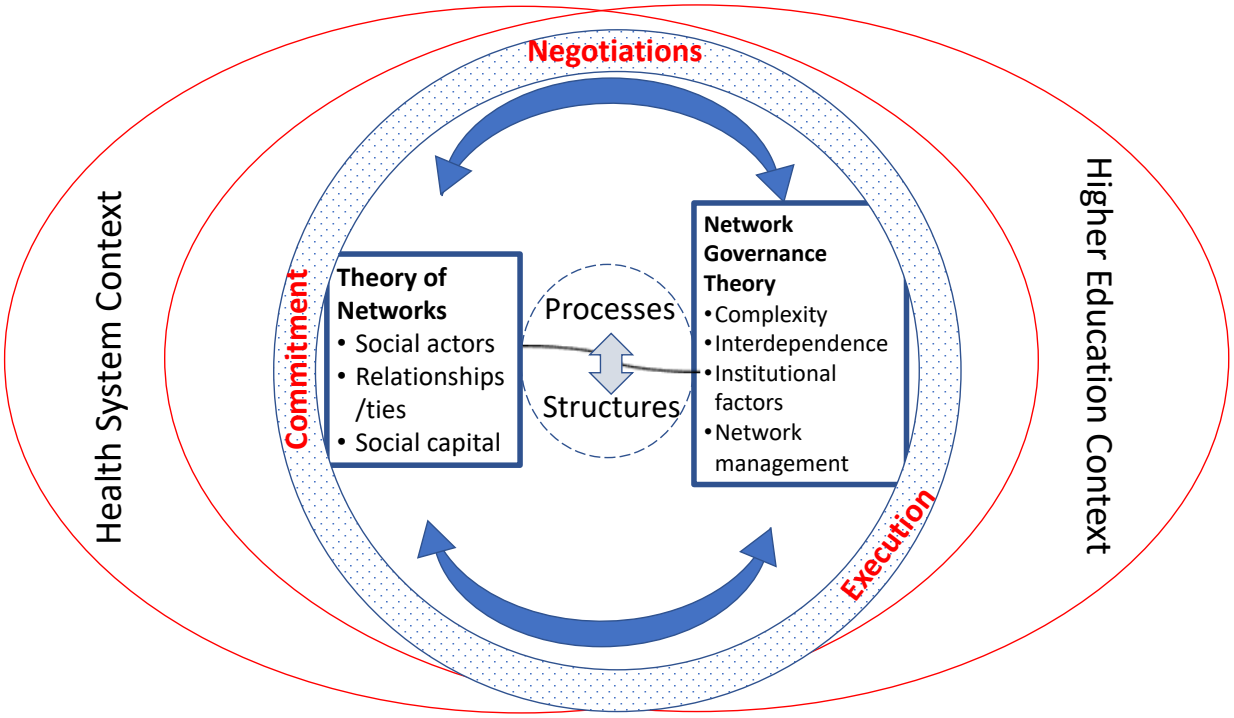

Figure 2-5: Revised Conceptual Framework

The interaction between process and structures were evident throughout the findings and were influenced by both exogenous and endogenous factors. This interaction is at the core of the conceptual framework as the other components pivot around this. Linking this back to Table 5-8 (networks as processes in flux) several shifts occurred during the timeframe of the research study at various levels within the network. These reflect a shift towards network transformation. These shifts do not easily fit into any one of the phases of the life cycles of interorganisational networks and reflects more broadly that networks are an amalgamation of processes. This aligns with the arguments of Berthod and Segato (2019) of a process view of networks (section 2.3.1) which is comprised of a number of interconnected processes.

However, the framework doesn't fully incorporate three findings from this research. One is the importance of change management and interorganisational learning and specifically the organisational capabilities to drive this. The second is the impact that historical context, especially how intersectionality has influenced the evolution of the network and lastly, the critical role of negotiations as an ongoing function within the network.

The conceptual framework presented in section 2.7 can therefore be further adapted into a new model (Figure 6-1), taking into account the findings reported in Chapter 5

and discussed in this chapter. The numbering within this revised framework is for the convenience of cross-reference and is non-hierarchical.

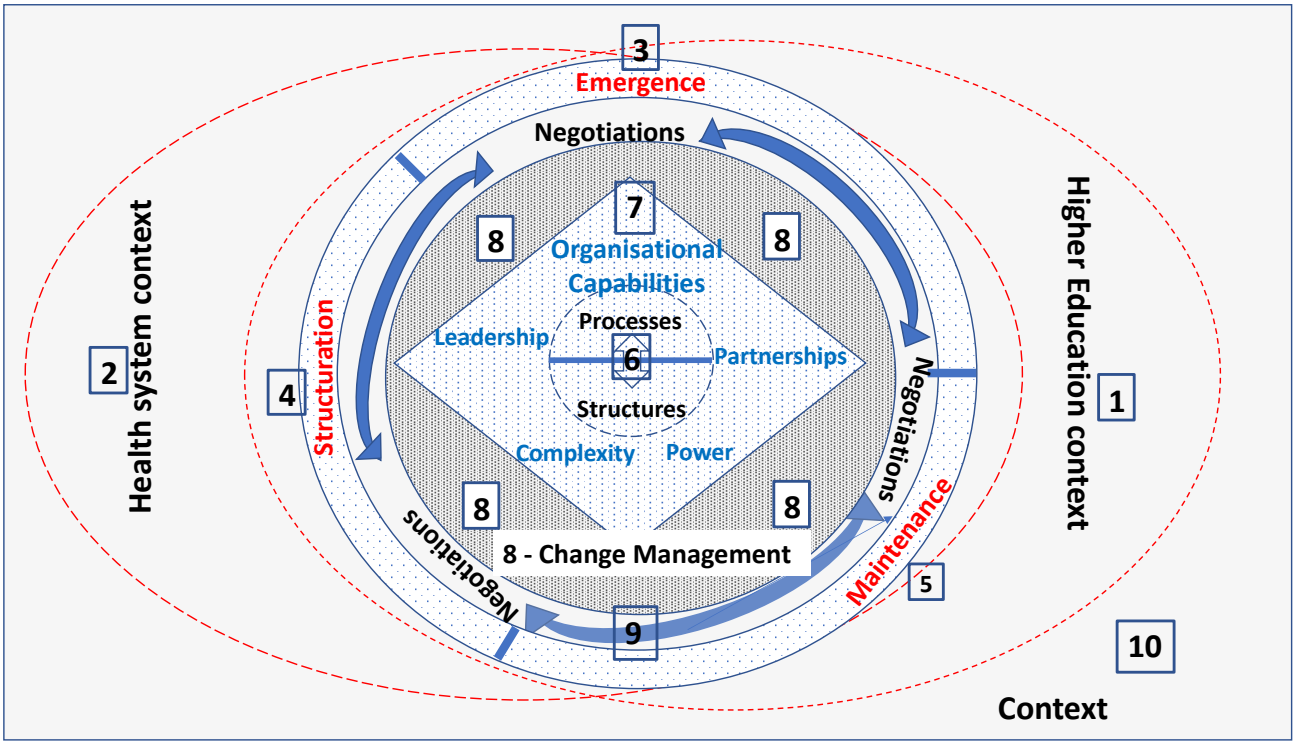

Figure 6-1: Framework for the Evolution of an Interorganisational Network

The interorganisational network between the actors (the health authority and universities) is shaped by the contexts of the higher education (1) and health system (2). Neither of the contexts are static therefore the overlap of the two circles could fluctuate dependent on both exogenous and endogenous factors. Within this context there are a number of factors which influenced the evolution of the network through its phases of emergence (3), structuration (4) and ongoing maintenance (5). These again are influenced by both exogenous and endogenous factors. While these phases (3, 4 and 5) of the lifecycle are separate from each other, these boundaries may be artificial. This may be more relevant in the structuration and maintenance phases, as various interactions within the network could shift between the two.

Central to the framework is the dynamic between processes and structures (6) within the health authority-universities network. This dynamic is managed by network managers (within the appropriate governance and management model) leveraging off the key organisational capabilities (7) of leadership, partnerships, and the management of power and complexity. This is facilitated by a process of change management and interorganisational learning (8).

Negotiations are key throughout the various phases of the life cycle of the network (9). Lastly, the context (10) within which the network emerged had a critical influence on its evolution. This context included the legislative and policy framework as well as the significance of the historical framing.

6.5 Summary of Discussion

This chapter has demonstrated the final stage (Stage C) of thematic network analysis by synthesising findings against relevant literature organised around the three research questions. My original conceptual framework was revisited and adjusted to incorporate the three components that were not included in the original framework, to present a new framework to explain interorganisational network evolution as a set of processes in flux.

To summarise, the findings show that the evolution of an interorganisational network between a health authority and regional universities is a complex and dynamic process which is influenced by exogenous and internal factors. Of importance, the interdependence of the member organisations require a formalised structure to govern the relationships. A number of shifts occurred within the network which reflected the transformational interactions within the network. These were underpinned by the commitment of the actors to a journey of trust, strengthening of partnerships and the embedding of values within the network. Three key processes were critical in the evolution – the need for a change management and interorganisational learning process at a network level, a skilled team to drive the negotiations and careful consideration of the context specifically the historical context.

