HIV/AIDS and Higher Education in Lesotho –
A Cultural Historical Activity Theory (CHAT) Analysis of
Three Institutions' Responses

Submitted in fulfilment of the requirements of the degree of Doctor of Philosophy in Public Administration in the Faculty of Management Sciences at the Durban University of Technology

Monaphathi Maraka
Student No 21649309.

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APPROVED FOR FINAL SUBMISSION

Supervisor: Prof J. Preece (PhD) Date: 01 May 2020

Co-supervisor: Prof T. Mukeredzi (PhD) Date: 01 May 2020

DECLARATION

Thesis, submitted in fulfilment of the requirements for the degree of Doctor of Technology in the Faculty of Management Sciences at the Durban University of Technology.

I, MONAPHATHI MARAKA, declare that:

The research reported in this thesis, except where otherwise indicated, is my original research. This thesis has not been submitted for any degree or examination at any other university.

This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.

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Student Name	**Names of Supervisors**	
Monaphathi Maraka	Prof Julia Preece	Prof Tabitha Mukeredzi
Signature	Signature	Signature

DEDICATION

To students and staff of all Institutions of Higher Education in Lesotho;

To my family, ‘Maphole, Cholo, Nyebane and Seabata, and my missed son, Marble.

Also to Sophie, my late friend and fellow student while at the University of Kwazulu-Natal. And to all my fellow students from UKZN to DUT, all the best.

ACKNOWLEDGEMENTS

For guiding and encouraging me through writing the nine chapters of my thesis, I thank Professor Julia Preece and Prof Tabitha Mukeredzi, who partnered over supervising my work.

One of my earliest, most influential scholars of cultural historical activity theory (CHAT) is Mary van der Riet, PhD. Without her work on generating "context" in a rural community, I would not have grasped some applications of CHAT in the fight against AIDS. She filled the gaps that Mukeredzi, who studied "experiences" of teachers in professional development, left to my imagination in tackling 'response' in IHEs in Lesotho.

In using CHAT as an analytic frame, I discovered the meaning of community. These are the actors in my selected IHEs and key people whose lived experiences I convey through the voices of my KIs, FGDs, documents and observations of my study. I thank Professor N. Mahao, Vice Chancellor of NUL; Professor Oliphant, Rector at LCE; Mr. Lebakae, Director at LP; the Executive Director of NHTC, Dr. Tarr; for their leadership and agreeing to include their IHEs in my study. I thank the senior staff of the pilot, Lerotholi Polytechnic, Mrs. N. Majara and Ms. Tsepiso. At LCE I had the inputs of Mr. Mohale, Mr. Manamolela, Dr. Mpalami, Mrs. Mabitle, Ms. Moshoeshoe. At NHTC were Mr. Nkemele, Mrs. Lehana, Mrs. Sehloho and Mrs. Manyo whose contributions equalled those of the staff of NUL, namely Dr. Ranneileng, Mrs. Khotso and Mr Mohapi.

I am indebted to the three IHEs students and staff for their understanding and cooperation in providing the facts as they know them from a customer perspective of the responses.

I acknowledge the contributions of my fellow students Mantsejoa, Lofafa, Noma, Selloane and many others from South Africa, Swaziland, Zimbabwe, Uganda and parts of Africa with whom I began this road. I cannot forget our untimely demised colleague, Sophie Mahloane-Tau. Without their encouragement and scholarly solidarity, I would have taken perhaps much longer to complete my work.

ABSTRACT

The purpose of this study is to interpretively analyse the fight against HIV/AIDS, referred to as 'response', in three of Lesotho's institutions of higher education (IHEs). These are the Lesotho College of Education (LCE), the National Health Training College (NHTC) and the National University of Lesotho (NUL). This study uses cultural historical activity theory (CHAT) to qualitatively interpret the response in a country with the second highest HIV prevalence globally.

The study applies Vygotsky's first generation of CHAT, Leontiev's multifaceted second generation, and Engeström's third generation, which features a minimum of two interacting activity systems. Its multimodal methodology draws from Mukeredzi's (2009, p.56) critique of CHAT and its problem of not getting "in" deep into dimensions of an activity. Thus, this study incorporates closely matching theories, models and concepts around CHAT; mainly the World Health Organisation's (2004b) health standards, Zeithaml and Bitner's (2000) services marketing mix and Checkland and Holwell's (1998) information systems.

The findings reveal that conceptual tools - human skills and policies, do not mediate material processes such as planning, financing and reporting, resulting in a poor response. Gaps in human agency across critical elements of activity in the three IHEs result in conceptual, functional and material contradictions, and poor use of mediating artefacts adversely affects all interventions, including HIV testing and services (HTS), anti-retroviral (ARV) treatment and viral load suppression (VLS) envisaged in the UNAIDS (2014a and 2015) guidelines. This study teased out 'expanded contradictions' and tensions in the IHEs response, which invoked expansion, transformations, opportunities and new implications. Despite the IHEs leadership awareness of need for change, an historical embeddedness in unchanging cultures and functional contradictions due to poor agency (by subjects), lack of policies (rules), finance, (tools), hamper the response. The study found opportunities for IHEs against HIV/AIDS.

This study recommends two new agency models. One is 'knit-working', which aims to improve responses by identifying key, specific, and rapidly doable 'nitty-gritty' inter-college activities. The second model aims to strengthen IHEs leadership agency through 3-Cs of *commitment* at top management, improved resources and *capacity* at middle management, in order to enable operational level services to evidence the *concern* over AIDS. This study will alleviate a dearth of literature in the nexus of Lesotho's IHEs, HIV/AIDS and services.

ABBREVIATIONS

AAU	-	Association of African Universities
ABMP	-	African Broadcast Media Partnership against HIV/AIDS
AIDS	-	Acquired Immunodeficiency Syndrome
ARVs	-	Anti-Retrovirals
AU/C	-	African Union / Commission
CATDWR	-	Center for Activity Theory and Developmental Work Research
CHAT	-	Cultural Historical Activity theory
CHE	-	Council on Higher Education
COP	-	Country Operational Plan
FGD	-	Focus Group Discussion
GDP	-	Gross Domestic Product
GoL	-	Government of Lesotho
HEAIDS	-	Higher Education AIDS Programme
HIV	-	Human-Immunodeficiency Virus
HTC	-	HIV Testing and Counselling
HTS	-	HIV Testing Services
ICT	-	Information and Communication Technology
IDU	-	Injecting Drug Use
IEC	-	Information, Education and Communication
IHE(s)	-	Institution(s) of Higher Education
IS/D	-	Information System/Design
JEAPP	-	The Joint Economic, AIDS, Poverty Programme
KI/I	-	Key Informant/Interview
KYS	-	Know Your Status
LCE	-	Lesotho College of Education
LENEPWA	-	Lesotho Network of People Living With HIV/AIDS
LENASO	-	Lesotho Network of AIDS Service Organisations
LHDS	-	Lesotho Health and Demographic Survey
LP	-	Lerotholi Polytechnic
LPPA	-	Lesotho Planned Parenthood Association
MCP	-	Multiple Concurrent Partnerships
MDGs	-	Millennium Development Goals

MMR	-	Maternal Mortality Rate
MoET	-	Ministry of Education and Training
MoH	-	Ministry of Health
MoT	-	Modes of Transmission
MSM	-	Men who have sex with men
NAC	-	National AIDS Commission
NGO	-	Non-Governmental Organisation
NHTC	-	National Health Training College
NTI	-	Nurse Training Institute
NUL	-	National University of Lesotho
OI	-	Opportunistic Infections
PEPFAR	-	President's Emergency Plan for AIDS Relief
PLWH/A	-	People Living With HIV/AIDS
PMTCT	-	Prevention of Mother to Child Transmission
PrEP	-	Pre-Exposure Prophylaxis
PSI	-	Population Services International
QCA		Qualitative Comparative Analysis
QMMH	-	Queen 'Mamohato Memorial Hospital
SADC	-	Southern African Development Community
SARUA	-	Southern African Regional Universities Association
SDGs	-	Sustainable Development Goals
SIDA	-	Swedish International Development Agency
SSA	-	Sub-Saharan Africa
UN	-	United Nations
UNAIDS	-	United Nations Joint Programme on HIV/AIDS
UNDP	-	United Nations Development Program
UNFPA	-	United Nations Population Fund
US/G	-	United States/Government
VC	-	Vice Chancellor
VMMC	-	Voluntary Male Medical Circumcision/MC
WHO	-	World Health Organisation
ZPD	-	Zone of Proximal Development

TERMS USED

HIV/AIDS	-	used interchangeably with AIDS, and as used in specific reference;
IHE	-	used interchangeably with 'college', 'university' or as per source;
Health services	-	used to generalise and is interchangeable with 'health care', 'clinic(s)'.
Response	-	used to mean the activity of fighting HIV/AIDS in IHEs, and comprises the three main components of IHEs, HIV/AIDS and services. This concept emanates from the global activity of fighting HIV/AIDS as used by the World Health Organisation (WHO), the United Nations Joint Programme on AIDS (UNAIDS) and adopted by the Government of Lesotho.
Response time		in this study means the time taken between a stimulus and intervention.

Notes:

The following words and phrases are to be noted in reading this work:

i. Use of personal names of authors: throughout this study the researcher uses the names of authors as he read them in the cited works. Noting the differences in the use of names of some authors between publishers (see van der Riet 2009, p.xii) this study uses Leontiev, and Engeström as spelt here; unless in a direct quote where the original authors' spelling applies;

ii. Other terms and concepts such as those marking the corners of the three generations of CHAT are used only in that context;

iii. This work uses UK English, unless in direct quote of works that use other English.

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CHAPTER 1 – INTRODUCTION

1.1 Introduction

The purpose of this study is to interpret and qualitatively analyse the responses to HIV and AIDS of three selected institutions of higher education (IHEs) in Lesotho. This first chapter summarises the geopolitical, economic and higher education features in Lesotho. It includes sub-sections on the status of human immune-deficiency virus (HIV), its acquired immune-deficiency syndrome (AIDS), and the involvement of IHEs. It also covers the researcher's personal motivation and justification for this study, illustrating the nexus of IHEs, AIDS and services. This is followed by the study objectives, research questions, and the structure and conclusion of the chapter. The next sub-section overviews Lesotho's country background.

1.1.1 The Kingdom of Lesotho

Lesotho is a Southern African country of 2.1 million people (Ministry of Health 2014). It lies at latitude 28°S and 31°S, longitude 27°E and 30°E, with an area of 30,340 km^2 (McLeod 1998). The capital city is Maseru, and much of Lesotho is 3000 metres above sea level, hence it is called the 'kingdom in the sky'. It is Africa's most southerly, high altitude country, completely land-locked within (the Republic of) South Africa (SA).

Lesotho's political history emerged out of regional instability, war and famine in the 1800's, with King Moshoeshoe (1786-1870) leading the nation building. He led Lesotho to be a British protectorate in 1871, and it eventually became independent in 1966. Lesotho's governance is a parliamentary democratic monarchy based on the Westminster system, and is now under King Letsie III. It has 30 per cent arable lowland areas, which supports subsistence farming. The United Nations Development Programme (2017) rated Lesotho 159th of 189 nations and ranked it among the lower middle income economies (LMIE) with Gross Domestic Product (GDP) of USD1,320 to 5,099 per capita. The Ministry of Finance's (2018) Budget speech characterised an 'austerity', due to the economic climate in 2018.

Lesotho's economy is based on farming, livestock, wool and mohair marketing. (UN Economic Commission for Africa 2016, 2018). Diamond mining and water contribute to the GDP, and the Southern African Customs Union (SACU) yields a small butand decreasing share of the regional market. The service sector contributed to growth in "the health sector which, after the opening of the Queen Mamohato Memorial Hospital (QMMH) grew at an average of 24.1 per

cent annually until 2014" (ibid, p.7). Marriott (2014) sees this healthcare entity in two ways; a positive and a potentially bad public-private partnership for service delivery.

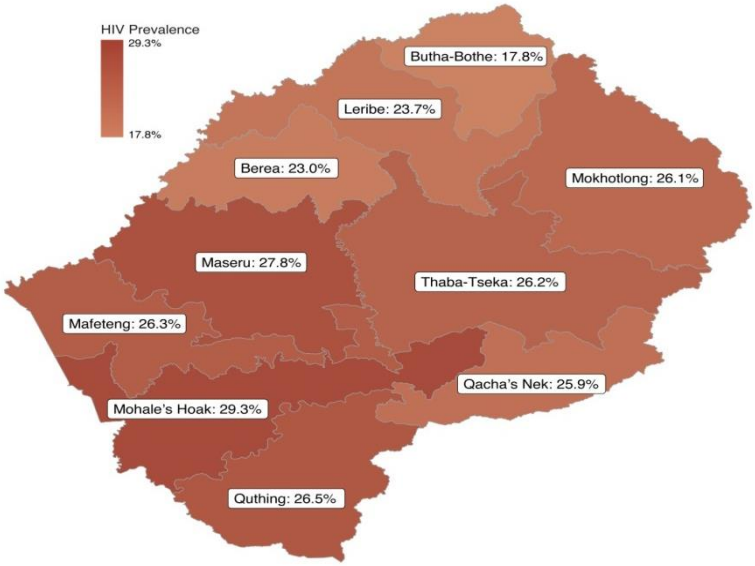
The MoH (2014) Demographic Health Survey shows that despite its high literacy rate among African nations at 94.6 per cent, Lesotho has a maternal mortality rate (MMR) of 1,024 per 100,000 and an infant mortality rate (IMR) of 59 per 100,000 live births. Due to Lesotho's low economy, Freeland and Khondker (2015) call for social protection mechanisms to mitigate the impact of poverty on the population, and Narayan (2002) suggests community empowerment to overcome poverty. Lesotho's major public health threat is a high incidence and prevalence of HIV/AIDS at 25.6 per cent (Ministry of Health 2017e) among the general population. HIV infects 25 per cent of Lesotho's youth aged 18 to 34 years (ibid), which reflects ages "15 to 35 years" (Thakaso 2017, p.116), citing an historical Government of Lesotho (GOL) (1995) report. The trend went unabated and in 2017, HIV reached a 72 per cent co-infection rate with tuberculosis (TB) (Ministry of Health 2017d). The majority of Lesotho's youth in these age groups study in IHEs, hence part of the rationale for this study.

1.1.2 HIV and AIDS in Lesotho

Few social concerns across the world brought together as many stakeholders and community service providers into deliberate joint action, as the response to HIV/AIDS in the Sub-Saharan African (SSA) region. The Panos Institute (1998), in *AIDS and the Third World - the Growth of the AIDS Epidemic* (p. 27), states that AIDS was "first diagnosed in 1981, with the first number of cases reported among whites and people of African origin in the US". It spread to Europe and Africa, causing unprecedented morbidity and mortality in SSA, mostly due to opportunistic infections (OIs). Of these OIs, tuberculosis (TB) is the most prevalent in Lesotho. Thus, Lesotho's Second Coalition Government Agreement (Kingdom of Lesotho 2017) cites HIV/AIDS and TB as the major threats to its socio-economic development.

In interpretively analysing the response, this study reflects on historical and cultural issues behind the spread of AIDS in Lesotho, importantly to connect past and present life patterns that influence disease. From a medical perspective, the history and social impacts of AIDS warrant a qualitative account of its aetiology, effect and future trajectory in global, regional and local contexts. In this study, culture broadly means a way of life of communities, including artefacts such as language, technology, traditions, norms, beliefs and practices. Thus, Lesotho's IHE's culture and history also converge in their activity of response.

Regarding HIV/AIDS, the United States Government's (USG) study of 13 African countries under the President's Emergency Plan for AIDS Relief in Africa (PEPFAR), titled *Population HIV Impact Assessment (PHIA) of High Burden Countries* (MoH 2017e) shows Lesotho's prevalence of HIV as follows in Figure 1.1 below:



% District
26.1 Mokhotlong
26.2 Thaba-tseka
25.9 Qachasnek
26.5 Quthing
29.3 MHoek
131.2/323.8x100=40.51%

17.8 Butha-buthe
23.7 Leribe
23.0 Berea
27.8 Maseru
26.3 Mafeteng
192.6/323.8x100=59.57%
323.8 100.08%

Figure 1.1: Prevalence of HIV in ten districts of Lesotho

Source: Ministry of Health (2017e)

This map shows Lesotho's HIV prevalence in the ten districts, with the right column showing the percentage values. There are notable differences between the five rural districts of Thaba-Tseka, Mokhotlong, Qacha'snek, Quthing and Mohales Hoek (called Pepfar districts) that account for 40.5 per cent of the HIV prevalence, compared to five other districts; Butha-Buthe, Leribe, Berea, Maseru and Mafeteng which account for 59.7 per cent of the HIV prevalence. In all 10 districts HIV affects people in the reproductive ages of 20 to 45 years, and the majority of the youth in this age range are enrolled in IHEs. Regarding AIDS in the SSA region, the United Nations Joint Program on AIDS (UNAIDS 2006, p.3) reports that:

> Sub-Saharan Africa continues to bear the brunt of the global epidemic. Two thirds (63 per cent) of all adults living with HIV are found in Sub-Saharan Africa…one third of all people with HIV live in Southern Africa… 34 per cent of all deaths due to HIV and AIDS occurred there.

Since 1986, information, education and communication (IEC), voluntary counselling and testing (VCT), and later HIV testing and counselling (HTS), now called HIV testing services

(HTS), have been the tools that have been used to fight AIDS. In 2003 a major 'know your status' (KYS) campaign was launched by Lesotho's Prime Minister. Faced with an escalating HIV prevalence, Lesotho adopted the United Nations Development Programme (UNDP) (2000), Millennium Development Goals (MDGs), in 2001, and despite that adoption, the HIV prevalence worsened, prompting the King to declare it a national emergency. However, the incidence and prevalence of HIV persisted, and the UNDP (2012a, p.8) states:

> …despite some notable achievements – including an almost 84 per cent primary school enrolment rate, one of the highest in sub-Saharan Africa – Lesotho faces numerous development challenges. Chief amongst these is the high prevalence of HIV& AIDS, … the third highest in the world at 23 per cent of the adult population.

This shows that despite the high rate of enrolment for primary education, and Lesotho's ranking in Africa as the nation with highest literacy rate (UNESCO 2016), education has not impacted the challenge of HIV/AIDS by reducing or halting its incidence and prevalence. The prevalence by age of HIV in 2017 is shown in Figure 1.2 below.

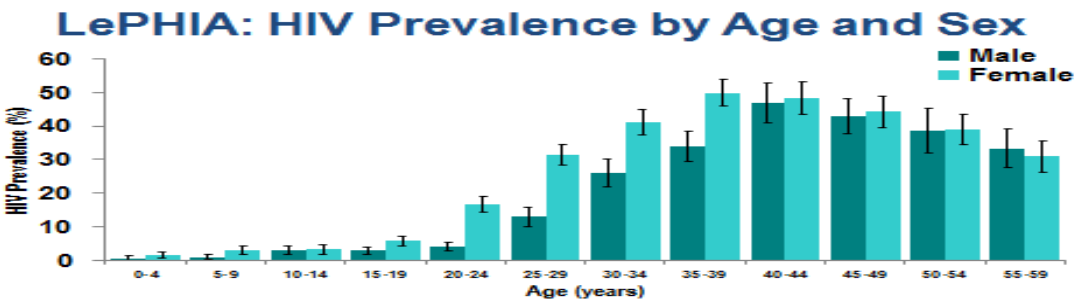


Figure 1.2: HIV prevalence by age and sex in Lesotho

Source: MoH (2017e) LePHIA

Lesotho's HIV prevalence trend starts rising in the 15 to 24-year age groups, increasing into the adult population and peaking in the 30 to 39-year age group, which accounts for 40 per cent of the HIV infected individuals in the country. Of interest for the IHEs is that Figure 1.2 shows a higher prevalence of HIV among females than males, particularly in the 13-19 year and 40-49 year age groups. The Council on Higher Education (2008) notes females constitute 70 per cent of Lesotho's population and 95 per cent of IHE's students. The higher prevalence of HIV among females than males involves many issues later addressed in this study.

With evidence of the risk associated with the lack of education, contraceptives and condoms, and the high risk behaviour of multiple concurrent partnerships (MCP), the next sub-section shows why and how IHEs aim to reach young people using their core mandate of education.

1.1.3 The involvement of higher education in the response

Three IHEs, namely the Lesotho College of Education (LCE), the National Health Training College (NHTC) and the National University of Lesotho (NUL) were selected to participate in this study. To interpret these three IHEs' singular and combined responses required their demographic, governance and services context as a sample of the thirteen IHEs in Lesotho. An extract of the Council on Higher Education's (CHE 2010) Report on the Baseline Survey of Higher Education Institutions in Lesotho (2010-2011) is shown in Table 1.1 below:

Table 1.1: IHEs' student enrolment by year 2008-2011
Source: CHE (2010)

Institution of Higher Education (IHE)	Academic Year		
	2008-2009	2009-2010	2010-2011
Lerotholi Polytechnic	1640	1874	2200
Lesotho College of Education	**3788**	**3752**	**4437**
National University of Lesotho	**10468**	**11565**	**11425**
National Health Training College	**325**	**345**	**291**
Lesotho Agricultural College	701	592	659
Centre for Accounting Studies	1217	1359	1482
Limkokwing University of Creative Tech.	1045	2361	3112
Scott College of Nursing	55	83	87
Roma College of Nursing	85	89	90
Maluti School of Nursing	102	111	120
Paray School of Nursing	48	70	84
TOTALS	**19 474**	**22 201**	**23 987**
Combined LCE, NHTC, NUL share of Lesotho's IHEs	**14 256**	**15 317**	**15 852**
Percentage	**75.7%**	**70.5%**	**69.2%**
Percentage increase in all IHEs per year	(unknown)	**12%**	**8%**

Table 1.1 above shows that the three selected IHEs (namely the Lesotho College of Education, the National Health Training College and the National University of Lesotho) account for 70.5 per cent of all IHEs' enrolment in Lesotho, making them ideal samples for this study due to their population majority. Further to their demographic advantage, and unlike most others, these three IHEs had health clinics that offered services including for HIV/AIDS. The (MoH 2015) Lesotho HIV/AIDS Spectrum report forecast a higher risk of HIV for youth, including those in IHEs, more so than for any other age group.

Because of their common problem, Lesotho's IHEs hosted Professor Michael Kelly in July 2008, in his mission to re-energise college interventions. The IHEs resolved and adopted new efforts to fight AIDS, hence the concept of 'response' in this study. This motivated the researcher to study the relationships among HIV/AIDS, IHEs and services, discussed next.

1.1.4 Personal motivation for the study

Although at the time of completion of this thesis the researcher was a diplomat assigned by the GOL, his interest in IHEs' responses started way back during practice as a professional nurse and midwife. From Lesotho's hospitals and clinics, the researcher became a campus nurse at the Institute of Development Management (IDM), from 1996 to 2003. He developed a campus health service that could be copied to like-minded institutions, and which motivated him to compare challenges and opportunities to fight AIDS in IHEs and workplace settings. In 2003 he completed an HIV/AIDS counselling course and later a master's degree in health management. He left IDM to serve a Lesotho-based USG partner, Pact, as its first national coordinator. He acquired skills in project management, sub-grantee profiling, financing and monitoring, all of which exposed and motivated him to interpret, compare and document various community efforts against HIV/AIDS in reports.

In May 2008, he was appointed as the NUL's HIV/AIDS Coordinator. He conducted a needs assessment of the NUL community, health clinic, administrative, teaching and learning that formed students' and staff services. The NUL Strategic Plan (2007-2012) and the Lesotho Labour Code Amendment Act No. 5 of 2006 (MoL 2006) were his key tools. The contradiction of a lack of an AIDS policy at the NUL versus the provisions of the Act (ibid) motivated his resolve to evidence and act on gaps in IHEs response. He agitated for a policy, projects and monitoring to fight AIDS in IHEs and the broader community.

Thus, at NUL the researcher's single most important achievement was to lead and inspire the development and launch of an AIDS policy, by the Hon. Minister of Health on September 23, 2009. During its drafting stages until its launch, its spin-offs were to restore the NUL's participation in major fora on the national response, re-established the NUL AIDS committee, renewed collaboration among faculties and departments, and led collaboration among the focal persons for HIV/AIDS in the thirteen IHEs. It put all IHEs' efforts to fight AIDS in NUL's hands, and within the researcher's personal leadership and to document it in a report.

Thus, his years of combined experiences amidst an evident dearth of documentation of IHEs responses motivated the researcher to explore and account for some of what happened in a

thesis. Although this study and its findings may be seen as out-dated as it uses data from early as 1986, through the 2000's to 2019, it follows the historicity principle of CHAT framework and draws on major global milestones on the national and IHEs' response to HIV/AIDS.

1.1.5 Justification for the study

Although the prevalence and impact of HIV/AIDS is known in Lesotho, this study uniquely explores the selected IHEs' structures, interplays, resources and implications in their responses to AIDS for better education. While the Southern African Regional Universities Association's (SARUA) (2006) study focuses on responses in national universities, and includes the NUL among 47 universities, it does not use CHAT as an analytic frame. The Higher Education HIV/AIDS Programme (HEADS) (2010) survey of 23 South African universities' HIV prevalence did not inform, but was exemplary to Lesotho's situation. This study mitigates a dearth of research on AIDS in SSA in general and in Lesotho's IHE sector in particular. To justify this study, considerations go to John and Rule (2006, p.165), who, citing a host of other authors, observe that:

> In particular, the dearth of studies in the education sector has been highlighted (Baxen and Breidlid, 2004; Hartell and Maille, 2004; Coombe, 2000a, 2000b). Too little attention has been given to understanding the important and complex interface between HIV/AIDS and education in South Africa. Where studies have tried to understand such relationships, it would seem that they have failed to properly account for the ways in which contextual and social factors mediate the relationships between HIV/AIDS and education.

This extract reflects a major contribution of this study; to account for, contextualise and identify social mediatory factors for AIDS in IHEs. It starts off with the contradiction of very little research amidst the major problem of high morbidity and mortality in SSA nations and their IHEs, in the post-millennium era.

This study will narrow the gap for Lesotho and show a change from when the three IHEs had nothing to offer against AIDS, to introducing VCT services, to when their health clinics' (HCs) records show sustained annual increases in HIV Testing and Services (HTS) for students. For example, NUL increased HIV testing from 360 clients in 2008 to 1,200 in 2012, in line with the Education Strategic Plan 2005-2015 (MoET 2005), which encourages IHEs' to research and fight HIV/AIDS.

This study uses Engeström's (1987, 1999b), Cultural Historical Activity Theory (CHAT) as its main analytic framework to interpret the ***response,*** as the unit of analysis. It incorporates relevant models and concepts for a deeper and better narrative of the subjects (IHEs), object (HIV/AIDS), outcomes, tools, rules and divisions of labour and community/stakeholders in the response. The next section illustrates the link between AIDS, IHEs and services.

1.2 The Nexus of education, HIV/AIDS and services

Figure 1.3 below shows four intersections among the three key concepts. The first is the HIV/AIDS intersection with higher education*;* second is the HIV intersection with services; and third is where education interacts with services. The nexus is the central fourth and intersection of all three components.

Education-HIV/AIDS (HE): Education is a national and MDG/SDG priority for HIV prevention among students/vulnerable young people through whom AIDS threatens IHEs and national development.

Education-Services (S): This lies with the IHEs' agenda to provide conceptual models, physical facilities and quality improvement within IHEs' student services that support health and HIV/AIDS services.

Services-HIV/AIDS (A): It is the operational level of investment to support appropriate staffing, policy development, financing and HIV testing, counselling and referral systems among IHEs.

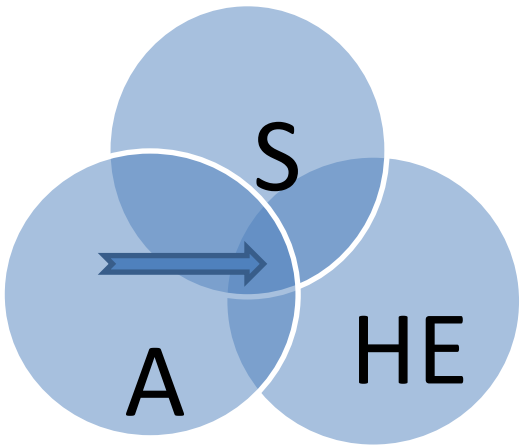


Figure 1.3: The nexus of higher education, HIV/AIDS and services
Source: Researcher (2013)

The nexus model sees HIV/AIDS as both part of the problem and of the solution. Figure 1.3 raises questions on the relationships and intersections in IHEs' responses regarding structures, administrative and core business activities. The intersection or nexus of IHEs, AIDS and services suggests activity and themes. These are combined with the research questions in the next subsections, beginning with the rationale and application of 'response'.

1.2.1 Response as the primary tool in IHEs

In this thesis, 'response' is based on its English definition. The Oxford Advanced Learners Dictionary (2006, p.1245) states it is "a spoken or written answer" and "a reaction to something that has happened or been said". The etymology of response is explained later in the literature

review, and generally refers to the national or institutional answers to HIV/AIDS. In the global context, 'response' is based first on the WHO Guidelines on *response* (2004b, p.21) to AIDS. It uses a three-point strategy to guide nations and institutions, and reaffirms global goals and targets for the health sector response. It identifies:

- Four strategic directions to guide the national responses of goals and targets, prevention, care and support, special/cross cutting issues, youth, impact mitigation and recommended actions;
- Outlines recommended country actions and WHO's contributions;
- Achievement of universal access to HIV services including prevention, diagnosis and treatment, and care and support.

Second, it is cited by UNAIDS (2008, p.9) that "the world is at last making... progress in its *response* to AIDS". Thus UNAIDS and WHO apply 'response' to guide that which according to Engeström (1999b, p.1) is an "artefact-mediated activity" to fight AIDS globally. Based on these applications, 'response' in CHAT refers to the use of conceptual and material resources (as mediating tools, rules and for the division of effort) to enable subjects to act on an object (HIV/AIDS) for the outcome of low prevalence. Henceforth, 'response' means only the fight against HIV/AIDS and nothing else, and is used with or without specifying AIDS.

1.2.2 The problem with the response

To problematize 'response' in IHEs, this study analyses the concept three levels. One is the global area governed by the WHO, UNAIDS and ratified by the GOL. The second is the Ministry of Health (MoH), Ministry of Education and Training (MoET) and the National AIDS Commission (NAC), and the third problematic level of response is with the IHEs.

Problem 1 – Adopting and operationalizing international response standards

Perhaps the key problem with Lesotho's response lies with the government. Fox et al. (2011) compare countries in terms of implementing commitments against HIV/AIDS, with the likes of Botswana and Zimbabwe featured. They conclude that there are many far reaching factors involved in a national response to HIV/AIDS, rather than just a single measure. Lesotho is one example of a country with a myriad of challenges, and the problem lies in translating and ratifying international strategies into country action. Table 1.2 below shows the selected UNAIDS strategies with numerical targets, goals and interpretations adopted by Lesotho between 2003 and 2017, followed by a summary discussion here and in later chapters.

Table 1.2: WHO/UNAIDS global response strategies by numbers

Sources	Strategy	Interpretation - *(what the strategy aims to achieve)*
WHO, UNAIDS (2003)	3 x 5 Initiative	To get 3 million people on treatment by 2005.
UNAIDS (2004)	3 x 1's (three ones) Key principles	One agreed HIV/AIDS Framework as the basis for coordinating partners. One National AIDS Coordinating Authority. One country level Monitoring and Evaluation Framework.
UNAIDS (2010; 2015)	Getting to zero	Zero new infections. Zero AIDS related deaths. Zero discrimination.
UNAIDS (2014a)	3 x 90's	90 % of all people with HIV know their status. 90 % of those HIV positive put on treatment. 90 % of those on treatment have undetectable viral loads.
WHO (2016)	Test and treat	Anyone who tests HIV positive is initiated on treatment irrespective of viral load status, gets partner linkages, referral.

Although these global strategies are recognised in Lesotho, their adoption has not translated into firm, consistent and well supported action by the government. Collins (2014) says these 2020 targets are ambitious, but a good thing. Because of it, Lesotho published through the Ministry of Health (2017) the Lesotho HIV Prevention 2020 Roadmap – for accelerating HIV prevention to reduce new infections by 75 per cent. It has however, major short-comings. For example, in the 3x5 Strategy: The WHO (2005) reports that of the 290,000 to 360,000 people aged between 0-49 years (18% of Lesotho's population) living with HIV, of whom 58,000 (16%) needed ARVs, only 8,400 (14%) of the eligible population were initiated on treatment. A decade later in 2017, the MoH (2017, p.1) reports that in the 15 to 59 year age group, 77.2 per cent knew their HIV status, 90.2 per cent were on treatment and 88.3 per cent were virally suppressed. Improvements in the response mean that it is realistic to improve health education, awareness and behaviour change to reduce new infections with HIV.

Regarding the Three-Ones Strategy, conflicts over the overlapping roles of the MoH and the NAC, undermined the UNAIDS (2004) call for one national framework, one coordinating authority and one monitoring and evaluation plan. Despite adopting the UNAIDS Getting-to-zero Strategy was not achieved as Lesotho's global position for prevalence changed from the third to second highest, mainly due to failure to eliminate new infections (MoH 2017e), hence AIDS-related deaths, stigma and discrimination are rife and persistent (UNAIDS 2017).

Lastly, the MoH (2017e) reports that although there is improvement with HIV detection/know your status rates at 88 per cent, and a high rate of enrolment on ARVs at 90 per cent, there is still poor viral suppression at 77 per cent. Finally, despite adopting the Test and treat strategy (MoH 2016; Kabi 2016), which proposes immediate initiation on ARVs for a confirmed HIV positive test, includes self-testing, partner-linkages to improve access, adherence and client outcomes in Southern Africa (Creese at al. 2002), Lesotho lags behind its international peers. This is due to delayed adoption, implementation and monitoring based on WHO and UNAIDS guidelines and national policies and services translate into a poor national response. This indicts leadership, as Nattrass (2008), asks whether national leadership deserves good or bad reputation for response, as will be shown in the findings.

Problem 2 – Poor national influence on IHEs

The second historical problem is that Lesotho's second highest global prevalence for HIV (UNAIDS 2017), implies that the three IHEs populations are in a high risk environment and vulnerable to HIV/AIDS, which had already claimed the lives of 300,000 Basotho (NAC 2008). Lesotho's high rates of orphaned and vulnerable children (OVC) (UNICEF 2004; 2017), at one-sixth of the population (Bureau of Statistics 2018), poses a burden on family financial resources (Nyangara 2004) to sustain youth, both at home and in IHEs.

In addition, a low contraceptive and condom usage impacts IHEs' responses due to the shared services and social links with external communities. Lesotho's health indicators have fluctuated. For example, life expectancy at birth increased from 55 years in 1986 to 59 years in 1996 (GOL Lesotho 2004), but fell to just 37 years in 2006 (UNAIDS 2006). It later recovered, due to improved TB case detection and client initiation on anti-retroviral drugs (ARVs) (UNAIDS 2010), to 63 years in 2015 (Bureau of Statistics 2018).

Relations exist between communities and colleges (Preece and Ntseane 2004; SARUA 2006), hence the basis for this study to interpretively analyses the IHEs' responses. Lesotho's challenges in fighting AIDS, left the IHEs with no exemplary leadership, despite evidence that countries with strong AIDS programmes have viable college responses (HEAIDS 2009b; 2010). Because of a poor national response, the IHEs have their own problems.

Problem 3 – the selected IHEs policies and strategies

The problem with this third level of the response is that, despite their awareness of the high incidence, prevalence and modes of HIV transmission involving young people, the IHEs do

not have AIDS policies, strategies and services. A study by Nkonyana (2013) shows a trend of new HIV infections in the 15-49 year age groups, by sex, shown in Figure 1.4 below.

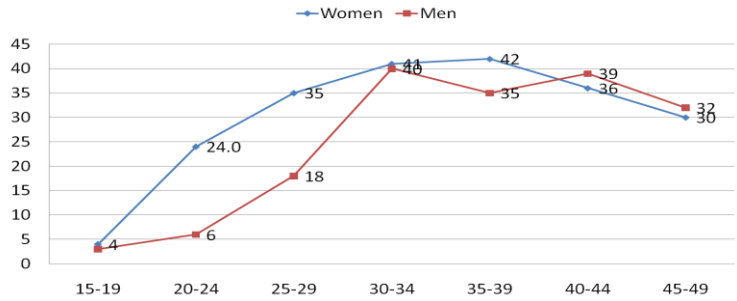


Figure 1.4: HIV prevalence by age and sex

Source: Adapted from Nkonyana (2013)

Figure 1.4 shows that although males and females start off at a common point of 4 per cent HIV prevalence in the 15-19 year age group, there is a notable increase in prevalence among females at age 24 versus 6 per cent for males in the 20-24 year age group. The trend continues to 35 per cent for females versus 18 per cent for males in the 25-30 year age group. This means that females are more vulnerable to HIV infection, until males close the gap to put both sexes at 40 per cent prevalence in the 30-34 year age cohort. For the 35-39 year age group, the trend is 42 per cent for females and 35 per cent for males. In the last two cohorts of ages 40-44 and 45-49, the prevalence in males is higher than in females. This suggests that men aged 40-44 and 45-49 years engage in intergenerational sex with younger females.

Despite social, economic drivers and the implications of HIV/AIDS, the IHEs do not ensure availability, affordability and spatial accessibility of primary care (Guargliardo 2004). Other than the leadership of IHEs not active in the response, students cannot access information, education and communication (IEC) on abstinence, being faithful and correct and consistent condom use (ABC) (Mahloane-Tau 2016). This is because the curriculum support, teaching and learning resources and on-campus health services are poorly managed in IHEs.

Of the three IHEs, the NUL Strategic Plan (2007-2012), SWOT Analysis, recognises HIV as a threat with "deleterious effects on students and staff" (NUL 2007, p. 12). Despite this, the NUL only launched an AIDS Policy in 2009, 23 years after Lesotho's first confirmed fatality due to AIDS, and amidst an unrelenting incidence and prevalence. The LCE and NHTC do not recognise AIDS in strategic plans, but see it as a threat to academic work. The known threat thus has no policy in the IHEs. The next section covers the objectives of this study.

1.3 Objectives and research questions of this study

Using Cultural Historical Activity Theory (CHAT), this study qualitatively interprets the nexus of education, AIDS and services. The objectives of this study are therefore to:

- Identify the current institutional strategies/services for HIV/AIDS in the three IHEs;
- Examine the interplay between and within the IHEs' (community) structures (division of labour/rules) and services (artefacts) in response (activity) to HIV/AIDS (object);
- Assess how strategies can be developed to improve responses to HIV/AIDS among the three main IHEs in Lesotho; and
- Recommend strategies for response among the key stakeholders in education.

Based on these objectives, this study answers the following main and sub-research questions:

To what extent do the current institutional strategies in IHEs, responses and services operate in synergy in response to HIV/AIDS in Lesotho? The sub-questions are:

- What institutional strategies and services for HIV/AIDS exist in the three IHEs?
- What is the interplay between the IHE structures (management and clients) and services in response to HIV and AIDS?
- How can strategies be developed to improve the quality of the selected institutions' response to HIV and AIDS?
- What are the implications for education and training for key stakeholders?

Two things are noteworthy early on in this study. First, there are relationships between the above objectives which are directly converted into research questions for consistency. Second, the research questions are themselves later framed on a matrix with CHAT. The rationale and method of this link is highlighted next.

1.3.1 Linking CHAT to the research questions

It is crucial early on to say how the research questions are managed. The study uses a two-dimensional matrix following the example of Engeström (2001, p.133), in his work; Expansive Learning at Work – Towards an Activity Theoretical Framework, based on the subjects of a hospital in Helsinki: "…with the help of four questions: 1. Who are the subjects of learning? 2. Why do they learn? 3. What do they learn? 4. How do they learn?" Next, Engeström (2001, p.133) lists the five principles of activity theory:

> …namely activity system as [the] unit of analysis, multi-voicedness of activity, historicity of activity, contradictions as [the] driving force of change in activity, and expansive cycles as possible form[s] of transformation in activity.

As Engeström's matrix focused on the subjects and what they do, in this study, the research questions focus on the IHEs, arrangements, rules, tools, and artefacts intersecting the five principles of CHAT in a similar matrix. Combining the foci of the research questions with the five principles of CHAT (Table 1.4) is the bedrock of the discussion throughout this study.

1.4 The structure of the thesis

This thesis is divided into nine chapters. Chapter One is the introduction; it outlines the background and justifies action on the escalating prevalence of HIV/AIDS in Lesotho's IHEs. Chapter Two is the theoretical framework. It features Vygotsky's (1978) work of Cultural Historical Activity Theory (CHAT), and its evolution through three generations. CHAT is the lens used here to analyse the three IHEs' responses. Chapter Three is the literature review. It identifies, compares and analyses college responses across the SSA region. Chapter Four is the research methodology. It describes how this study collects and analyses data based on the Lerotholi Polytechnic (LP) pilot experience with the key informant (KIIs), focus group discussions (FGDs), documentary and observation tools. Chapters Five, Six and Seven cover the findings on the LCE, NHTC and the NUL respectively. Chapter Eight is a comparative analysis of the three IHEs and Chapter Nine is the conclusion and recommendations.

1.5 Conclusion

This chapter showed the key demographics of HIV/AIDS in Lesotho, some SSA data and global views on its threat to youth in IHEs. Conclusions can be drawn that the individual, collective and proportionate sizes of all of the IHEs in Lesotho and of those selected for this study, and the nexus/intersections of the IHEs, AIDS and services form the core of the response. The problems with the response emanate from the country and its IHEs' lack of policies and strategies. This chapter linked the identified problem, study objectives and research questions in a cohesive researchable manner. It is however, repetitive due to similar components, interplays, strategies for improvement and implications for key stakeholders in the three IHEs. The next chapter discusses this study's theoretical framework.

CHAPTER 2 – THEORETICAL FRAMEWORK

2.1 Introduction

Chapter One stated the purpose of this study as to interpret and qualitatively analyse the responses to HIV/AIDS of three selected IHEs in Lesotho. This chapter introduces Engeström's (1999b) Cultural Historical Activity Theory (CHAT) as the principal analytical theoretical framework. In this chapter, section one is the introduction. Section two is a history of CHAT in its three generations. Section three links CHAT to the response in IHEs. Section four is a critique of CHAT; it finds upfront that, although able to go it alone, CHAT strongly adapts to other theories, concepts and models. Three key ones are identified and used to mitigate CHAT deficiencies while enhancing its principles in section five, before conclusion. Regarding CHAT, Mukeredzi (2009, p.288) notes:

> ...The theoretical framework itself has been explored in terms of its usefulness as a methodological tool for describing, analysing and understanding professional development experiences, and in the process the framework has been expanded and developed to incorporate certain concepts.

To expand this inquiry, CHAT incorporates the World Health Organisation's (WHO) (2004b) *Standards for Health*. This is due to CHAT's fifth principle, which requires using a global standard to analyse medical work. Three other additional concepts are Zeithaml and Bitner's (2004) 7-Ps of expanded services marketing mix and Checkland and Holwell's (1998) information and information systems. To refine the analysis, this study includes insights from Mill (1967) Qualitative Comparative Analysis (QCA) model, drawing from Berg-Schlosser et al. (2009). Mandated by relevance to the purpose of IHEs, other peripheral theories/models are Abel-Smith's (1994) Planning steps, Mezirow's (1991) Transformational learning, Wenger's (1998) Communities of practice and Orem's (1991) Self-Care model for a synergy akin to Worthen's (2011) Work process knowledge, CHAT and communities of practise, in an article for labour educators. Synergy enables a greater-than-sum-of-parts insight in this multi-modal research and interpretive discussion of the IHEs' response.

The next section defines CHAT, based on Vygotsky (1978), Leontiev (1978) and Engeström (1999b) and its evolution through the first, second and third generations. It shows the five principles of CHAT, their expansion and transformation, and the definition and characteristics of the zone of proximal development (ZPD) as by-products of contradictions and tensions in

an activity system. Later on a critique of CHAT identifies its challenges and proposes mitigating actions. The next sub-section covers the three generations of CHAT.

2.2 The three generations of CHAT

This section highlights the origin and scholarly critiques of CHAT. One well-developed, convincing and qualitatively objective definition by Engeström (1999, p.3) sees CHAT as:

> More of a descriptive meta-theory or framework than a predictive theory, (which) considers entire work/activity systems (including teams, organisations, etc.) beyond just one actor or user and accounts for environment, history of the person, culture, role of the artefact, motivations, complexity of real life action, etc.

CHAT is therefore an explanatory theory which focuses on how people show consciousness when addressing issues through engagement in a collaborative activity such as response. According to Engeström (1999a, p.20):

> Activity theory has a three-fold origin in classical German philosophy (from Kant to Hegel), in the writings of Marx and Engels and, in the Soviet Russian cultural historical psychology of Vygotsky, Leontiev, and Lauria.

CHAT as a cultural-historical theory was developed from the ideas of Lev Semyonovich Vygotsky (1896-1934), who provided a foundation for research and theory in socio-cognitive development, and what is known as social development theory. It follows that close 'relatives' of CHAT are, among others, the cognitive development theory and constructivism, all of which recognise learning with or within a given community or social context. Noting the origins of activity theory in the soviet era, Kaptelinin (2005, p. 190) points out that one of the first postulates agreed upon by soviet era psychologists was the:

> Principle of unity and inseparability of consciousness (i.e. the human mind) and activity. The implication was that the human mind comes to exist, develop and can only be understood within the context of meaningful, goal oriented and socially determined interaction between human beings and their material environment.

This note implies the existence of a definite boundary between consciousness and activity. Human individuals purposefully act out their consciousness within their environments. The boundary is known as the Cartesian wall, on which Mukeredzi (2009, p.71) writes that:

> Vygotsky's notion of mediation and learning in activity was driven by a desire to eliminate the Cartesian walls i.e. the separation of the mind and the world (intellectual and practical). He attempted to answer the question of how collective (inter-mental) is incorporated into the individual (intra-mental).

The relationship between individual and society hinges on Cartesian identity in activity theory (Bakhurst's 1991, in Van der Riet 2009, p.28). This was especially so in Russian philosophical thinking, which had strong anti-Cartesian element. It echoes Marx's concern with the relationship between the 'subject and the object'. Further on, Van de Riet (2009, p.28) states that the "organism and the environment… society" are not separate but are one system in which retroactive causality and internal dynamics occur. Similarly, the interrelationship between subject (IHE actors) and object (HIV/AIDS environment) is described by both internalisation and externalisation. Mukeredzi (2009, p.72), concurs:

> ...through interaction and engagement in activity, with mediation by signs and tools … internal mental state is transformed. Internal activity cannot be analysed and understood as distinct from external activity, they mutually penetrate, control and affect each other. The inner mental activity arises from external activity; internalisation. Thus, professional development, an internal activity, arises out of external activities such as teaching practice.

With internalisation and externalisation thus mutually dependent, this study recognises that what each IHE client internalises, such as an HIV test and service (HTS), can be individually externalised to others based on the test result and experience. This can in turn affect parts of the larger IHE community's response through disclosure and advocacy for a better response, for example. Inversely, what the client externally experiences in the community (such as HIV related discrimination) can affect their internal readiness to undergo counselling and testing.

It can be said that first, Vygotsky's (1978) theory on communities in which conscious activity is undertaken and expected to achieve specific objects (McLeod 2007), relates to the purpose of this study, to interpret and qualitatively analyse the responses to HIV/AIDS of three selected IHEs in Lesotho. Second, learning can help IHEs to develop curricula and administer support services against AIDS while applying new processes to transform how people behave. The next sub-section explains Vygotsky's (1978) first generation of activity theory.

2.2.1 The first generation activity model

First developed in 1920, Vygotsky's triangular framework, which Engeström (1999b) called the first generation model of activity theory, recognises the existence of horizontal, vertical and hierarchical organisational relationships. Engeström's reference to CHAT as a meta-theory means that it combines two or more theories. It covers the three aspects of 'actors', 'tools', and 'object' in an organisation. It is a totality of 'individual', 'object' and 'tools' in achieving set objectives. Vygotsky's basic, triadic model of an activity system is shown in Figure 2.1 below.

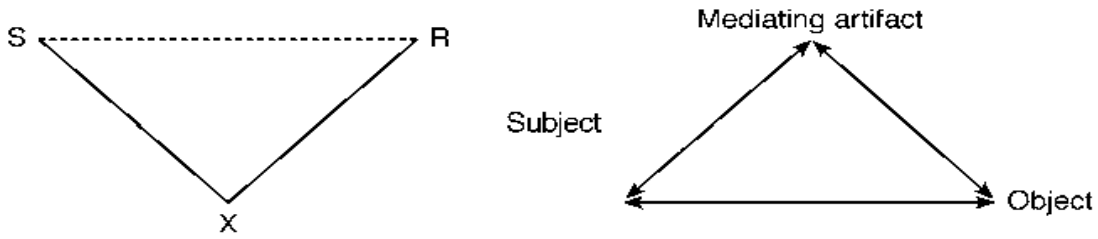


Figure 2.1: First Generation Activity Model

Source: Adapted from (A) Vygotsky's (1978) model of mediated act and (B) its common reformulation

Engeström (2000, p.134) refers to the original model as "crystallised in Vygotsky's (1978, p. 40) famous Triangular Model in which the conditioned direct connection between stimulus (S) and response (R) was transcended by 'a complex, mediated act'". Vygotsky's 1920's model was further developed by his colleague Leontiev (1978, 1981). Vygotsky's triad is, however, a beginner's guide with notable short-comings in today's dynamic IHE environment. One limitation of the first generation Activity Model was its focus on individual action, overlooking the social and collaborative nature of activity. It does not elaborate actions, and offers a unit of analysis as the subject-object oriented action mediated by cultural tools and signs. Today's subjects have more challenges and must learn new ways to transform the object. This calls for a more detailed model of activity, as discussed next.

2.2.2 The second generation activity model

In the second generation, Leontiev (1978, 1981) added some features to separate individual action and collective activity, coming up with activity, action and operation to achieve the object. Hardman (2007) states that an object appears as an object or tool. One view by Mukeredzi (2009, p.74) notes:

> Leont'ev therefore extended Vygotsky's theory, adding several features to separate individual action and collective activity and came up with activity, action and operation to achieve the object. The discernment of activity, action and operation demarcates individual behaviour from the collective activity. Thus to Leont'ev, while individual activity may be social, it may not necessarily be collective.

Engeström (1987) used this context to formulate the second and third generation to delineate individual and collective activity. The distinction concerns the role of individuals to that of teams, and warrants inclusion in this study due to the cultural influences of individuals over groups and teams, and vice-versa, in the IHEs. Hardman (2007) argues the collective-individual nature of activity, saying that while it may be collective, the object is individual and is its true motive. In the response, individual actions count for awareness, transmission and prevention of AIDS. While the second generation model accommodates the 'individual' actor and 'tools', Engeström (1999, p.2) states more specifically that:

> expansion of the basic Vygotskian triangle aims to represent the social/collective elements in an activity system, through the addition of the elements of community, rules and division of labour while emphasising … analysing their interactions.

The expansion results in a flexible and adaptable model, and like the first generation, is applicable to a wide range of activities. It is useful to IHEs' responses in that the 'community' are key stakeholders (IHEs' staff, students and the public), 'rules' are parliamentary Acts and organisational regulations/policies, and divisions of labour/roles are performed by the subjects. Figure 2.2 below shows Engeström's (1987) structure of human activity for the second generation of the model.

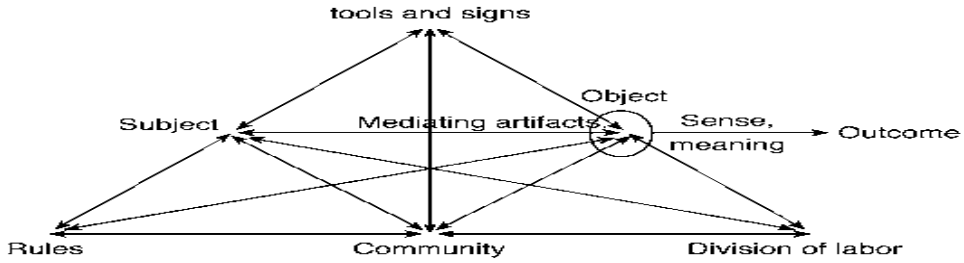


Figure 2.2: Second generation of CHAT

Source: Adapted from the structure of a human activity system (Engeström 1987, p.78)

The known view here is that a collective activity system demands more than an individual action structure in terms of dimensions. This separates the individual from the collective in terms of what objectives each entity can achieve. As such, on a personal level, 'rules' can mean 'habits' or 'behaviour', while in the collective it can mean laws and cultures that guide organisations in enacting the object of common interest. At this point, and prior to discussing the third generation of CHAT, it is essential to illustrate how the second generation components apply to the IHEs' response components, illustrated in Figure 2.3 below.

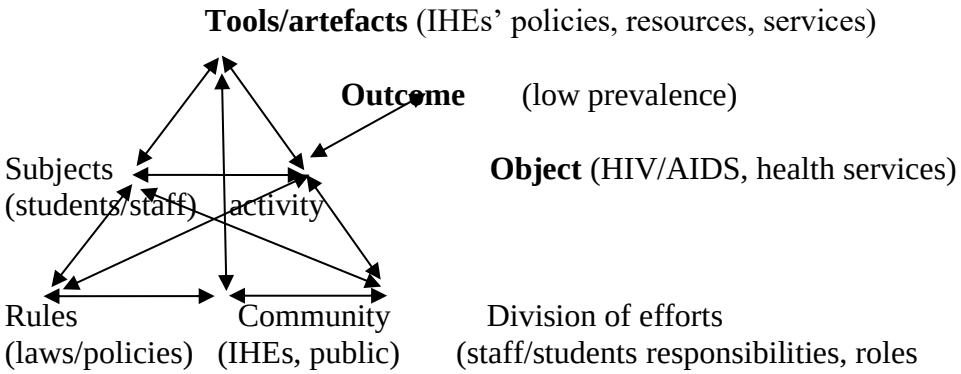


Figure 2.3: Linking CHAT to components of IHEs' services model

Source: Adapted from Engeström's (1999b) second generation of CHAT

The illustration in Figure 2.3 enables an understanding of how IHE responses can be framed into CHAT to answer the research questions. In this more detailed collective activity, Engeström's (1999b) second generation components are interrelated, and each one directly or indirectly influences all others, as follows.

Subjects: these are "people" (Zeithmal and Bitner (2000) - the IHE administrative and academic staff, students, key health professionals and technical people that act on the object of HIV/AIDS. They use mediating artefacts such as skills, experiences, reasoning, judgement, material and financial tools to achieve the outcome of low prevalence. Regarding subjects and activity, Jones (2001, p.286) notes that "...in Marx's writings, 'activity' and 'labour' are terms used more or less synonymously". The role of subjects is labour-power to engage individuals

and groups in productive action. It represents a sum of human mental and physical capabilities used to produce any use-value (Marx 1883, cited in Jones 2001) in a purposeful activity.

Activity: This refers to interventions by IHEs to provide education, prevention, care, and referral services. Activity is thus seen as a subject-object as well as subject-subject relationship. It has two levels. One is the collective, HIV/AIDS oriented mode at national and institutional levels. The second is the interface between a service provider and client. In Zeithmal and Bitner's (2000, p.26) view, service encounters occur when:

> …The customer interacts with the organisation…. and receives a snapshot of the organisation's service quality and each encounter contributes to the customer's overall satisfaction and willingness to do business with the organisation again.

In IHEs, it is by this encounter that activity happens. It constitutes an important aspect of response by converging the views of Engeström (1999b) and Zeithmal and Bitner (2000) upon the object that must be addressed.

Object: The main object within the response activity system is HIV/AIDS. Kaptelinin (2005, p.5) states that the concept of object provides a tool to understand what people do and why they do it, and is considered the "ultimate reason" and "the sense-maker," to various entities and phenomena. Refining the features of an object, Kaptelinin (2005, p.17) suggests a "preliminary criteria" for "successful" objects of activity. The first is 'balance': wherein motives should be clearly represented, and if which ignored, the activity could lose focus. The second is 'inspiration': the object must not only be doable/enactable but also be attractive and energising. The third is 'stability': too frequent changes to the object can disorganise the activity, while the fourth, 'flexibility', opposes stability and means that the motives and means must change, redefining the object to avoid it being obsolete and ineffective. In this thesis, all four features of object apply in the IHE's environment, and outcomes depend on the extent of the 'balance', 'inspiration', 'stability' and 'flexibility' of the objects, subjects, communities and tools of response. The object can thus be HIV in one instance, and ignorance, an unknown HIV status or opportunistic infections in another. The changing object causes conceptual shifts with tools, rules and divisions of labour in a community, and always in pursuit of a set desired output, product or outcome.

Outcome: An outcome can be defined as a medium to long term output of an action. With the response, and as per WHO and UNAIDS goals (see sub-section 3.2.3 Numbers in the evolution

of the response) the subject's activity aims to achieve the best scores on targets, for example, UNAIDS' (2014) three-nineties (3x90s), zero new HIV infections, and so on. In the response, outcomes help to reconceptualise the planning process (Abel-Smith 1994) to attain a low prevalence of HIV in IHEs and in the host community.

Community: This includes each IHE's students and staff, immediate public residents, key government ministries (in this case the Ministries of Education and Health), and public and private sectors who directly influence and support the subjects. Throughout this study, communities are the key stakeholders or 'active' partners in each specific IHE and whose role is considered in each IHEs findings. This is because, for example, the community uses health services and its unavoidable tools and artefacts.

Artefacts: These are also called mediational tools, and are tangible and intangible resources or objects that are essential to human functioning. They play a mediatory role and constitute psycho-social resources (knowledge), service designs, processes and material resources in both the core business of education and the response. Management artefacts in the response include policies, finance, commodities used in health care, HTS test kits and knowledge building aids. Artefacts in turn work within a context of rules and guidelines.

Rules: These are provisions of social and institutional laws, policies on education, services and HIV/AIDS. These may be explicit: written as parliamentary Acts, institutional regulations, and policy guidelines, or implicit: expected behavioural norms and traditional and technological culture, among others. Noteworthy regarding rules, which invokes use of the WHO's (2004b) Standard, is CHAT's fifth principle: that an international standard be used with CHAT in medical work. The rules cover HIV test protocols, prices of services, etc but importantly, they govern all components, notably divisions of labour among IHEs actors.

Division of Labour: This lies with the different roles and responsibilities of the community - people at strategic, middle and operational levels of IHE management. They are guided by rules or job descriptions, functions, span of control and expected outputs in their everyday duties. With the total components of the second generation clearly applicable to IHEs, and explained for what they mean in the response, it leads to the third generation of activity framework. Divisions of labour includes both horizontal and vertical segregations of roles and tasks, as well as power and status within the community (Engeström 1999a).

2.2.3 The third generation activity model

This sub-section draws on Engeström's (1999) second generation, which transformed into a more detailed third generation framework. It aims to develop conceptual tools to "understand dialogues, multiple perspectives, and networks of interacting activity systems" (ibid, p.2), drawing on dialogicality and multivoicedness. Figure 2.4 below shows the third generation of CHAT. It is an activity system based on at least two interacting systems.

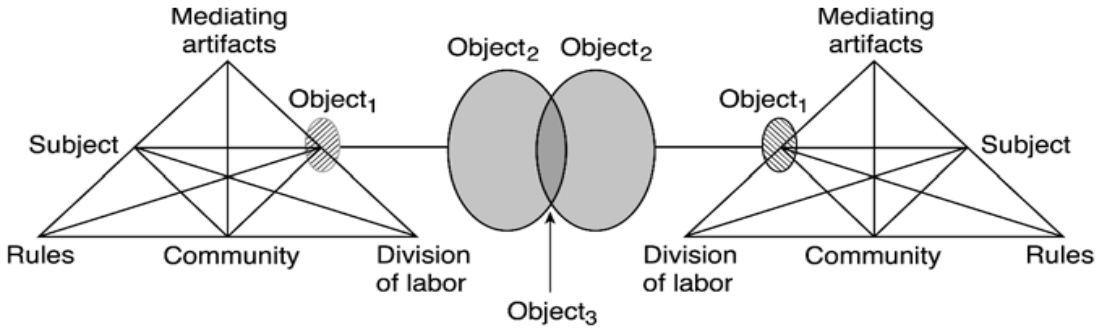


Figure 2.4: Third Generation Activity Model

Source: Adapted from "two interacting activity systems as a minimal model for the third generation of activity theory (Engeström 1999)

The third generation of CHAT in Figure 2.4 above represents two interacting activity systems as a minimal unit of analysis in activity theory. In this instance, each of two objects form the third object to which subjects, artefacts, community and rules are shared between activity systems. The linkages invoke boundary crossing, a space/site for action/learning which concept emerges from movement across activity systems comprising triangles facing inwards on a common object-object of 3 or even more. Thus, this is a site for expansive learning – by contradictions and multiple perspectives. In the IHEs response exists a unique system where coordination, collaboration and communication between two activity systems occurs. Thus, boundary crossing further expands multivoicedness and multiple perspectives regarding subjects, communities and rules.

In conclusion, to interpret the IHEs' response, this study mainly uses the third generation of CHAT, although in areas it draws from the first generation which focuses on activity and is subject oriented. It also draws on the second generation to focus on the object and artefacts used to achieve it. The third generation with its two or more objects and focus on the individual and society, causes expansion, boundary crossing and co-configuration. Further to the third

generation, some authors, for example van der Riet (2009, p.54), call for a fourth generation of CHAT, which the researcher will discuss later and briefly in the recommendations of this study.

2.3 Linking CHAT to the three IHE responses

This section is premised on the fact that it cannot be worthwhile to use CHAT to analyse the IHEs' response unless there exists a connection between the two. In doing so, the section connects via three sub-sections on the: principles of CHAT, expansive transformation, and zones of proximal development (ZPD) in the context of the three selected IHE responses. In Figure 2.3 the diagram illustrates what van der Riet (2009, p.54) calls "knots" which in this case tie together or link the IHEs and CHAT. It is more beneficial to discuss those links within the context of principles of CHAT rather than just as "knots" in the next sub-section.

2.3.1 Principles of CHAT in the context of IHE response

The principles of CHAT are the primary descriptive facets for the discussion in this study. Engeström and Middleton (1993, p.3) asserts that "activity theory may be summarised with the help of five principles" which "stand as a manifesto of the current state of activity theory". Kaptelinin (2005) summarises the basic principles of activity theory as object-orientedness, using the dual concepts of internalisation/externalisation, tool mediation, hierarchy, and continuous development. To this view, Engeström (2001, p.136) outlines five principles of CHAT used to address the research questions in this study.

The first principle is: "...a collective, artefact-mediated and object-oriented activity system, seen in its network relations to other activity systems, is taken as the prime unit of analysis" (ibid). The principle implies that each of the three IHEs - using artefacts to fight AIDS - must be analysed in comparison to similar activity systems, hence the collective, selected IHEs provides a relational lens across, and all form the unit of analysis in this study.

The second principle is "...the multivoicedness of activity systems....an activity system is always a community of multiple points of view… traditions and interests" (ibid, p.3). The multiple facets of CHAT match the IHEs' response components. Thus, the third generation of activity theory interrelates and multiplies expansively within the community, diversifying opinions, cultures and expectations. Multivoicedness means many points of view, traditions, backgrounds, experiences and interests, while divisions of labour put participants in different positions and activity carries layers of history inherent in artefacts, rules and conventions. This brings

tensions and contradictions, with change and innovation requiring negotiations. The third principle's core theme is historicity. Engeström (2001, p.3) states:

> Activity systems take shape and get transformed over lengthy periods of time so that the problems and potentials can only be understood against their own history. [Such] history must address the local context and history of the activity and its objects, and as history of the theoretical ideas and tools that have shaped the activity…. The participants carry their own diverse histories, and the activity system itself carries multiple layers and strands of history engraved in its artefacts, rules and conventions.

This principle means that the course of an activity is influenced and shaped by historical transformations in the object. Thus, the transformation of AIDS from a killer disease (MoH 1992) to a chronic illness (UNAIDS 2008) over two decades since Lesotho's first case in 1986 warrants a historical probing into the types, availability, accessibility and affordability of the tools of response. This principle has vital implications for IHE responses, by stating:

> ...Medical work needs to be analysed against the history of its local organisation and against the more global history of the medical concepts, procedures and tools employed and accumulated in the local activity (Engeström 2001, p.3).

This not only affirms a home for CHAT in health sciences and vice-versa, but it also guides how the framework must be applied using globally accepted concepts, procedures and tools. This study uses the WHO Standard of quality (2004) to assess the landscape of services across IHEs. The fourth principle, which cuts across the research questions, is the:

> ...central role of contradictions as sources of change and development … Contradictions are not the same as problems or conflicts (Engeström 2001, p.3).

In CHAT, contradictions are "historically accumulating structural tensions within and between activity systems" (Engeström 2001, p.3). Contradictions arise from multivoicedness, multiple perspectives and differences in opinions. Given the impact of HIV/AIDS in Lesotho, not having a response is a contradiction to enacting the object. Noteworthy is that contradictions come in categories and types. On one hand, Beatty and Feldman (2012, p.286) citing Engestrom (1987) assert that in CHAT, contradictions occur in four ***categories***:

> …a primary contradiction (is) found ***within*** each constituent element of the system, secondary contradictions ***between*** elements of one activity system, tertiary contradictions ***between*** the object or motive of an activity system and the object or motive of a 'culturally more advanced' form of the activity, and quaternary contradictions between the activity system ***and other*** activity systems to which it is linked.

In this study, *primary* contradictions exist within the elements of IHEs response shown in Figure 2.3. Additionally, "the primary contradiction (of an activity system) can be found by focusing on any of the elements of the activity system: 'a primary inner contradiction (double nature) within each constituent component of the central activity'" (Beatty and Feldman, 2012, citing CATDWR[1] 2003). This study concurs that elements of IHEs activity systems, including response, have inner, two-sidedness, polarity or dichotomy, a continuum within elements such as a positive or negative result for an HIV test.

Further, s*econdary* contradictions exist between the elements of CHAT, while *tertiary* contradictions lie between the motive/object of one IHEs response and those of culturally more advanced, and referred to as "best practices" (SARUA 2006, p. 33; HEAIDS 2010, p. 7) in national and regional IHEs responses. Lastly, *quaternary* contradictions mean the IHEs response systems in relation to other institutional and stakeholder systems to which they are linked, such as administrative, financial, academic/curricular and social systems.