7 Conclusion

7.1 Introduction

This research study has considered the evolution of an interorganisational network between a provincial health authority and four universities in South Africa. The context of higher education and health has provided a backdrop for the development of a revised framework of interorganisational networks as processes in flux at the interface between the two sectors.

This chapter is organised as follows: first, a brief overview of the research findings, followed by a consideration of the contribution of the study at theoretical, practice and methodological levels. Further, the limitations of the study are discussed. The chapter ends with a personal reflection and concluding remarks.

7.2 Overview of the Research Findings

An interpretative case study research design was used to investigate the evolution of an interorganisational network within a specific context, that is of regional universities' health sciences faculties and a provincial health authority. A conceptual framework which incorporated components from the process framework for relationship development, the theory of networks and governance network theory was used to frame the study.

The research has identified that the network has developed and functions in a complex and dynamic context. This confirms previous research on network complexity that is multi-layered and influenced by exogenous and endogenous factors. These complexities included legislative and policy disjuncture, a painful historical context and power asymmetry. In addition, the absence of a regulatory framework increased the complexity in which this particular network functions. One of the consequences of this is how the network deals with the tension between the interdependence of member organisations and their autonomy. Notably the historical context played a key role in the emergence and evolution of the network and continued to influence current structures and processes.

As can be seen, the decision to establish the network was neither mandated nor based on trust. The actors recognised their interdependence and this formed the basis for the

establishment of the network. This commitment, while not trust-based, was based on another relational bond, an apprehension-based commitment.

Intersectionality was evident in the network, as the overlay of an historic system of Apartheid inequalities and a health care system where medical hegemony is dominant, drove the power asymmetry at a network level as well as at an organisational level. This, in part, influenced how the network was structured.

Further, the study findings confirm the shift reported in the literature in how network governance has adjusted to hybrid models linked to the requirements of the network. Of importance, the member organisations are not homogenous. In future, the network has to consider how to manage the different levels of organisational capacity and organisational maturity.

The dynamic interaction of processes and structures required various organisational capabilities to manage the network and to position the network to realise its goal and purpose. Throughout the process, the importance of the negotiation was evident.

As described, the need for a network change management strategy was identified as a key leadership responsibility. The initial shifts seen within the negotiating teams, acting on behalf of the member organisations, point to a transition from transactional interactions to transformative engagements. This included the actors moving away from territorial/protectionist approaches towards collaboration. These were underpinned by the commitment of the actors to a journey of trust, strengthening of partnerships and the embedding of values within the network.

The conceptual framework used to frame the research was adapted to incorporate the components of context (specifically historical context), negotiations and change management. The revised framework could guide other networks starting on this journey.

7.3 Contribution of the Research Study

Based on the findings of this research study, the depiction of the network as processes in flux (Table 5-8) and the synthesis of a new framework for interorganisational network evolution (Figure 6-1), there are three areas of contribution: a contribution to theory, a contribution to practice and a contribution to methodology. Each of these will be described.

7.3.1 Contribution to Theory

This study contributes to the understanding of the evolution of public universities partnering with a health authority as an interorganisational network. The time dimension of eight years provided insights into the life cycle of the network and how over time the dynamics within the network influenced its functioning.

The description of the network as non-linear, with iterative processes (Table 5-8) strengthens the theoretical framework for interorganisational networks as processes in flux. These include a catalytic facilitation process which moved the negotiating parties forward to a consensus position at a multiparty level and provided insight in how networks are able to shift towards collaborative and transformational engagements.

The specific contribution is the influence of the historical context and the consequences it had on processes and structure within an interorganisational network. The temporal nature of the network highlighted the need to have an coordinated ongoing process of change management and negotiations. This could contribute to further synthesis of interorganisational networks as suggested by Lemaire (2019) of being mindful of the time dimensions and context and how it influences the findings.

The unit of analysis was an interorganisational network between provincially located universities and the provincial health authority. The level of analysis went beyond dyads or ego-networks and used the entire / whole network as is called for by various scholars (Berry et al., 2004, Provan et al., 2007, Provan and Kenis, 2008, Nowell et al., 2019, Lemaire et al., 2019). Therefore this research could build knowledge in the understanding of the network at the analysis of the whole network (Figure 6-1).

A strength of this work was co-creation of knowledge in an organisational setting which is characterised by complex roles and relationships (Smyth and Holian, 2008). The inputs of the participants were critical.

A single case study approach, while providing opportunity for an in-depth understanding of the phenomenon, is limited in its generalisability. However, Saz et al (2010) argues that one can learn from networks which have proven to navigate collective action. The case study was done within a conceptual framework drawn from the interorganisational literature. The revised conceptual framework (Figure 6-1) could

be transferred as a theoretical concept to other contexts (Naidoo, 2019, Walsham, 2006).

Finally, a framework was developed (Figure 6-1) with components which could contribute to the knowledge base of interorganisational networks. These components pivoted around processes and structures operating at the interface of organisations, with proposed organisational capabilities to support the network. The framework emphasised the importance of context, and a strategy for negotiations and change management.

7.3.2 Contribution to Practice

From a practical point, there are several concrete implications for practice. This research study was conceptualised within the context of academic health complexes. Health and higher education have an interdependence that requires the establishment of organisational entities which provide a vehicle for the delivery on their joint mandates. This research viewed this organisational entity as an interorganisational network.

This research study suggests key components for the establishment of academic health complexes as interorganisational networks. The enabling legislative and policy environment needs to be in place (part of the operating context). The process of negotiations is a fundamental activity throughout the different stages of the life cycle of such a network. The involvement of knowledgeable senior individuals (preferably inside the organisation as opposed to negotiation agents) is advisable. The historical context of the network particularly in environments where there is a history of societal trauma such as is the case of Apartheid in South Africa, needs to be considered. A purpose-driven joint change management process is an important strategy that will assist in the various phases of the life-cycle of the network.

7.3.2.1 Recommendations to the network

At a context specific level, that is, the researched network itself, the appropriate governance structure for the purpose of the network is important. The findings point to a shift towards a shared governance model which is based on a trust-commitment. It is unclear whether the legislative prescripts would enable this.

The overarching theme of 'networks as processes in flux' (Table 5-8) provided a timeline of key processes over an 8-year period using the facilitation process as a catalytic event. The member organisations may find this model useful as the basis for process indicators.

At a practical level, there is a need to maintain meticulous records within the network. Finally, the network may need to reflect on the cumbersome process for the approval of research activity. Reciprocity may be an option or a joint ethics review entity within the network.

7.3.3 Contribution to Methodology

This interpretative case study captured the temporal nature of an interorganisational network through an in-depth engagement with participants from the network. This could contribute to the need for time-based studies of interorganisational networks. The process driven framework described in Table 5-8 provides a possible method for the development of process indicators within such time-based studies.

The use of the thematic network tool as an organisational tool for the thematic analysis, strengthened the analytical process and the credibility of the findings. Thematic analysis of textual data is well recognised; however an area of under-reporting is the processes to analyse such data (Attride-Stirling, 2001). The thematic network tool provided, in a step-by-step fashion, the analytic process with the aid of web-like diagrams. This assisted with disclosure of the process of systematic interpretation undertaken in the analysis of the data.

7.4 Limitations

Findings from this study need to be considered in light of its study limitations, of which one is the single case study approach. A single case study approach is limited by its generalisability. A comparative case study approach following a number of networks could offer robust conclusions to help understand the life cycles of networks in multiple context. However, as highlighted earlier, one is able to learn from networks which have proven to navigate collective action (Saz-Carranza and Ospina, 2011).

This research study's analysis at the network level, provides partial insight into the network as only higher level structures/senior individuals were included. The

limitations in considering the evolution, is that the effectiveness of the network has not be covered as the network is still in an evolutionary phase.

An additional methodological limitation rests in aspects such as institutional memory. The inability to account for participant memory selectivity and difficulties with past memory recall in the study methods is acknowledged. In some instances, participants were asked to recall events from as far back as eight years prior to data collection.

Finally, as an insider participant, I had the advantage of being embedded in the network in a leadership role fulfilling multiple roles of negotiator, leadership of the team as well as a member of my internal team and advisor to our institutional leadership (Hanson, 2013). I drafted a number of the key documents and lead a number of the negotiation processes that placed me in a position of power (Ross, 2017). The participants in the research may have responded to what they thought I wanted to hear (Breen, 2007). The risk of confirmation bias was possible especially given that my institutional role was within one of the dominant dyads within the network. Other dyads within the network, may view the findings as being biased towards this dominance. I was solely responsible for the coding of the text and the analysis thereof. It was not possible to have multiple persons to code the data. Respondent validation was utilised to maintain objectivity and to check whether my interpretations were representative of their experiences (section 4.9). It is recognised that no research within the context of an organisation is completely objective irrespective of whether the researcher is an insider or an outsider (Smyth and Holian, 2008, Ross, 2017, Costley, 2010, Hanson, 2013).