On the other hand, Daniels et al. (2010) identifies not ***categories***, but three ***types*** of contradictions: *Conceptual* contradictions relate to the people/human or subject/community elements and how they think, conceive and develop ideas, plans and actions. *Functional* contradictions relate to the working elements, how one enables the other, and all work together in an activity system. *Material* contradictions means that which is important and needs to be considered in an activity, as in the response. Thus, drawing from the two fields of contradictions (Beatty and Feldman 2012, and Daniels et al 2010), this study probes further and proposes a new tool in a matrix, to identify and interpret, by ***categories and types,*** the 'expanded contradictions' for each and all of the three IHEs responses, exemplified and shown in Table 2.1 below:

[1] See: Center for Activity Theory and Developmental Work Research (CATDWR). http://www.edu.helsinki.fi/activity/pages/chatanddwr/activitysystem/

Table 2.1: Expanding contradictions in IHEs responses
Source: Adapted from Beatty and Feldman (2012) and Daniels et al (2010)

'Expanding contradictions' in IHEs response			
Categories of contradictions	**Types of contradictions**		
	Conceptual (of ideas, thinking, skills)	**Functional**	**Material**
Primary (within CHAT elements)	What key ideas within the subject/community influence the response in the selected IHEs?	What is not working within each of the elements of IHEs response?	What are the most important idea issues within each element of the response in IHEs?
Secondary (between elements)	How do subject's /people ideas influence their use of tools, rules and divisions of labour?	How can the functions between the elements be used to improve the response?	What key elements must be strengthened to improve how the response works?
Tertiary (motive/object of one IHEs to other more advanced)	How do subjects borrow from 'best practices' to improve their IHEs practices/responses?	What lessons can be drawn from best practices to improve the selected IHEs current response?	What key adaptations can be made to improve the current response in IHEs?
Quaternary (between the activity system and others to which it is linked).	How do the subject's ideas relate the response to other IHEs (admin, finance, academic and social) systems?	What contradictions are evident in how IHEs authorities and stakeholder's systems respond to AIDS?	What are the main cross-cutting contradictions in evidence across IHEs systems?

The probes in Table 2.1 will deepen the inquiry around contradictions in answer to the research questions, while interpretively analysing and learning new relations in the elements of the IHEs response's. The challenge with new forms of learning is contradictions (Langemeyer 2006, p. 1). He compares Holzkamp's (1993) "subject science of learning" and Engeström's (1997; 2001) activity theory, saying both "centre around an idea of expansive learning", and stress the "interrelation between individual learning processes and external development as a route towards extending action possibilities and one's power to act". In Langemeyer's analysis, Holzkamp sees contradictions as "an obstruction or hindrance for learning", while Engeström sees them as a "starting point for problem solving and development". In this study, the latter view is adopted, and the former is considered for how the participants may see challenges in the learning curve of the selected IHEs response's.

Table 2.1 notes that the contradictions invoke acting outside the norm, which can lead IHEs to change, innovate, transform in mind set and reformulate the object. The reformulation, as shown earlier, is the site of boundary crossing and the middle space between the fourth principle (Table 2.1 above) and Engeström's (2001, p.3) fifth principle of CHAT, which "…proclaims the possibility of expansive transformations in activity systems". An expansive transformation results from a change in the nature of the object in an activity system, influenced by two "interacting activity systems as [a] minimal model for the third generation of activity theory" (Engeström 2001, p.3). Due to transformations, the old activity can become new and demand new tools, rules and artefacts to be realised.

In conclusion, the sub-section links the five principles of CHAT, from collective, artefact mediated and object orientedness, to multivoicedness, historicity, contradictions and expansive transformations, by activity and interventions in IHEs response. The next sub-section explores how these principles affect the response, and the tools that can be used to measure its transformation and expansion.

2.3.2 Expansive transformations and the zone of proximal development (ZPD)

Following the principles of CHAT in IHE responses, and drawing on how contradictions influence expansion, this section shows how expansive transformations relate to the ZPD. First, it briefly compares and aggregates three definitions and views in chronological order. One by Engeström, and others by two CHAT scholars, thus:

> A full cycle of expansive transformation may be understood *as a collective journey* through the zone of proximal development of the activity: It is the distance between the present everyday actions of the individuals and the historically new form of the societal activity that can be collectively generated as a solution to the double bind potentially embedded in the everyday actions (Engeström 1987, p. 174).

In making a case for the ZPD in the response, the key words are "collective", "journey", "distance", "actions", "new form". However, the deciding one is "double bind potentially embedded". The double binds can be positives and negatives in a response; whether something is there or not, high or low, etc. The double blind thus causes contradictions and tensions, hence Engeström's (1999b, p.3), fifth principle sparks off a new chain reaction:

> As the contradictions of an activity system are aggravated, some individual participants begin to question and deviate from its established norms. In some cases, this escalates into collaborative envisioning and a deliberate collective change effort. An expansive transformation is accomplished when the object and motive of the activity are reconceptualised to embrace a radically wider horizon of possibilities than in the previous mode of the activity.

The IHEs have already had individuals and groups question their responses, looking at the large numbers of students they enrol, advising reconceptualization of wider, new interventions to fight HIV/AIDS. The fifth principle leads to a journey through the ZPD. Regarding the ZPD, a second note by scholars, Igira and Gregory (2009, p.442) states:

> The zone of proximal development known as ZPD is a core CHAT concept that is especially related to transformational learning. Vygotsky (1978) described the ZPD as the difference between what a person can accomplish when acting alone and what the same person can accomplish when acting with support from someone else and with culturally produced artefacts. Vygotsky put forward the concept of ZPD in the context of mass education and literacy campaigns in Russia in the 1920s for children and adults learning 'higher scientific concepts.'

The foregoing definitions have in common the idea of an individual acting with and within society, where 'collective effort' attains for society what one cannot attain alone. This is systems thinking. In IHEs, some individuals already question current practices. The third comment related to the two above, by Capra and Luisi (2014, p.65), notes that:

> …the emergence of systems thinking was a profound influence on the history of Western scientific thought, [adding] the belief that in every complex system the behaviour of the whole can be understood entirely from the properties of its parts is central to the Cartesian paradigm.

In addition to the Cartesian paradigm is a Cartesian individual and the Cartesian wall. The wall is characterised as an object by Mukeredzi (2009, p.71) stating; "Vygotsky's notion of mediation and learning in activity was driven by a desire to eliminate the Cartesian walls i.e. the separation of the mind and the world (intellectual and practical)". Separating the intellectual and practical affects how individual leaders in IHEs can influence change in the responses. The

second part of the relationship between expansive transformation and ZPD is "new form of activity" and "reconceptualization", as Igira and Gregory (2009, p.442) note:

> Yet, at the heart of the ZPD, Vygotsky emphasised the transformation of knowledge that occurs when someone internalises concepts, in contrast to notions of 'transfer' or 'transmission' in rote learning. Subsequently, Kuutti (1996) and Engeström (1999b), among others, advocated for a broader understanding of the scope of the ZPD to include peer-to-peer and multi-disciplinary learning beyond expert-to-novice and apprentice-novice modes of learning.

The multi-disciplinary mode of learning recognises that to achieve transformation on a collective object, expansion to other broad areas of human activity must occur. Having explained 'expansion' in the response, the next sub-section shows how to use CHAT as an analytic tool/lens based on Engeström's (2001, p.7) "zone of proximal development".

2.3.3 Zone of proximal development (ZPD) in IHEs' responses

The purpose of this study is to interpret and qualitatively analyse the responses to HIV and AIDS of three selected IHEs in Lesotho, using CHAT as an analytic lens. Noting Igira and Gregory's (2009) affirmation of the zone of proximal development as a core CHAT concept closely related to transformational learning, applying ZPD in this study gets to the core of interpretive analysis of the response. Vygotsky (1978) views the zone of proximal development (ZPD) as simply another tool to analyse child and institutional learning and development, and Bredikyte and Hakkarainen (2010) admit that it is notoriously difficult to apply in general learning. This is true in this study. The authors (ibid, p.3) add that "an enigmatic and difficult aspect of the ZPD in western psychology and education is the social dimension of learning and human development", with school learning and problem solving the most referred context of ZPD. Vygotsky (1978, p.86) defines ZPD as:

> …The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers.

When applied to IHEs responses, its actual development levels will be assessed for how far they confirm each IHE's ability for independent problem diagnosis and solving. This will be evidenced by the peer's scores and rankings on the WHO's (2004b) quality standard. Vygotsky

(1978) adds that ZPD defines functions that have not yet matured, saying they could be called the "buds" or "flowers" rather than the "fruits" of development. (ibid, p.86).

Typical for the three IHEs in this interpretive study, the ZPD offers a qualitative measure; the virtual 'distance' between 'actual' and 'desired' positions in learning and development. The evidence will affirm if or not the IHEs are "budding" or forming "flowers", or have reached "fruition" fighting AIDS. To illustrate the IHEs' ZPD one can use a hybrid of Vygotsky's and Engeström's ZPDs. Engeström (1999b, p. 67) defines ZPD as:

> ...an area between actions embedded in the current activity with its historical roots and contradictions, the foreseeable activity in which the contradictions are expansively resolved, and the foreseeable activity in which the contradictions have led to contraction and destruction of opportunities.

The area parameters for measuring ZPD imply that it is doable through a set of tools. The next sub-section assesses a selection of methodological tools useful to interpret the journey through ZPD that can apply in a response such as with the three IHEs.

2.3.3.1 Selected methodological tools to interpret the ZPD

This sub-section avers that expansive transformation is a process, and ZPD is the proportion of space occupied by components of an activity. ZPD can be qualitatively measured using Igira and Gregory's (2009, p.444) four "methodological approaches". The first of these is:

i. ***The Change Laboratory (CL) tool***

In using CL to measure ZPD, and based on the work of Engeström (1987); Engeström, Virkkunen, Helle, Pihlaja and Poikela, 1996), this tool has two stimuli in it, described thus:

> The *first* stimulus is provided by showing the participating practitioners 'mirror data' from their everyday work. The *second* stimulus focuses on …model of activity for which a zone of proximal development (ZPD) is defined for potential transformational learning. ...devices and procedures such as templates, diagrams, diaries and calendars (to summarise important events).

The Change Laboratory relates to this study by mirroring data from each IHE, based on WHO's (2004b) standard to qualitatively rate the IHEs' response *functions* as 'good', 'fair' and 'poor'. Thus, a ZPD map can be drawn for each IHE. The second tool is activity list.

ii. ***The Activity Checklist***

In this approach, the analytic model by Igira and Gregory (2009) states:

> Kaptelinin, Nardi and Macaulay (1999) developed an Activity Checklist that makes concrete the conceptual perspectives of CHAT for early phases of systems design and for evaluating …there are two slightly different versions of the checklist: the "evaluation version" and the "design version."

In this study, the WHO Standard (2004b) is thus adapted as an Activity Checklist, using information as a mediating tool with four perspectives, as follows:

- **Means and ends*:*** how far technology facilitates, constrains goals and resolves conflict;
- **Social and physical aspects of environment*:*** integrating technology with needs, tools, resources, and social rules;
- **Learning, cognition and articulation:** to distinguish internal and external parts of activity for transformation;
- **Development**: to develop and transform activity whole.

These descriptions connect with the IHEs' social environments and integrate the object with the tools and rules among other components, as in CHAT. The approach is applicable in various ways, but more so for information systems (IS), as will be shown in the findings.

iii. ***Activity Analysis and Development (ActAid)***

This approach to measure ZPD was developed by Korpela (1999) and is the brainchild of Engeström's expansive cycle of learning. It comprises four main activity areas, namely:

- **The identification*:*** of constitutive elements, components, relations of the activity to be supported by IS;
- ***A* checklist of questions to guide structural analysis*:*** links components, the identified and other activities, and the wider context in which it occurs;
- **Developmental analysis** *(*participants focus on improving activity*):* it has three phases:
  History: how activity, networks etc. have emerged and developed to date;
  Problems: assesses weaknesses, relations, imbalances within and between elements;
  Potential: strengths, possibilities in dynamics within and between components of activity and historical context;
- **Disseminating results***:* evaluating the process and initiating a new start.

The ActAid tool for ZPD closely relates to and has components akin to the third generation of CHAT. This connects to objects, rules, tools, etc. It includes history, a principle of CHAT and ends with disseminating results from an evaluation; linking them with an outcome.

iv. Activity Oriented Design Method (AODM)

This measure was developed by Mwanza (2002), and is based on Engeström's expanded Model of Human Activity. Its design is based on what the subjects do. It can apply to IHEs drawing from what subjects do in the course of work in campus clinics.

In conclusion, the above four methodological approaches provide links with CHAT to measure the ZPD. They relate to the key models of the WHO (2004b) Standards, IS, services and other peripheral models and theories, as will be evidenced in this study. As subjects act on objects, using specific new tools, developing and applying rules to address specific community needs, expansive transformations and ZPD are inevitable. The two concepts are ready for use as sub-lenses of CHAT and will be referred to in critiquing CHAT, next.

2.4 A critique of CHAT as a theoretical frame

This section critiques CHAT based on other scholar's work. Its purpose is to identify the strengths and weaknesses of CHAT in order to apply caution and build an objective analytic plan for the selected IHEs response. Having dedicated an entire chapter to CHAT, van der Riet (2009, p.46) began the chapter thus:

> In this chapter I argue that the philosophical and methodological premise *of Cultural-Historical Activity Theory (CHAT)* (with footnote in original work) potentially provides an alternative and significant conceptualisation of behaviour which has implications for understanding behaviour change in the field of HIV and AIDS.

Similar to van der Riet's (2009) study (on production of context), this study re-conceptualises activity, with implications on subjects' behaviour in IHE responses. Despite its diversity in work activity, defining CHAT is elusive. Van der Riet (2009, p.46) states:

> There is no single, coherent, account of Cultural-Historical Activity Theory (CHAT). Chaiklin (2001) refers to CHAT as "weakly institutionalised" by traditional standards of scientific institutions. It is not a cogent body of knowledge, nor a clearly articulated set of ideas that relate as a theory. One cannot read one single text about activity theory because it is not only a theoretical perspective in the sense of a psychological theory,

> but also a set of metaphysical and epistemological assumptions for how to frame and investigate psychological problems.

Although fuzzy, this is a very well captured view of CHAT for the purpose of this study – to interpret and qualitatively analyse the responses to HIV/AIDS of three selected IHEs in Lesotho. Some critiques, e.g. Kaptelinin, Kuutti and Bannon (1995) do not define CHAT. Van der Riet (2009, p.72) says it "rejects a cause and effect relationship between the individual and context". Blin and Munro (2007, p.77) compare two sources: "cultural-historical activity theory draws on Vygotsky's (1978) concept of mediated action *and* on Leontiev's hierarchical structure of human activity", which moves to outcomes by artefact mediation, IHEs hierarchy and subject's activity. One view by Leontiev (2002, p.58) is:

> **Activity theory** is neither an alternative to **cultural historical theory**, nor, strictly speaking, its offspring. The same theoretical ideas and propositions appear as a part of cultural-historical theory, on the one hand, and as part of activity theory on the other.

The distinction separates activity theory from cultural historical theory, and guides this study to expand its critique of CHAT. Kaptelinin (2005, p. 180) states that the first postulate of Soviet era psychologists was the "principle of unity and inseparability of consciousness (i.e. the human mind) and activity." Other users of CHAT define it by what it does. Bertelsen and Bodker (2003) see activity theory as a descriptive/meta-theory to analyse relationships, activity systems, actors and their goals. Shaba (2009), Worthen, (2011) and Mukeredzi (2009, p.266) affirm the adaptability of CHAT, and the latter specifically states "all sorts of different domains and levels". In the next paragraph, however, she bemoans its main weakness, that it:

> …tends to generalise without looking 'in' the activity to see exactly how professional development occurs within collective engagement in the domains and levels. The model does not differentiate between different kinds of activities. In other words, any activity may be placed within the model.

Because of the depth of the foregoing, a further critique of CHAT is not necessary. The critiques and drawbacks make CHAT easier to use for its fewer shortcomings and greater adaptability. Thus, Mukeredzi's (2009) identified need for CHAT to get "in" justifies the incorporation of the WHO Standard (2004b), Services mix and IS models, with bits of curriculum, self-care, transformative learning theories, concepts and models in a mosaic of in-depth interpretation of the IHEs' responses.

2.5 Expanding CHAT - a synergy of theories, models and concepts

Based on the above critique, which finds that CHAT does not get "in" (Mukerdzi, 2009, p.266), this sub-section provides a base of realistic and reasonable avenues into which the study will expand to get inside the IHEs' responses. It justifies why CHAT "incorporates" a synergy of theories, concepts and models (Mukeredzi 2009, p.288). True to the five principles of CHAT, the synergy draws on collectiveness, multiple, perspectives, opinions and expansion to refine the interpretative analysis of response. The three key ones are:

i. The WHO Standards of Health (2004b), which helps to enter the specifics of the health functions that exist in campus clinics and be a reference thereof;

ii. Zeithaml and Bitner's (2000) Seven-Ps of services marketing to relate product, price promotion, place, physical evidence, process and people in IHEs' responses;

iii. Checkland and Holwell's (1998) information systems (IS) used as a basis for the design and application of data and information systems across the IHEs.

This synergy of theories is amenable to the qualitative triangulation techniques used in the methodology. Lewis and Grimes (1999, p. 672) say synergy creates a "vibrant field", with "diverse theoretical views" to enrich an understanding of "organisational complexity, ambiguity and paradox". This is especially the case in multifaceted, multi-disciplinary IHEs.

The purpose of incorporation is to build 'knowledge' using CHAT 'concepts'. Engeström (1987, p 201) explains; "concepts are best thought of as theoretical knowledge or, at least, as embedded in knowledge that embodies a theory", citing Murphy and Medin (1985, p.298). Concepts exist in theories, which Dimitriadis and Kamberelis (2006) say explain events, generalise objects or cases, and predict trends and outcomes. Although the synergy is not of paradigms despite the interpretive one in this study, Lewis and Grimes (1999, p.673) warn:

> ...Some functionalists lament the 'anarchy' of paradigm proliferation, advocating a dominant paradigm to enhance the scholarly and political influence...for 'anything-goes' strategies more in tune with eclectic organisational discourses (e.g. Feyerabend, 1979; Deetz, 1996).

The caution applies to this study; the "anarchy" could be worse with multiple theories, models or concepts. To avert anarchy and an "anything goes" approach, this study carefully selects and links models realistically with one another, to get "in" (Mukeredzi 2009, p.266) deeper into specific areas in building a new theory for IHEs response. The next sub-section highlights the main ones and some of the lesser incorporated theories and models.

2.5.1 CHAT and the W HO Standard of Quality for Healthcare

This sub-section incorporates the WHO's (2004b) Proposed Standard of Quality for Health Services, based on CHAT fifth principle and Lovelock et al. (2011, p.19) definition of quality as "the degree to which a service satisfies customers by meeting their needs, wants and expectations". The WHO Standard is frequently referred to in this study and is interchangeably called the 'WHO Standard', the 'WHO QA model', the 'WHO Quality Standard', or simply as 'the Standard'. It is interrelated with CHAT to align and refine the lens to study the response. Its components are the strategies that exist in the IHEs' clinics and can be qualitatively linked to assess the extent of their achievement in the findings.

Table 2.2: WHO Proposed Standards for Health (2004b) [2]
Source: WHO (2004b)[1]

Category	Functions	Availability (Yes / No)	Performance: (Good/ Fair/ Poor)
Functions related to health care delivery (CHAT: object, rules)			
A	HIV testing, counselling and referral		
B	Management of opportunistic infections (incl. TB)		
C	Provision of anti-retroviral therapy		
D	Support for adherence to treatment		
E	Prevention of mother-to-child transmission of HIV		
F	Palliative care		
G	Rights of people with HIV/AIDS, reducing stigma		
Functions related to links with communities (CHAT: community, activity)			
H	Community links		
I	Promoting health and preventing and treating disease		
Functions related to service delivery (CHAT: subjects, divisions of labour and artefacts)			
J	Leadership and human resource management		
K	Management of drugs and supplies		
L	Laboratory management		
M	Management information		
N	Financial management		

Table 2.2 shows the general relationships between components of the WHO Quality Standard and CHAT. First, the functions A to G relate to health delivery and mainly cut across object, rules and process. The functions H and I relate to community and activity, while functions J to N relate to subjects, divisions of labour and artefacts. These functions are assessed at the findings stage for each IHE. The tool features these WHO and CHAT components as services which are checked off for availability in one column, with qualitative rankings for current

[2] A disclaimer to the WHO Proposed Standards (2004b) states: These proposed model standards do not intend to exclude or suspend any health facility that does not meet all of them, especially in the resource limited setting, but should be used to improve the quality of the facility.

performance in the next. The WHO Standards (2004b, p.8) uses seven principles, but two of these closely connect with CHAT. They read thus:

> **Second:** HIV/AIDS prevention should be part of a comprehensive HIV service delivery including the promotion of safe sex and condom use, interventions to reduce the mother-to-child transmission of HIV, harm reduction and universal precautions for health care workers.

And another,

> **Seventh:** Human, logistic, and financial resources are considered in the design of HIV/AIDS programmes and services so that they are sustainable.

Observing these two principles, each of the WHO Standards is identified by what it is, its history and current status based on the IHEs document reviews, FGDs and KIs inputs. This generates two types of data: One is qualitative data for rankings 'good', 'fair', 'poor' and/or 'not applicable'. The second is numeric, quantifiable data as numbers of students tested or linked to treatment. The numeric data however, do not cause this to be a mixed methods study (Creswell 2003) but it supports "concurrent procedures, in which the researcher converges quantitative and qualitative data in order to provide a comprehensive analysis of the research problem" (ibid, p.16). Both sets of data will be used in a comparative qualitative analysis in later chapters. The next sub-section covers the role of services marketing.

2.5.2 CHAT and the expanded services marketing mix

This section covers the second concept incorporated with CHAT in this study: services. Services is a conceptual tool, mediator or enabler, herein based on Kotler et al (2009) Four-Ps, expanded by Zeithaml and Bitner's (2000) to Seven-Ps of services marketing mix, the characteristics of services, the marketing triangle, and the Gap Analysis model relating to the IHEs' responses. Other aspects of services are drawn from the general works of Abel-Smith (1994), Daniels et al. (2010) and Preece (2011) among others, whose discussions on health care, community engagement and networking justify the IHEs' services against HIV/AIDS.

2.5.2.1 What are services?

The concept of services is used in this study based on Kotler's (cited in Zeithaml and Bitner 2000) 7Ps of marketing. In general, a service is an action to satisfy a felt need. Be it self-service at an individual level, or for the collective, it must be a form of human interactive activity or interface. Services are defined as "deeds or acts" by Zeithaml and Bitner (2000, p.3). The

authors add: *"*in simple terms, services are deeds, processes and performances*".* Quinn et al. (cited in Zeithaml and Bitner 2000, p.3) state that services:

> ...include all economic activities whose output is not a physical product or construction, is generally consumed at the time it is produced, and provides added value in forms (such as convenience, amusement, timeliness, comfort, or health) that are essentially intangible concerns of its first purchaser.

In this study education is seen as a broad tool to provide knowledge, promote healthy attitudes and practices in its customer care. Goffin and New (2001), define *customer support* as product support, after-sales service, technical support or simply service. It is seen as a service in support of a company's core products, and "can provide a competitive advantage" (ibid, p 3), hence in IHEs, customer service is given to support the core service. Services require planning, and Abel-Smith (1994, p.47) asserts that "a distinction needs to be made between planning health in its broadest sense and planning health services". This study will assess and interpret the planning and execution of the IHEs' healthcare in fighting AIDS. The next sub-section links CHAT to services to augment the theoretical frame.

2.5.2.2 CHAT and Seven-Ps of services marketing mix

The purpose of this study to interpret and qualitatively analyse the responses to HIV/AIDS of three selected IHEs in Lesotho, using CHAT. Hence, there is need to refine the methodology by interlinking CHAT to the IHEs' responses and to the Seven-Ps of services marketing mix at the outset, as shown in Table 2.2 below and in the discussion that follows:

Table 2.3: Relating CHAT, IHEs' components and Seven-Ps of services mix
Sources: (CHAT: Engestrom 1999b; Service mix: Zeithaml and Bitner 2000; IHEs response components: Maraka (2008). Source: Researcher (2015)

CHAT	Components of IHEs' response	7-Ps of Services Marketing
Subjects	IHEs' leaders, HTS managers,	People (key personnel)
Object	HIV/AIDS	Product (individual/collective status of HIV)
Community	IHEs' students, staff, public	Place (locality)
Artefacts	IHEs' clinics	Physical evidence (clinic, records, drugs, etc.
Rules	Acts, laws and IHEs policies	Promotion, price
Division of Labour	IHEs' management: top, middle, operational	People (via roles, responsibilities of subjects)
Activity	IEC, HTS, advocacy, etc.	Processes
Outcome	Low HIV prevalence, zero new infections	Product (of IHEs interventions)

Table 2.3 shows how the eight CHAT components relate with the Seven-Ps in several viable, cross-cutting ways. However, for the stated purpose of this study, the main relationships are:

i. ***Subjects as people***

While CHAT has *subjects* as the first of eight components, these are people (vice chancellors, directors, managers, nurses, HTS providers, AIDS coordinators) who are represented by the seventh P. Both Zeithaml and Bitner (2000) and Lovelock et al. (2011) see people both as service providers and as customers. As service providers, Lovelock et al. (2011, p.1/2) states:

> A highly structured approach to staff recruitment, training and development is the natural starting point. 'It all starts with getting the right people,' says the general manager. 'You can teach skills, but what really comes across, especially to business people, is attitude.'

Evidently it is not enough to have people; they must have the right attitude, or even the best service design can disappoint. Thus the role of people is ultimately key to the Seven-Ps.

ii. The object as a product

The first of the Seven-Ps is 'product'**.** This is that which is acted upon (Engeström 1999b) i.e. HIV/AIDS and products can be viewed as failures, where IHEs fail to show a reduction in disease prevalence in a given year. In the IHEs' response, product equals the desired outcome of reduced HIV incidence/prevalence.

iii. ***Community as place***

The fourth of the Seven-Ps is 'place'**,** and as community it relates across IHE students, external citizenry and is the "place and time" in Lovelock et al. (2011, p. 18) version of the marketing mix. It means the location in which communities (e.g. IHEs and key stakeholders) exist and work together in the response. In another context of CHAT, place would be a mediational tool which enables acting on object.

iv. ***Artefacts as physical evidence***

Artefacts cut across physical evidence such as signage, billboards, health clinic buildings, equipment, money, medications, records, etc. Physical evidence represents key tangibles for service marketing, as will be shown in the findings in the next sub-sections.

v. ***Rules as promotion and regulatory elements***

In CHAT rules are promotional tools, policies and testing protocols, and they provide the price or cost of care. The 'price' is a mediational tool (finance) with which IHEs subsidise health care to students, staff and external communities.

vi. ***Division of labour as a people aspect***

The component lies within IHEs' organisational hierarchies and job descriptions. It is inherent in the specific roles, again of,subjects/people. Citing Urden et al. (2008), Mukeredzi (2009, p.79) notes that "the subject-community relationship is mediated by rules and division of labour". This implies that components of CHAT influence and are themselves influenced by more than one factor in the multi-faceted response, or activity system.

vii. ***Activity as a process***

This relates to "the actual procedures, mechanisms, and flow of activities" (Zeithaml and Bitner 2000, p.21) and process of promotion of HIV testing, creating awareness, testing, counselling, consultations, reporting and monitoring and evaluation, among others. Much of the health resources are invested in processes or activity, which will form the basis for the findings in the next chapters.

viii. ***Outcome as a product***

The final output of activity is outcome, such as behaviour change, improved practice, sustained HIV 'negative' status, "zero new infections" (UNAIDS 2010) or healthy living, and applies to individuals and collectives. It is the very purpose for which subjects act on the object, with a view to transforming it. In IHEs' responses, the outcome is the desired zero prevalence, zero AIDS-related deaths and zero discrimination among communities.

In conclusion, although CHAT matches the Seven-Ps well enough for the purpose of this study, it duplicates others according to Daniels et al (2010) conceptual, functional and material aspects of contradictions. Zeithmal and Bitner (2000) and Lovelock et al. (2011) use people, for example, interchangeably as customers and as service providers. Lovelock et al. (2011, p.19) ushers an Eighth-P of services - productivity and quality, noted for its definition:

> Productivity relates to how inputs are transformed into outputs that are valued by customers, while quality refers to the degree to which a service satisfies customers by meeting their needs, wants and expectations. (Lovelock et al. 2011, p.19)

It can be argued that productivity and quality are cross-cutting themes in Zeithaml and Bitner's Seven-Ps, and that production and quality depend on the object and activity at hand. Thus, this study stays with the Seven-Ps and uses Lovelock et al's Eighth-P as a cross cutting and not a stand-alone one. What are the main features or characteristics of services?

2.5.2.3 Characteristics of services

The characteristics of an object are its make-up, behaviour and relationships with others in its environment. Services are not an exception. Zeithaml and Bitner (2000, p.12) differentiate goods and services, showing scales in their characteristics. The following key ones are selected for the purpose of this study:

i. Tangibility vs intangibility spectrum

Zeithaml and Bitner (2000) note that unlike goods, services are intangible, that is, one cannot touch them. Whereas the HIV test provider touches the client, uses a testing protocol and a lancet to extract a blood sample, the test itself cannot be touched, felt or transferred. Similarly, an HIV testing session is not tangible, and a lecture which exchanges knowledge between teacher and student is neither countable nor tangible.

ii. Standardised vs heterogeneous spectrum

Lovelock et al (2011), citing Sasser, Olsen and Wyckoff (1978), affirms that services cannot be standardised. This means that while two services providers cannot provide exactly the same standard or quality of service, also no two customers can be the same in their demand or expectation of a service, even on the same day or setting. In IHE settings, student customers cannot equally perceive services, hence this has implications for providers to suit each customer depending on their varying expectations in transacting the service.

iii. Production separate from vs production simultaneous with consumption

Zeithaml and Bitner (2000) stress that simultaneous production and consumption implies that clients are present, alone or with other clients when the service is provided. It means that the provider becomes part of the service they offer to customers, hence IHEs must understand the

implications of the simultaneity of, for example, a lecture or HIV testing which are produced while consumed. It has implications for real-time performance, precision and quality.

iv. ***Non-perishable vs perishable***

This characteristic means that services, unlike goods, cannot be stored and retrieved for later use. Perishability means that a missed counselling session cannot be transferred or given to another customer. The implications affect both the client and service provider. For example, the time wasted on the client's promised services can never be recovered.

2.5.2.4 The services marketing triangle

To describe the triad of key influences in services, Zeithaml and Bitner (2000) borrow from Bitner's (1995) work to present a triangulated model of services marketing, as in Figure 2.5.

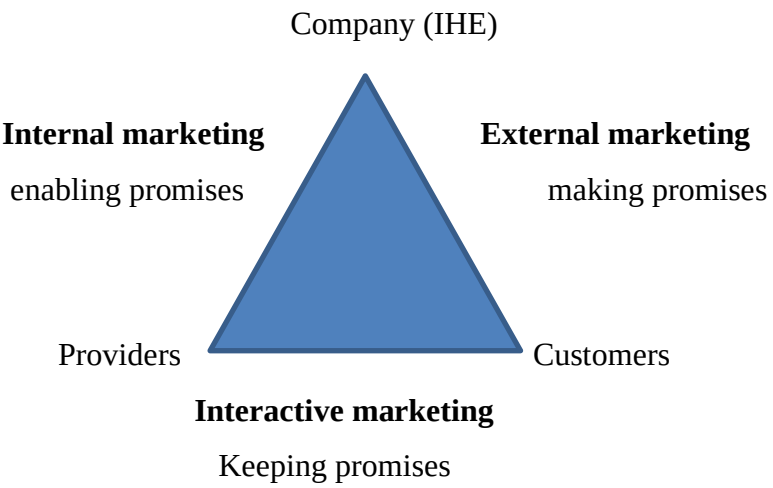


Figure 2.5: The services marketing triangle
Source: Adapted from Zeithaml and Bitner (2000, p.16)

In this model, the apex represents the company (IHEs) providing the service. Three modes of interaction are described. The first is *internal marketing*, which 'enables' service promises to be made and occurs between the company (IHEs) and outsourced providers (New Start, LPPA and PSI). The second is *external marketing***.** It 'makes' promises and occurs between the company and its customers. The third is *interactive marketing* which 'keeps promises' between providers and customers by providing and receiving services. Reflecting on the relationship between CHAT and the Seven-Ps, this is an opportunity to show how gaps in services delivery are evident by using the gap analysis in services marketing.

2.5.2.5 Gap analysis in services marketing

Despite the fit between CHAT, IHEs' services and Seven-Ps gaps can persist. Zeithaml and Bitner's (2000, p.26) gap analysis - the customer gap - is: "the difference between customer expectations and customer perception of service". From a CHAT perspective, the customer gap analysis is a tool to define gaps in the response using four types of smaller gaps, namely:

> Gap 1 - not knowing what customers (community or subjects) expect.
> Gap 2 - not selecting the right service design/standards (poor mediating tools).
> Gap 3 - not delivering to service standards (no division of labour).
> Gap 4 - not matching performance to promises (not achieving outcomes).

Given the shortfall of CHAT highlighted above; related to its failure to get "in" (Mukeredzi 2009, p.266) and go beyond the analysis of generic responses or contradictions therein, this model helps to assess the nature of delivery gaps in IHEs responses. It locates subjects/people as key to the 'activity' of transforming 'objects' and connects with the third mission of universities (Preece 2011) by ensuring availability, affordability and accessibility of services.