7.5 Areas for further research

The following are areas for further research:

- This study focused at the network level and therefore provides partial insight into the network. Further work will need to ask the questions how each member organisation's in-house management within the network, influences the network as a whole, as well as further explore how dyadic relationship of the member organisations could influence the network.

- In contexts where the member organisations are at different levels of organisational maturity[xx], how would this influence the network functioning and maturation process? This could include how the power dynamics impact on both the network evolution and facilitate or inhibit full participation of the member organisations.
- The path dependency of this network was embedded in its historical context. This needs further exploration possibly including telling stories through an Apartheid lens. Historical trauma could be considered from the perspective of individuals as well as organisations.
- Further exploration of the network to explore more deeply the connectedness and ties between the actors. This study highlighted the intersectionality within networks. Social network analysis could enable the exploration of the structure of the network as well as the connections between the nodes and ties of such networks.

7.6 Reflection

I was appointed to a senior university position in 2006 to amongst others, manage the partnership with the health authority. The processes to finalise a revised agreement between the university and the health authority were drawn out. I was afforded an opportunity, as a member of the professional and support staff, to participate in a doctoral programme to increase the number of university administrative staff with doctoral qualifications. This impasse in the process of the finalisation of bilateral agreements gave me the leverage to do two things: One to acquire a DBA and secondly to consider doing research in a complex space within Higher Education.

I had come from a background of a medical degree (at Bachelor level), and a Master's degree in Business Administration (having done a quantitative research based research assignment). Therefore I had to grapple with a framework in which to base my work. Previous research in the AHSC setting, as discussed in section 2.4, was based in well-resourced countries. The journey within the DBA gave me the chance to view the problem through a broader lens of interorganisational networks/relationships. The difficulty was trying to find a theory as well as the research paradigm in which to locate my research. Developing the research question was a dichotomy. On the one hand, I am deeply embedded in the network and thought I knew the answers to the questions

[xx] Organisational maturity defined as an organisation's readiness and capability expressed through its people, processes, data and technology

already. On the other hand, as I was reminded by my supervisory team, that this was a scholarly endeavour and not a consultancy. My initial idea was an extensive plan intended to grapple with many and all of the difficulties experienced in the network. This too was unrealistic. The original strategy was to consider a mixed method social network analysis (SNA) framework recognising that SNA only gives a snapshot of a network. The COVID-19 pandemic turned that plan upside down given that access to the member organisations were severely impacted as the teams responded to the urgency of critical health service delivery.

This was a blessing in disguise as it afforded me the opportunity to embark on my journey into qualitative research. This has broadened my research abilities, my critical thinking and improved my interview skills. I learnt to listen differently. This was an opportunity to work on my qualitative analytical skill from data generation through to data analysis. Thematic network analysis was a particular additional skill which I so enjoyed. This allowed me to expand my knowledge and learnings as a novice researcher in the professional practice space.

At a personal level, I reflected on how my identity as a mixed-race individual in an Apartheid South Africa, influenced my research as the lived experience of discrimination during my childhood, my training as a doctor and working in an segregated health system was re-ignited. The emotions generated by these memories (Larkins et al., 2013, Ross, 2017) as well as the shared experiences of participants reminded me of the ongoing, life long journey of healing and reconciliation that I as in individual and we as a country have to navigate. I also recognise the privilege of researching something that is close to my heart.

I hope to use the outcome of the research to inform practice in other similar settings but importantly to contribute to the scholarship around interorganisational networks as an additional organisational entity alongside academic health complexes.

7.7 Concluding Words

The research journey in this study reflected on the evolution of an interorganisational network within higher education in South Africa. The goal has been to build knowledge that is helpful to the theory and practice of interorganisational networks. The topic of interest was the evolution of interorganisational network comprising two public sectors, that is health and higher education. The unit of analysis was an

interorganisational network between provincially located universities and the provincial health authority.

The findings show that the evolution of an interorganisational network between a health authority and regional universities is a complex and dynamic process. The network is influenced by exogenous and internal factors. These complexities included the legislative and policy disjuncture, a painful historical context and power asymmetry. The interdependence of the member organisations required a formalised structure to govern the relationships. A number of shifts occurred within the network which reflected the transformational interactions within the network. These were underpinned by the commitment of the actors to a journey of trust, strengthening of partnerships and the embedding of values within the network. Three key processes were critical in the evolution – the need for a change management and interorganisational learning process at a network level, a skilled team to drive the negotiations and careful consideration of the context specifically the historical context.

A conceptual framework was developed to incorporate the components of context (specifically historical context), negotiations and change management. This framework could guide other networks on their journeys.

Word count: 53803

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Appendix 1: Copy of Researcher's permit to enter Tertiary Education 1981

G.P.-S.4747—1978-79—2 000-2 (M-S) KB-E 135
Ref. No. 19/3/5

DEPARTMENT OF COLOURED, REHOBOTH AND NAMA RELATIONS

APPLICATION FOR PERMISSION TO ATTEND CERTAIN UNIVERSITIES

Name and address:

Miss T. Fish
Belhaven
Lower Bath Rd
Wynberg
7800

Write your initials, surname, address and postal code in the space opposite in BLOCKLETTERS. Mention Mr, Miss.

1. General instructions:
   (a) Please complete this form in duplicate.
   (b) This form must be completed by Coloured students who wish to attend universities other than the University of the Western Cape. Students who wish to attend the University of the Western Cape or the University of Durban-Westville must not complete this form but should apply direct to the university.
   (c) Separate forms must be completed if the applicant wishes to apply for more than one course or for admission to more than one university.
   (d) Students who are unable to attend the University of the Western Cape as a result of financial, medical or domestic circumstances, must make a sworn statement in support of their application in paragraph 6 of this form, otherwise the application will not be considered.
   (e) **Before** submitting this application, students are advised to consult the university of their choice about the course they wish to follow and the admission requirements pertaining thereto.
   (f) Application forms must be addressed to:
   The Secretary for Coloured,
   Rehoboth and Nama Relations
   Private Bag 9038
   Cape Town
   8000

2. (a) Christian names THERESE DIANNE FISH
   (b) Date of birth 27.10.62
   (c) How long have you been residing at your present address? 2½ yrs
   (d) Tel. No. 71-4498
   (e) Population group CAPE COLOURED
   (f) Highest educational qualifications (Std 10, B.A., etc.) STD 10
   obtained at (name of school or institution) WORLD CRUSH HIGH SCHOOL
   Year 1979
   (g) Are you at present registered at a university? Yes/No NO If so, mention the name of the university
   Year of first registration and course
   Number of permit issued

3. Parents' name and address [redacted]
   D/S/L/SS

4. (a) University the applicant wishes to attend UNIVERSITY OF CAPE TOWN
   (b) Year of first enrolment at the above University for the course mentioned in paragraph 4 (c) 1981
   (c) Course for which applicant wishes to enter (B.A., B.Sc. etc.). See paragraph 1 (e) [redacted]
   (d) Is the course offered at the University of the Western Cape? N[redacted]

KB-E 135

5. Subjects to be taken in each year of study:

1st Year	2nd Year	3rd Year
PHYSICS, CHEMISTRY, ANIMAL & GENERAL BIOLOGY, HUMAN BIOLOGY AND MATHEMATICS	ANATOMY, PHYSIOLOGY, BIO-CHEMISTRY, PHARMACOLOGY, HUMAN BEHAVIOUR	PATHOLOGY GROUP, CLINICAL METHODS, HUMAN BEHAVIOUR

4th Year	5th Year	6th Year
ANAESTHETICS, COMMUNITY HEALTH, MEDICINE, OBSTETRICS, HAEMATICS, APPLIED PHARMACOLOGY & THERAPEUTICS, PSYCHIATRY, RADIOTHERAPY & SURGERY	APPLIED ANATOMY, APPLIED PHARMACOLOGY & THERAPEUTICS, COMMUNITY MEDICINE, FORENSIC MEDICINE & TOXICOLOGY, MEDICINE, OBSTETRICS & GYNAECOLOGY, PAEDIATRICS, METHODOLOGY, PSYCHIATRY, RADIOLOGY, SURGERY	MEDICINE, PAEDIATRICS, OBSTETRICS & GYNAECOLOGY, SURGERY

6. Should the course be offered by the University of the Western Cape furnish reasons for not being able to attend the University of the Western Cape [please read paragraph 1 (d)]

I am aware of the fact that if permission is granted to me it may be cancelled if any information furnished by me in this application is found to be false in any material respect and I do hereby solemnly declare that to the best of my knowledge and belief the information given above is correct.

[redacted] 8-12-80
Signature of applicant Date

The deponent has acknowledged that he/she knows and understands the contents of this affidavit. Sworn to me at Muizenberg this 8th day of December 1980.

DENIS JACOBUS WICHERS
11 MAIN RD MUIZENBERG
Commissioner of oaths' stamp

COMMISSIONER OF OATHS BY VIRTUE OF MY OFFICE AS MANAGER OF THE STANDARD BANK OF SOUTH AFRICA LIMITED, MUIZENBERG BRANCH, Cape.

FOR OFFICE USE

1. Permission granted/~~Not granted~~.
2. Permit No. 452/81
Permission granted to study at the University of U.C.T.
for the course MBChB
including the major subject/s
as from 1981

28/12/80

CONDITION OF PERMIT:
(i) This permit applies only to the above-mentioned University and the course indicated.
(ii) Deviation from this course without the prior approval of the Minister is not permissible.

Secretary for Coloured, Rehoboth and Nauru Relations

2

Appendix 2: Interview Guide

Sample Interview Protocol Form For Initial Interview (semi-structured) with the MLA TT members /Network Member Interview Protocol

Institutions present:
_____

Interviewee (Title and Name) of all members:
_____

Interviewer: _____

Checklist:
participant information form
consent form

A: Interview Background

The aim of my research is to document the evolution of the inter-organisational network (the relationship) between regionally located four universities (with Health Sciences Faculties) and the Western Cape Provincial Health Department since the signing of a multilateral agreement in 2012. Of particular interest is how the network emerged, the development of the governance and management structures as well as the enablers and constraints within the network (i.e. the emergence, structuration and maintenance of such a network). This is of importance as the various parties within this organisational relationship have an interdependency in executing their missions of teaching and training of health professionals, research in the health sciences and health service delivery.

This multiparty interview forms the first part of my research – I will also engage with each of your BLA teams separately /and or individually if you would prefer

B: Initial Questions

1. I have defined *an interorganizational network as longer-term relationships between and among a public health department and four public universities as a whole goal-directed that is pursuing a mutual interest while also remaining independent and autonomous, thus retaining separate interests although commitment to the goal may vary amongst the participants –*
    - *does this describe the relationship between the universities and the health department*
    - *would you change it*

2. *Does the network have clear goals – what are these?*

3. *The MLA TT is a key in the network -*

    - *why does the network exist;*

    - *what is your role in the network;*

4. *The network is structured in particular ways – what are your thoughts on this*
5. *What enables the relationship*
6. *Are there constraints to the partnership*

7. *One of the research instruments is social network analysis –*
    - *who would you include in the network*
        - *probe – suggest using the HODs within our faculties as well as the head of facilities*
    - *what components would you include in such a survey*
8. *How would you know that the network has been successful*
9. *I would like to capitalise on the MLA TT to check accuracy of data – would you be comfortable to do so*

Appendix 3: Minutes of Governance Meetings

Governance Structure	Date of Meeting
JAGC_1_minutes	29-May-12
JAGC_2_minutes	04-Dec-12
JAGC_3_minutes	08-Mar-16
JAGC_4_minutes	15-Nov-16
JAGC_5_minutes	26-Jun-18
JAGC_6_minutes	03-Dec-19
HPC_1_minutes	17-Aug-12
HPC_2_minutes	20-Nov-12
HPC_3_minutes	23-Jul-13
HPC_4_minutes	10-Oct-13
HPC_5_minutes	28-Feb-14
HPC_6_minutes	14-May-14
HPC_7_minutes	03-Dec-14
HPC_8_minutes	20-Feb-15
HPC_9_minutes	28-Apr-15
HPC_10_minutes	19-Nov-15
HPC_11_minutes	29-Jan-16
HPC_12_minutes	15-Aug-16
HPC_13_minutes	31-Oct-16
HPC_14_minutes	27-Nov-17
HPC_15_minutes	07-Jun-17
HPC_16_minutes	15-Sep-17
HPC_17_minutes	29-Sep-18
HPC_18_minutes	11-Dec-18
HPC_19_minutes	18-Jul-19
HPC_21_minutes	27-Nov-19
HPC_20_minutes	29-Sep-20

Appendix 4: Extract from NVivo12 of a Coded Transcript

00:08:26

IV So what would you list those, if I had to say the one goal, the three goals?

MI Okay, so I mean, as I said, you know, maybe going back to what I said, the Province, Department of Health, is primarily there to do service delivery. In order to do service delivery, you need healthcare workers, which are competently trained. So if you don't have a competent healthcare worker in the service delivery environment, the Province cannot fulfil their primary objective, or their primary goal. So in order to do that, they are dependent on the four institutions to train, and in order for us to train, we are dependent on the Province for the service delivery platform in order to do clinical training and clinical teaching, and training of our students.

So, I think in that context, it's clear for me in terms of what is the goal. The collective goal of the four or the five bodies to the agreement, is to train healthcare professionals, regardless of whether it's medicine or the other, enabling the National and the Provincial Departments of Health to fulfil their mandate, which is delivering a healthcare service to the population.

IV So if I were to say that the goals are – there's a common goal of research, teaching and training, and service. Do you think that sums up the common goal for the parties to the agreement?

00:10:31

MI Yes. I mean, I think you cannot only focus on research, purely just research, or just purely teaching or just purely clinical training, because it's integrated. So, depending on the level, and I mean, we all know that knowledge is dependent on research. So although the multilateral would say that the primary driver of research is the institutions, the higher education institutions, and the same with primary, higher education institutions, it cannot be a case that institutions, either the HEI or the department, focus independently on each of those three. You have to do it collectively, because by training people in a clinical training environment would require that there is a level of research being undertaken.

There is a level of teaching or clinical teaching linked with that. You can spin it around – the one is not without the other. So I think by having said that, it basically forces the institutions and the BLA then, in terms of the Department plus an institution, to actually ensure that you have a sustainable lifecycle consistency in terms of those three elements that you've just mentioned.

IV So is there a reason for the network to exist, or this relation to exist, or could you just say well, you know, you all function as you function? So what do you think the reason is that the network exists? We said there's the common goal, but is it necessary for that network to actually exist?

00:12:24

MI Well, if we go back, if we go back to before the multilateral in the case of [redacted] we had an agreement, and the agreement to a certain degree addressed some of the common grounds that are required in order to have an understanding or an agreement. In the other two institutions, it was most probably not so well formulated, but let's just then go quickly back to the mandate of the Province. The Province is primarily doing service delivery, and for

the service delivery they get a specific grant from the government. What's the name of the grant again?

IV The HIPTDG?

MI No, for service delivery.

IV Oh, equitable share.

MI Equitable share. So they get the equitable share, and then on top of that, they also get the HIPTDG. On the other hand, the university also gets the block grant subsidy, plus then the CTG for clinical training. However, it is fragment – of that's the right word.

IV What's fragmented?

MI Well, maybe fragmented is not the right word. I think maybe I should redefine it. The fact that it's been given to specific, to either the Department or the HEI, is currently basically forcing us to work in silos. Maybe that's a better word. So there's a possibility that the institutions and the Department can and will work in silos in the absence of an agreement. So it can quite easily happen, like currently we argue the case is, that the HIPTDG is not really being utilised to support clinical training as the intention of the DORA is, and on the other hand, it could also be that the HEIs are using CTG, not as per the definition and the intention of that funding.

00:14:34

So, we all know that in any environment, if you want to optimise your resources, there is value in pooling resources and making sure that you apply the resources for the purpose it was intended for. So I think in the absence of an agreement, you will always have the chance that the parties that are dependent on one another will always have – I don't want to say dispute, but it could be a dispute in terms of what is the purpose of the funding, is the funding really utilised for what the parties argue it should be for, and there is always most probably going to be disputes and difficulties in terms of that going forward.

So, by having an agreement, like the multilateral and the ELA, it not only forces the parties to focus on what are the resources available, and how could the resources be utilised and optimised to ensure that all the parties to the agreement can get the best benefit from that. Then of course, as we all know, an agreement is there also not for the current generation, but also for future generations in terms of normalising, standardising, putting an agreement on paper, which just makes it easier for the next five, ten, twenty years, post the current role players to understand what the intention was of putting it in writing.

IV So [redacted] you have been part of the process, both prior to 2012 and post 2012. So my work is specifically looking at the post 2012 process. What has your role been in this network?

00:16:36

MI Shoo, that's a difficult question. Let me maybe first start off by saying it's a long process to get to where we are, even to get to 2012 was quite difficult. I think there was always the fear by many in the Faculty and maybe in the other Faculties, that by putting a new agreement in place is going to disadvantage the university, or the Faculty rather. So, I think for us as management, and for myself

In my current role, it was also firstly to play a facilitating role to ensure that we are able to convince and take our own senior members in Faculty on-board to understand why it's firstly necessary, secondly to also put their minds at ease that by putting a new multilateral agreement in place, it could actually be to the advantage of the Faculty, and not to the disadvantage.

Then I think thirdly, to also ensure that what we do post 2012 leading to the BLA that we negotiate an agreement that would be financially, also ensure that the Faculty will not be financially disadvantaged, and that we can also bring stability, but also ensure financial sustainability in terms of the arrangements that are put in place.

IV So, I think you speak about from the perspective of your role in the Faculty. What was the role that you played in the multi-party process, because I think the roles you highlighted were internal roles, I think? What was your role in the external process, or do you see your role mostly as being internal?

00:18:58

MI No, I think as a non-medical personal, or not a healthcare person, I think in terms of the multilateral, outside the Faculty, but on the multilateral – let's call it the MLATT and those levels, I think I was also able to bring sometimes a sense of reality maybe to the colleagues. Because I think sometimes some of the discussions between Faculties and Department was sometimes very egocentric – or what's the word?