2.5.2.6 Services availability, affordability and accessibility

Other than Zeithaml and Bitner's (2000) Seven-Ps and gap analysis models, this sub-section discusses three concepts and the rationale for their application in the IHEs' responses. Bakhit (1994) cites availability, affordability and accessibility in one study as interdependent, thus:

i. Availability

Availability means being there, existing or ready to use. Although services can be accessible, they may not be available. For example, a clinic can exist but if it is closed due to its hours of work (HEAIDS 2010) or lacks qualified personnel (SARUA 2006; HEAIDS 2010; Association of African Universities (AAU) (2010) the service promise is defaulted. Availability is the main challenge in IHEs' response.

ii. Affordability

In a discussion on the effects of privatization and costs of services, Lovelock et al (2011, p.1/19) notes that "the result may be to deny less affluent segments the services they need at prices they can afford". Lovelock et al (2011, p.1/19) applies "afford" to a discussion on productivity and quality in a general tone: "no service firm can afford to address either element in isolation". SARUA (2006, p.36) finds "there are no VCT or treatment facilities available on

campus, and students are obliged to make use of private facilities" in one university. The immediate implication of this scenario is high costs of care and unaffordability for students.

iii. Accessibility

As part of WHO Standard (2004b), access to care has stages. It is defined as a noun which means a way of entering a place or service point. As a verb it means to reach, enter or use something'. Although Guagliardo (2004) emphasises spatial accessibility saying travel averts challenges, service complexities are bigger than just arriving at a clinic. However, access is more a means than an end. Takahashi, Candelario, and Mediano (2007) associate capacity in human skills, artefacts and attitudes with access. Warner-Smith et al. (2009) examine the UN's (2001) Declaration of Commitment on HIV/AIDS: Global crisis - global action. They find capacity and commitment as central to efficiency and access. What about IS in IHEs?

2.5.3 CHAT and health information systems (HIS)

Of interest in this section is Igira and Gregory's (2009, p.442) view that "CHAT has been taken up by researchers in diverse fields that have relevance for information systems (IS) research". It thus incorporates IS with CHAT, drawing from Checkland and Holwell's (1998, p.11) illustration (Figure 1.1) of a "learning cycle in which theory and practice create each other". They exemplify IS work in the language of the Process for Organisational Meaning (POM) model. It includes "data oriented pragmatic concerns", "activity oriented pragmatic concerns", "socio-technical approaches" to information systems design (ISD), end-user computing and "work-force-oriented" approaches. These IS applications augment CHAT tools, through Engeström's (1999a; 1999b) object-oriented guidance on issues, ways and "methods" Mukeredzi (2009, p.12) of approach. Hashim and Jones (2007, p.11) state that:

> …the key attribute of activity theory is its focus on argumentative (dialectic) analysis on the interaction between people (human) and their mediated tools or artefacts (purpose) which have been shaped by human activity (technical elements).

To answer the research questions in this study, a mediating language is required between the IHEs' responses and CHAT. That code is data from clinic registers, which becomes information. Checkland and Holwell (1998, p.13) add purpose to information, saying:

> …all real world 'management' problem situations have at least one thing in common: they contain people interested in trying to take purposeful action. The idea of a set of activities linked together so that the whole set, as an entity, could pursue a purpose was

> taken to be a new kind of system concept, called a 'human activity system'. Ways of developing and naming such systems were developed.

Perhaps one of these systems is CHAT. The authors (ibid) suggest that IS is an unavoidably necessary tool in health care and education systems. So concur Willcocks, Fitzgerald and Lacity (1996), for it is a tool of mediated human activity. IS has primary tangible features, externally or physically, and secondary features with internal, semiotic and/or mental activity, as well as tertiary level schematics where mind meets culture and they act together in an ecosystem. CHAT accommodates IS tools through subjects, object, artefacts, division of labour, community, process and outcome and can be 'incorporated' and linked to service to interpret broad fields of activity. This study will apply IS to inform response activity such as aggregate age and gender specific HIV test rates per month. Azbel et al. (2017) argue for evidence in a prison setting response. The availability and comparability of data or evidence is thus the basis of decision making using IS in the IHEs' responses.

2.5.4 CHAT and the IHEs' curriculum

Other than the WHO Standard, the Seven-Ps of services and IS, a peripheral incorporate to CHAT is a tool in education called curriculum. Its activity is teaching and learning. The subjects (educators) act on collective (students') knowledge (object), with outcomes of transformation from current to desired skills. Transformation refers to Mezirow's (1991) theory in the response. In the only mention of 'schools' in the WHO Standard (2004b), this means education "related to promoting and preventing disease to people living with HIV/AIDS", and provides in (c) "…the education is provided in schools, workplaces and other settings within the community" (ibid, p.19). This means education in the WHO Standard focuses on health promotion and is not examinable. This study will assess the incorporating of AIDS into the curriculum, about which Kelly (2002, p. 34) argues:

> Programmes that include HIV/AIDS in the curriculum face the problem that their listeners hear messages at different levels…educational programme itself with its scientific messages about the cause of HIV/AIDS and how it is transmitted.

Kelly (2002, p. 34) criticises this approach as notional, academic and superficial and unlikely to have impact because it relates to human behaviour. On the other hand, Kelly (ibid) says:

> Much deeper and more influential is the traditional view that interprets the disease and its causes in terms of the cultural world of taboos, obligations, and sorcery.

Between these two views lie opportunities for the IHEs to address both scientific and traditional views of AIDS. As such, taboos, obligations and sorcery can co-exist in IHEs. The curriculum is handy for expansion, and will be assessed for its prospects to include HIV/AIDS in each one and later all three IHEs.

2.5.5 CHAT and the planning of health services

CHAT does not specify services, IS, curriculum or planning models. This study borrows from Abel-Smith's (1994, p.47) model of Planning Steps to interpret the response by showing some of the relationships between planning and CHAT, as in Table 2.4.

Table 2.4: CHAT and Planning Steps
Source: Adapted from Abel-Smith (1994)

Step	Abel-Smith's planning steps	CHAT interpretation
1	Knowing where you are;	Subject
2	Deciding quantitatively where this is possible, where you want to go and how to get there;	Object
3	Deciding how far you can hope to go towards your target in a period of time (five to ten years);	(Investing in) tools, rules and division of efforts to enable the how in step 2
4	Trying to get there in the time period	Activity
5	Regular evaluation to see how far you have got, where you are not on target, and how you can do better in future;	Outcome
6	Amending the implementation plan	Expansion, contraction?

The three IHEs' planning steps are assessed later in this study against the Government of Lesotho (2000) national AIDS strategic plan, the Ministry of Education (2007) education strategic plan, and the Council on Higher Education (2007) actions against AIDS. As such, knowing where you are will mirror tools used globally to set national response targets such as the UNAIDS (2014) three-nineties (3x90) strategies (see Table 1.2), in the IHEs' own context. The next step; deciding how far you can hope to go**,** represents resource availability and use. Trying to get there means the actual activity; expending resources to provide services. Regular evaluation to see how far it has gone uses cumulative experience to expand or contract response resources and processes. Amending the implementation plan means re-conceptualising activity and or "re-contextualising" Engeström (1987, p.29) of the response.

This tool cuts across global policies ratified by Lesotho, such as the UN (2000) MDGs, the UNAIDS' (2014a) 3x90s, UN (2015) Sustainable Development Goals (SDGs) and the African Union (AU) Agenda 2063 as some of the benchmarks in health and education. The tools

comprise indicators on which to base the performance of the three IHEs. The next sub-section highlights qualitative comparative analysis (QCA) and how it applies in this study.

2.5.6 CHAT and qualitative comparative analysis (QCA)

This study is a case study of three IHEs in Lesotho. This sub-section presents a qualitative comparative analysis (QCA), for its close match with the qualitative, interpretive and comparative design and with CHAT in this study. Berg-Schlosser et al. (2009, p.2), say:

> ...the foundations of QCA date back to …J.S. Mill, and in particular to Mill's "canons". The logical foundations for this method were laid by Hume (1758) and, in particular, J. S. Mill's (1967 [1843]) "canons." Among these, the "method of agreement" and the "method of difference" are the most important.

Although Berg-Schlosser et al. (2009) work substantially over QCA, this sub-section shows only salient aspects of QCA in relation to CHAT. First, "QCAs precisely identify and narrow down such 'conditions of occurrence'" and "the techniques are important tools for reducing the enormous complexity that we routinely confront in the social sciences" (ibid, p. 12). Second, complexities such as the lack of tools, rules, etc. must be narrowed down to a few "generalisations" (Berg-Schlosser et al. 2009, p. 12).

These features of QCA are the basis of the comparison of the three IHEs' responses, using the UN equivalent of the WHO Standard to rate the responses as "poor", "fair" or "good", firstly at an individual and secondly at the collective IHE levels. QCA is a fertile source of qualitative comparative analytic resources, both in relation to CHAT and the purpose of this study. It reduces complexities to reveal significant factors. As CHAT is a multi-voiced, multi-faceted theoretical tool it goes with QCA, the WHO Standards, services, IS and planning. It is however, only cited for its close links and remains peripheral to the models used in this study.

2.6 Conclusion

This chapter shows the origins, generations of and adopts CHAT as the principal framework. It draws from the works of Vygotsky, Leontiev and Engeström over the three generations of the framework. Although the researcher finds CHAT to be fit for purpose in this study, the chapter reveals a growing restlessness with CHAT. Mukeredzi (2009) says it does not go "in" to the deeper aspects of a study" while van der Riet (2009) calls for a "fourth generation" of CHAT. These two influential observations call for an expansion of CHAT, and this study borrows from this vision. It expands the inquiry by incorporating a selection of models and

concepts, namely the WHO Standard, the services marketing mix, IS, planning steps and QCA, all of which interlink with and undoubtedly work with CHAT.

As indicated earlier, the incorporation is based mainly on the second and third generations of CHAT, for specificity with each one and the synergy that both can yield. In this study this occurs in two phases. One recognises ZPD as an inner, diagnostic sub-lens of CHAT; a journey that begins with expansive transformation due to a force-field of "two interacting activity systems" (Engeström 1999, p.2). The second is Engeström's (1999, p.67) definition of ZPD as a qualitative diagnosis of the extent to which an activity system is "embedded in current activity", amidst "contradictions and contractions that destroy opportunities" versus the "resolution of such contradictions" to a new state of activity.

Thus, expansion, transformation and ZPD are merely tools to interpret and master qualitative transformations based on the value of incorporated models, theories and concepts. Incorporation is doable and acceptable, yet fraught with challenges linking it to CHAT. How to overcome that is guided by and covered in the next Chapter Three, the literature review.

CHAPTER 3 – LITERATURE REVIEW

3.1 Introduction

The purpose of this study is to interpret and qualitatively analyse the responses to HIV/AIDS in three selected IHEs in Lesotho. This literature is based on Bhattacherjee's (2012, p.121) view that:

> The purpose of a literature review is three-fold: (1) to survey the current state of knowledge in the area of inquiry, (2) to identify key authors, articles, theories, and findings in that area, and (3) to identify gaps in knowledge in that research area.

The literature focuses on HIV/AIDS as the object acted upon, in Engeström's (1987) third generation of Cultural Historical Activity Theory (CHAT). The case study is three of Lesotho's IHEs, and the chapter is divided into seven sections. The first section distinguishes between health research, health systems research and health services research in preparation to locate the concept and origins of response as it applies in the nexus of HIV/AIDS, institutions of higher education (IHEs) and services (Figure 1.3).

The second relates how CHAT components are evident in the response. Creswell (2003, p.3) asserts that "using an extant framework also allows researchers to lodge their plans in ideas well-grounded in the literature". Thus, the review adopts Mukeredzi's (2009) approach to focus on a few key areas, spreading related concepts to other chapters as "an integral part of discussion, data presentation and analysis" (ibid, p. 31). The third section explores the context, recurring themes and concepts in the nexus of response, namely HIV/AIDS, IHEs, services, leadership, agency, information, (IS) and monitoring. Fourth, the review delves into the concept of services, cutting across definitions, characteristics, marketing and gap analysis.

The fifth section reviews existing AIDS-related services, such as Information, Education and Communication (IEC) and HIV Testing and Services (HTS), supply chains, information systems and curriculum for opportunities and challenges. The sixth section draws on identified enablers of response, such as leadership, agency and empowerment (Narayan, 2002; Vecchio, Justin and Pearce, 2010). The seventh section addresses sustainability through planning, coordination, cooperation, communication, monitoring and evaluation of the responses in the IHEs. Lastly, the chapter finishes with a conclusion. To keep the review relevant, the chapter relates and cuts-across the following main and sub research questions:

To what extent do current institutional strategies in IHEs, responses and services operate in synergy in response to HIV/AIDS in Lesotho? The sub-questions are:

- What institutional strategies and services for HIV/AIDS exist in the three IHEs?
- What is the interplay between the IHE structures (management and clients) and services in response to HIV and AIDS?
- How can strategies be developed to improve the quality of the selected institutions' responses to HIV and AIDS?
- What are the implications for education and training for key stakeholders?

The main research question focuses on the extent to which the IHEs' strategies (education and support services) operate in synergy. The sub-questions focus on current activity, interplays, strategies to improve and implications for IHEs and key stakeholders, using evidence in Lesotho and the SSA region. The literature uses a narrative approach (Abate 2018) to highlight the social, economic and core business (academic) roles of the IHEs' responses to the wider society. Since the response is essentially medical work, as shown in Chapter Two, the next sub-section defines 'response', discussing its origins, history, evolution, key issues, challenges and opportunities for IHEs.

3.1.1 Health research, health systems and health service research

In preparation to locate the response, a brief distinction of these three key concepts clarifies the focus of this study and justifies their overlaps in IHEs. Bowling (2002) differentiates health research, health systems research and health services research.

The first relates to health generally, with emphasis on health services, and its role is to inform planning and operations for better health of individuals and communities. This justifies Abel-Smith's (1994) Planning Model while connecting individuals and communities in CHAT in this study. The second relates to improved community health through effective and efficient systems, integrally for its overall socio-economic development. This feature gains credence in the role of higher education, curriculum and community engagement (Preece and Ntseane 2004). The third relates narrowly to the identified needs of the population *vis-vis* the provision, effectiveness and use of such services.

In this thesis, the identified problem is HIV/AIDS and how services specific for it are provided and used in IHEs, making health services research the core of this study. However, Bowling

(2002, p.4) acknowledges "overlaps" and "emphasis on the multi-disciplinary" nature of the three concepts. Bowling cites Hunter and Long (1993), saying it "transcends the R (acquiring knowledge) and the D (translating that knowledge into action) divide" (p.3). The transcend constitutes the purpose of this study, centred on 'response'. What is response?

3.1.2 The concept of response

The etymology of 'response' is explained here as the centre and core of the three key concepts of IHEs, HIV and services (Fig 1.3). The researcher's study definition and context of 'response', according to the Oxford Advanced Learners Dictionary (2005, p.460) is:

> ...in old French, and ultimately from the Latin word *respônsum*; a normal use of the neuter *respônsus*, the perfect passive participle of *respondeô*, from re: ('again') + *spondeô* ('promise').

The terms 'again' and 'promise' are referred to often in characterising response and connect to Zeithmal and Bitner's (2000) view of services as promises. In addition to its etymological origin, the Oxford Dictionary of English (2003, p.1145) defines 'response' as "1. An answer given in word or act; a reply, and as 2. A feeling, movement change etc. caused by a stimulus or influence". Consistent with these two definitions, the UNAIDS (2008, p.9) reports that the world is "at last making some real progress in its response to AIDS".

Response in these contexts is therefore a totality of conceptual and material resources used to fight AIDS. When applied by UNAIDS (e.g 2004, 2011) and WHO (2015), 'response' is generally what Engeström (1999) calls an artefact-mediated activity. The next sub-section covers the origins, current activity and gaps in IHE responses in Lesotho and the SSA region.

3.1.2 The origins of response and its relevance to higher education

In this review, a major limitation is a general scarcity of reports on the historic rationale for establishing health services in IHEs. This is more so in the era prior to HIV/AIDS becoming a major health threat in the SSA region. In one study, Chokwe et al. (2013, p.729) report on "a clinic on campus where we deal with various health related issues including HIV/AIDS". This present study could not find the selected IHEs' office memos and reports on decisions to set up campus clinics. All of the NUL's key informants (KIs), however, attest to knowing of the existence of the NUL clinic before Lesotho's first confirmed case of HIV in 1986.

Perhaps due to necessity, the fight against AIDS overshadowed the primary reason for health clinics in the universities in the region. This is evidenced by a greater mention of AIDS in IHE

publications in higher education during the post 2000 era than before, e.g. those of Kelly (2001, 2002, 2003); Arrehag et al. (2006); SARUA (2006); HEAIDS (2010) and other unpublished reports, all with a specific emphasis on the response in IHEs. The NUL *Student Handbook* (2007) shows that the NUL clinic was established in 1978 to provide basic health services to students and staff. This was due to a growing community of students and staff who indicated a need for health services. The HEAIDS Report (2010) justifies campus health services for all ailments including HIV/AIDS, while SARUA (2006) evidences historical support and strengthening of such on-campus services, with or without the concern over HIV.

The response was housed in clinics as appropriate for a health issue. With this recognition, IHEs generally mounted strategies and developed policies to address the implications for their communities. In support of the response in schools, UNESCO (2012, p. 23) maintains:

> …increased coordination with [the] MoH and other health partners at national, district and local level is required to ensure greater access to services, referrals and to ensure continuity of service.

Over time, the role of college clinics evolved from providing basic to new services, evolving into a functional, independent yet parented approach where IHEs work with the MOH to manage health clinics. The (MoH 2011) *National Health Policy*, Ministry of Development Planning (2014) and the (MoH 2014) *National Decentralisation Policy* support this plan. The latter states "decentralisation should empower local actors to address HIV/AIDS challenges" (ibid, p.9). The IHEs systems are however nascent in their responses.

As HIV/AIDS escalated in Lesotho between 2002 to 2006 (UNAIDS 2009), the IHEs' basic clinic services expanded to include information, education and communication (IEC) activity (Mahloane-Tau 2016). IEC increased demand for HIV testing (HEAIDS 2010), despite low institutional capacity (SARUA 2006). This challenge cut across the SSA region. Kelly (2002, p.31), says: "where the challenges are greatest, school risks are highest and the capacity to deliver prevention messages is weakest". Kelly (2002) characterises the response in IHEs as "piecemeal" (p.28) and not managed proactively and sustainably, as will be evidenced later. With the history and evolution of responses, the next sub-section covers the literature on the aetiology, predisposing factors and treatments for AIDS in IHEs in the SSA region.

3.2. HIV and AIDS as the object of response

This subsection recalls Figure 2.2, which shows links between CHAT and the main components of IHE responses and why and how HIV/AIDS is seen as an object and focus of interventions. The next subsections narrate the aetiology and predisposing factors for HIV/AIDS, ahead of the IHEs' context for response.

3.2.1 Aetiology and history of HIV/AIDS

According to Beers, et al, (2009, p.1625) the Human Immunodeficiency Virus (HIV) is defined as "one of two similar retroviruses (HIV 1 and HIV 2) that destroy CD4 lymphocytes and impair cell-mediated immunity, increasing [the] risk of certain infections and cancers". It further explains:

> …initial infection may produce non-specific febrile illness. The risk of subsequent manifestations – related to immunodeficiency – is proportional to the level of CD4 lymphocytes. Manifestations range from asymptomatic carriage to the acquired human immune deficiency syndrome (AIDS), which is defined by serious opportunistic infections or cancers. HIV is diagnosable by antibody or antigen testing. Treatment aims to suppress HIV replication by combinations of drugs that inhibit enzymes.

This summarises well the progression of unmanaged HIV infection. As there is no cure or vaccination for HIV, the UNAIDS (2008) refers to the HIV pandemic as the most serious of infectious disease challenges to public health. Since its discovery in Lesotho in 1986 (MoH 1992), the prevalence of HIV increased from 3 per cent in 1989 to peak at 31 per cent in 2004, (MoH 2009, p.218) and was 23.2 per cent in 2012 (MoH 2015). The Ministry of Trade and Industry's (2007, p.4) report on "Lesotho's long journey with HIV and AIDS" chronicles Lesotho's policy and strategic developments from 1996 to 2007. On its impact on education, Kelly (2002, p.35) states that AIDS has:

> …radically transformed the world, including the world of education. The content, structures and programmes that responded to the needs of a world without AIDS no longer suffice in a world with AIDS. This appears in the way school participation can enhance the risk of HIV infection.

Although AIDS is a relatively new disease, Kelly (2000, p.35) says "cultural contradictions abound, among them, a veneer of respectable, approved sexual behaviour encountered in society". This raises questions regarding factors predisposing HIV infection in the IHEs.

3.2.2 AIDS: predisposing factors, manifestations and treatment

The MoH (1992); UNAIDS (2000) and the Merck manual (Merck and Co. Inc. 2009) show that the causative agent of AIDS is HIV. The National AIDS Commission (2008) in the Modes of Transmission (MoT) report, shows three main routes of transmission of HIV, in order of commonness: unprotected heterosexual intercourse, mother- to-child transmission during pregnancy and breastfeeding (Semba 1997), and parenteral transmission (needles, blood products, etc.) in the general population.

In Lesotho the key factor of HIV transmission is heterosexual transmission via multiple sexual partnerships (MCP) (NAC 2008) and an unknown number of men who have sex with men (MSM) (Nkonyana 2013; Logie, et al. 2018). For students, a social factor is the lack of finance to support their study needs (HEAIDS 2010) and poverty (Kymario et al. 2004). The three main signs of AIDS are a body weight loss of 40 per cent, opportunistic infections (OIs) and an HIV positive test (Merck and Co. Inc. 2006). The LePHIA report (MoH 2017e) estimates a co-infection rate of 72 per cent for TB-HIV with a high mortality rate in Lesotho.

Due to high TB-HIV co-morbidity, homes have lost parents, households are run by children (Lesotho UNGASS Report 2009) and poverty has increased (Bureau of Statistics 2018). Regarding poverty and higher education, De Waal and Whiteside (2003) cite a famine in which household assets are eroded, resulting in poverty and vulnerability, which are critical components to measure in response (Tango International 2004). This leads IHE students to sex work to support their livelihoods (University of Midlands, 2008). Thus AIDS destroys IHEs' academic, social and moral fabric, as shown in the next sub-section.

3.3 IHEs' context and role in the response

The Oxford Advanced Learner's Dictionary (2005, p. 214) defines education as "systematic training and instruction" (especially of the young, in school, college, etc.) and as "knowledge and abilities, development of the character and mental powers, resulting from such training." To educate means to "give intellectual and moral training to..." The context of education is two-fold: one is the didactic type to impart knowledge from teacher to student using curriculum. The other is giving general facts through IEC in IHEs and to the general public. Nelson Mandela (2013, p.78) wrote; "education is the tool by which you can change the world". In line with these views, the World Education Forum (2000, p.8) in Dakar Framework for Action - 6th Education for All (EFA) commitment reads:

> Education is a fundamental human right. It is the key to sustainable development and peace and stability within and among countries, and thus an indispensable means for effective participation in the societies and economies of the twenty-first century, which are affected by rapid globalisation.

Although primary education lays foundations, higher education transitions to the world of work where "changes" and "participation" occur. Preece (2011, p.xii) refers to this as the "third mission of universities". Thus, community service is one purpose of higher education.

3.3.1 What is higher education?

According to MoET (2008, p.4) an institution of higher education is defined as one which provides "education beyond the secondary education, in a tertiary institution". In this vein, the CHE (2004) Strategic plan 2004/-2005 to 2014/2015 (p.6) defines higher education thus:

> Higher education in Lesotho is broadly perceived to be a tertiary level of education that includes all post-high school education with a minimum continuous duration of at least two academic years. Higher education as a sub-sector of education in Lesotho is entrusted with the responsibility of training and supplying high level human resources for national development. This sub-sector consists of several public and private institutions.

Across the SSA region the definition of IHEs includes "universities, technikons and colleges" (SARUA 2006, p.2). In this study, the term IHEs is used interchangeably with 'higher education', 'institutions of higher education', 'colleges' and 'university'. The South African Higher Education Act (1997), Section 1, (ii), defines 'higher education institution' to mean:

> …Any institution that provides higher education on a full-time, part-time or distance basis and which is-
>
> a) established or deemed to be established as a public higher education institution under this Act;
> b) declared as a public higher education institution under this Act; or
> c) registered or conditionally registered as a private higher education institution under this Act;

Lesotho's definition concurs with SAs, and of its thirteen IHEs, the selected three make up 72 percent of all the country's IHE population (see Table 1.1). SARUA (2006) refers to IHE populations as a critical resource in national development, since as part of the population, they partake in the response. Bennell, Hyde and Swainson (2002, p.7) note that:

> It is widely accepted that the HIV/AIDS epidemic will seriously affect the education sector in Sub-Saharan Africa. However, little systematic empirical research has been undertaken, particularly in the high prevalence countries (HPCs), that seeks to assess the actual and likely future impacts on the supply of and demand for educational services.

Indeed, the IHE sector is among the hardest hit of youth sectors. Against this background, the next sub-section of the literature highlights the selected IHEs and those in the SSA region for demographic, socio-economic, legal and gender characteristics (see Women and Law in Southern Africa (WILSA) (2008), starting with policy.

3.3.2 Policy environment in the three IHE response

A policy is a statement of intent of an entity. Evidence from SARUA (2006), and HEAIDS (2010) cites policy as a gap, while Saint (2004, p.9) refers to it as the "first step" in a response. In CHAT, Mukeredzi (2009, p.199) notes two key factors. One, the role of "policy makers" is to "provide the mediating tools and artefacts" and two, "divisions of labour are the roles and responsibilities shared by the different community members". This implies that without AIDS policies, IHEs can neither mediate nor enable learning by doing.

On policy matters, the HEAIDS report (2010, p.98) shows institutional commitment as key to HIV prevention and care, stating "most institutions do not have support groups due to several factors" including a "general lack of commitment to caring for students". Goldberg et al. (2013) see commitment as a political issue. In the three IHEs, policies are unwritten. The Policy Project (2000) offers a tool to measure institutional policy commitment. Political commitment is the first of 13 values and guiding principles cited by the MoH (2011), thus:

> This commitment will provide the critical guidance in priority setting and resource allocation. Commitment to this policy will be required at all levels of political, civil and cultural leadership (ibid, p.19).

The HEAIDS (2010, p.4) notes that since 2001, IHEs are at various stages of policy draft. It affirms that where policies exist, "HIV and AIDS-related health support for students and staff, advocacy, mainstreaming and curricular integration" is much better. Mainstreaming AIDS policy is the focus of Rugalema and Khanye (2004) who cite loss of human capital due to inaction in IHEs. This indicts agency and its effect on institutional policies and access to services. The next sub-section discusses the influences on AIDS in a broad societal context.

3.3.3 PESTEL influences on HIV/AIDS in the IHEs response

This sub-section summarises the literature relating AIDS to the general environment of IHEs using the political, economic, social and technological (PEST), in one of its variations, (which include ecological and legal aspects) PESTEL (see for example Sammut-Bonnici and Galea 2017). This analytic tool "identifies the issues that will impact on all the organisations in a specific sector" (Mcgrath and Bates, 2013, p.166, citing van Asseen, van den Berg and Pietersma 2009). As a tool in CHAT, it is used here to assess issues of political (objects), economic and technological (artefacts, resources), social and environmental (community), and legal (rules, division of labour) factors. This study uses PESTEL as HIV/AIDS is a social problem and for its relevance in qualitatively interpreting the IHEs' response environment.

3.3.3.1 Geo-political aspects of IHEs response

There is a basis for geo-politics in the fight against AIDS. Comparing Europe to SSA reveals differences in HIV prevalence and national and college priorities. The SSA universities (with high HIV prevalence) focus on campus interventions (Kelly 2002; SARUA 2006; Kanyengo 2009). European universities (with a low HIV prevalence), such as the University of Liverpool (2012), focus on microbiological and nanomedicinal research. Politics influences government thinking and spending on AIDS (Department for International Development 2015) and relations within the WHO and UNAIDS. The Global Fund's (2014) report on TB/HIV shows Lesotho's particular need to access ARVs. Kelly (2002) states that education in a world with AIDS must differ from education in a world without AIDS. On the politics of gender and socio-economic roles Griffin (2011, p.243) states:

> The portrayal however of women's passive vulnerability relative to men's active and sexual power reproduces myths of African women's victimhood and African men's hypersexuality that entirely erases their social, political, and economic conditions of possibility.

Power relations between sexes thus expand and influence vulnerability and myths among youth and peer educators (Dickinson, 2011). This literature found few interventions in European colleges. One study by Morrison et al. (2011) addressed the social and medical needs of a community (not IHEs) in Central Europe. In China, AIDS overtook TB as the leading cause of mortality (UNAIDS 2012). Hence, geo-political debates relate to modes of transmission, prevalence and population sizes. There are paradoxes, for example, Lesotho's smaller 2 million people, with mainly hetero-sexual transmission and high prevalence (NAC 2008), versus China's large population of seven million, where injecting drug use (IDU) is the main mode of transmission, but has a low prevalence (Qian et al. 2006). These geo-political features of AIDS thus have implications for IHEs external relations, funding, research and interventions, leading to a more populated college having a disproportionately smaller funding while one with fewer students can have more funding. Political connections are further exemplified by the US and Lesotho governments' joint efforts to combat AIDS (Global Fund 2014; MoH 2017e; and USG 2017; Qaitsane 2018). Political forces in turn influence economic factors.

3.3.3.2 Economic factors for HIV/AIDS in IHEs

Ample evidence abounds to relate AIDS to economic issues. Discussing social factors, their economics and their relationship with HIV/AIDS, transactional sex is a common concern for women (Ranganathan et al. 2017). In relation to young women's perceptions of transactional sex, Fielding-Miller et al. (2016, p. x). state:

> Transactional sex is a structural driver of HIV for women and girls in Sub-Saharan Africa. In transactional relationships, sexual and economic obligations intertwine and may have positive and negative effects on women's financial standing and social status.

In view of Lesotho's current economic downturn (Ministry of Development Planning 2013) the inability to find and retain employment opportunities and finance among young people could make transactional sex rife. The HEAIDS (2010, p.81) finds that:

> The degree to which transactional sex was acknowledged and spoken about indicates that the general concept of exchanging sex for social and material gains is commonplace.

In the three IHEs, this affirms the link between economic situations and HIV risk. It implies that interventions should include Lesotho's socio-economic policy, funding for students' bursaries and job creation in the national economic planning. One South African report by

Mashaba (2019) shows that economic challenges, and poor fulfilment of national student loan schemes, college students go hungry and resort to loan sharks, which affects their studies.

3.3.3.3 Social factors in IHEs response

Regarding the social aspects of HIV/AIDS, one article on the response of a community in KwaZulu-Natal by John and Rule (2006, p. 165) states: "…research in HIV/AIDS and education has been dominated by large-scale quantitative studies which have neglected the socially embedded nature of the disease". This calls for a reconceptualization of the history, current practice and the future response regarding migration, accommodation, traditional beliefs and practises, education, sex, gender relations, sex partners, entertainment and abuse of alcohol and drugs, stigma and discrimination and access to care which are discussed next.

i. Student population, migration and residence/accommodation

Data on student migration in the SSA region is limited. However, two factors influence the response in ways that attain the same outcome in IHEs. First, the concentration of students in IHEs means a high risk of HIV transmission. Unlike Lesotho, the SA Higher Education Act (DoE, 1997), Section 37, instructs the South African Higher Education Council to observe the "numbers of students to be admitted for a particular higher education programme and the manner of their selection". On educational methods and structures, Kelly (2000, p.29) says an "unchanging methodology of one teacher before a class of twenty to fifty students", affects response. The "unchanging" IHEs methods can be non-integration of HIV/AIDS into curricula, which perpetuates ignorance and unsafe sex (Richens, Imrie and Weiss, 2003).

The second sub-component is migration. The International Organisation on Migration (IOM) report (n.d.) compares knowledge, attitudes and practices (KAP) between migrants compared to local communities regarding HIV/AIDS. For example, the findings show that 68 per cent of the migrant students have knowledge of HIV/AIDS compared to 41 per cent of the locals, and a 10 per cent multiple concurrent partnership rate among locals versus 30 per cent for migrants in the last 12 months. Since large numbers of students migrate between countries in the SSA region and from district to district in Lesotho, the findings can apply to students. Migration necessitates new accommodation. Newell and Marrzuki (2018) say student accommodation is an emerging and institutionalised sector, with its risks and diversification benefits globally, to the emphatic concurrence of the South African Government Employee Pension Fund (GEPF) (2018). Challenges with accommodation vary and pose risk when inadequate to students personal and academic welfare as will be evidenced in the findings.

For sexual reproductive health (SRH) matters, and because of Lesotho being surrounded by South Africa, anecdotal evidence seems to suggest that the selected IHE students seek SRH services, including abortion services, in SA.

ii. Beliefs, attitudes and practises

A historically enduring feature of disease is its relationship with traditions, beliefs and practices (Abel-Smith 1994, p.34). In CHAT, these lie with community, and objects linked to witchcraft and the supernatural. Beliefs affect pre-exposure prophylaxis (PrEP), care and support, while practices and culture affect the choice of medical services, a fact evident in Lesotho's IHEs. O'Brien and Broom (2014) say traditional medicine is used by most Zimbabweans for AIDS, while combining it with modern medicine (Kaume, Foote and Gbur 2012). This occurs in Lesotho, which has a 72 per cent co-morbidity of TB and HIV (MoH 2017e). Patients often call TB *sejeso* (literally: that which one was made to ingest), blaming it on witchcraft (National University of Lesotho 2011, p.24). Macfarlane and Alpers (2009) affirm the mixed use of modern and traditional healers, noting greater time lapses between disease onset and self-referral for clients who believe more in traditional than western medicine. Mtunhu and Matunhu (2014) cite one Zimbabwean university experience where spirituality, the use of traditional and alternative medicine for HIV/AIDS all co-exist. In Lesotho, a notable gender issue is that men use traditional medicine and delay a modern health visit more so than women (ALAFA 2008; NAC 2008).

On spirituality, faith and the soul, Ryan (2004) argues that the mind-body problem pivots around the human view of success as power and wealth, but yearns for spiritual content, adding that the 'soul' is the centre of all human activity. Rosen (1989) laments an emphasis on scientific and technological advances in modern medicine that neglect the soul. In Lesotho, some churches believe that faith alone can heal AIDS, and discourage the use of prescribed ARVs. Health practitioners anecdotally argue that traditional medicine should be explored for its benefits (Neddermeyer 2006), and that its perceived inefficiency is based on inadequate research. Sullivan, Smith and Rowan (2006) affirm the use of medicinal mushrooms for cancer therapy in a western practice setting, showing that despite acceptability, toxicity, dosages and safety challenges, it provides a framework to study and use other traditional medicines.

A triad of faith-based, traditional and modern medicine exists and raises contradictions and three modes of tensions. First, faith-based and traditional medicine see modern medicine,

especially sexual reproductive health (SRH) practice as the reason youth use condoms, later practice unprotected sex, and get unwanted pregnancies, resulting in baby-dumping and HIV infection. Second, faith-based and modern medicine blame traditional medicine for myths and misconceptions (Dickinson 2011) such as witchcraft for STIs, AIDS and TB. Third, traditional and modern medicine concur that faith-based healing must respect scientific drugs, condoms, and artificial contraception to prevent STIs, HIV and unwanted pregnancy. In one news article, Rakolobe (2018) showed Lesotho's Minister of Health blaming the church for not supporting abortion and the use of condoms, as part of the causes of increased rates of abortion that were chocking services at Lesotho main referral hospital. These examples of tensions between Faith Based Organisations (FBOs) and MoH point to need for education to influence behavior change as will be showed later in the findings.

iii. Education and behavioural change

The kind of knowledge gained through education is assessed by Abel-Smith (1994, p.33), saying "knowledge is not enough". Kelly (2002, p.33) concurs, saying "among teachers, there is a widespread problem relating to teacher knowledge, understanding and commitment". Due to this, gaps exist between the level of education and individual prevention activity and how IHEs prioritise AIDS. Studies by Cairns, Dickinson and Orr (2006); Kanyengo, (2009) and Mahloane-Tau (2016) show different priorities in interventions such as IEC, testing and treatment in African universities as influencing behaviour change. Van der Riet (2009) amply shows behaviour and behaviour change in the context of response, and how attitudes among young people influence HIV transmission. This relates to sex, gender and partnerships.

iv. Sexual debut, gender relations and multiple partnerships

This literature notes that sexual debut occurs mostly at entry levels in IHEs. The NUL PESP (2010) survey found that 33 per cent of the freshmen aged 18 years had not yet had sex, while 55 per cent had had sex, 5 per cent did not specify, and 7 percent were married. The 55 per cent also used condoms regularly for sex. These figures imply that college entry is a hot-spot for sexual debut. Kelly (2002, p.31) says "the need to pay school fees may lead young girls from poor families into the sale of sexual favours". This is a key determinant of gender relations. The literature does not however, evidence gender relations as a global issue. On the role of the World Bank on 'sex, sexuality and gender relations', Griffin (2011, p.236) states:

> Bank discourse does not often explicitly name 'sex', 'sexual activity', and 'sexual behaviour'. Its approach to SSA and HIV/AIDS policy-making thus provides a rare opportunity to interrogate a more overt Bank consideration of 'sex'.

This shows a communication gap between the bank and the world. Carael et al.'s (1999) study of the relationship between gender and AIDS finds that females have a higher HIV prevalence than males, as does MoH; (2009; 2017a; 2017e). Sia et al. (2013 p.6) cite Magadi's (2011) view that "women in SSA have a higher prevalence of HIV/AIDS than men". It shows that gender affects HIV/AIDS, and Kelly (2000, p. 35) compares culture and gender thus:

> More overtly, different standards exist for different genders. As a result, social expectations condone in men and boys what they condemn in women and girls. Society often condones or overlooks forced sex, at least as long as it does not exceed certain legally defined limits. There is widespread and more-or-less accepted violence against women and girls. Finally, an enormous mix of cultural values and counter-values send confusing messages.

To this evidence, Connell (2002) adds that differences between the sexes influence behaviours and divisions of labour in society. Otaala 2000, (cited in Saint 2004, p.27) says IHEs "must be proactive and have gender sensitive policies… provide leadership in research on gender issues. Such policies include anti-sexual harassment policies". Despite views of IHEs as youth-friendly, Kelly and Otaala (2002) call for more proactive attention to gender issues. The NAC (2008) says sexual harassment is a precursor to HIV. Carael et al. (1999) and WILSA (2008) call for prevention and treatment action to fight gender inequalities.

The third dimension is multiple concurrent partnerships (MCP). Studies (e.g. ALAFA 2008; NAC (2008)) show greater numbers of sex partners for men than women. Despite this, the role of men in national and IHE responses shows missed opportunities. Griffin (2011, p.17) states "men's limited involvement in community-led HIV/AIDS initiatives (CHAIs)" represents "a missed opportunity to fully incorporate the needs of males for the benefit of the community as a whole", yet, IHEs appear to perpetuate missed opportunities.

v. Entertainment, alcohol and drug abuse

Alcohol abuse represents the second most common social behaviour after unprotected sex for risk of HIV transmission (ALAFA 2008; PESP 2010; HEAIDS 2010). Alcohol and other drugs are recognised for their direct (such as injecting drug use (IDU)) and indirect (alcohol) effect

on HIV transmission and HIV positive status. As such, the selected IHES are not exempt from risk of HIV infection due to alcohol and drug abuse. How alcohol and drugs apply in the selected IHEs will be revealed in the findings chapters.

vi. Stigma and discrimination

A Caribbean study by Beck et al. (2017) assesses the attitudes of men to HIV/AIDS care, finding that as the number of newly HIV-infected people rises, so does the number of people initiated on ARVs and related deaths. Stahlman et al. (2015) say that stigma and discrimination affects men who have sex with men (MSM). The trend spreads across African countries but overall, homosexuality attracts hate, and intolerance by traditionalists, faith-based healers and even modern health practitioners. In gender terms, women have a greater tolerance, accept and socialise with homosexuals, and HEAIDS (2010) notes a homophobic view of MSM by SAs general public. These community positions impact the response with implications for local, national and IHE interventions, as the findings will show.

vii. Access to care

On accessing care, Morrison et al. (2011, p.91) note "the social needs of the patients were also severely unmet", even in a European setting. So serious is the spread of HIV/AIDS and its social impact that Ntombela, Stilwel and Leach (2008) cite Marcus (2002), noting how it impacts societies due to growing medical, social and scientific knowledge and through experiences and attempts to contain its effects. Access is key to the responses in the IHEs, and the literature across SSA higher education reveals responses as the single most pivotal service component in addressing the impacts of HIV/AIDS.

The societal impact of AIDS expands beyond everyday life to include the very medical and social experiences that try to contain it. Indeed, the biggest losses to nations due to AIDS are human intellectual and productive capital (Otaala 2000; Kelly 2002; SARUA 2006; UNAIDS 2009; HEAIDS 2010). Efforts to design IHE services against AIDS point to a need to include the wider community needs in education (John and Rule 2006). All in all, access to care is a contentious issue in IHEs; whether to provide staff, equipment, medicines and to refer students or to limit services based on the view that health care is not a core offering of IHEs.

3.3.3.4 Technological influences on IHEs response

Of all the PESTEL components in this study, technology and its role in IHEs' responses is the single most fertile and doable area to reach young people. Mahlaone-Tau (2017, p. 18) exemplifies a Lesotho NGO that "reached over 100,000 young people by utilising technology

such as social media to send text messages in an effort to spread awareness and increase HIV knowledge". By using digital technology, IHEs can reach thousands of youth in the shortest time. The UN (2015) Sustainable Development Goal Nine calls for industry, innovation and infrastructure development, not only for health care but across all areas of development.

To design technology-based IEC messaging, it must be considered that students in IHEs use Facebook, Twitter, Instagram, Short-Messaging Systems (sms), with visual and pictorial messages. Another component is electronic health, or e-Health. Kymario et al. (2004, p.133) discuss the role of e-Health for diagnostics and treatment support at a national level in health care planning, statistics, monitoring and evaluation and reporting. The extent of IHEs' use of technology is discussed in the findings.

3.3.3.5 Ecological/environmental factors in IHEs

In the response to HIV/AIDS, geo-environmental issues are increasingly critical (Drimie 2002). The term is used to refer mainly to the physical environment and the fight against AIDS. The relationship between ecology and HIV/AIDS has been land-degradation (Ministry of Tourism, Environment and Culture 2014, p.12) due to mortality among those who own and tend it. This has caused poverty in SSA and Lesotho's households are hard-hit by HIV/AIDS. The environment is the space for human activity, depending on the types and arrangement of elements within it. It can support or destroy opportunities for response. Kymario et al. (2004) suggest a comprehensive view of the concept of environment that includes an "enabling environment" (ibid p 64, 120) for the response.

3.3.3.6 Legal aspects of IHEs' responses

This sub-section summarises legal aspects, i.e. the development, enactment and enforcement of laws specific to HIV/AIDS. In CHAT laws are rules in an activity system. Inkoom (2008, p.25) justifies laws saying "there is the need for (the) Association of African Universities (AAU) to continue to lobby the senior management to adopt the draft policies that are at various stages of passing to become legal documents of HIV/AIDS prevention on the campuses". Similarly, the Lesotho *Labour Code Amendment Act No. 5 of 2006* (Ministry of Law 2006) requires employers such as IHEs to own and use AIDS policies, while the Dakar Declaration (Education for All [EFA] 2000, p.26) advocates:

> ... Commit[ing] ourselves to removing all barriers (social, cultural, economic, political and legal) that hinder African children, youth and adults from having access to quality

> education (p.26) and the attainment of the goals of the Jomtien Declaration on Education for All.

The commitment to remove verbal, physical or written language barriers is reiterated by Masters, et al (2009), while Kareithi and Lund (2011) cite obstacles where youth interact. The current laws limit support for IHEs' commitments, division of efforts, partnerships and resources to fight AIDS, abuse and gender-based violence. For example, where IHEs refer female student rape survivors to police, the "burden of legal proof is so great that the majority of cases result in acquittals" (Bennell, Hyde and Swainson 2002, p. 92). According to the AAU (2010), strict adherence to regulations causes delays and is a "persistent challenge" in integrating AIDS into the IHEs' curriculum in Francophone Africa. Hence, although laws work, their rigidity can hamper rather than promote access or support responses to AIDS. The next section examines the most common components of the response in Lesotho's IHEs.

3.4 HIV/AIDS related services in IHEs

The key question addressed here is 'what services do IHEs offer in response to AIDS?' This calls for a reminder of the in-depth discussion on services; the definition, characteristics of services, the Seven-Ps of services marketing, the service gaps model and customer issues with availability, affordability and accessibility, in Chapter Two. This sub-section reviews the current inventory of services in the three IHEs, relating to broader SSA universities' responses. In one experience, Cairns et al. (2006) show that services include HIV testing, referral and prevention of mother-to-child transmission of HIV (PMTCT). The next sub-sections cover an inventory and critique of the nine current strategies in the three IHEs.

3.4.1 Information education and communication (IEC)

Key of all the strategies in the response is information, education and communication. From a CHAT perspective, IEC is a mediator to transform the object (lack of knowledge/awareness) to improved awareness. Mahloane-Tau (2016, p.45) says "both IEC materials and Behaviour Change Communication (BCC) strategies were the main pillars of the action undertaken by stakeholders to control the spread of HIV". Better infant health is associated with educated mothers (Thomas, Strauss and Henriques 1991; Summers 1994; Desai and Alva 1998). There is debate, however, by ALAFA (2008) that education does not necessarily influence behaviour change. Vandemoortele and Delamonica (2000, p.6) notes:

> ...with increased information, knowledge and awareness, however, their behaviour changes faster than that of illiterate and poor people in terms of delaying first sexual encounter, reducing the number of partners, increasing condom use, and other actions to decrease risk of infection.

While this view is rooted in literacy and its behavioural outputs, Mahloane-Tau (2017) argues that IEC works best if there is dialogue and opportunity to discuss its messages. This calls for expansion and transition from one object/position (not having dialogue) to another (having an opportunity to dialogue) for behaviour change. It necessitates a few key issues in IHEs.

i. Sources and applications of IEC materials

Sources of HIV information in colleges include journals, books, the internet (Ntombela, Stilwel and Leach 2008) and the college library (Kanyengo 2009). Mahlaoane-Tau (2016, p.vii) however notes "print IEC materials alone as educational resources are inadequate in assisting readers to develop meaningful understandings for attitudinal or behavioural change". Mahloane-Tau (2016) states that with Lesotho's 97 per cent possession of mobile phones in the general population (Bureau of Statistics 2014), IHEs can transit from paper to electronic IEC platforms to inform youth on HIV/AIDS, prevention and self-care.

ii. Gender and IEC

UNESCO (2010) states that in 14 countries "literacy rates for females were less than two-thirds of those for males". Men, however, are not influenced towards a positive behaviour change in spite of their high literacy rate (ALAFA 2008). Differences in how men and women partake in the IHE response divides subjects in CHAT, by tools and divisions of labour (van der Riet 2009). Ditekemena et al. (2011) justify the need to tailor interventions for men, concurring with the United States Government (2017) which says men as less health-seeking, yet more sexually promiscuous and less HIV infected than women. The next strategy is 'Abstain, Be faithful and Condomise' (ABC).

3.4.2 Abstain, be faithful and condomise (ABC)

ABC is, from a CHAT perspective, a mediational tool of response. It is key in Lesotho's war against AIDS and finally rests with individual 'deeds' to eliminate HIV transmission. Thus, this study recognises Orem's (1991) Self-Care Model as key to personal change. It relates to the African Broadcast Media Partnership's (ABMP, undated) slogan of "it begins with you" against HIV/AIDS. Orem's (1991) Self-Care Model's key components are 'self-care agency',

'self-care demand', 'self-care deficit', 'nursing agency' and 'nursing system', all of which relate to the IHEs' responses to HIV/AIDS.

The components constitute 'self-service' and as services are 'deeds' individuals must be educated 'to do' ABC, the emphasis being that unprotected sex is a disservice to oneself. This discussion minimises 'abstinence' and 'being faithful' in the ABC strategy due to the evidence of multiple partnerships (MCP) in the IHEs, despite Saint's (2004) view that education emphasises abstinence. A study by the Swedish International Development Agency (SIDA) (2010, p. 29) on the behaviours of students in Nigeria shows:

> …about 40 per cent of the population, especially singles, will want to abstain from sex. About 60 per cent would employ condoms as protective measures while 77.4 per cent would stick to one sex partner.

The findings are corroborated by Otaala (2000), Wodi (2005), both citing poor willingness to abstain among college students, low condom use and promiscuity. Waghid (2014) sees universities as a source of learning for youth, including extra-curricular learning. Vandemoortele and Delamonica (2002) say condoms are popular, although not readily accessible. Mulwo, Tomaselli and Dalrymple (2009) attribute condom use to brands, perceptions of safety and accessibility, while Saint (2004) partly blames the cost of condoms in retail outlets and their unavailability at campus clinics for low condom use. The faith-based sector (FBO) emphatically opposes condom use United Nations Population Fund (UNFPA) (2004). A balanced view may be that since FBOs promote "AB", the MoH, NGOs, retail stores and youth services can increase accessibility, affordability and availability (Bakhit 1994) to meet "C", rather than require FBOs to promote or preach condoms.

Although not cited, faith, moral and service issues count in ABC issues, as a basis for influential FBO and civil society statements and questions. Topical issues around condoms is their efficacy, safety, reliability and costs, but more importantly around who to give them to. While the church rejects condoms, schools refrain from issuing them to youth, while the security and correctional community argue for and against issuing condoms to prison inmates. Kigo and Irungu (2019) debate why Lesotho gives condoms to inmates. Proponents of condoms cite need to protect inmates, especially men who have sex with men (MSM), and to mitigate 'inmate rape'. Those against it say it condones sex and rape among inmates. Across the length and depth and breadth of these arguments is Van der Riet's (2009) assertion for not only condoms

but also behaviour change. She poses a handful of reasons why an individual might use a condom based on a rational balance of perceived threats, barriers and benefits. Next is HIV testing and treatment.

3.4.3 HIV testing and services (HTS)

HIV Testing is a scientific method to establish the HIV status of an individual. Its results can be a 'positive', 'negative', and on rare occasions 'indeterminate'. Lesotho's HIV test protocols and test kits are prescribed by WHO guidelines (MoH 2016). HIV testing evolved from Voluntary Counselling and Testing (VCT) in 2000, to HIV Testing and Counselling (HTS) circa 2007, to HIV Testing and Services (HTS) in 2016. This led to ART initiation and adherence in the evolution and expansion of the response to this health threat.

HIV testing has improved over the years. The blood sample required for the testing reduced from five millilitres to just a drop, with test-result time cut from nearly two weeks in 1989 to a minute in today's clinics. Sensitivity and reliability of the testing has improved, hence there are hardly any false test results. Specimens to be tested also include oral or buccal (saliva) swabs, semen and urine. Despite these new strategies, IHEs still lag way behind in testing (HEAIDS 2010) and ARV enrolment of eligible students.

3.4.3.1 HIV Testing and young people

Pettifor et al. (2004) and Saint (2004) concur that counselling by peers might be more appropriate than by adult staff in IHE clinics, however, Mahloane-Tau (2016) says reluctant students influence their peers not to test. In terms of gender the PESP Report reveals that females test for HIV more readily than men (NAC 2008; ALAFA 2008; NUL 2010), and that their risk is higher than men's (MoH 2017e). Overcoming the reluctance to test could mean that FBO services (UNFPA 2004) can partner in index testing (Masters et al. 2016), as per the recently launched self-test initiative. The benefits of self-testing in Lesotho are yet to be evaluated. Once testing is done, the next step is initiation on ARVs if HIV positive.

3.4.4 Highly active anti-retroviral therapy (HAART)

Developments in the production and supply of anti-retroviral (ARV) mean better suppression of HIV for PLWHA (MoH 2017e). Previously PLWHA were only initiated on ART once their viral load dropped to 300 copies/ml (MoH 2007). New WHO (2015) guidelines provide for immediate initiation for a positive HIV test, irrespective of the viral load. With efficacy in treatment comes reduced dosages, less toxicity, convenience and improved cost-effectiveness

of the interventions (Creese et al. 2002). In IHEs new treatments can increase the students' confidence to encourage their peers to test. Thus, agencies such as the Lesotho National AIDS Service Organisation (LENASO), the Lesotho Network of People Living with HIV/AIDS (LENEPWA), and others, can increase advocacy to improve prevention, access to services, care and support and treatment with new, effective ARV implants (Matthews et al, 2019) which eliminate the need to carry medications.

3.4.5 Voluntary male medical circumcision (VMMC)

A strategy used by the MoH is Voluntary Male Medical Circumcision (VMMC), or Male circumcision (MC), which in CHAT further enacts the object. It is the surgical removal of the foreskin (WHO 2009a) and works by reducing the surface area of Langerhans glands, a penile mucosal layer absorptive of HIV. It was initiated as part of the HIV response in 2009 and targets young men. The reliability of VMMC is based on epidemiological studies in SSA countries such as Malawi (Carrasco, Nguyen and Kaufman 2018); South Africa (Halperin and Epstein 2007) and Lesotho chapter of the agency formerly called the John Hopkins Programme for International Education in genecology and obstetrics (now Jhpiego) (2014). Where MC is custom, the men have a lower risk of HIV transmission than where it is not (WHO 2009a) and scaling up VMMC is a very cost-effective way to fight AIDS among men (Stuart et al. 2018). There are debates and controversies around VVMC, however.

3.4.5.1 Controversies around VMMC

Although the LCEs life skills course book (LCE 2012a) did not mention VMMC, the NUL's AIDS Policy (2009) adopts it to fight HIV. Based on Halperin and Epstein's (2007) empirical work, MC has gained acceptance in Lesotho despite notable areas of contention. The first area of contention was the name. In early 2002 the MoH initiated VMMC, starting off unsure of its operational definitions. MC was at first called '*lebollo*', based on the traditional practice of initiation, widely seen as a rite of passage into manhood (Doyle 2005; Preece et al. 2009; Wilchen et. al. 2010). Lesotho's traditional initiation and medicinal leadership was, however, unhappy with the use of *lebollo* to mean circumcision. At one stakeholder's workshop attended by the researcher in 2002, the leadership argued strongly against using the term '*lebollo*', urging the modernists (MoH) to define 'male circumcision' as a surgical procedure and name it. In 2009 the MoH adopted '*ho tlosa karolo ea letlalo la botona'* (to remove part of the foreskin). After 2010, a new name "*ho rola katiba*" (to take one's hat off) was adopted.

Although widely accepted in Lesotho now, issues still persist. First are concerns linking it to '*lebollo*' in any way. The second concern is about the personal decision of whether or not to be circumcised, as it is affected by a number of factors. First is capacity and access to VMMC. Young men express frustration at not accessing it on demand. Second is concern for the future, as should they have their foreskin removed by *'rola katiba'*, it could create a tricky situation in later years if they choose *'lebollo'*. As the subjects are mostly men, this question is key in deciding to do MC. The third issue is that it provides just 60 per cent protection (WHO 2009a), yet there are myths among men that MC alone can protect fully against HIV.

The fourth concerns traditional initiates 'returning to school'. Annually in many areas of Lesotho, cohorts of 50 to 70 young men (and women), aged 15 to 24 years, leave school for traditional initiation. Pitikoe (2017, p.3) cites Preece et al. (2009) thus:

> Another cultural aspect that has been outlined by Preece et al. (2009) as impeding boys' education is that, culturally, boys have to go through the traditional rite of passage at the initiation schools. After their initiation graduation, readmission into the mainstream education becomes a challenge.

That was then. This study will reveal findings on the extent of change regarding relations between practitioners of traditional initiation (*lebollo*) and VMMC in Lesotho. Traditional initiation is unexplored as a potential game-changer in rethinking maternal, neonatal and general public health through recognising and strengthening the role of initiated men.

3.4.6 Referral management between IHEs and other services

Referral means moving a client from one service to one with greater human skills, artefacts and resources. Painter et al. (2010) recommend referral for services if more health care expertise is needed as part of the cycle of services at any stage. Barber et al. (2017) use referral to seek further care for HIV positive men with neurocognitive impairment, for example. Since IHE clinics are "clinical micro-systems" (Nelson et al. 2002, p. 472) with "small functional, front-line units that provide most health care", meeting the clients' greater needs calls for referral to a facility more suited or has capacity to provide the care. However, the referral conditions, locations, staff and facilities can be barriers to sexual reproductive health (SRH) services. Wahed at al. (2017) note this case in point for sex workers.

3.4.7 Supply chain management for ARVs in the IHEs

One of IHEs' key activities is to provide ARVs, as per the Ministry of Health's (2017b) *Standard Treatment Guidelines for Lesotho,* but gaps occur with the accessibility and availability of essential drugs in poor countries (Pecoul et al. 1999). To typify global, regional and local concerns over pharmaceutical production, regulation, staffing and finance, Jones and Hufford (2017, p. B1) cite a United States generics giant (Teva) cutting staff by 25 per cent due to "turbulent US pricing, heavy debt and an unwieldy supply chain". Despite promises of service, supply cuts risk drug resistance for users.

Among the emerging issues in the supply of ARVs, other than the main problem of counterfeits, according to Lugemba et al (2013), is abuse. Recognising this, one United States company which supports the President's Commission on Combating Drug Addiction and the Opioid Crisis Action Plan (Jones and Hufford 2017) pledges to support the fight against prescription and opioid abuse. ARVs are increasingly abused as recreational drugs in '*nyaope*'[3] in SA (Mokwena 2016) and anecdotally in Lesotho. Thus, education and surveillance are priority, hence the role of health information systems.

3.4.8 Health information systems (HIS)

A health information system (HIS) is a key function in an IHE's response. Not only is it key to monitor, evaluate and report, but importantly the originators of the data must use it on-site for decision making. Mbondo et al. (2013) cite a Kenyan study in which HIS is used to share information, starting at the community level. In IHEs' microsystems, HIS can be used to select, sort, standardise and processes data for decision making (Checkland and Holwell 1998). It means transition from data pieces such as sex, ages and dates of visits to aggregated categories and activity to support planning. Walsham (1993) says an HIS needs the involvement of operational level users to work best.

From a CHAT stand point, the HIS is a tool to act upon the lack of information (object) in IHEs. The MoH (2014b) admits that its district health information system (DHIS II) has gaps, while HEAIDS (2010) reports that university HIS systems either do not exist or are unable to perform aggregation functions. SARUA (2006, p.41) states:

[3] *Nyaope* (in Pretoria) is also known as whoonga, sugars (in KZN, Durban), *úngah* (in the Western Cape), and 'pinch' (in Mpumalanga) according to https://ridgetimes.co.za

> A recurring theme …in the higher education sector in the SADC is the lack of adequate data and surveillance on the impact of HIV/AIDS on campus.

Much like its peers in the SADC region, Lesotho's IHEs appear to walk in the dark regarding the availability and application of HIS tools to inform their responses and this will be evidenced in the findings in later chapters. Another key component is the role of curriculum.

3.4.9 Curriculum and research as tools of IHEs response

The literature shows that incorporation, inclusion, infusion or 'integration' (the preferred term to generalise all four in this study) of AIDS into the curriculum is one way in which IHEs can improve their responses. There is substantial concurrence to include AIDS in the higher education curriculum generally, evidenced by the MoET's (2005) Lesotho Education Sector Strategic Plan 2005-2015; Ntombela, Stilwel and Leach (2008); NUL's (2009) AIDS Policy; the University of Zambia's (2009a) HIV/AIDS Response Programme; and HEAIDS (2010). The HEAIDS (2009) distinguishes incorporation[4], inclusion, integration and infusion into the curriculum. On the rationale for integrating AIDS into IHEs' curriculum, Raselimo (2012, p.5, unpublished) summarises the origins of integration, thus:

> ...The concept of 'integration' can be traced back to the era of progressive education; the work of progressive philosophers such as John Dewey, who argued for establishing a link among curriculum, the learner and society**,** organising curriculum around real life problems/issues that are of personal and social significance (Beane, 1996). The mediating action is loosening subject boundaries to allow incorporation/infusion of practical life problems or issues confronting society. An integrated curriculum is therefore loosely bounded to incorporate practical life problems (Bernstein, 1996, 2000).

This extract not only shows how historical integration is called for by imminent educational reformists and pragmatists, but also how it closely relates to today's social problems such as the IHEs' fight against AIDS. This will be evidenced in the findings. Further on, Raselimo (2012, p.7) justifies integration with objectives to:

[4] In this study the researcher uses 'integration' to mean inclusion of HIV/AIDS into IHEs curriculum and 'incorporation' in the context of CHAT as the frame for supporting models and theories, as explained later in the methodology.

- Enable students to face and solve real world challenges and problems such as HIV/AIDS; and
- Enable the development of skills, values and attitudes (e.g. critical thinking and problem-solving, assertiveness, and interpersonal skills).

To achieve these outcomes Raselimo (2012) lists four models, namely the Interdisciplinary, the Problem-Based, the Theme-Based and lastly the Stand-Alone Course (citing Loepp, 1999). These are revisited in the recommendations of this study. The models have, in CHAT, different sets of rules, resources (artefacts) and divisions of labour. How far the three IHEs integrate HIV/AIDS into their curriculum is shown in the findings.

3.5. Enablers of Response in the Selected IHEs

This section reviews the literature on four key areas that relate to, and influence the response. It draws on the International AIDS Society (IAS) (2019, p.1) view that "the movement to confront the AIDS epidemic is a portrait in resilience that has led to one of the most extraordinary public health responses in history". Hence, despite its challenges, it invokes resilience whose 'enablers' are leadership, problem solving, agency and empowerment, and which mediate enacting the nexus of IHEs, AIDS and services. This section identifies, critiques and explains the gaps between enablers in the IHEs response. The first is leadership.

3.5.1 The role of leadership

Defined by Mullins (1998, p.253) as a "relationship through which one person influences the behaviour or actions of other people", leadership brings change (Draft 2001), even in IHEs. Oduro and McBeath (2003, p.20) cite "leadership to raise the conscientiousness of the people … during the transition". Although applied to orphaned and vulnerable children (OVC) (UNICEF 2017), it holds for IHEs, whose leaders can promote HIV testing among students. Umble et al. (2006) evaluate leadership in managing a public health academy, showing how this element is most pivotal to any health enterprise.

Bennell et al. (2002) lament that the MoE has not provided leadership to assist orphans and vulnerable children, who later become the IHEs' students. The knowledge gap is a subject of future research on how being orphaned can affect learning. The first of six key recommendations in the executive summary of the AAU (2010), HIV/AIDS Synthesis Report, on strengthening African universities' AIDS Programmes, (p.7), reads "strong leadership, policy and management commitment", while the fourth addresses "curriculum reform to

develop the new skills needed by graduates in an AIDS affected society". The two recommendations synergise leadership, which is housed in the mental, attitudinal and disposition of subjects leading the curriculum. Nattrass (2008) asks whether national leadership they deserve good and bad reputations for their responses to AIDS. For IHEs, the answers lie in the next section to reveal the problem solving role of leadership.

3.5.2 Problem solving and learning by doing

When discussing "learning by doing" Mukeredzi (2009, p. 270) cites Caires and Almeida (2005), saying it relates to and constitutes "experiential learning". The two concepts are almost synonymous and suggest that subjects must proactively learn to modify objects and transform their actions to better transform the objects. From a CHAT angle, a lack of transformation and proactive adaptation is a contradiction to experiential learning. When discussing 'learning by expanding' Engeström (1987, p.50) argues that unless learning expands, there may be an "increasingly recognisable futility of learning in its standard reactive forms", evidenced by poor agency, problem solving skills and embeddedness in a reactive response mode.

In learning theories Mezirow (1991) introduces 'transformative learning', perhaps a relative of Engeström's (1987) 'learning by expanding'. The theory is of constructivist orientation and holds that how learners interpret and reinterpret their experience is central to making meaning and learning (Mezirow, 1991). This transforms individual reactions to specific situations. The question is how to transform what Kelly's (2002) calls unchanging methods of education in IHEs to expand the response. The answer lies in addressing the service gaps in the IHEs, while the HIV prevalence rises in Lesotho (MoH 2017e). The contradiction may need expansion into 'learning by learning' as the next frontier in IHEs.

Kelly (2002, p.36) urges "participatory methods and experiential learning techniques" in rethinking the response. The combined effects of participation which involves communication, (Engeström and Middleton 1993) and experiential learning could prevent embedding the response in reactive modes. Kelly (2002) attributes poor participation and lack of transformational learning to the current poor response in universities. To enhance the learning curve, Engeström (1987, p.23) cites Gagne's (1970) "eight hierarchically organised types of learning" where "the highest, cognitively most advanced type is called problem solvin*g*". The citation further states that in problem solving:

> … two or more previously acquired rules are somehow combined to produce a new capability that can be shown to depend on a 'higher-order' rule (Gagné 1970, p.64). ...

> [Problem solving is dependent] on the store of rules the individual has available (Gagné 1970, p. 223).

This implies that in converging and adapting strategies, rules and capabilities, leadership should focus on problem solving, participation, experimenting, guiding and influencing as key to successful responses. However, even learned leadership cannot alone deliver without other key factors, such as a statement of intent, or policy, discussed in later subsections.

3.5.3 Agency in IHE response

Agency is drawn into this literature due to its frequent mention in the role of the individuals in the response. For example, Daniels et al. (2010, p.54), citing Jyrkämä (2007), state that 'agency' may be looked at "as a quality of each individual" or "a quality of the collaborative effort, relationship or interaction itself". Referring to the role of beliefs and the supernatural around AIDS, Kelly (2002) says that often it is influenced by ill-willed and malevolent subjects who use witchcraft and/or sorcery. On herders, Pitikoe (2016, p.85) cites agency in "situations where agents with human capital are unable to acquire their needed academic qualification due to their lack of habitus". She (ibid) quotes Morrice's (2007, p. 161) definition of habitus as "the sets of values and ways of thinking which form a bridge between subjective agency and objective position". Agency is thus pivotal in any human activity.

By probing the role of individual actors and their ability to influence social transformation, the literature draws on individual Cartesian, the separation of the spheres of individuality and the wider community (van der Riet 2009; Mukeredzi, 2009; Capra and Luisi 2014). There can be leadership and policies in IHEs, but the catalyst within the individual is agency. Daniels et al. (2010, p. 55) cite Jyrkämä's (2007) view that agency arises as individuals:

> …construct their own life courses and futures by utilising the resources they have, acting and making choices in situated time and space, and within the scope of possibilities, conditions and constraints the actual socio-cultural circumstances may offer to them.

To achieve this, they employ six "modalities of agency", namely "knowing how to do something", "wanting to do something", "having to do something", "feeling, experiencing appreciating something", "having a possibility to do something" and "being able to do something". The six modalities act as what van der Riet (2009, p. 57), citing Vygotsky (1978),

suggests are “three classes of mediators” which are “other people...”, “technical/material tools...” and “psychological tools - devices for mastering mental processes which have social origin”. Thus, ‘agency’ and the ‘modalities of agency’ help to interpret the individual’s social motive for activity/response.