IV What do you mean?

MI Inward, you know, sort of –

IV Inward looking.

MI Inward looking, and trying to protect their own territory and so forth. Very often, also coming from, if you are in a health sciences career, you always look from that perspective. But I mean, there is also the reality that health sciences within the bigger communities is only one facet of a whole living organism, hey? I mean, there are many others. There's financial assets, there's agriculture, there's health. There are many other aspects that you also have to consider. You cannot always argue why Treasury or the National government must just put more money into health, if there are other needs as well that need to be addressed, energy and agriculture, transport or whatever.

00:20:39

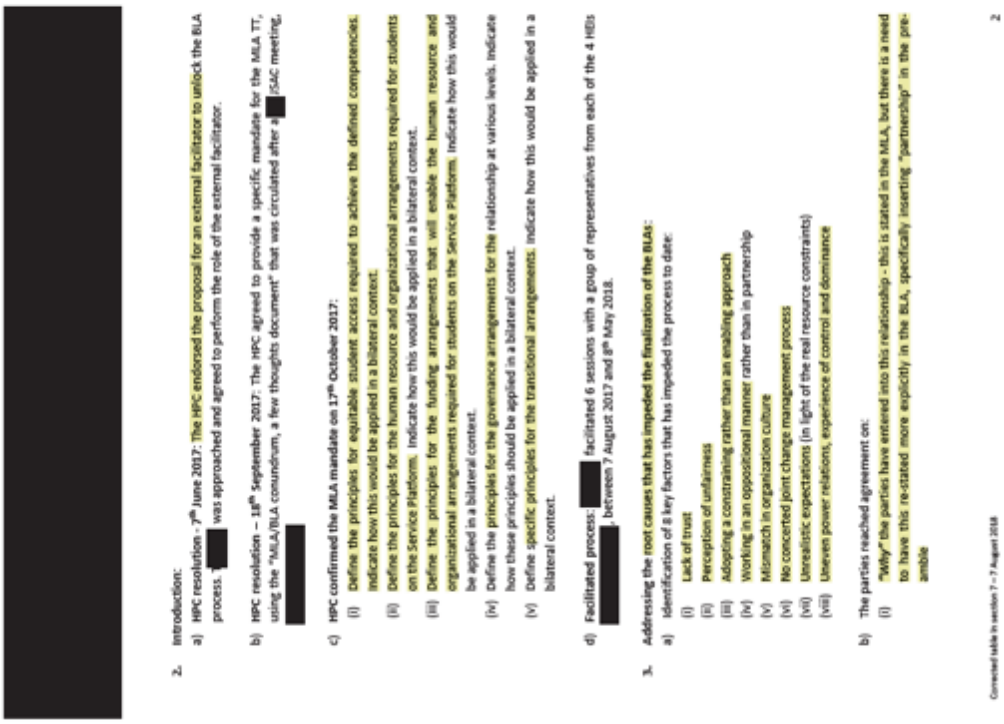
So, I think with my specific background as a non-healthcare qualified person, but coming from an economic and management background, and understanding how organisations are run and strategy and so forth, I hope, and I believe that I was able on the multilateral level, but even hopefully broader than that, that I contributed and was also able to convince firstly why we should go this route, but also to ensure and as a sort of a gauge, assist and checking all the time what would be the outcomes or the implications, not only for [redacted] but for the five organisations negotiating this whole process. And then, also advising of course within the university up to the rectorate in terms of what is the implications in terms of the multilateral and the outcome of that.

Appendix 5: Initial Categories

The 19 groups of related codes which emerged from the data (in no particular order):

1. Governance of the network
2. Decision making within the network
3. Structure of the network
4. Organisational/institutional aspects
5. The Purpose of the network
6. The Agreement in terms of structure, content, and utility
7. Resourcing within the network
8. Educational factors
9. Leadership
10. Power
11. History /legacy of the actors in the network/historical context of the network
12. Equity
13. Conversations
14. Relational issues
15. Negotiations
16. Joint effort
17. Tensions/paradoxes within the network
18. Change management
19. Complexity

Appendix 6: Extract from NVivo12 of a Coded Document



2. Introduction:
   a) HPC resolution - 7th June 2017: The HPC endorsed the proposal for an external facilitator to unlock the BLA process. [redacted] was approached and agreed to perform the role of the external facilitator.
   b) HPC resolution – 18th September 2017: The HPC agreed to provide a specific mandate for the MLA TT, using the "MLA/BLA conundrum, a few thoughts document" that was circulated after a [redacted] SAC meeting.
   c) HPC confirmed the MLA mandate on 17th October 2017:
      (i) Define the principles for equitable student access required to achieve the defined competencies; indicate how this would be applied in a bilateral context;
      (ii) Define the principles for the human resource and organizational arrangements required for students on the Service Platform; indicate how this would be applied in a bilateral context.
      (iii) Define the principles for the funding arrangements that will enable the human resource and organizational arrangements required for students on the Service Platform; indicate how this would be applied in a bilateral context.
      (iv) Define the principles for the governance arrangements for the relationship at various levels; indicate how these principles should be applied in a bilateral context.
      (v) Define specific principles for the transitional arrangements; indicate how this would be applied in a bilateral context.
   d) Facilitated process: [redacted] facilitated 6 sessions with a goup of representatives from each of the 4 HEIs [redacted], between 7 August 2017 and 8th May 2018.
3. Addressing the root causes that has impeded the finalization of the BLAs:
   a) Identification of 8 key factors that has impeded the process to date:
      (i) Lack of trust
      (ii) Perception of unfairness
      (iii) Adopting a constraining rather than an enabling approach
      (iv) Working in an oppositional manner rather than in partnership
      (v) Mismatch in organization culture
      (vi) No concerted joint change management process
      (vii) Unrealistic expectations (in light of the real resource constraints)
      (viii) Uneven power relations, experience of control and dominance
   b) The parties reached agreement on:
      (i) "MMy" the parties have entered into this relationship - this is stated in the MLA, but there is a need to have this re-stated more explicitly in the BLA, specifically inserting "partnership" in the preamble

Corrected table in section 7 – 7 August 2018

[redacted]

b) The organizational arrangements for human resources, will relate to: (1) joint academic and clinical departments; (2) separate academic and clinical departments, with specific HR arrangements; and (3) individual [redacted] with HEI privileges/benefits.

c) It was acknowledged that there is a built-in bias in the current wording of the section in the MLA on organizational arrangements, towards medical disciplines in Central Hospitals, and where there are joint academic and clinical departments (medical disciplines and dentistry)

d) A consensus position (of 4 conditions) was confirmed in relation to HR arrangements for HEI staff (for disciplines other than Medicine and Dentistry) that supervise students, and perform health service delivery, and for whom there is an agreement between the parties that there will be a flow of resources between the parties to remunerate the HEIs for the health service delivery:
   (i) WCG will define the specific service needs
   (ii) HEI will request clinical placement of their staff in order to ensure proficiency in clinical practice
   (iii) The HEI staff members will be formalized via the joint staff post roll, for resources to flow between the parties
   (iv) Where the 3 above conditions are not in place, a fair process to regularize the arrangement will be followed or the parties will agree to an appropriate transitional arrangement (observing the 12 foundational principles)

e) It was agreed the mechanism for the desired strategic and operational engagement between HEIs and [redacted] in relation to under-graduate student placements (described in section 6.b), will be used to formalize all organizational arrangements between the parties

f) The organizational arrangements for human resources should result in equitable funding arrangements between the parties

9. Confirmation of the principles for the funding arrangements that will enable the human resource and organizational arrangements required for students on the Service Platform:
   a) *Reflection on the Health Resource Mapping Framework (Annexure 2)*:
      (i) The contents of the document will be finalised by 29th June 2018.
      (ii) The finalized data be analyzed and interpreted in terms of current agreements, and modelled for the revised BLA arrangements, by a technical task team of the MLA TT [redacted]
      (iii) The technical task team will finalize a report by end August 2018, which will be tabled for consideration by the MLA TT in September 2018.
      (iv) The MLA TT will make specific recommendations on the basis of the final report to the HPC in October 2018.
   b) *Confirmation of the principles for funding arrangements (insert references to the relevant MLA sections)*:
      (i) Confirmation of the apportionment of financial responsibility in accordance with respective mandates for service, teaching and research

[redacted]

(iii) *Joint Staff:*

- Consensus should be achieved on the definition of Joint Staff, in particular in those disciplines/ departments where the members of staff of the disciplines/ departments do not have a health service responsibility. Such a consensus position must be explicitly stated in the revised BLA.
- The revised BLA should provide a clear definition of principles related to Joint Staff which should be explicitly captured in the BLA

(iv) *Funding:*

- Full disclosure by all the parties of all the resources of each party that is required to fulfil and implement their obligations as determined by the MLA
- The expectations of the HEIs in respect of the funding of Joint staff should be delineated more explicitly, especially for disciplines other than Medicine and Dentistry
- The constraints of the Grant Framework of the HPTDG and the CTG and of how these grants are deployed must be stated and clarified
- Full disclosure of the payments between the parties

(v) *Equity:*

- There is a need for more objective, quantified and definitive audit of the presence and extent of the historic inequity that is referred to in the MLA.
- This will enable the parties to be able to develop clear targets and timeframes for eliminating these inequities.

4. The foundational Principles:

a) There was an acknowledgement of the deep held feelings of historical disadvantage on the part of [redacted] and the resultant historical bias towards the Medical disciplines and [redacted] especially in the Central and Tertiary Hospitals

b) It was agreed to convert the 8 key factors that has impeded the process to finalise the BLAs to 12 foundational principles:

(i) Building trust through openness and transparency
(ii) Commitment to fairness, in light of historical inequity
(iii) Adopting an enabling approach
(iv) Commitment to the spirit of partnership
(v) Commitment to building positive organizational culture
(vi) Commitment to collective change management
(vii) Realistic expectations, in light of resource constraints
(viii) Commitment to address power imbalance and control
(ix) Acknowledgement of the "Medical Model bias" in the MLA
(x) Commitment to the spirit of the MLA
(xi) Sharing technical expertise across the parties
(xii) Commitment to fundamental transformation and equity

Corrected table in section 3 – 7 August 2018

Appendix 7: Mapping of Initial Categories to Basic Themes

Initial Categories	Basic Themes
9. Leadership	1.1.1 Leadership Style
	1.1.2 Role of Leadership
	1.1.3 Tenure of Leadership
16. Joint effort	1.2.1 Joint Processes
	1.2.2 Relationships
	1.2.3 Trust
10. Power	1.3.1 Medical Hegemony
	1.3.2 Power Dynamics
19. Complexity	1.4.1 Substantive Complexity
	1.4.2 Strategic Complexity
	1.4.3 Institutional Complexity
	2.1.1 Design Principles
1. Governance of the network	2.1.2 Governance and Structure
3. Structure of the network	
2. Decision making within the network	2.1.3 Decision-Making
6. The Agreement in terms of structure, content and utility	2.2.1 Written Agreement
5. The Purpose of the network	2.2.2 Purpose of the Network
	2.2.3 Terms of the Agreement
11. History /legacy of the actors in the network/historical context of the network	3.1.1 Historical Context
	3.1.2 Strategic Fragmentation
8. Educational factors	3.1.3 Institutional Factors
12. Equity	
4. Organisational/institutional aspects	
13. Conversations	3.2.1 Relational acts
14. Relational issues	
15. Negotiations	3.2.2 Tasks related processes
	3.2.3 Negotiating team
18. Change management	4.1.1 The Pre-facilitation Process
	4.1.2 The Facilitation Process
17. Tensions/paradoxes within the networ	4.2.1 Competing Priorities
	4.2.2 Joint Staff
	4.2.3 Student Contribution
7. Resourcing within the network	4.3.1 Resourcing of Mandate
	4.3.2 Differentiated Resourcing
	4.3.3 Competing Needs

The yellow highlighted categories and themes indicated those categories which were aggregated into one theme, or those themes which required the expansion of the category based on principle of '*specific enough to pertain to one idea, but broad enough to find incarnation in various different text segments'* (Attride-Stirling, 2001)

Appendix 8: Outline of Thematic Analysis

- 1 Organisational Capabilities
  - 1.1 Leadership
    - 1.1.1 Leadership Style
    - 1.1.2 Role of Leadership
    - 1.1.3 Tenure of Leadership
  - 1.2 Partnerships
    - 1.2.1 Joint Processes
    - 1.2.2 Relationships
    - 1.2.3 Trust
  - 1.3 Power
    - 1.3.1 Medical Hegemony
    - 1.3.2 Power Dynamics
  - 1.4 Governance of Complexity
    - 1.4.1 Substantive Complexity
    - 1.4.2 Strategic Complexity
    - 1.4.3 Institutional Complexity
- 2 Network Development
  - 2.1 Network Design
    - 2.1.1 Design Principles
    - 2.1.2 Governance and Structure
    - 2.1.3 Decision-Making
  - 2.2 Framing the Network
    - 2.2.1 Written Agreement
    - 2.2.2 Purpose of the Network
    - 2.2.3 Terms of the Agreement
- 3 Network Evolution
  - 3.1 Operating Context
    - 3.1.1 Historical Context
    - 3.1.2 Strategic Fragmentation
    - 3.1.3 Institutional Factors
  - 3.2 Negotiations
    - 3.2.1 Relational acts
      - 3.2.1.1 Acts of connection
      - 3.2.1.2 Acts of separation
    - 3.2.2 Tasks related processes
      - 3.2.2.1 Procedural
      - 3.2.2.2 Substantive
    - 3.2.3 Negotiating team
- 4 Network Management
  - 4.1 Change Management
    - 4.1.1 The Pre-facilitation Process
    - 4.1.2 The Facilitation Process
  - 4.2 Tensions
    - 4.2.1 Competing Priorities
    - 4.2.2 Joint Staff
    - 4.2.3 Student Contribution
  - 4.3 Resourcing
    - 4.3.1 Resourcing of Mandate
    - 4.3.2 Differentiated Resourcing
    - 4.3.3 Competing Needs
- 5 Networks as Processes in Flux

Appendix 9: Participant Information Sheet

PARTICIPANT INFORMATION SHEET

The Evolution of an Interorganisational Network in Higher Education in South Africa between a Provincial Health Department and Health Sciences Faculties

Reference number: DBOS1907

South African REC: Humanities Reference Number: 13066 (Stellenbosch University)

Name of Researcher: Therese Fish

Contact details of Researcher: [redacted] tdf26@bath.ac.uk; [redacted]

Name of Supervisor: Prof Christos Vasilakis

Contact details of Supervisor: c.vasilakis@bath.ac.uk; +44 (0) 1225 38 3361

This information sheet forms part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. Please read this information sheet carefully and ask one of the researchers named above if you are not clear about any details of the project.

1. What is the purpose of the project?

The aim of my research is to document the evolution of the interorganisational network (the relationship) between regionally located four universities (with Health Sciences Faculties) and the Western Cape Provincial Health Department since the signing of a multilateral agreement in 2012. Of particular interest is how the network emerged, the development of the governance and management structures as well as the enablers and constraints within the network (i.e. the emergence, structuration and maintenance of such a network). This is of importance as the various parties within this organisational relationship have an interdependency in executing their missions of teaching and training of health professionals, research in the health sciences and health service delivery.

2. Why have I been selected to take part? [

You are currently involved in the multilateral agreement process and this research sets to consider how the network emerged, the development of the governance and management structures as well as the enablers and constraints within the network.

3. Do I have to take part?

Your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

4. What will I be asked to do?

- To participate in an individual semi-structured in-depth interview
- To participate in a group interview of the multilateral task team
- To consider making yourself available to validate the findings

5. What are the exclusion criteria?
(are there reasons why I should not take part)?

There are no exclusion criteria.

6. What are the possible benefits of taking part?

There will not be direct personal benefits accruing to you as a result of your participation in this study. The study will amongst others consider the enablers and constraints to the study. The results may assist in the strengthening of the network.

7. What are the possible disadvantages and risks of taking part?

There are no risks involved in your participation in this research.

8. Will my participation involve any discomfort or embarrassment?

We do not expect you to feel any discomfort or embarrassment if you take part in the research.

9. Who will have access to the information that I provide?

Only the research team will have access to information you provide. All records will be treated as confidential.

10. What will happen to the data collected and results of the project?

participant information 1 sheet Therese Fish.docx

Appendix 10: Consent Form

CONSENT FORM

The Evolution of an Interorganisational Network in Higher Education in South Africa between a Provincial Health Department and Health Sciences Faculties

Researcher: Therese Fish – Telephone number [redacted] tdf26@bath.ac.uk;
[redacted]
Supervisor: Prof Christos Vasilakis; c.vasilakis@bath.ac.uk; +44 (0) 1225 38 3361

Please initial box if you agree with the statement

1. I have been provided with information explaining what participation in this project involves. ☐
2. I have had an opportunity to ask questions and discuss this project. ☐
3. I have received satisfactory answers to all questions I have asked. ☐
4. I have received enough information about the project to make a decision about my participation. ☐
5. I understand that I am free to withdraw my consent to participate in the project at any time without having to give a reason for withdrawing. ☐
6. I understand that I am free to withdraw my data within two weeks of my participation. ☐
7. I understand the nature and purpose of the procedures involved in this project. These have been communicated to me on the information sheet accompanying this form. ☐
8. I understand and acknowledge that the investigation is designed to promote scientific knowledge and that the University of Bath will use the data I provide only for the purpose(s) set out in the information sheet. ☐
9. I understand the data I provide will be treated as confidential, and that on completion of the project my name or other identifying information will not be disclosed in any presentation or publication of the research. ☐
10. I understand that my consent to use the data I provide is conditional upon the University complying with its duties and obligations under the Data Protection Act. ☐
11. I hereby fully and freely consent to my participation in this project. ☐

Participant's signature: _____ Date: _____

Participant name in BLOCK Letters: _____

Researcher's signature: _____ Date: _____

Researcher name in BLOCK Letters: _____

If you have any concerns or complaints related to your participation in this project please direct them to the DREO Ceri Dibble - cd285@bath.ac.uk

Appendix 11: Approval of Research by HEI_1

The security on the authorisation letter did not permit replication of document in any format – it is available on request

Appendix 12: Approval for Research by HEI_3

[redacted]

NOTICE OF APPROVAL

REC: Social, Behavioural and Education Research (SBER) - Initial Application Form

26 November 2019

Project number: 13066

Project Title: The Evolution of an Interorganisational Network in Higher Education in South Africa between a Provincial Health Department and Health Sciences Faculties

Dear Dr. Therese Fish

Your REC: Social, Behavioural and Education Research (SBER) - Initial Application Form submitted on 4 November 2019 was reviewed and approved by the REC: Humanities.