The modalities relate to outcome(s) as the rationale and activity within the IHEs’ mandate because ‘knowing’, ‘wanting’, ‘having’, ‘experiencing’ and ‘being able’ to enact the object of the responses are core in this study. According to Jyrkämä (2007), cited in Daniels et al. (2010) modalities of agency has actors or agents, everyday practices, physical and social spaces, and local cultures, that interact in activity. Table 3.1 below summarises modalities, mediators and dimensions of agency.

Table 3.1: Modalities of agency
Source: Adapted from Jyrkämä (2007) in Daniels et al. 2010

Agency	
Modalities of agency	Knowing, wanting, having to do, having a possibility, being able to, feeling/experiencing to do.
Mediators of agency	Human, tools, ideas.
Dimensions of agency	actors, practices, spaces, cultures.

With agency, it is unavoidable not to position humans/people as central to consciously acting-out (Mukeredzi 2009) responses. Thus, even as agency expands, it cannot work without empowerment, as agree Vecchio, Justin and Pearce (2010).

3.5.4 Empowerment for the response in IHEs

The link between agency and empowerment is raised by Narayan (2002) in the discussion regarding fighting poverty and explored in-depth by Ibrahim and Aikire (2007) in *Agency and Empowerment – a Proposal for Internationally Comparable Indicators.* Of the many authors cited in that survey of definitions of agency and empowerment, they first quote Albertyn’s (2001) view that:

> …effective empowerment must occur at each of three levels: micro (attitude, feelings and skills), interface (participation and action immediately around the individual) and macro (beliefs, action and effects).

This may be classified as a locational, structural or hierarchical view. It applies to the response due to its connection with the three main components and the sub-components of every-day

life in IHEs. That is, there are attitudes, skills, participation action, effects, etc, in any college. Another view linking agency to empowerment by Ibrahim and Alkire (2007) is:

> …an increase in certain kinds of agency that are deemed particularly instrumental to the situation at hand. Thus, empowerment is a subset of agency, and that increases in empowerment would be reflected in increased agency (but not necessarily vice-versa) (Ibrahim and Alkire, 2007, p.4)

This reveals that empowerment is part of agency. More important is the contradiction that the relationship in one way is not the same in another way. The question is why the relationship is not mutual. While some see structure, others see power. In *Empowerment – an Expansion of Agency,* Ibrahim and Alkire (2007, p.384) analyse Oakley's (2001) views saying he:

> …differentiates two "types" of power: *power to cause radical change* and *power- in a Freirian sense- as the ability to do and to gain control.* He argues that power can be either "variable-sum" or "zero sum". The former refers to a process through which the "powerless can be empowered without altering the nature and the levels of power already held by existing powerful groups"; the latter argues that "any gain in power by one group inevitably results in a reduction of the power exercised by others…

In this view, there are two extremes – a source of contradiction between two power stakeholders where some may get a 'win-win' or 'variable-sum' situation while others see a 'win-lose' or 'zero-sum', being for those in power and the powerless respectively.

The IHEs can empower students without decreasing the authorities' (vice chancellors, lecturers, HTS providers) powers. From a CHAT stand point, this lies with instruments of legitimate power and divisions of labour. True to the liberating nature of education (Mandela 2013), the reduction (and not loss) of, for example parenting power, leads to a gain of self-parenting power when students leave home to attend college. It is thus a good contradiction. HIV transmission results from behaviour among youth in environments of personal freedom away from home (NUL 2011). Thus ultimately, power and empowerment are about balancing students' personal freedoms with IHEs' authority. Ibrahim and Aikire (2007, p.384) cite Rowlands' (1997) prepositions of power as:

> …four categorisations of power: power *over* (ability to resist manipulation); power *to* (creating new possibilities); power *with* (acting in a group); and power *from within* (enhancing self-respect and self-acceptance).

The prepositions (in italics) above echo Abraham Lincoln's view of democracy: 'government of the people, for the people by the people'. Although this refers to categories of power, its similarities with the modalities, mediators and dimensions of agency and CHAT mean that IHEs' authorities have power over object, i.e. AIDS, to intervene in a sustainable manner. The next sub-section identifies three main contradictions to sustaining the IHEs' responses.

3.6 Sustaining the response in IHEs

This sub-section highlights the literature on globally recognised ways to achieve response sustainability. The UNAIDS (2018) in the *Way Forward to Achieving Sustainable AIDS Results*, envisions ending AIDS by 2030 through cross-cutting, sustainable means. This study selects, other than political leadership, three key organisational tools and mediating actions in CHAT. One is 'planning and investing human, financial and material resources'. The second common mediating actions are 'coordination, cooperation and communication', often loosely used in the response. The third is 'monitoring, evaluation and reporting' in the SSA context.

3.6.1 Planning and investing resources

Prior to planning and investing resources, response is based on knowing what object must be acted upon, making 'information' *key* for planning. Kanyengo (2009) says libraries disseminating HIV/AIDS information work best with partnerships and educational activities. Second is 'financing', and Cairns et al. (2006, p. 164) say "while…education may well recognise the moral imperative of responding to HIV/AIDS for the benefit of society, current funding models do not support this". Thus, poor financing implies low human and commodities resources, as identified by SARUA (2006), HEAIDS (2010) and UNAIDS (2011). The findings will show the value of the three IHEs investment in appropriately qualified staff. Cairns et al. (2006, p.159) sum up that the logic in which "universities bear the cost" of AIDS programmes with little short-term benefits threatens the region's human capital. So agree Erima and Wosyanju (2014), noting the threat to Kenya's human capital.

Despite the contradictions of limited planning, human resources and finance in "piecemeal" approaches (Kelly 2002, p.28), IHEs somehow sustain their responses. Cairn's et al. (2006); Kanyengo (2009) and HEAIDS (2010) link this to leadership, commitment, 'coordination,

collaboration and cooperation' (Cairn's et al. 2006, p.160) among stakeholders, as do Kymario et al. (2004). What is this study's context for these three concepts?

3.6.2 Coordination, cooperation and communication in IHEs

This sub-section reviews CHAT-related meanings of these three common response concepts. Nummijoki and Engeström (2010) discuss 'modalities of agency', linking it to the three concepts innovated by Raeithel (1983) and Fichtner (1984). These three concepts, by Nummijoki and Engeström (2010, p.54) originated as "three modes or developmental forms of epistemological 'subject-object-subject' relation (that) are called coordination, cooperation and communication". Using three models of 'actors, scrip/blueprint and object', they propose a model of "qualitatively different modes of interaction" which can be used to analyse the "quality of the encounter between the home care worker and client", herein exemplified as campus nurse and student. These three modes are highlighted for CHAT-based answers to the research questions on the IHEs 'interplays', 'strategies' and 'implications'.

i. Coordination

Rau (2009, p.9), illustrating an output of coordination, refers to the HEAIDS (2010) study as the "first nationally 'coordinated' large-scale drive to develop and strengthen responses" in IHEs. At NUL, it became policy to employ an officer to coordinate its response (NUL 2009, p.20). What in CHAT is coordination? Nummijoki and Engeström (2010, p.57), citing Goffman (1959), characterise coordination as:

> The mode of normal scripted flow on interaction where various actors are following their scripted roles, each concentrating on the successful performance of the assigned actions, or on the presentation of the self. The script is coded in written rules and instructions or tacitly assumed traditions. It coordinates the participant's actions as if behind their backs, without being questioned or discussed.

In this general structure of coordination, the script/blueprint is the same, the actors are independent and can be as many as the objects, which intersect for example in a venn diagram. The HEAIDS (2010, p.5) states "another rung of institutional structures is HIV and AIDS coordination units" which when implemented, "not only improved the coordination and sustainability of responses" but add value of better interventions, monitoring, accountability and learning for the response. The actors (subjects) reveal gaps in coordination to the object (AIDS) and clients (community) as will be evidenced. What is cooperation?

ii. Cooperation

As far back as the mid-seventies, the Ministry of Health and Social Welfare (MOHSW) (1976, p.6) said: "what has been achieved and what is planned is based on bilateral and multilateral co-operation". Nummijoki and Engeström (2010, p.57) say cooperation is:

> Interaction in which the actors, instead of focusing on performing assigned roles or presenting themselves, focus on a shared problem, trying to find mutually acceptable ways to conceptualise and solve it. The participants go beyond the confines of the given script without explicitly questioning or reconceptualising the script.

The illustration shows independent actors, a common script, and a shared object. Cooperation is thus not as rigid for actors as coordination for adherence to the (response) script. In universities SARUA (2006, p.47) says that student associations "promote(s) cooperation among different stakeholders" for further "regional and international partnership and cooperation" (ibid p.43). This suggests that cooperation is more for key stakeholders (nations and IHEs) than departments. The (MoET 2005) Higher Education Strategic Plan 2005-2015 urges cooperation with the GOL's partners and SARUA (2006, p.47) states its role as to "facilitate closer cooperation" in the region, retaining college independence and freedom of choice. This study will reveal how IHEs can keep their independence, yet work together on resolving their mutual problem.

iii. Communication

This third concept is perhaps more widely used than coordination and cooperation combined. Mahloane-Tau (2016) says poor communication in IHEs is key to the lack of progress. In relation to CHAT, Nummijoki and Engeström (2010, p.57) characterise communication as:

> Reflective interaction in which the actors focus on reconceptualising their own organisation and interaction in reaction to their shared objects. Both the object and the script are reconceptualised as well as the interaction between the participants.

The illustration shows independent 'actors', each acting out their own reconceptualization of the 'script' and a shared 'object'. Actors may do whatever they want. In communication, there is even less strictness on actors than with coordination and cooperation. The HEAIDS (2010) affirms the varying IEC resources, operations and challenges with communication regarding AIDS. Gaps in the three IHEs' responses lie with the role of communication.

In conclusion, coordination, cooperation and communication are critical key concepts for sustainability. Gaps due to the arbitrary use of these three modes of activity can lower or raise commitment in the current situations, strategies, interplays and implications. The next sub-section summarises the role of monitoring and evaluation for sustainability in the IHEs.

3.6.3 Monitoring and evaluating the response

Monitoring and evaluation (M&E) essentially feature in responses, use health information systems (HIS) and inform research. They provide part of the answers to Virkkunen, Markkanen and Lintula's (2010, p.9) "need for boundary crossing and co-development" as buzzwords of 'information' and 'knowledge' societies. Despite this, users of M&E and HIS seem to blindly interact with data, information and IEC materials, or are spectators (Mahloane-Tau, 2016). Ali and Sileshi (2012, p.48) cite poor "communication" and "lack of commitment" in unsuccessful responses. The latter two affirm that colleges neither buy into buzzwords nor use data to inform response decisions.

An M&E observer, Kelly (2000, p32) notes: "although the programmes seem to provide young people with better factual information" and perhaps knowledge, they do not necessarily ultimately influence behaviour. As an object of HIS, poor individual behaviour change can be translated to institutions, as indeed IHEs comprise collective individuals. Butler-Adam (2012) recommends collecting reliable data, improving coordination among stakeholders, planning and finance, and increased research output using M&E by the partners of the IHEs. The UNAIDS (n.d) affirms data use and M&E in the context of triangulation (see chapter four) as a key aspect of any response. This study will draw findings on the M&E status, and the challenges and opportunities for response sustainability in IHEs.

3.7 Conclusion

This literature review covered the three key areas of response (HIV/AIDS, IHEs and services), showing current knowledge, key authors and gaps in mostly regional and local contexts, in the period from 2000 to 2018. It focuses on current response components, strategies, synergies and implications. In the SSA region, the literature affirms leadership and political will to be key in any response, and will be confirmed or rejected by the findings.

The literature shows gaps with services, mainly due to IHEs leadership not showing 'agency' in their role, and despite national rules that require compliance. The second gaps is with finance, and the literature evidences inadequate annual budgets relative to IHEs student populations and demand. This causes shortages of staff, disproportions between demand,

coverage and the quality of services. A moral imperative (Cairns et al. 2006) thus indicts IHEs for agency, finance and staffing, which will be assessed for the three IHEs under study.

Finally, five main contradictions regarding policy, leadership, curriculum, problem solving and resources characterise this chapter. For sustainability, three modes of interaction related to CHAT, namely coordination, cooperation and communication are key, and are defined in relation to IHEs. Despite the high incidence and prevalence of HIV, the literature suggests a lack of commitment and a low capacity for services, information and monitoring as the main gaps in the fight against HIV. The next chapter focuses on how this study was planned to identify the problems and set up tools to collect, organise and analyse the data.

CHAPTER 4 – METHODOLOGY

4.1 Introduction

The purpose of this study is to interpret and qualitatively analyse the responses to HIV/AIDS in three selected IHEs in Lesotho. Following the literature review in chapter three, this chapter covers the research methodology in four areas. First, the study design identifies the paradigm and descriptive dimensions. Second are the research questions, and third, the data collection methods with the rationale and approaches when using qualitative methods. The fourth area covers the ethical considerations and explains the management of participants[5]. This chapter draws on the researcher's experiences from the pilot IHE, Lerotholi Polytechnic (LP), showing the conduct, challenges, benefits and adjustments made after that phase.

4.2 The research design in this study

This sub-section links the study design and methodology to CHAT, drawing on Bowling's (2002) definition of research as a way to describe phenomena and to develop and test explanatory concepts and theories. Gravetter and Forzano (2012) say theories explain, predict behaviour and contain hypothetical mechanisms and intangible elements. This helps to "organise and unify different observations related to the behaviour" (ibid, p.104), and guides the organisation of the findings from the three IHEs. The response is studied in the context of qualitative research. Based on Lincoln and Guba's (2000) expressions of ontology (the nature of reality), epistemology (how we know what we know), and methodology (the process of research), this section puts in context, first, the paradigm of the study.

4.2.1 The research paradigm

This study is based on a paradigm, which is a 'world view' or a general framework through which to see life. Savin-Baden and Howell-Major (2013) note that some scholars approach research from a positivist or post-positivist paradigm, with options of a quantitative perspective, while others use a qualitative approach, or even a mixed method research (Bazely 2009b) method. Polit and Hungler (1991, p.651) define paradigm as "a way of looking at a natural phenomenon that encompasses a set of philosophical assumptions and that guides one's approach to inquiry".

[5] Throughout this study, the researcher uses 'participant' and 'respondent' interchangeably to mean students and staff of IHEs who took part in the KIIs and FGDs during data collection, unless in references to other studies.

In studying the phenomenon of response, this study identifies two paradigms. One is the *positivist paradigm*, which is merely highlighted but is not of interest in this study. It sees reality as stable, external and governed by laws (Terreblanche and Durrheim 1999), is objective in inquiry, and its methodology relies on control and the manipulation of reality. It is quantitative and involves experimentation and hypothesis testing, and the truth depends upon the ability to control and predict the settings of the research.

The other paradigm, which guides this study, is the *interpretivist paradigm.* It embraces subjective individual experiences and views as a basis for reality. It also promotes multiple views and truths and is concerned with theory generation, and is thus consistent with the multifaceted nature of CHAT. It is based on reality that emanates from the minds of individuals (Terreblanche and Durrheim 1999). In studying activity, Mukeredzi (2009) notes that it has an inter-subjective, ontological, epistemological, axiological and methodological stance. She quotes Henning's (2005) view that the interpretivist paradigm enables the collection of subjective accounts of participants' experiences of a phenomenon. The subjectivity and accounting for participants' experiences is core to the findings of this study.

4.2.2 The interpretive case study

The interpretivist paradigm is core to the design, style, approach and data collection techniques in this study. In addition, it is used here with CHAT's eight concepts (subject, object, artifact, rules, community, division of effort, activity and outcome) and is inclined to a more deductive than inductive approach. The trend is common to an interpretive case study (Merriam 1998), and the particular is deduced from the general (Orb, Eisenhauer and Wynaden 2000; University of Bradford 2007).

True to the deductive approach, the researcher posed the research inquiry to the participants to gather their views on the IHEs' responses. In an inductive approach, the researcher would have first collected facts and compared them with the views of participants. The deductive approach proved more economical and quicker to apply at all levels of the research process. This was reflected in the style of questioning or data collection tools in the KII and FGDs.

4.2.3 The three IHEs as case studies

This study of three IHEs is essentially a comparative case study design. Tracing the origins of case-studies, Savin-Baden and Howell-Major (2013) cite Healy (1947) who links case studies to Le Play, a French sociologist and economist who in 1879 case-studied family budgets. The

authors (ibid, p.154) identify types of case studies by purpose, discipline and approach. They define, bind and decide on using single or multiple cases. Case studies answer research questions when (due to purpose, discipline, approach) they are, according to Creswell (1998), juxtaposed with biography, ethnography, phenomenology and grounded theory studies.

Savin-Baden and Howell-Major (2013, p. 155) cite Merriam (1988), Eisenhardt (1989), Yin (1993) and Stake (2005) when defining case studies by purpose. The main ones are exploratory, descriptive, instrumental, interpretive, exploratory and evaluative functions. This study maintains an interpretive case study design and links to elements of the exploratory, descriptive and instrumental purposes. It reveals the IHEs' bio-data, 'life-ways', and the phenomenological complexities of responses which became the findings, drawing from KIIs, FGDs, observations and document reviews. All of these support the purposes of case studies.

The criteria for choosing a case study design, to which Savin-Baden and Howell-Major (2013) exemplify a university, include the organisation's sizes, locations and dominant disciplines. The advantages of case studies are flexibility, allowance for in-depth investigation, thoroughness, responsiveness and a wide coverage. Challenges with case studies include invasive intrusion into subjects' lives, a potential for focusing on a simplistic and incorrect world view, dependence on size, boundedness and an eclectic nature of investigation (Walker 1993). To distinguish case studies from other research approaches, Ague (2008, p.41) specifically selects the case study for its advantages, and combining Merriam (1989) and Leedy's (1997) views, he states:

> ...the main purpose of an *ethnographic research* is to provide an analytical description of social scenes or groups and their behaviours; the main purpose of *grounded theory* seeks to develop theory that is grounded in data systematically gathered and analysed; the main purpose of *phenomenology research* attempts to understand participants and views of social realities; and the purpose of *case study research* arrives as a comprehensive understanding and develops general theoretical statements about regularities in social structure and process. (Researcher's italics for emphasis).

This distinction supports Creswell's (1998, p. 12) view that "case studies can be used to describe a unit of analysis such as a particular organisation (e.g three IHEs), event, programme or plan from a positivist, interpretive, or critical approach depending on the underlying philosophical approach of the researcher". These views help to balance the benefits and challenges of a case study, noting the risk of intrusion into subjects' lives as a basis for a later

discussion on ethical considerations. This study of the IHEs is thus a case study of three different entities, qualitatively comparing their responses for similarities and differences. The next sub-section covers the qualitative approach used this study.

4.2.4 Comparing qualitative and quantitative approaches

This sub-section gives, first a brief comparison of quantitative and qualitative approaches, with notes on how each of these two apply in this study. Following on the interpretivist paradigm, Polit and Hungler (1991) define a research design as an overall plan to collect and analyse data, including data specifications to enhance a study's internal and external validity. MacDonald and Headlam (1986) compare quantitative and qualitative research, thus:

Table 4.1: Comparing quantitative and qualitative research methods
Source: MacDonald and Headlam (1986, p.9)

Features	Quantitative	Qualitative
Aim	The aim is to count things in an attempt to explain what is observed.	The aim is a complete, detailed description of what is observed.
Purpose	Generalizability, prediction, causal explanations.	Contextualisation, interpretation, understanding perspectives.
Tools	Researcher uses tools, such as surveys, to collect numerical data.	Researcher is the data gathering instrument.
Data collection	Structured.	Unstructured.
Output	Data is in the form of numbers and statistics.	Data is in the form of words, pictures or objects.
Sample	Usually a large number of cases representing the population of interest. Randomly selected respondents.	Usually a small number of non-representative cases. Respondents selected based on their experience.
Objective/ Subjective	Objective – seeks precise measurement and analysis.	Subjective - individuals' interpretation of events is important.
Researcher role	Researcher tends to remain objectively separated from the subject matter.	Researcher tends to become subjectively immersed in the subject matter.
Analysis	Statistical.	Interpretive.

Table 4.1 above shows main differences between quantitative and qualitative research methods. Of interest, and inclined to the latter in this study is the aim, which is more to describe than to count data. The purpose gives context and interpretation and not causal explanations. The data collection tools in this study are unstructured, with an admittedly unrepresentative sample. The other components are briefly captured in the next sub-sections.

4.2.4.1 The role of the qualitative approach

As this study is qualitative, the positioning of the researcher (see Table 4.1 above), is in line with Bazeley and Kemp (2012 p.59) citing Denzin and Lincoln (2000) who see:

> the researcher as a bricoleur or quilt maker who borrows from many different disciplines, perspectives, theories, or methods, working between and within competing and overlapping paradigms and perspectives, with the resulting quilt, collage, or montage being a 'set of fluid, interconnected images and representations'.

Thus, the quilt of subjectivities of IHEs' participants and multi-faceted factors in the responses made the qualitative approach preferable. Qualitative data collection and analysis involves interpretation of narrative data, while quantitative data and analysis involves numerical data and statistical procedures describing it (Polit and Hungler 1991; Gravetter and Forzano 2012; Abate 2018). In addition, van der Reit (2009) notes that generally, qualitative research can be described as a more open-ended and inductive exploration of a phenomenon.

This study's research questions explore relationships, strategies and implications using the qualitative element. The type of data collected arose from questions on the actions of each IHE's management in their response, focusing on the reasons for actions; what they did; how well they did it; and when and how often they did it. This required identifying methods of data collection by each management level (top, middle, operational) as sources of data in each IHE (chapters five, six and seven), which are qualitatively synthesised in chapter eight. The next sub-section highlights the relevance of quantitative element in this study.

4.2.4.2 The role of the quantitative approach

Although using a qualitative approach, this study could not completely avoid or ignore the quantitative element, because to explain the current situation of HIV/AIDS, strategies and implications, it used quantitative, simple numeric data, but not any statistical, regressions or modelling analyses of true quantitative design. Polit and Hungler (1991, p.652) define quantitative analysis thus:

> …manipulation of numerical data through statistical procedures for the purpose of describing a phenomena or assessing the magnitude and reliability of relationships among them.

The limited numerical data in this study are drawn from global, regional, national and the selected IHEs' health clinic records on HIV/AIDS services, analysed in tables, figures and quotes. Harwell (2011) says quantitative methods are deductive in nature, and inferences from tests of statistical hypotheses lead to generalisations of the characteristics of a population. These actions are limited in this study; it converts absolute figures to percentages and generates graphs and bar charts etc, to support qualitative conclusions. The next sub-section explains combining more than two methods under one design, as used in this study.

4.2.4.3 Lessons from mixed methods research

Mixed method research refers to a combination of qualitative and quantitative methods (Bazely 2009a; 2009b). Although this is a multi-method/multimodal design study, it can however, borrow from experiences with mixed methods. MacDonald and Headlam (1986) and Gravetter and Forzano (2012) define and differentiate qualitative and quantitative methods, while Polit and Hungler (1991, p. 517) justify a "judicious blending" of methods for quality research. Similarly, multi-modal design has its benefits, although Teddlie and Tashakkori (2009) caution:

> …strongly encourage authors to attempt to bridge inconsistent conceptualizations, consolidate disparate ideas, and try to create overarching conceptual frameworks to incorporate interrelated concepts and methods.

In applying the multi-method approach, this study links the key response concepts (HIV/AIDS, IHEs and services) using the multifaceted CHAT to interlink the epistemological, theoretical and methodological components (Mafuba and Gates, 2012) of the selected methods. In one study Nattrass (2008) uses an exploratory quantitative design, using regression methods, to answer the question of whether leadership deserves good and bad reputations over AIDS in terms of ARV's coverage and PMTCT access**.** Fielding-Miller et al. (2016) constructed and validated quantitative scales (called emic) of transactional sex, to help to identify KIs for interviews. The challenge is what to mix, incorporate and interrelate for credibility and trustworthiness. Stringer (2014) says qualitative research does not seek statistical representativeness, but rather looks for truth, value and credibility. The next section covers multi-methods, their usefulness and drawbacks in a triangulated approach.

4.3 The multi-modal/methods used in this study

This section is divided into two parts. The first part overviews multi-method study and shows its rationale and application in this qualitative research. The second part discusses the five data

collection methods considered and the four final ones used, based on experience from the pilot study of the Lerotholi Polytechnic (LP).

4.3.1 Rationale for using the multi-modal/method plan

Having discussed and differentiated qualitative, quantitative and mixed methods, quoting Macdonald and Headlam (1986) (Table 4.1), this study defines and adopts multi-modal methods to contextualize the discussion, guide and minimise confusion for the reader. Bezemer and Jewitt (2010, p. 1) state: "multimodality refers to a field of application rather than a theory", noting its application in linguistics, representation and communication studies.

In this study, the theory is CHAT and the field of application is response. CHAT is the frame which features the four methods of key informant interviews (KIIs), focus group discussions (FGDs), documentary review and observation for data collection. To interpret the data, CHAT incorporates here Zeithaml and Bitner's (2000) Seven-Ps model of services, the WHO Standard (2009) and Checkland and Holwell's (1998) information systems, necessitated by the breadth and facets of the response in the three IHEs. Further, Bezemer and Jewitt (2010, p.2) say multi-modality applies to "socially and culturally situated construction of meaning, and can be applied to investigate power, inequality and ideology in human interactions and artefacts". The foregoing adequately meets the needs of this study investigating and finding the truth that Stringer (2014) cites of social and cultural issues of HIV/AIDS.

The 'modes' are ways to express positions and views. Drawing on Bezemer and Jewitt's (2010, p.3) three key points on social semiotics and multimodality, one view is that "social semiotics assumes that representation and communication always draw on a multiplicity of modes, all of which contribute to meaning". This is especially the case in this study where, true to qualitative design, a small, 'unrepresentative' group of subjects (KIIs, FGDs and documents) speak for the wider IHEs' communities to make sense of the response.

The second is that "multimodality assumes that all forms of communication (modes) have, like language, been shaped through their cultural, historical and social uses to realise social functions" (ibid, p.3). This view supports using CHAT to interpret and realise the social function of response in IHEs. The third and last one is that "the meanings realised by any mode are always interwoven with the meanings made with those other modes co-present and co-operating in the communicative event" (ibid). This means that the combined strength of different modes of data collection, analysis and presentation all produce a bricolage or mosaic of new meaning, through triangulation (Abate 2018) and thematic analysis (Neuman 2000).

This overview of multi-method research connects to the next section which discusses each of the five data collection methods considered and the four final ones used.

4.3.2 The methods considered and selected for this study

This section defines each of the five methods, its rationale for use, strength and limitations and the actions taken in mitigation after the pilot phase at the Lerotholi Polytechnic and later with the substantive study. The considered methods are key informant interviews (KIIs), focus group discussions (FGDs), review of documents, observation and survey, as follows:

4.3.2.1 Review of documents

Also called documentary analysis, this is a process of systematic collection of written material as data. The method is favoured in education, health and public institutions, and is a rich source of both qualitative and quantitative data (Polit and Beck 2004). Much of the IHEs' responses are documented in at least one of three ways of interest here. These include the HIV/AIDS research in regional college studies such as HEAIDS (2009b; 2010) and SARUA (2006). The second is the review of official records, or administrative documents such as memos, letters, clinic registers, records for HIV testing, institutional policies and correspondence on HIV/AIDS. Another documents category is 'grey literature' such as regional and local newspaper reports on universities' incidents and activities on AIDS.

To review documents, permission was requested from the respective IHE authorities and custodians of the data at the clinics. This facilitate access, selection, and reading without removing such documents from the sites. Purposive document sampling was tested at the pilot LP, and materials were selected based on the researcher's discretion of the most informative ones on HIV/AIDS related activity. The specific content searched for (e.g. Annexure D), is referred to by Polit and Beck (2004 p. 403) as:

> …what ethnographers frequently collect and analyse of personal documents, institutional records, minutes of meetings, organisational bylaws or policy statements and promotional material, all of which provide a useful insight into lived experiences.

This method fulfilled the purpose with the selected records. While Polit and Beck (2004) say the advantages of a records review include being economical, comparability of periodic trends and the elimination of reactivity and bias, two major challenges arose. First, not all the documents (e.g. memos and letters) were accessible or known to exist. Second, the pilot LP

was more unable than reluctant to retrieve specific records, due to poor institutional record keeping. How other IHEs performed will be evidenced in the findings. During piloting, this gap was overcome by checking the facts with key officers and affirming that documents would be read by a PhD student, with the sole purpose to analyse the IHEs response.

The researcher obtained written approval from each of the three IHEs. The selected original documents remained with the IHEs after this study obtained the authorised copies. In all a total of six, three and eight official documents came from LCE, NHTC and NUL respectively to inform the response set-ups, leadership, financing and services, etc. The selected copies will be destroyed after the study is completed. Next is the key informant interviews.

4.3.2.2 Key informant interviews (KIIs)

Polit and Hungler (1991, p.647) define an interview as "a method of data collection in which one person (an interviewer) asks questions of another person (a respondent)". Affirming their usefulness, Gravetter and Forzano (2012, p.216) say that interviews are "reserved for very small groups of specially selected individuals", and are called key informant interviews (KIIs). They can be done face-to-face or telephonically. In this study, the pilot KII data was collected face-to-face with senior managers, using a semi-structured interview tool (Annex C) which proved fit for purpose. In the hierarchy of IHEs, KIs targeted were vice chancellors, rectors, registrars, bursars and nurses for their unique insights and knowledge of the key issues in their respective IHEs' responses.

The advantages of KIIs is in enabling in-depth exploration or detail, follow-up questions and exploration of complex issues, according to Gravetter and Forzano (2012). This proved true at the pilot stage. Respondents gave in-depth views of activities, challenges and successes in the LP's response. One challenge encountered with KIIs, as noted by Polit and Hungler (1991), is the dependence on the availability of the subjects/KIs, and the LP's leadership or senior officers were not immediately available. In remedy, the interviews were requested two weeks in advance, and the interviewees were reminded a day before, and again earlier on the day of their interviews to avert cancellations. The KIIs lasted 20 to 30 minutes each.

The second challenge was in capturing all of each KI's inputs. It was not feasible by notes alone and an electronic voice recorder was the principal tool. Voice recording proved most useful as the inputs were audible, easy to replay, and backup in another media to prevent

damage or permanent loss prior to the verbatim written transcription. Transcription is itself a time-consuming but very beneficial activity to identifying and highlight themes. A third challenge was that KIs extended their dialogue during the interviews and could not be cut short. All in all, the KI method proved most doable and is the main method of data collection in this study, as will be evidenced in the KII excerpts in each of the IHE's findings.

4.3.2.3 Focus group discussions (FGDs)

In this multi-modal study, FGDs are a "group of individuals assembled to answer questions on a given topic" (Polit and Hungler 1991 p.645). Barbour (2007, p.2) cautions not to confuse "focus group interviews" with "focus group discussions", and has issues with 'holding' a consensus view rather than 'reaching' it. At the pilot phase, one challenge was to identify and manage the number of FGD participants. The researcher decided on the criteria of each FGD to be voluntary, and comprise of students in groups of six to ten. The researcher used a random selection process where students were listed by academic years and in alphabetical order. The lists were obtained from the IHE official data-base. Opting out was allowed although none happened. On each list, the researcher marked every fifth student, alternating male and female sexes for heterogeneity. Where the same sex repeated, the next student of the other sex was taken. Thus, the three faculties and eight departments at LP yielded nine participants; five females and four males to pilot the FGD method.

The purpose of the mixed FGDs was to obtain male and female perspectives on the response (HIV/AIDS, services and IHEs), noting that the sexes could view, access or judge services differently. It took about 30 minutes and was based, as per the research questions, on their experiences of current activity, interplays, strategies and implications of the response in IHEs in general and the LP's role in particular. As primary users of IHE services, and a key population group for prevention strategies, students were found most suitable to inform this study using CHAT, the Seven-Ps of services mix, health information and personal views.

Consequently, except for the NHTC, the researcher organised two mixed FGDs, resulting in a total of five FGDs, for whom Annexure B was used to collect the data. As with KIs, the FGD voice recordings were done and later transcribed, with expressions of Sesotho translated into English. The main themes from the FGD inputs were identified and coded for analysis based on the CHAT components. The FGDs' advantages were direct feedback and interaction. The groups yielded their own rich data, with or without consensus in areas, the advantages of which outweighed even the challenges of volume of data and transcription.

4.3.2.4 Observation

Observation is a research method in which data are collected by seeing, watching and recording behaviours or activities of interest (Adler and Adler 1998; Polit and Hungler, 1991). Cohen, Manion and Morrison (2007) say that observational techniques are used extensively (by both participant and non-participant) to acquire data on real-life settings. There are at least three types of observation described by Savin-Baden and Howell-Major (2013) who used it in qualitative and mixed methods. Of the five types of observation, this study adopted focused observation since IHEs use health services, and to triangulate the KIIs and FGDs' inputs. Zeithaml and Bitner (2000) say observation enables the researcher to physically tour services. The researcher used the Seven-Ps to design an observation checklist to note the place (physical surroundings), the people giving the services, the processes (from reception to exit), the products and the physical evidence (e.g. medications, health records), service hours, user fees/price, and the promotion artefacts at each clinic.