Please note the following for your approved submission:

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
26 November 2019	25 November 2022

GENERAL COMMENTS:

1) It is suggested to add the time commitment to the information sheet so that volunteers are able to judge whether to participate.

Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

If the researcher deviates in any way from the proposal approved by the REC: Humanities, the researcher must notify the REC of these changes.

Please use your [redacted] project number (13066) on any documents or correspondence with the REC concerning your project.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

FOR CONTINUATION OF PROJECTS AFTER REC APPROVAL PERIOD

Please note that a progress report should be submitted to the Research Ethics Committee: Humanities before the approval period has expired if a continuation of ethics approval is required. The Committee will then consider the continuation of the project for a further year (if necessary)

Included Documents:

Document Type	File Name	Date	Version
Proof of permission	Institutional Permission_Standard Agreement 1546 T Fish	02/11/2019	version 1
Proof of permission	[redacted]Permission to Conduct Research Permission and Agreement - [redacted]F Therese Fish	02/11/2019	version 1
Request for permission	hr194_Therese Fish_DBA_Bath University Aug 2019	02/11/2019	V1
Request for permission	[redacted]-Permission to access Staff research purposes	02/11/2019	V1
Request for permission	RE_ Advice on approval for my DBA thesis	02/11/2019	V1
Default	Letter confirming ethics_T Fish	02/11/2019	v1
Default	Therese Fish_ Student no 17911816O_Doctoral_Data_Management_Plan	02/11/2019	V1

Default	Therese Fish_EIRA_Candidature_Form RS	02/11/2019 v1
Default	Therese Fish_PGR1_Candidature_Form RS[1]	02/11/2019 v1
Research Protocol/Proposal	Research proposal Therese Fish 2019	02/11/2019 V1
Informed Consent Form	Consent Form - Therese Fish Sep 2019	02/11/2019 v1
Informed Consent Form	participant information 1 sheet Therese Fish	02/11/2019 v1
Information sheet	participant information 1 sheet Therese Fish	02/11/2019 v1
Data collection tool	Sample Interview Protocol Form - initial interview with MLA TT	02/11/2019 v1

If you have any questions or need further help, please contact the REC office at [redacted]

Sincerely,

[redacted]

REC Coordinator: Research Ethics Committee: Human Research (Humanities)

National Health Research Ethics Committee (NHREC) registration number: REC-050411-032.
The Research Ethics Committee: Humanities complies with the SA National Health Act No.61 2003 as it pertains to health research. In addition, this committee abides by the ethical norms and principles for research established by the Declaration of Helsinki (2013) and the Department of Health Guidelines for Ethical Research: Principles Structures and Processes (2nd Ed.) 2015. Annually a number of projects may be selected randomly for an external audit.

Appendix 13: Approval for Research by HEI_4

[redacted]

21 August 2020

HREC REF: 018/2020

Dr T Fish
Humanities
Stellenbosch University
Email: tfish@sun.ac.za

Dear Dr Fish

PROJECT TITLE: THE EVOLUTION OF AN INTERORGANISATIONAL NETWORK IN HIGHER EDUCATION IN SOUTH AFRICA BETWEEN A PROVINCIAL HEALTH DEPARTMENT AND HEALTH SCIENCES FACULTIES (DOCTORATE DEGREE - DR THERESE FISH)

Thank you for your response letter, addressing the issues raised by the Faculty of Health Sciences Human Research Ethics Committee (HREC).

It is a pleasure to inform you that the HREC has **formally approved** the above-mentioned study.

This approval is subject to strict adherence to the HREC recommendations regarding research involving human participants during COVID -19, dated 17 March 2020 & 06 July 2020.

Approval is granted for one year until the 30 August 2021.

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.
(Forms can be found on our website: www.health.uct.ac.za/fhs/research/humanethics/forms)

Please quote the HREC REF in all your correspondence.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

Yours sincerely

[redacted]

Appendix 14: Approval for Research by HEI_6

[redacted]

20 November 2020

Dr Theresa Fish
PhD Business Administration: Higher Education Management
Bath University
United Kingdom

Dear Dr. Fish

RE: PERMISSION TO CONDUCT RESEARCH [redacted]

The Institutional Ethics Committee received your application entitled: "*The Evolution of an Interorganisational Network in Higher Education in South Africa between a Provincial Health Department and Health Sciences Faculties*" together with the dossier of supporting documents.

Faculty Ethics Committee Approval Date: 9 September 2020

Faculty Ethics Committee Approval Reference No: C[redacted]-REC 2020/H17

Permission is herewith granted for you to do research at the [redacted].

Wishing you the best in your study.

[redacted]

[redacted]

[redacted]

Appendix 15: Approval of Research by Health Authority

[redacted]

STRATEGY & HEALTH SUPPORT

[redacted]

[redacted]

[redacted]
Tygerberg
7505
Cape Town
South Africa

For attention: DR Therese Fish

Re: The Evolution of an Interorganisational Network in Higher Education in South Africa between a Provincial Health Department and Health Sciences Faculties

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research.
Please contact the following people to assist you with any further enquiries in accessing the following sites:

[redacted]

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Co-ordinator [redacted]
3. In the event where the research project goes beyond the estimated completion date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Co-ordinator [redacted]
4. The reference number above should be quoted in all future correspondence.

Yours sincerely

[redacted]

Appendix 16: Respondent Validation Document

Therese Fish: respondent validation 6 Feb 2021

Key Findings of Research Study

The key findings of the study are:

i. There was a need to formalise the network in order to govern the interdependent relationships between the health authority and the regional universities
ii. The historical context of the various member organisations within the network influenced its establishment and its ongoing functioning
iii. The complexity of the interface between higher education and health sectors at a regional level was influenced by both exogenous and endogenous factors
iv. The universities are heterogeneous in respect of resourcing, organisational maturity and organisational capacity
v. The negotiation process was a key driver within the network including a catalytic facilitated process which commence the journey from transactional engagement to one of transformational interactions
vi. Various tensions were identified in the network
vii. Intersectionality linked to the complexity of the network (historical context, power and the health system design) is multi-layered and had an influence on the network at various levels and times
viii. The operationalisation of the multiparty agreement proceeded while negotiations continued on key components of the agreement

Networks as Processes in Flux

The network established by a signed contractual agreement did not follow a linear process in terms of the evolution of the network. There were a number of different iterative processes which occurred, and which were captured in the thematic networks.

The four Global Themes described as the thematic networks are synthesised around an overarching theme of ‘networks as processes in flux’. Table xx displays the processes over the time period which were extracted from the exploration of the thematic networks, using the facilitation process as a breakthrough event. This event moved the negotiating parties forward to a consensus position at a multiparty level and facilitated the process towards finalisation of the dyadic agreements as well as ongoing functioning of the network.

Table xx: Networks as processes in flux

Network Levels	Pre-facilitation 2012			2017-2018	Post-facilitation 2020
Network	Exogenous	Policy disjuncture		FACILITATION PROCESS	National competency - ongoing process
		Historical context			Continued influence at various levels of the network
	Endogenous	MLA	Signed in 2012		4 dyadic agreements - 2 were signed by the time of completion of data collection
		Negotiations	Distributive		Integrative
			Task driven		Relational
		Commitment	Apprehension based		Trust based
		Student access	Medical bias		Health system linked
		Human Capital Management in Joint Space	Medical bias		Human resources linked to student access
		Technical work	Financial modelling		Pragmatism /transitional financial arrangments
		Decision making	Centralised		Shared decision making
		Intersectionality	Linked to context		Multi layered
Dyadic	Joint Agreements between health authority and faculties with medical programmes				Continues to be a key driver linked to health system design
Organisation	Organisational capability		Linked to historical resources		Different levels of capability of member organisations
	Organisational maturity		Varying levels		Multi levels of maturity of member organisations
Individuals	Personal networks (Often discipline specific); Role relationships				Strengthened relationships particularly in negotiations team

At a network level, these processes were exogenous and internal to the network. The two external processes were policy disjuncture and the historical context. The former as a national competence requires ongoing intervention at the appropriate level. The impact of the latter affects the functioning of network and beyond it. The facilitation process commenced a journey of transformation.