Observation concurrently and conveniently went along with the data collection period for the KIs, FGDs and document review. It enabled seeing health related IEC products (on HIV/AIDS, STIs, TB, diabetes, etc) in offices, hallways, notice boards and libraries. The disadvantages observed during the observation process were that firstly, the LP did not have a health clinic, but it did have a psychologist's office. Secondly, although the process needed the researcher's physical presence on site, he could not see what happened in "moments of truth" (Zeithaml and Bitner 2000, p.86) during services, due to inaccessibility and the sensitivity of HIV/AIDS care. Other potential disadvantages of observations included altered behaviour (Adler and Adler 1998), but this did not occur as only top management and clinic staff, and not clients, were informed of the study. Photography was used to record images (see Figure 5.1) of the physical facilities, but never of the service personnel or clients.

4.3.2.5 Survey

Gravetter and Forzano (2012, p.217) describe a survey as the "ability to obtain information about a wide variety of different variables, including attitudes, opinions, preferences and behaviours", adding that some information is very difficult to describe in any other way. Another advantage of a survey (ibid) is that it provides an "easy and efficient means of gathering a large amount of information and data". This study however, found the survey unsuitable after pilot-testing at the LP. It required a representative sample (Neuman, 2000),

and large quantities of data plus quantitative analyses, while the interpretive paradigm works better with qualitative data. The next sub-section covers sampling and qualitative methods.

4.4 Steps in sampling for qualitative research

This section focuses first, on the steps used in sampling. It draws on lessons from the pilot phase and assesses the literature on each method, the group of participants and the anticipated challenges and mitigation strategies during data collection. Polit and Hungler (1991, p.269) discuss six steps in qualitative sampling, namely identification of the target population, deciding how to sample, building a representative sample, recruiting subjects, analysing and interpreting the data and the consideration of issues encountered in data collection and how they may be overcome. These are discussed in the next sub-sections.

4.4.1 Identifying populations and participants

Since the purpose of this study is to interpret and qualitatively analyse the response in three selected IHEs, it was absolutely necessary that the population and participants be drawn from the three IHEs. Thus, to satisfy the first step of identifying the target populations and participants, the final sample from the IHEs, by methods, is as shown in Table 4.2 below.

Table 4.2: Study populations and sample size by data collection method
Source: Researcher (2017)

IHE	Data collection technique by numbers of participants			
	KII (Managers)	**FGD (students)**	**Documents review**	**Observations: (clinic visits during study)**
LCE	3	2 x 6 = 12	3 documents	3 visits
NHTC	4	1 x 11= 11	2 documents	4 visits
NUL	4	2 x 8 = 16	5 documents	6 visits
Totals	**11**	**5 FGDs of 39 students**	**10 sourced documents**	**(13 visits to 3 sites)**
Pilot (LP)	3	9	2	2 visits
Other[6]:	NUL Humanities student's analyses of discordancy (see Table 8.3)			

The table above represents the KIIs, FGDs, the number of documents reviewed and the number of observations in this study. The sample comprises 11 KIIs, which include 1 vice chancellor,

[6]For this part, the researcher draws a discussion with a class of 35 students whom he lectured part-time on HIV/AIDS at NUL, Faculty of Humanities, before data collection. The topic was 'discordancy related scenarios in married and cohabiting couples'. The student's views are summarised in the Discordancy matrix, Table 8.3.

1 rector, 1 director and 8 other senior managers, lecturers and HTS providers. Five FGDs comprise a total of 25 students. Ten key documents were reviewed, some of which are not listed although they support the findings and analysis. Overall, the samples are deemed adequate for this study of the three IHEs.

4.4.2 Deciding on sample size

Deciding how to sample can be both a discretionary and a methodological issue. While encouraging that samples be as representative as possible, Polit and Hungler (1991) advise being realistic and conservative. Cohen, Manion and Morrison (2007) state that small-scale research often uses non-probability samples because, despite the disadvantages on non-representativeness, they are less complicated. These considerations were used in this study to arrive at the quota and purposive sampling for top management and random sampling to compose FGDs. The researcher sampled in a conservative manner, that is one sampling technique after another, starting with FGDs and KIIs. A challenge was to attain a uniform sampling method across all IHEs but the final sample, shown in Table 4.2 and Table 4.3, proved efficient and yielded large volumes of data, appropriate for the three IHEs.

4.4.3 Building a representative sample

For KIIs, the sample arrived at started with targeting a particular group (purposive sampling) of senior managers. Van der Riet (2009, p.95) cites Silverman's (2005) view that "generalizability in qualitative research can be addressed in part through sampling". The main types of non-probability sampling are convenience, quota, dimensional, purposive and snowball sampling. For the KIIs, (vice chancellors, rectors, directors, HTS managers and lecturers) this study mixed quota and purposive sampling to identify senior management staff to be interviewed. Representativeness in this qualitative study was considered more for experience, knowledge and richness of the data sources than for the numbers of participants. For the FGDs, a number of students were selected (as described in sampling above). For the documentary review, clinic registers showing attendance by students were used to describe the parameters in which the response occurred in the IHEs. Observation was 'sampled' during the physical tour and inspection of each campus clinic.

Although not quantitative, this study notes Wild et al (2018) definition of a statistic, which is a numerical description, usually based on a population sample. In mathematics, a parameter describes a population, and a statistic specifically describes a sample. These facts help when thinking over sampling issues, however very limitedly applied in this study.

4.4.4 Recruiting study subjects/participants

This sub-section refers to Table 4.2 (Identifying study population and participants) above. Sampling is the selection of a smaller group of subjects to represent a larger population in a study. Bhattacherjee (2012, p.65) defines sampling as "the statistical process of selecting a subset (called a 'sample') of a population of interest for purposes of making observations and statistical inferences about that population". Cohen, Manion and Morrison (2007) state that different kinds of samples apply with probability and non-probability sampling, and the representativeness of a sample allows for attrition and non-response, hence the need to keep proportionality. With the need for a workable sample in the three IHE's for good data management and to avoid data overload, the researcher used a small, manageable and rich sample of KIs, FGDs, document reviews and observation. How were the IHEs' sampled?

4.4.4.1 Sampling of IHEs' management (staff)

This group comprised the KIs, and purposive or "judgmental sampling" (Polit and Hungler 1991, p. 652) was the principal technique for selection. Purposive sampling means non-probability sampling where the researcher selects KIs based on his/her personal judgment and knowledge of which ones will be most representative and productive. As stated before, the KIs included top and middle managers (e.g vice chancellors, rectors, lecturers, nurses and HTS managers). The KIs each gave 15-20 minute sessions with a semi-structured questionnaire, which allowed room for going into all areas of the topic. The KI method was successful in this study, resulting in three KIs from LCE, four from NHTC, and another four from NUL. Thus a total of 11 KIs were interviewed (see Table 4.2 - Sample by methods). The interviews were recorded, transcribed and thematically analysed. This study obtained large quantities of narrative data, and the challenge was to select the most influential statements in answer to each of the research questions.

4.4.4.2 Sampling of the IHEs' customers (students)

For students FGDs were used, using random sampling, which is the selection of subjects based on their equal opportunity to part-take in a study (Barbour, 2007). As with the KIIs, a semi-structured FGD tool (Annexure D) was used because students, unlike management, were expected to provide more 'user views' than 'provider views' as customers of the HIV/AIDS related services in the IHEs. The VCs, Rectors and Directors gave the researcher written authorisation (see Annexure B) to sample the students. In each faculty, a lecturer was assigned

to facilitate the recruitment of the participants, but using the researcher's own approach to compose the FGDs.

The random sampling process for FGDs required lists of all the students per faculty and academic year, in alphabetical order. The researcher then selected the fifth male and female students on each list, on condition of their agreeing to participate. They were given dates and the venue of the FGDs. (The process is detailed in ethical considerations later on). As a result, each of the NUL's 7 faculties and one post-graduate group (drawn from both sexes) provided a total of 16 participants for the FGDs. Just before the FGD sessions, the researcher divided the groups into two and conducted a FGD with one group while the other waited in a nearby classroom. When finished, the first group exited the room and the second group immediately entered to prevent discussions between the two FGDs until completion. The FGDs were recorded and transcripts were later written and kept for analysis. In total, each group was a mixture of males and females, in equal numbers as far as possible. Two FGDs of 6 students each were held with the LCE students, one FGD was held with 11 NHTC students, and two FGDs of 8 students each were held with the NUL students.

4.4.5 Summary of issues in sampling in this study

In summary, using four methods of data collection affirms Bazeley and Kemp's (2012, p.61) view which can apply to multiple methods, that "each source of information contributes equally to the calculation of its location", and in this study, to its size and reliability. The authors (ibid) assert further that since no method is adequate all by itself, sources must be integrated during analysis and presentation of the results to achieve the purpose, in this case of this study. Based on this view and the discussions in these sub-sections, the point for the multi-modal approach to improve the research, information, and analysis is concluded. Table 4.3 below summarises the data collection plan by methods, focus areas and sources of data.

Table 4.3: Summary of data collection plan by research questions
Source: Researcher (2017)

Method of Data collection	Focus Areas - (With examples of key questions per method)	Sources of Data or Target Participants
Review of Documents	Evidence of use of National AIDS Policy, MOET Strategic Plan and IHE's own policy by leadership (i.e. does the IHE have a policy on HIV/AIDS?)	Vice Chancellor's memos, Registrars, Rector's records
	IHE leadership to develop plans for response (letters, memos, notices; (Q: what strategies exist in IHEs for the promised interventions?)	Official mail from AIDS Programme

	Institutional Guidelines/Protocols supporting national strategy. (i.e. Do the IHEs have an HIV/AIDS programme?)	Service providers and Management
	Budget and other resource allocations: Is the yearly budget allocation realistic for the target population?	Bursar, Financial Controllers, Accountants
	Evidence of AIDS network partners for health services, Counselling statistics, registers. (Is there concern and some attempt at service provision?)	Partner mail (in and out going) HC testing records, daily registers
Interviews	Explore the roles of leadership, challenges and achievements - what service gaps exist?	Vice Chancellors, Rectors, Registrars, Clinic Staff
Observation	Physical environment, service point, health service on site? HIV/AIDS signage, notices, accessibility	The IHEs in focus, health and student service points
	Students/clients rate usage of services. Application of the 7-Ps within the process. What are the service gaps?	Entire IHE community
FGD	Targets peer groups of students, lecturers, supporting staff, theme groups and student societies.	Peer groups of students, staff and interest groups

Table 4.3 above shows each data collection method for the target participants whose role is to contribute data to answer the research questions. True to the principles of data integration (discussed later), using multiple methods enabled counterchecking, triangulation and refining of the data across the methods. This gain has implications and issues.

4.4.6 Issues encountered in data collection

Having discussed sampling and data collection techniques, and despite the tools having been piloted at the LP to test their efficacy for the task, it did not eliminate every incident that could adversely affect data quality. The next sub-section shows three main contextual, logistical and access challenges encountered and the researcher's actions in mitigation to obtain reliable data.

4.4.6.1 Contextual issues

Context refers to an idea, its environment, relevance, perspective or background. HIV/AIDS is a widely acknowledged social issue in Lesotho. The selected IHEs expressed a need for response at all levels, and the literature shows the need to close the gap of poor access to information (NAC 2008; Mahloane-Tau 2016). Due to need and the IHEs' resolve to fight AIDS, no contextual challenges were met. However, some pilot participants did not immediately grasp the rationale for their involvement in studying their own IHE's response. This was evidenced by some LP participants asking "how do we feature?" To clarify, the

researcher summarised the study title, objectives, research questions and benefits. It averted contextual ambiguities, and no withdrawals or adverse incidents with KIIs or FGDs occurred.

4.4.6.2 Logistical issues

Mukeredzi (2009) defines logistical challenges in qualitative fieldwork as generally related to gaining access, unanticipated problems, limited communication, etc. Her study was hampered by logistical issues due to the then political climate in Zimbabwe. During this study, no political, economic, social or other hampering events occurred in Lesotho, except a strike by the LCE staff union just as the gatekeepers authorized the data collection. This meant waiting for three weeks, after which the LCE closed for the end-of-year holidays for 2013, postponing the data collection process to 2014.

4.4.6.3 Accessing KII and FGD participants

Another challenge was accessing the KI and FGD participants, documents and facilities. Savin-Baden and Howell-Major (2013, p.313) exemplify prisoners, presidents and astronauts, as some of the least accessible for research. Most IHEs top managers and students could not, due to office work and study, always honor the KII and FGD appointments. To mitigate the challenges with senior managers, the researcher booked meetings a week ahead of time and sent reminders before the due dates. The researcher then arrived earlier and waited at their offices. For students, the researcher scheduled the FGDs after hours on the agreed dates. Except for two reschedules by KIs, these strategies enabled access to the participants. Having collected, transcribed, categorised and cleaned the data, the next activity was to analyse it.

4.5 Data Analysis

Once the data were collected using KIIs, FGDs, documentary reviews and observations, it was stored in the transcribed, word-processed format. Reserve copies were stored on a memory device and computer to prevent loss prior to transcription, thematic coding and the report writing; in this case the thesis write-up. The steps included:

4.5.1 Data management process used in this study

After collection, the electronic and paper-based data were labelled and stored. The KII recordings were listened to, transcribed, cleaned of typographical errors, and marked as final copies. The documents, KIIs and FGDs notes were kept as hard copies and saved in scan or photographic form. The data were then prepared for analysis by searching for answers to the unstructured questions from each KI, FGD, the documentary and observational sources. Thematic meanings were drawn and assessed for frequencies using numerical tools such as

simple additions, percentages and graphics to support coding and theme building of the KIs' and FGDs' inputs. The next sub-section covers the analytic stage using qualitative method.

4.5.2 What is data analysis?

Analysis, according to Mukeredzi (2009, p 360), refers to "searching for patterns and ideas that help to explain the existence of those patterns". Practically it involves systematic examining and arranging of field notes and KII transcripts, and organising, synthesising and inferring on the IHEs. In defining analysis, strategies for data analysis essentially involve firstly, having a common purpose/goal to unite the strategies; secondly, interdependence of the different elements to reach the goal; and thirdly having a sum greater than its components.

A key aspect of data analysis is to combine different components into a whole. This is known as synthesis or integration of data and the methods used to collect it. Considerations of data analysis suggest that lack of integration of methods is problematic in studies where greater understanding or more valid results might have been obtained if all types of available data had been considered together (Bazeley 2009b). She (ibid) asserts that typically quantitative results, usually from surveys, are presented first in studies, to be followed by a necessarily brief thematic analysis of interview material or answers to open-ended questions. At times threads from both strands are drawn together in a model or other conclusion. This study has numeric data from the IHEs' clinics. Given that data analysis starts in the field and continues post-collection, the next sub-section assesses the two stages.

4.5.3 In-field and post-data generation qualitative analysis

The methods selected for analysis in this study were based on the design of the data collection tools, the data structure and selected analytical approaches. The researcher noted the value of 'in-field data analysis' and 'post-data generation analysis' from Mukeredzi's (2009, p.105) exemplary view that "ongoing data generation analysis places the researcher in good stead, after the field work, ready for the post data generation analysis phase".

The author (ibid) notes that the analytic questions (addressing what they did, how, why, when and with whom) provided pointers to the unit of analysis. It helped to amend, refine and shape the KIIs, FGDs, document reviews and observations, to improve the generation process. It also provided strategies for early management of data and familiarisation with its shortcomings and strengths at the pilot stage, giving clues on what to anticipate in the final analysis. For these practical advantages, in-field data analysis and post-data generation thus became key analytic

strategies. They enabled simultaneous collection and beginning of preliminary analyses while in the field, and therefore enabled amendments to the data collections tools for better usage.

4.5.4 Steps in qualitative data analysis

In addition, and because of the similarities in the ways of managing the data between mixed (Bazely 2009b) and multiple methods, the researcher borrowed from Savin-Baden and Howell-Major's (2013, p. 419) six steps in data management for qualitative studies, to build a synthesis of the data with the following actions:

i. Characterise

To characterise means to decide whether or not to use verbatim expressions to transcribe the voices of the KIs and the FGD participants. Given the abstract nature of the concepts under study (AIDS, IHEs and services), the researcher settled for verbatim transcription (including noting participants' pauses, pace, tone and timing) to enhance the meaning for the reader.

ii. Cut

Cutting implies highlighting or actually cutting and pasting similar phrases and putting them together to reduce the information for close examination. In conjunction with other cut pieces, cutting helps to cluster like-ideas together to build significance in a study. It was thus anticipated and found that there were substantial quantities of like-minded phrases and statements on the IHEs' responses. These were evidenced in the findings on all three IHEs.

iii. Code

Coding is the main analytic step in this study. Savin-Baden and Howell-Major (2013) define it in qualitative research as a system of symbols (letters, short words) used to represent and label themes based on topics, ideas and keywords. One type is "open coding", which has more advantages than "axial coding" and is favoured for a wider range of concepts to describe data. With it the IHE directors, lecturers, nurses, etc., were all categorised as 'subjects' in the CHAT framework, and as 'people' in Zeithaml and Bitner's Seven-Ps of services marketing. Senior, middle and operational levels were groups within the IHEs' management hierarchies and represented the division of labour in CHAT. Similarly, IHE students were 'community' in CHAT and 'customers' in the Seven-Ps of services mix.

The main benefit of coding is it cuts across the selected methods and models, while maintaining interpretive consistency and room for expansion and synthesis. Coding can use a cross-tabulation of the CHAT components with the research questions. Van der Riet (2009, p.117)

cites Silverman's (2005) advice to "generate a provisional analytic scheme which [is] then checked for consistency across the whole data corpus". The scheme refined the clues to the answers on the current activity, strategies and implications, as shown in Table 4.4 below.

Table 4.4: An analytic scheme to derive codes – an intersect of CHAT and research questions
Source: Researcher (2016)

	Key question: To what extent do current IHE institutional strategies for response, education and service operate in synergy with each other in relation to:			
CHAT Components	What are the current / existing IHE responses?	What is the interplay among the IHEs?	What strategies to improve response?	What implications for IHEs and all stakeholders?
Subject	Who are and what is the role of the subjects?	How do IHE subjects support interplay?	What do subjects do to improve strategies?	What implications do subjects face?
Activity	What key activities constitute the response?	What activities are in interplay?	What specific activities are in the IHEs?	What implications arise from activity?
Object	What is the object(s) in the current IHEs' response?	How does HIV/AIDS bring IHEs together?	Strategies specific to HIV/AIDS?	Implications posed by HIV/AIDS?
Tools	What tools are used in the response?	What common tools exist in the IHEs?	How are the tools used in strategies?	How can the tools be improved?
Rules	What rules are used in IHE responses?	What rules govern the interplay?	Inter-influences of rules and strategies?	Stakeholders' roles in making rules?
Community	What communities are in IHE responses?	How communities affect IHEs' interplay?	Community roles in developing strategy?	What are the implications for communities?

The usefulness of Table 4.4 is to generate dialogue between the research questions and CHAT. This refines and encodes answers in the context of the three IHEs in general and each one in particular. The above coding system eases comparison and summary of the findings at any intersection. It is comparable to Table 2.1 – expanded contradictions in IHEs response'.

iv. Categorise

Citing Merriam (2009), Savin-Baden and Howell-Major (2013) say this fourth stage follows because researchers accumulate codes, which necessitates categorising them. This, they say, must not only respond to the research questions but be also sensitive, exhaustive, mutually

exclusive and conceptually congruent. These features are covered by generalisations in coding, as will be shown in the findings chapters.

v. Convert

Simply, the said codes and categories are changed into themes. Savin-Baden and Howell-Major (2013) further note that themes are unifying or dominant ideas. Finding themes is core to qualitative data analysis. It marks a transition from description, categorisation and preliminary analysis towards interpretation - the purpose of this study. For example, 'staff shortage', 'leadership development' and 'capacity building' are conversions of codes and categories into synthetic themes. Converting is as useful as it requires careful balance to not distort the comparative qualitative interpretive analysis of the IHEs response.

vi. **Create**

Also called data or visual display, this sixth step includes the use of matrices, tables and figures drawn from the numerical data. This feature is used mainly in data presentation for documentary and observation data, with little graphic displays for KII and FGD data. It shows however, the new product created out of the types, expressions and meanings of the data in this study.

In conclusion, this sub-section proved that it is beneficial to use the six steps in managing qualitative data. The researcher interacted closely with the data, reading over it a number of times to synthesise and understand it at both gut level (Bazeley and Kemp, 2012) and as a whole. The preliminary analysis however revealed the challenges and benefits of coding. One challenge was that this study amassed large amount of data via the KIIs, FGDs and documents, which demanded many codes, further narrowing and categorising, and posed a risk of overdoing those. The benefit was that the software programmes used for data processing cited by Savin-Baden and Howell-Major (2013) were not used due to the rich, multiple themes available in CHAT and the incorporated models.

Having done the interviews, note-taking, transcription, translation (where necessary) and deriving themes, the researcher next summarised the analytic metaphors used to describe the data after it was characterised, cut, coded, categorised, converted and created.

4.5.5 Metaphors in qualitative data analyses

This section draws from Bazeley and Kemp's (2012, p 58) metaphors on the integrated analyses of data, who note "the focus of theorising about mixing methods has shifted from paradigmatic

issues and design typologies to methods issues, including sampling, analysis, and validity". This study is interested in the metaphors for integrating or synthesising data by "function" and by the "degree of interdependence of the different data elements" (ibid, p 58), for combining for completion, enhancement and to detail a more significant whole.

i. Combining for completion

This metaphor is exemplified by 'bricolage', 'mosaics' and 'jigsaws'. It is seen as the weakest one for qualitative integration and analysis since pieces in an artwork are placed side by side. In this study, combining for completion works by data collection methods feeding into each other through triangulation, hence the KIIs' data is validated by the FGDs' data, the documents and the observations. In CHAT the elements combine for the process and outcome since the KIIs alone would not complete the jigsaw.

ii. Combining for enhancement

This metaphor involves 'sprinkling and mixing/stirring' of data components. Bazeley and Kemp (2012 p.60) summarise an analysis of one study thus:

> …although the statistical analysis of data provided the foundational material for the report and its conclusions, the evidence of these data was greatly enhanced by material derived from the additional sources. By 'stirring together' data from all these sources (organising it by issue rather than by source), progressive and critical milestones… (were achieved).

With this metaphor, the multiple methods add up the data to enhance rather than to complete an image. It sees one component as 'primary', extending results to a 'secondary' one, and perhaps a tertiary one in ways akin to 'expansion' in CHAT.

iii. Combining to detail a more significant whole

Bazeley and Kemp's (2012) third metaphors for combining are 'triangulation' and 'archipelago'. In combining for a significant whole, the *triangulation metaphor* (ibid, p. 61):

> ...demonstrates how data elements can complement each other and interact to reveal an end point that is clearly in perspective but that cannot be obtained from either individual methods or a simple combination of methods...

In this study, the methods of data collection and analysis work in synergy with triangulation, the oldest metaphor in the mixed methods lexicon. The metaphor involves complementary

sources of information, showing locations and co-determinations among the three points (marked ABC) in lengths and angles of each other, in Figure 4.1.

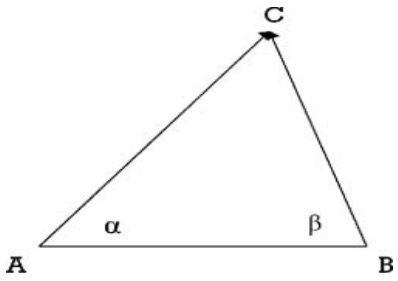


Figure 4.1: Points of triangulation

Source: Adapted from Bazeley and Kemp (2012, p.63)

Figure 4.1 shows how triangulation links points or facts as "two different types of knowledge" (ibid, p.63), enabling the determination of the third dimension (line or angle). In this qualitative interpretive study of IHEs' responses, it implies for example that, if one IHE has (A) a health clinic, with (B) staff and equipment, then (C) management recognises its existence. Thus a contradiction in triangulation is a 'gap' that 'expands' the analysis to establish why it occurs.

The second metaphor for combining for a significant whole is the *archipelago metaphor*. It is defined based on a "set of islands …[which] rise above the surface as tips of evidence of the presence of a much larger underwater structure" (Bazeley and Kemp 2012 p.63). In this study, the 'islands' are interconnected data sets under the body of response. However, "each contributing element (island) retains its distinctive character and …contribution" (ibid, p. 63), as do the IHEs' HIV testing, clinic services and leadership styles etc., as analysed later. The metaphors guide the data analysis in this qualitative study. All are useful for 'making sense' as the data itself is still outstanding. This is covered in the next sub-section.

4.5.6 Data generation methods used

Further to the metaphors for qualitative methods, Bazeley and Kemp (2012) discuss data generation – the process of enabling the data to make meaning (Checkland and Holwell 1998) using three other metaphors. Data generation involves changing the structure of the data to enable further exploration, when such data need be added to or compared with that from an alternative source (metasyntheses). Bazeley and Kemp's (2012) data generation methods are:

i. **Blending**

This first of four data generation methods gives opportunity to expand beyond what is possible when the original elements are treated separately or stirred or mixed together. For example, a new variable is 'created' by combining qualitative information with an existing scaled or categorical variable. Thus, the number of students tested for HIV in a year (as a scaled variable) blends with the views of the FGD participant that HIV prevalence is 'alarming'. The blended or combined variable gives a richer interpretation than a single one.

ii. Morphing

Bazeley and Kemp (2012) liken morphing to the transformation of an object (a digital image) from one form to another and through stages. The transformation of data results in quantitative (numeric) data being qualitative (worded), or qualitative coding being quantified. For example, the LCE tests 200 students for HIV per year while NUL tests 800. The morphed expression in qualitative form goes: 'NUL tested fourfold the number tested at LCE'. This study morphed the participants' inputs in CHAT subjects, tools, rules, activity and outcomes.

iii. Fusion

In this third data generation metaphor, Bazeley and Kemp (2012, p.66) say that its "components are combined to create a single, new whole that cannot, practicably, be taken apart". It has three types, the first of which is 'partial fusion', where "the identity of each component within that whole continues to be partly or fully distinguishable". The second is 'cell fusion', where a "new single cell is created from two preexisting cells, either from the same organism or as a hybrid cell from…two different species". The third is 'nuclear fusion' which "generates (dangerous) energy and is a union that can set off an almost uncontrollable chain reaction". This study features 'partial' and 'cell fusion' of data, evidenced by its ability to trace HTS services being broken into constituent parts. Nuclear fusion is related to expansive transformation in the third generation of CHAT, exemplified by the (danger of) HIV drug resistance among HIV+ clients.

iv. DNA

Bazeley and Kemp (2012) cite Kemp's (2001) DNA metaphor for integrated analysis to capture the processes of reconciliation and progression to provide divergent results and new thinking. Engeström (1997) calls it reconceptualization. In building new knowledge on IHEs responses, and in reconciling KIIs, FGDs and documentary findings, Bazeley and Kemp (2012, p.67) note;

> As in the construction of DNA, only certain sequences are possible, and only particular proteins (data) can bind together, yet variation and improvisation are important, and, as in nature, infinite variety can result.

Bazeley and Kemp (2012) insist on 'fit' and 'work' as a basis to judge the validity of functionality of the resulting organism, like this study. The analytic metaphors of 'blending', 'morphing', 'fusion' and 'DNA' help in analysing data to make advanced meaning of it. The next sub-section highlights the principles of the integration of data.

4.5.7 Principles of integration of data

The following principles underlie combining multiple methods to enhance understanding of the data analysis. Bazeley and Kemp (2012) say integration includes;

- First: many ways to integrate data;
- Second: integration might begin at any stage within a study;
- Third: integration needs to occur before conclusions are drawn - and essentially during analysis or during the analytic writing (formulation) of results and usually where possible, earlier is better;
- Fourth: the level of integration must be appropriate to the goals/purposes of the study.
- Fifth: the product will be that which would not be available without the integration;
- Sixth: the write-up of integrated findings is organised around substantive issues dealt with in the research, and not around the methods of investigation.

In line with the sixth principle, this study integrated data at the collection stage, and the conclusion followed the integration, and not the reverse. The data collection methods of KIIs, FGDs and document review were interdependent and the end product resulted from the integration. The write-up was based on substantive issues in the IHEs' responses and not on the methods. Some key numerical data came from the three IHE clinics' daily, weekly and monthly registers, it was mostly numerical and enabled the generation of tables and graphs. It required adapting to 'create' the researcher's own tables by aggregating periodic values by categories (e.g. sex, ages, reasons for visit to clinic, HIV tests etc.). Throughout this study, participants' inputs were extracted from transcripts and interpreted. The next sub-section explains how that was done.

4.5.8 Criteria for judging data to enhance rigour

In this study, rigor refers to the quality of being thorough and careful, with methodological attention to detail and context of the response. The following aspects apply as criteria:

4.5.8.1 Validity and reliability

Gravetter and Forzano (2012, p.108) define 'validity' as "the degree to which the measurement process measures the variable that it claims to measure, with dimensions such as face, concurrency, consistency, predictive and construct validities". Bazeley and Kemp (2012, p 70) argue for three separate sources of information (which supports triangulation in all its types, in this study), as two are insufficient for trustworthiness. In short, using three sources concurrently overcomes the problem of using two: both may be wrong in the same way, or if one is wrong, the conclusions may be skewed. If a discrepancy occurs, then a fourth data source or a careful check of the discrepant one, or both, will help determine which of the three was misplaced. Validity thus involves establishing that research findings can be affirmed by its source participants. Gravetter and Forzano (2012) define 'reliability' as the stability or consistency of a measurement, in which if the same individuals are under the same conditions, and a reliable measurement procedure produces an identical result. The two apply in quantitative studies (Bryman and Duncan 1994) and are replaced by trustworthiness in this qualitative study.

This study acknowledges that the methods, the data collected and analysed on the three IHEs had unanticipated issues that could affect its trustworthiness. This sub-section highlights key notions used to judge findings in general research and in this study. Guba and Lincoln (2000) propose four criteria for judging the soundness of qualitative research, in Table 4.5 below.

Table 4.5: Criteria for judging qualitative versus quantitative data
Source: Guba and Lincoln (2000)

Traditional Criteria for Judging Quantitative Research	Alternative Criteria for Judging Qualitative Research
Internal validity	Credibility – Trustworthiness
External validity	Transferability
Reliability	Dependability
Objectivity	Confirmability

Table 4.5 above differentiates foci between qualitative and quantitative research. Cohen et al. (2007, p.158) say "in essence it is suggested that the notion of 'trustworthiness' replaces more conventional views" of 'validity' and 'reliability', saying this notion has evolved to cover 'credibility', 'confirmability/dependability', and 'transferability'. The next sub-sections cover what culminates in trustworthiness - the true measure of a qualitative study.

4.5.8.2 Trustworthiness

Lincoln and Guba (1985, p.290) say that trustworthiness in a qualitative inquiry is that its findings are "worth paying attention to". This differs from experimental research to show validity, soundness and significance in quantitative research. Trochim, Donnelly and Arora (2006) concur with Lincoln and Guba's (1985) explicit offer of trustworthiness in qualitative research as an alternative to more traditional quantitative evidence. This study uses qualitative and not quantitative research, but considers validity for the limited numerical data. Thus, validity and credibility build trustworthiness, as do transferability and confirmability.

4.5.8.3 Credibility

With validity and reliability enhanced by using CHAT to frame the WHO (2004b) Standard and Zeithaml and Bitner's (2000) Seven-Ps of services marketing, and Checkland and Holwell's (1998) information systems as triangulation tools, Bazeley and Kemp (2012) affirm that for 'credibility', a combination of methods (multi-modality) provides more meaningful data sets than any of the methods alone (Terre-Blanche and Durrheim 1999; Teddlie and Tashakkori 2010). In addition, this study quotes well-researched literature on university interventions against HIV/AIDS in the SSA region which are relevant in context and material issues. Back in the three IHEs, and noting a research reactivity due to the bias of the researcher's previous employ at NUL, the researcher compensated in four ways. The first was 'methodologial triangulation' which the researcher explained under metaphors for qualitative analysis above and revisits in later sections. Second was 'member checking' to affirm with the subjects/sources (the KIIs and FGDs) that the data given were correct. Third was 'thick descriptions' which borrowed from the WHO (2004b) Standard of quality for response. Fourth, the research supervisors checked the data collection tools to assess credibility in terms of fitness for purpose, and all added up for credibility in this study.

4.5.8.4 Confirmability and dependability

Confirmability is almost synonymous with dependability and relates to a correspondence between what the study participants meant and what the researcher inferred. It is enhanced if threats to data accuracy at the collection stage are reduced (Maxwell 1996). Strategies to ensure the attainment of these two ideals include, for example, the use of audio, visual and verbatim transcripts that are verifiable as true records of the sources of the data, member checking, peer/supervisor debriefing, and audit trails, all of which occurred in this study.

4.5.8.5 Transferability

This means the extent to which the study findings can apply to similar projects and where the phenomenon can be explored using similar data collection, analysis, and theory generation processes. This study design, methods and data are drawn from literature that is itself transferable and has credibility (Strauss and Corbin, 1990) when applied to the three IHEs. Thus, the WHO model gives the researcher thick descriptions of data generation methods and research sites. Its findings enable the reader to determine their 'fittingness' to other contexts. To gain trustworthiness, the next section covers methodological triangulation in this study.

4.6 Methodological Triangulation

Triangulation was briefly discussed in sub-section 4.5.6, as a metaphor in 'combining to detail a more significant whole'. This section mainly overviews the benefits of transforming CHAT from the 'expanded' to a 'triangulated' setting with the three models and concepts (WHO standard, services mix and information systems). Triangulation converges the methods used in this study in synergy to more accurately represent reality (Polit and Hungler 1991, Abate 2018). Bezely and Kemp (2012, p.60-61) explain triangulation thus:

> Triangulation and the image of an archipelago are metaphors that demonstrate how data elements can complement each other and interact to reveal an end point that is clearly in perspective but that cannot be obtained from either individual methods or a simple combination of methods.