The internal processes at a network level included the signing of two of the four dyadic agreements during the data collection period. The negotiations which were distributive in nature (section 2.6.2.1) and task-driven shifted towards a more integrative approach with a focus on the relational aspects within the negotiation process. The original commitment to the network was apprehension-based commitment (section 2.6.2.1) and shifted to a trust-based commitment after the facilitation process. Student access which had a bias towards the medical programmes transitioned towards linking the statutory requirements for training to the health system. The human capital management in the joint spaces which had historical links to the medical programmes was guided by the principles for the organisational arrangements for human resources required for students training in the health service settings. Technical work which had been dominant in the pre-facilitation process shifted to support the strategic intent of

the network. This took the form of pragmatic arrangements which included transitional arrangements for a five-year period. Centralised decision-making shifted towards shared decision-making with recognition of legislative prescripts who may hinder the shift. Intersectionality linked to the complexity of the network (historical context, power and the health system design) is multi-layered and is an ongoing process for the network.

At a dyadic level, some pre-MLA arrangements (between the health authority and the faculties with medical programmes) were incorporated into the MLA. This power dynamic remains a key driver linked to the health system design.

At an organisational level the organisational capacity and organisational maturity of the different member organisations differ. The impact of these differences will need to be carefully managed in the ongoing functioning of the network.

Finally at an individual level within the network, personal and role relationships had both positive and negative influences. In member organisations where turnover was high, there was more reliance on role relationships. Personal networks remain an important factor particularly within the negotiation team.

Framework for Interorganisational Networks

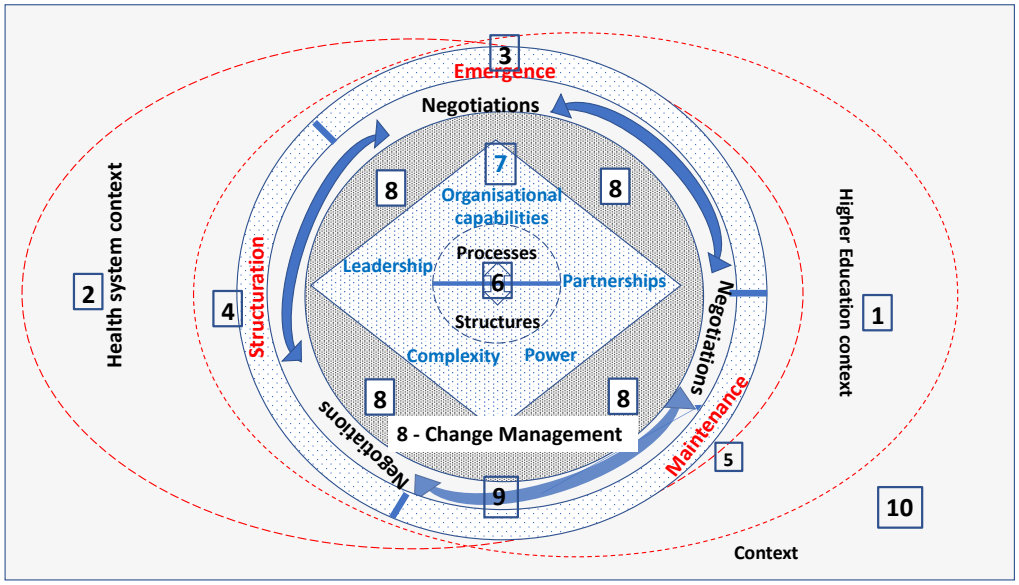


Figure: Framework for an interorganisational network

The interorganisational network between the actors (the health authority and universities) is shaped by the contexts of the higher education (1) and health system

(2). Neither of the contexts are static therefore the overlap of the two circles could fluctuate dependent on both exogenous and endogenous factors. Within this context there are a number of factors which influenced the evolution of the network through its phases of emergence (3), structuration (4) and ongoing maintenance (5). These again are influenced by both exogenous and endogenous factors. While these phases (3, 4 and 5) of the lifecycle are separate from each other, these boundaries may be artificial. This may be more relevant in the structuration and maintenance phases, as various interactions within the network could shift between the two.

Central to the framework is the dynamic between processes and structures (6) within the health authority-universities network. This dynamic is managed by network managers (within the appropriate governance and management model) leveraging off the key organisational capabilities (7) of leadership, partnerships, and the management of power and complexity. This is facilitated by a change management process (8).

Negotiations are key throughout the various phases of the life cycle of the network (9). Lastly, the context (10) within which the network emerged had a critical influence on its evolution. This context included the legislative and policy framework as well as the significance of the historical context.

Summary

This study investigated an interorganisational network between a provincial health department and the four universities located in South Africa. The five actors within this network negotiated and signed a multiparty agreement in 2012, which against a history of decades of negotiations, was intended to establish governance structures to regulate their relationship and to formulate fundamental principles that would form the basis of the four revised dyadic agreements between each of the universities and the health authority. There has been slow progress towards the operationalisation of the network and the finalisation of the dyadic agreements.

This research study was conceptualised within the context of academic health complexes. These complex organisations have a tripartite mission of delivering high quality research, health sciences education and clinical care. In different national and international settings, various organisational entities have been established to govern the interdependence between the health and higher education entities. This research viewed such an organisational entity as an interorganisational network.

A conceptual framework drawn from the process framework for interorganisational relationship development, the theory of networks and governance network theory was used to frame the study. An interpretative case study using a qualitative methodology was used to explore the evolution of the network. This approach enabled a socially rich, in-depth understanding of a complex interorganisational phenomenon with the exploration of both context and process. In keeping with the characteristics of case study research, data were collected in different ways and used documentary review and semi-structured interviews.

Thematic analysis was done to examine the text data to identify patterns and key concepts within the data. The tool used to organise this was thematic networks. Thematic networks are web-like illustrations which facilitate a three-level staging process constituting of six steps to systematise and present the qualitative analysis.

Analysis revealed four thematic networks. The four Global Themes represented by the networks were concerned with the following areas: network evolution, network development, network management and organisational capabilities. Each Global Theme contained lower order Organisational Themes and these in turn were comprised of Basic Themes. The four Global Themes were synthesised around an overarching theme of ‘networks as processes in flux’. (see diagram below – in thesis this is extensively described in findings chapter).

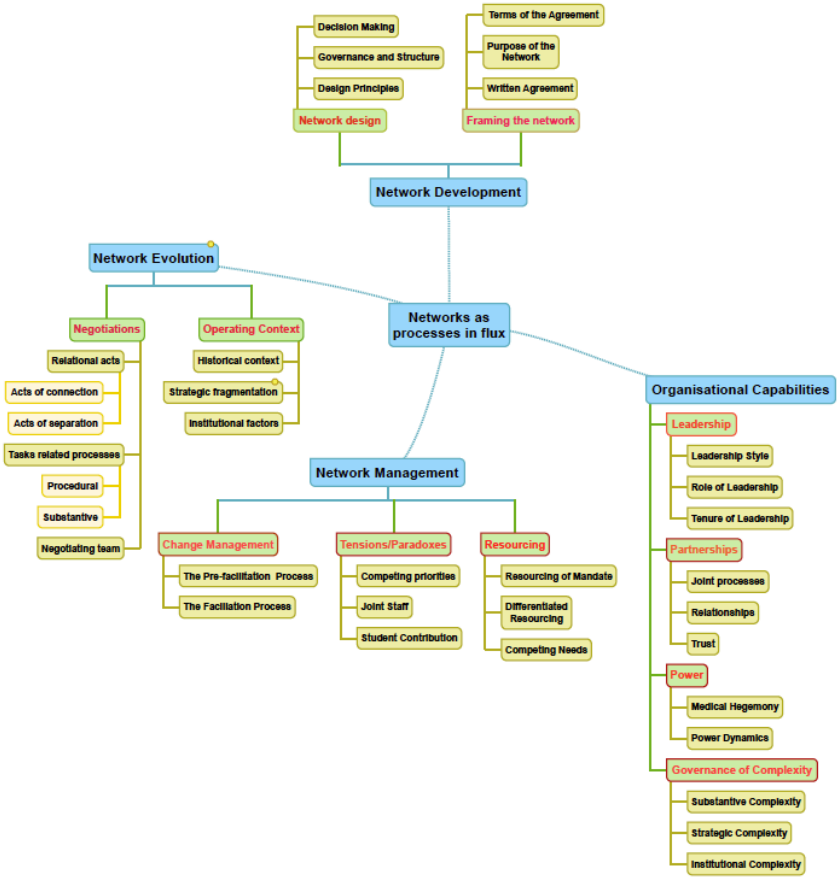


Figure: Thematic networks

The findings show that the evolution of an interorganisational network between a health authority and regional universities is a complex and dynamic process. The network is influenced by exogenous and internal factors. These complexities included the legislative and policy disjuncture, a painful historical context and power asymmetry. The interdependence of the member organisations required a formalised structure to govern the relationships. Three key processes were critical in the evolution – the need for a change management process at a network level, a skilled team to drive the negotiations and careful consideration of the context specifically the historical context.

The conceptual framework used to frame the research was adapted to incorporate the components of context (specifically historical context), negotiations and change management. The revised framework could guide other networks on their journeys.