Triangulation was popularised in qualitative research by Denzin (1978). Since no single method in a study can cover all the research questions (Terre-Blanche and Durrheim 1999), four methods, any three of which were easy to triangulate and were complimentary, were used. Polit and Hungler (1991, p. 383) cite Denzin's (1989) four basic types of triangulations:

- Data triangulation: the use of multiple data sources in a study (e.g. interviewing multiple KIs about the same topic).
- Investigator triangulation: the use of multiple individuals to collect and analyse a single set of data.
- Theory triangulation: the use of multiple perspectives to interpret one set of data.
- Methodological triangulation: the use of multiple methods to address a research problem (e.g. observation, interviews or inspection of documents).

In this study, the commonest of these four is 'methodological triangulation', with examples used by UNAIDS (n.d) to support response to HIV/AIDS. It is historically a tool for validation. Polit and Hungler (1991, p.383) say with it, "true" information can be sorted from "error" information. This study combines it with 'theory triangulation' by combining CHAT with the WHO standard, the services mix and IS models, although the models are not theories per se. 'Data triangulation' applies with KIIs, FGDs, document review and observation. 'Investigator triangulation' applies to the researcher's supervisors and himself and depends on the nature of the CHAT division of efforts among the investigating teams.

Savin-Baden and Howell-Major (2013, p 429) caution that "it is almost inevitable that there comes a moment when there is so much data, from so many different sources, that a researcher can get drowned…". The KIIs, FGDs, documents and observation collected enough data to risk 'drowning' this study. Yet Bazeley and Kemp (2012, p. 63) note that:

> Because the term triangulation derives from two different sources, each with a different purpose, it becomes important for anyone using the term to specify clearly which of those models they are following when they outline the purpose of and methods for their study.

The takeaway from this sub-section is that the triangulated theories/models, methods and data sources depend on how well this study collects and analyses the IHEs' current responses, strategies, interplays and draws implications. The next sub-sections explain how triangulation was applied to interpret and analyse the IHEs' findings.

4.6.1 Triangulation in four phases used in this study

By choice, this study proposed a triangulation model based on 'theory triangulation'. It relates the models, namely the WHO standard (AB), services mix (AC) and IS (BC), since any two can be used, in three phases as shown in Figure 4.1 above. At this stage, the base triangle remains, and all its three corners link up into an apex, akin to a pyramid whose tip is CHAT cross-cutting the other models/elements. The phases are as described next.

i. Triangulation phase AB: CHAT related to the WHO Standard

The WHO Standard (2004b) was 'incorporated' with CHAT in Chapter Two. It is revisited here for its role in triangulation. Further to the steps of data characterization, cutting, coding, converting and creating new data facts, this study notes Engeström's (2001, p.136-137) call to use global standards with CHAT in "medical work". It gives credence to the WHO Standard,

in its functions namely, health delivery, links with communities and service delivery. Concurring with the WHO Standard, the International Organisation for Standardisation (ISO, 2016) defines quality as:

> ...the totality of features and characteristics of an entity that bears on its ability to satisfy a stated or an implied need. Quality assurance is defined as a "more comprehensive approach to quality, (which is) based on a structure-process-outcome framework and includes producer-provider-product-service aspects as well as client perspective (needs, rights and preferences).

The reliability of the WHO Standard (2004b) as a quality measure lies with itself as an 'artefact/tool'. The producer is the community, the provider is the 'subject' and 'service' has processes in an 'activity'. Client's rights become rules and preferences cause division of effort as in Figure 4.2 below:

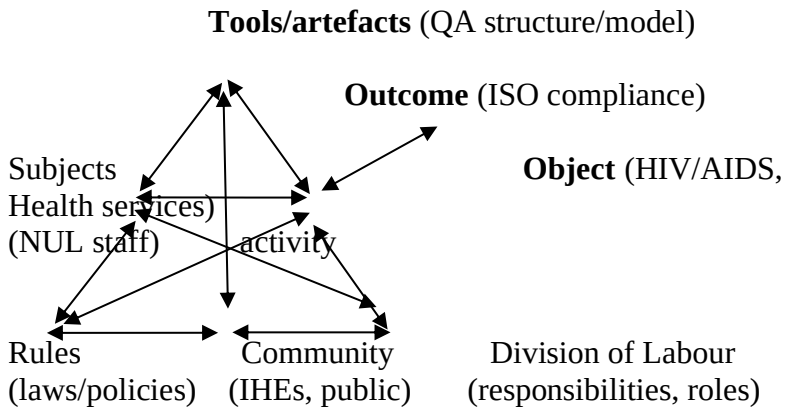


Figure 4.2: Linking CHAT to components of the WHO QA model
Source: Researcher (2017)

As Figure 4.2 links CHAT and the WHO (2004b) Standard, it provides a useful basis for critique. The fit is inadequate without an identified inventory of services and tools within the IHEs. Of the seven principles of the WHO Standard, the second and seventh ones read:

> **Second:** HIV/AIDS prevention should be part of a comprehensive HIV service delivery including the promotion of safe sex and condom use, interventions to reduce the mother-to-child transmission of HIV, harm reduction and universal precautions for health care workers.

And another,

Seventh: Human, logistic, and financial resources are considered in the design of HIV/AIDS programmes and services so that they are sustainable.

The two principles are key elements of the WHO Standard, to guide over priority interventions for the scope of activity and the resources to support it, which will be the key criteria in the findings. The next part shows how services helps to interpret the response.

ii. Triangulation phase AC: CHAT and the Seven-Ps of services marketing mix

This sub-section links CHAT to the Seven-Ps of services marketing mix, as done in expanding the theoretical framework in Chapter Two, Table 2.2. The section explains the role of each of the Seven-Ps to align, compare and to get 'in' deeper with the focus on the behaviour of each component in the three IHEs. True to the principle of expansive transformation, the CHAT and Seven-Ps elements interlink in more than one strict way, as shown in Figure 4.3 below:

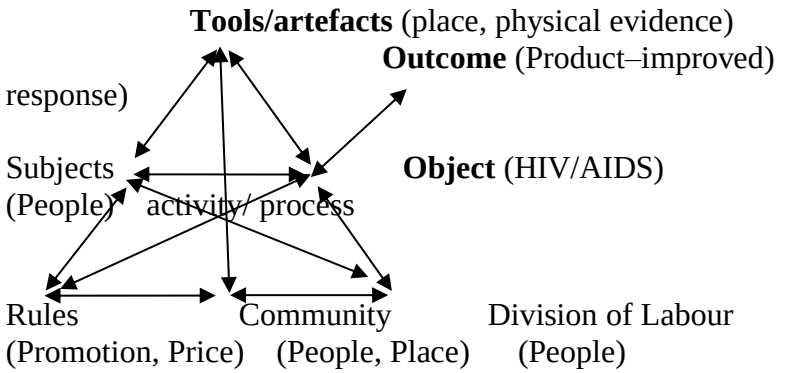


Figure 4.3: CHAT and Seven-Ps of services marketing
Source: Researcher (2017)

The rationale for Figure 4.3 linking CHAT to the Seven-Ps is to evidence the connection with the IHEs' human, financial and information resources. For example, CHAT and Seven-Ps concur that 'subjects', 'community' and 'division of labour' are inseparable from the 'people' component in an activity. The following are the key relationships:

Subject: these are the key people driving the response, such as vice chancellors, registrars, bursars, lecturers, managers and students. Evidence of deeds/actions to support interventions will be used to judge the subjects' leadership, agency, policy, networks and service delivery.

Object: this is the focus of the IHEs' subjects - HIV/AIDS. Its incidence and prevalence changes with time and personal and community levels evidence it through HIV testing and services in the IHEs. When the object transforms, say from HIV positive to developing

opportunistic infections (OIs), a few other components also adjust, hence the 'processes', 'rules' and 'tools' now suit OIs and not HIV per se.

Processes: these are sequences/deeds/actions in providing services. They include arrival, waiting, consultation, dialogues, collection of specimens, physical tests, supply of medicines as per the Ministry of Health's (2017) Essential Medicines List 2nd edition, recording and reporting, etc. These will provide clues to assess the interplays and strategies to improve the existing services.

Artefacts: Artefacts in IHE responses are medicines, ARVS, written records, test kits and reports. For an artefact-mediated activity, the quality of response artefacts counts heavily for how the IHEs fare in the supply chain, usage, and reporting in the findings.

Rules: Rules cut across the activity system and include international guidelines such as those by WHO, UNAIDS and the regional and local guidelines' implicit (such as respect for persons) and explicit regulations. Rules are provided by the MoH and the MoET to coordinate the national and institutional activity in the IHEs. Rules are used to assess how the IHEs' subjects use places, pricing and process for the outcome to be of the promised quality.

Community: These are the key stakeholders in research question four – implications for key stakeholders i.e. those who have interest in the object. In the services mix, customers appear as people in the Seven-Ps, who are the primary beneficiaries for convenience and comfort. Thus, as a campus clinic is a customer service, Zeithaml and Bitner (2000) say it supports the firm's core product. This therefore means 'community' applies as defined in the framework.

Divisions of labour: these are built around people, their qualifications, positions, processes of service sequencing and the envisaged quality of service delivery. As activity expands, new products emerge and evolve, bringing new divisions of labour. These connections will later show how service products, place, promotion, price, etc. interact in the IHEs' responses.

iii. Triangulation phase BC: CHAT and information systems

The two concepts (services and information) relate within the interpretivist paradigm. The data are processed and relayed via a health information system (HIS) to evidence the response. In the processes, services act as mediation tools. Despite this interaction, services and information remain independent in the third phase of CHAT in Engeström's (1999) two interacting activity

systems. On the interpretivist link between qualitative and quantitative research, and from a services angle, Zeithaml and Bitner (2000, p.111) note:

> ...because the results of qualitative research play a major role in designing quantitative research, it (qualitative) is often the first type of research conducted, and is important in assessing and improving service delivery and design.

This acknowledgement warrants using information tools in both qualitative and quantitative research (Bryman and Duncan 1994). It cannot be possible for a response, as a form of service, to avoid using data. Checkland and Holwell (1998) affirm a relationship between the interpretivist paradigm, data and information. As services exist in the IHEs, the generation, interpretation and sharing of data is a valid reason to link the two throughout this study.

iv. Triangulation phase D: CHAT and qualitative comparative analysis

In conclusion, it is not enough to triangulate the WHO standard, the services mix, and the information systems in Figure 4.2 above; CHAT overlaps as the framework. True to the fifth principle of CHAT, the methods expand as shown in Chapter Two. In order to get "in" (Mukeredzi 2009, p.266) into the current response and its strategies, interplays and implications, the quantitative comparative analysis (QCA) can be used. It is based on qualitative thinking like CHAT, with added guidance, according to Berg-Schlosser et al. (2009, p.1) for:

- how and why it is 'case oriented';
- engage(ing) in a dialogue between cases and theories;
- the specific conception of causality conveyed in QCA - multiple conjunctural causation and its practical consequences;
- reach(ing) a certain level of generalisation beyond the observed cases…. replication, transparency, and different types of uses.

QCA thus helps to address the case of each IHE, with their multiple dialogues represented by the key stakeholders while providing generalisations beyond the observed cases and common features. The advantages cannot be ignored as they echo but are not the same as CHAT. In addition to the above capabilities of QCA, Baptist and Befani (2015, p.1) refer to it as a:

> …case-based method that enables evaluators to systematically compare cases, identifying key factors which are responsible for the success of an intervention.

This is relevant for the three IHEs. Summarising the qualities that a researcher must look for in the suitability of a QCA, Baptist and Befani (2015, p. 6) list 'appropriateness' (what works, why and under what circumstances); 'feasibility' (assumptions and context); 'developing a set of key factors for each outcome'; 'consistent data' sets for each case, and 'populating' the data sets with available alternatives (e.g. of zeros and ones). The facets of QCA (consistent data sets) as assessment tools are provided by the WHO standard. The evaluation gives ones (for yes) and zeros (for no/none) to each component. The authors (ibid) however caution that:

> QCA isn't appropriate in all circumstances – it requires a strong theory of change, clearly defined cases and cannot measure the net effects of an intervention, or provide the same level of precision in that sense as quantitative methods. However, it has certain unique strengths – including qualitatively assessing impact and identifying multiple pathways to achieving change which make it a valuable addition to the evaluation toolkit.

In this study, the theory of change lies with CHAT, and the cases are the three IHEs. Since CHAT points to but does not qualitatively measure outcomes, the QCA is thus an invaluable part of the interpretive evaluation of the selected IHEs' responses. The next sub-section covers the management of participants' extracts – how verbal data were handled in this study.

4.7. Management of participants extracts

This sub-section explains the system used to track the KIs and FGD participant's inputs. Both sexes took part, with older groups (30-60 years) being senior managers and KIs. Younger participants (18-30 years) were students organised into FGDs in the three IHEs. No students were KIs nor were any staff in FGDs. The numbers of KIs and FGD participants are shown in Section 4.4.5, Table 4.2, above.

The management of KIIs and FGDs extracts borrows from van der Riet's (2009, p.112) system of managing extracts, and was adapted with care to maintain consistency. Two main differences were that while van der Riet's study had a keen interest to specify the age of each respondent, this researcher's data collection tools only asked for the respondents' age range. Also, the study had at least two FGDs per IHE, while van der Riet's were villagers. In this researcher's adaptation, and for the KI interviews, for example, NHKIF3 meant: 'NH' identified the NHTC as an (IHE) study site, and 'KI' meant 'KI' while 'F' meant 'female', and '3' was the respondent's assigned serial number. For FGD participants, for example, NHFGM4; 'NH' meant NHTC, 'FG' meant the respondent was in a FGD, while the 'M' showed that the

respondent was male, while the '4' was the respondent's assigned number. Unlike van der Riet, the researcher's questions were marked with 'Q' and the respondent's answers with 'A' in each IHEs report. But consistent with van der Riet's system, the researcher also used: pauses in the extracts indicated by ''…". If lines in a transcript were left out they were indicated in the same way. Explanatory notes were indicated with square brackets: […]. In the interest of readability, parts of the transcripts were omitted. Also, the KIs and FGDs and literature extracts were in ident and highlighted in light green but only KIs and FGDs inputs were tagged with the specific code, explained above. Both the data collection plan and the system used to track participants' spoken words were well-managed.

4.8 Ethical Considerations

Due to the sensitive nature of HIV/AIDS among young people in the IHEs, and in recognition of the subject's rights to be informed when participation in research, the ethical considerations discussed in the literature and methodology were followed throughout this study. Ethics as outlined by Polit and Hungler (1991) can be summarised as the science of morality, also called moral philosophy. It is one of three main branches of modern philosophy and seeks to a consistent principle by which human actions and character can be judged. Ethics is thus seen as having evolved from a prescriptive position (guiding conduct) towards a descriptive one (attempting to discover how moral decisions are actually made). The "fundamental aim" (Abate 2018, p.141) of ethical consideration is to protect research participants.

4.8.1 Principles of ethical considerations in research

Polit and Hungler (1991, p.31) discuss the Codes of Ethics, citing international standards in the Helsinky Declaration adopted by the World Medical Assembly in 1964 and revised in 1975. They quote a few national and conventional ethical documents including the Belmont Report which highlights three principles of research ethics, namely:

- **Beneficence:** this principle emphasises the main theme of 'above all, do no harm', comprises 'freedom from harm', 'freedom from exploitation', 'benefits from research' and 'risk benefit ratio' – all of which protect subjects while ensuring that the study is useful. This study aimed to benefit its subjects – the students and staff of the IHEs with insight into the current situation, strategies, interplays and implications of the response;

- **Respect for human dignity:** comprises components of the 'right to self-determination' and the 'right to full disclosure'. This study recognised the component and the need for

confidentiality in HIV testing in the IHEs' health services. It was essential that access did not violate the dignity of the subjects with regard to their identity and status shown in the health records by this study's review of documents;

- **Principle of justice:** this principle ensures subjects' right to fair treatment and right to privacy – anonymity by not identifying names in the HTS records.

The foregoing principles required that the research methodology be consistently adhered to without compromise. For beneficence, the three IHEs, the MOH and the MOET authorities who authorised this study were copied on the final report for them to access at liberty. These mirrored areas to improve on. Respect for dignity and justice were ensured by informing the participants of the study, its reasons, and the data collection methods. They were given the opportunity to ask questions prior to signing the consent form to participate, and opting out at any stage was allowed, although none happened. They received financial compensation for their time after completing the KIIs and FGDs and signed for it. With ethical principles applied, next was to gain access to do the study.

For 'access' the researcher drew on Savin-Baden and Howell-Major's (2013, p.313) key to "access the necessary information" with particular focus on the participants who could provide it. The researcher sought and obtained written authorisation (Annexure Afrom each IHE's gatekeeper. This enabled the researcher to collect data using the proposed methods and to access the specified KIs and FGD participants. While doing so the researcher noted Mukeredzi (2009, p.109) who discussed covert and overt approaches to gaining entry. The covert strategy involves hiding the aims of the study from participants, while the overt mode announces it for rapport and support of gatekeepers and participants. In this study, covert access was out of the question, due to the sensitivity of AIDS and the ethical considerations.

In the three IHEs access was granted by the Vice Chancellor (NUL), the Rector (LCE) and the Director (NHTC) by memos (See Annex A). This enabled access into the administrative, health clinics and other service points. The advantage of these authorizations were that apart from verbal authorizations at each service point, no more additional written authorizations were required except as a courtesy to the operational level managers (KIs) or clients (FGDs).

4.8.2 Informed consent

Polit and Hungler (1991) emphasise that potential study subjects must be fully informed about the nature of the research. Bhattacherjee (2012, p.141) echoes this regarding the "types of activities in which they will be asked to engage", its demands on them, and any potential costs and benefits. Informed consent included disclosing the researcher's role, the purpose of the study, the type of information and any benefits to the participants, all of which were to ensure freedom from harm. All in all, this study did not pose any ethical concerns or threats in achieving its objectives, although the process initially stumbled at LCE due to a general staff strike in 2013. The consent form used in this study for IHEs appears in Annex B.

4.9 Limitations of the study methodology

The researcher identified at least five biases limiting this study. First, as a former NUL AIDS Coordinator, the researcher was expected to be in the know, by the KIs and FGs, who at times stated "as you know" (e.g LCKIM1; NUKIF2) in their answers. The researcher mitigated the bias by collecting data first at LCE, NHTC and then NUL, while disclosing that he was doing so, not as an employee of NUL, but as an independent student. There was risk of inundation with data due to the four collection methods and lengthy answers by some KIIs and FGDs. The researcher kept an open mind during data generation while probing for more detailed answers in specific vital areas. Third, the researcher's purposive sampling techniques coupled with minimising excessive data could have left out other informants with rich data. Fourth, was that the despite methodological limitation, there was still non-generalizability due to sampling design and the small sample size. This was mitigated by thick descriptions in instances for readers to judge the findings and decide on transferring the responses to similar contexts. Fifth, there were 'unknown limitations' that called for further research. As this study focused on urban IHEs, it could not reach rural ones. This was mitigated with literature on rurality and services, and the findings will be disseminated to all IHEs in Lesotho.

4.10 Conclusion

This chapter explained this study methodology; the specific actions employed to collect, store, analyse and interpret the data, mostly using triangulation techniques – an increasingly popular approach to assess the response (UNAIDS, n.d; Denzin 1978; 1989). It explained the rationale for abandoning the survey, to use KII, FGDs, observation and document review. This chapter showed the what, how, why, when and where of this research process using the interpretivist paradigm, a qualitative approach, a synergy based on triangulation, and all within the CHAT

framework. The takeaway is that this methodology kept the promise to find the true picture of the three IHEs' responses, as will be evidenced in the findings that follow.

The chapter anticipated the advantages and challenges, both singularly and in combination, of the data collection and analysis, enabling the researcher to select the most efficient options to truly interpret the data. It maintained the stated ethical aspect of beneficence by enabling the respondents to understand the purpose and use of the data for long-term gains of a deeper and newer understanding of their own and other IHEs' responses.

The next three chapters present the findings of each IHE in turn, drawing answers to the research questions on the *current institutional services*, the *interplay* between the IHEs and their partners, the *strategies for improvement* and the *implications* for the key stakeholders in education. The report format is uniform for the three IHEs. The findings are based on the KIs, FGDs, review of documents and observation reports. The first IHE is the LCE.

CHAPTER 5 – FINDINGS ON THE LCE

5.1 Introduction

The purpose of this study is to interpret and qualitatively analyse the responses to HIV/AIDS of three selected IHEs in Lesotho. This is the first of three chapters, in alphabetical and data collection order, on the LCE, NHTC and the NUL. This chapter covers the documentary, KIs', FGDs, and observation inputs, in eight sections in order of: the national response, the LCE's response, the social influences, the interplay among LCE structures, the strategies to improve the quality of response, the implications for education and a conclusion. Each section highlights the NHTCs performance and the main contradictions in its response.

5.1.1 Lesotho's current response – through the eyes of the LCE

To answer the research question: 'what is the current response at the LCE?' findings were drawn from the FGDs and KIs views on, first, Lesotho's response. One respondent stated:

> A: So far I think the country is doing very well, ...there are so many support groups to fight HIV by providing condoms everywhere and I have seen a lot of people travelling and teaching students and all the people at home at home talk about HIV and now how they can protect themselves **(LCFG1F2).**

This summarised the national response, which included the use of community support groups, Kymario (2004) to provide condoms and teach HIV prevention in villages. Ngozwana (2014) notes that community support groups are organized by citizens to achieve specific purposes in various areas of social life. In CHAT framework, these groups represented the community providing psychological (knowledge) and material mediational tools (condoms) for enacting the object. For interplays among the IHEs and their local partners (subjects), the FGDs showed the active role of one MoH's partner (New Start) as part of the community in the CHAT perspective, working with like-minded partners in the IHEs and public areas. These organisational synergies could realise outcomes (Daniels 2010). One FGD participant said;

> A: Lesotho is doing quite well…hired some people with counselling professions and they counsel people before testing so that they can know more about AIDS. And, at high schools there are also more support groups… we used to learn more about how to prevent HIV from infecting us **(LCFG1M4).**

This positive review of Lesotho's overall response affirmed prevention and testing within the IEC strategies. The FGD member was, however, critical of the LCE's current response,

suggesting contradictions in institutional enablers such as not continuing IEC where previous educational levels that seemed to work had left off. One respondent observed:

> A: ...the country is trying as much as it can but … lacking because in our schools, they are not talking to us in an open way; they are still trying to hide some things... the other thing is …the need to hire professionals, as much as people counsel us about HIV/AIDS, … (LCFG1F3).

In conclusion, this sub-section showed that although Lesotho's HIV prevalence, morbidity and mortality required urgent response, this was ranked lowly by the FGDs, KIs and literature (Desmond, Lieberman and Alban 2008). The material contradiction is that despite Lesotho's grim situation with AIDS even in IHEs, this college does not reflect consistency in the national response. The next sub-section discusses the LCE's own response.

5.2 The LCE's current response

With the national response now covered by the LCE's KIs and FGDS, the next sub-section addresses their views on two of this study's four research questions:

- What institutional strategies and services for HIV and AIDS exist in the three IHEs?
- What is the interplay between the IHEs' structures (management and clients) and services in response to HIV and AIDS?

5.2.1 A historical overview of the LCE's response

To answer these questions, the history and demography of the LCE's response followed Engeström's (1999) view that an activity system could only be understood against its own background. The historical account of the LCE's response was shown in a demographic extract from the CHE (2008) which showed that the LCE had a population of 3,788 students and staff in the 2008-2009 academic year, compared with 3,752 for 2009-2010, and saw a surge to 4,437 in 2010-2011. Adding to this demographic picture, one KI said:

> A…in 2012 there were a total of 4000 students, mostly adults aged 23 to 40 years, of whom 60 per cent were females. The LCE [had] another 500 students in its satellite campuses in rural campuses, with some of them taking part-time courses. The LCE has 201 staff of whom 68 per cent [are] female **(LCKIM2).**

In the demographic context and from the CHAT perspective, the LCE was a ***community*** in which the object (AIDS) was a concern for a large number of young people. The chronology

of events in the LCE's response showed that it began with the official launch of the United States Boston University partnership with the LCE[7] (henceforth BU-LCE) health service in the MDGs era in 2004, and ended in 2007. Affirming this, one KI said:

> A: Yes, and I know that we were attached to the Boston School of Public Health, and I think you would probably know some of the people (the Professor (named) who passed away). I was part of that team and I visited Boston… where he was a member and so…the conceptualisation of the clinic, its purpose and everything else, it was focused on strengthening HIV: the college and the response to HIV and AIDS (**LCKIM1).**

Coming from a KI (they were mostly senior officers), this affirmed a common purpose and collaboration by the subjects in the IHEs with international partners, which focused on AIDS. The programme's 'subjects' or 'people' component suffered the loss by death of a founding member. It took 18 years after Lesotho's first AIDS case in 1986 for LCE to begin a response intervention. The 'response time' of two decades was as a result of the historical and cultural outlook of the LCE. From a CHAT stand point, this was a contradiction of the community/mediation tools/object. One KI admitted:

> A: I think the one thing that becomes clear is that there is still continuing infections that we see here year on year. And that in itself says that it is still a problem related to the country situation. But students as well... you are picking up a number of STDs which means students do not practice safe sex, to a greater extent probably influenced by alcohol or the pressure of studies, gets into them and they engage in sex having forgotten to apply the necessary preventative measures **(LCKIM2).**

Overall the KIs and FGD participants identified some conceptual contradictions in aspects of the Basotho cultural factors for HIV transmission. Most could relate Lesotho's history with AIDS since the first case in 1986 and its label as a 'killer disease', the cause (HIV), modes of transmission, and its high national prevalence. They knew its clinical signs, the high national prevalence, care and support strategies and the roles of IHE interventions. The related policy issues at the LCE are discussed in the next sub-section.

[7] The Lesotho-Boston Health initiative was the first known, externally supported programme that partnered with the LCE to set up health and HIV/AIDS related services on campus in 2008.

5.2.2 Policy background on the LCE's current response

With the national and LCE's focus on AIDS revealing the need for a response, a major hurdle for the LCE was to develop a policy; a statement of intent to implement a strategy. In other words, a mediational tool which could also be understood as rules to guide enacting the object. The (MoET 2005) Lesotho Education Sector Strategic Plan (ESSP) 2005-2015, the Labour Code Amendment Act (No. 5 of 2006) and the Council on Higher Education (2004) Strategic Plan 2004/05-2014/15 (MoET 2004) all urged the development of AIDS policies, even in IHEs. In CHAT, policies and regulations were rules. One KI said:

> A: OK there is no direct policy… our policy must be drawn from the national policy, which we are aware of…. But however we are working on the good practice of dealing with employees that HIV, it's not anything extra-ordinary; we should treat a person as if they are ill **(LCKIM2).**

While the KI understood the need for a policy based on the current international and national responses, it had long awaited approval by the Senate. One KI at the LCE's clinic said:

> A…An AIDS policy, I was trying to get it from other institutions and see...what they were saying about themselves so that I can ... you know, *ke sehelle thebe ea ka holima tsa bona* (cut my shield over theirs) but it was really not up to standard. I didn't want to put my policy up there where I know I would not be able to reach it. So putting it down, it was ridiculous and putting it where it's supposed to be, umm, in practical language, it was ridiculous. It's there in the Policy Office, *mane* (at) Admin **(LCEKIF3).**

The extract showed three contradictions of rule/mediational tool/subject/object. One was the need for a policy, with the primary contradiction showing three facets: the first being that it did not exist. The second was that the idea to develop a policy met with a lack of action. The third was to have a doable and achievable AIDS policy; it appears that if it were "up there" (high), it would be out of reach of the LCEs skills and monetary resources. If it was "down" (low), it would be below par or immaterial. Thus, it had had to be just "where it [was] supposed to be" – realistic, doable and balanced, to match the LCEs resource availability. With this policy background, the next sub-section covers the LCE's current response.

5.3 Components of the LCE's current response

Unlike the previous section which covered the historical, cultural and organisational background, this section covers the actual and current activities in the LCE's response. Their response has evolved over time, beginning with the most basic activity such as the provision of information, education and communication about HIV/AIDS. It then evolved into a more advanced activity such as the provision of ARVs and culminated in more complex and IHE specific (e.g curriculum) tools of response. The next sub-sections summarise the LCE's key strategies of IEC, ABC, the health clinic, HIV testing, male circumcision, teaching and learning/curriculum, the research unit and financing, and culminate in a conclusion.

5.3.1 Information, education and communication (IEC)

So what is the role of IEC? As part of the historical account of Lesotho's response, IEC formed the core of the national prevention strategy. This was reflected in Kymario et al.'s (2004, p.78) statement that:

> From the perspective of HIV prevention, information, education and communication (IEC) based on health education or behaviour change models [was] a core component of the national response.

From the perspective of CHAT, the IEC strategy was an artefact with which the national response aimed to leverage prevention. It comprised of three other concepts of ABC as key action themes. Regarding the IEC strategy, the LCE Life Skills Manual's (2012) first of twelve guiding principles stated:

> **Access to Information:** Every educator, teacher and learner [had] the right to relevant and factual information on reproductive and sexual health, HIV and STI prevention, treatment, life-skills, care and support, appropriate to their age, gender, culture, language and context, as well as the knowledge and skills to make informed choices using this information.

The findings in the LCE lay in contradiction to the first principle stated above, and the study participants commented in various ways about the IEC strategy, citing lack of information as a problem. Mahloane-Tau (2016) argues that poor access to information was one of the key adverse factors in IHEs. Another FGD member said:

> A: Yes. In Life-skills we are taught about the challenges of which we the youths we are facing because …it's not only about HIV/AIDS... so that we cannot be the victims of the disease HIV and AIDS (LCFG2M2).

The LCE manual was well read, and this feedback showed that it covered youth and adolescent issues beyond HIV/AIDS, with the intended outcome in the context of CHAT being behaviour change with the ABC strategy.

5.3.2 Abstain, be faithful and condomise (ABC) strategy

In the LCE context, the act of being faithful was threatened by the demographic evidence that the LCE's young people were mostly single and often changed sex partners. The ABC strategy called for balance with the IEC campaign to develop messages against AIDS (Lesotho IHEs (2013) unpublished minutes of the IHEs HIV/AIDS focal person's forum). The Lesotho Education Sector Strategic Plan (MoET 2005, p. 110) stated:

> The strategic aims in the plan relate to reducing the prevalence of HIV/AIDS by 5%, delaying sexual activities by adolescents, increasing the use of condoms, assisting all people living with HIV/AIDS through support, counselling and care, organising care for 50% of the AIDS orphans, reducing the spread of HIV/AIDS, realising positive behavioural change, establishing and implementing a gender sensitive policy, conducting a baseline study.

The strategic plan conceptual contradiction was its aim to delay sexual activity while increasing condom use in the IHEs, while the material one was that promoting condoms inadvertently encouraged sexual debut and not abstinence. However, as shown in the FGDs' feedback, free condoms were rejected for different reasons:

> A… We discriminate [against] those…saying they have expired while they have not expired and… we say that we are not going to have money all the time (LCFG1M4).

The attitude of the LCE's students to condom use showed that despite the LCE's current interventions against AIDS, progress was hampered by a host of factors; mainly primary conceptual and functional contradictions, one of which was services at the LCE clinic.

5.3.3 The LCE's health clinic

The LCE's health clinic (a mediational tool) was founded in 2006 and was physically located on the Maseru Campus. As per the inset in Figure 5.1 below, it was sign posted and was accessible from all around the campus.

Figure 5.1– LCE Services notice at clinic

Source: Researcher (2017)

Observation revealed that the clinic was centrally located, within a 100-metre radius of the college residences, administration, dining halls, parking and lecture rooms. It was housed in an oval building akin to the Basotho hut, and the clinic had two rooms nearly 5x5 metres each, a reception area, a waiting area and a single consulting room. The primary purpose for the health clinic was stated:

> A: We have the Health Clinic which was set up specifically to attend to the challenges of HIV and AIDS (LCKIM1).

In support of the foregoing purpose, the officer employed at the LCE clinic stated a major concern in her summary of the current country response:

> A: …We are not doing good because ummm, having our urban and rural areas, …radio can only reach the urban areas… they don't know how to prevent it; know how to avoid it, they don't understand it so they don't know how to take care of themselves… **(LCKIF3).**

This reiterated ignorance as a contributor to HIV transmission, with a primary contradiction in CHAT between rural areas (where the majority of the LCE students originated from) versus urban communities (where they lived and studied). She said that the MoH and national radio could improve access to IEC. On staff roles she said:

A: We are not doing good in my responsibility as a health professional. The thing is, I am alone here. From 2013 October... the Nurse Clinician resigned and went, and has never been (replaced)…. I was not promoted into her place and my position replaced. I have been alone and it's very hard for me to … (LCKIF3)

The manager (subject) questioned the quality of the care provided *vis-à-vis* the number of staff. She had been working all alone for two years since her colleague had resigned. Not being promoted and not having a replacement staff appointed made it more difficult for her to perform her duties. But a contradiction regarding staff was stated by the administrator:

A: We have errr ,… two nurses….I think they are adequate…we take care of other primary health care issues but I think the two nurses for now are sufficient. The clinic is for now in my opinion highly under-utilised - people also prefer to go to other doctors where they feel comfortable. The clinic is for those people willing to use it, so not everybody comes to the clinic because people are on medical aid and stuff … (LCKIM2).

The administrator said that the clinic staffing was adequate, contrary to the service providers' note of one health provider at the time, with a vacancy for a second. Thus, the administrator knew of the two established positions but not of the resignation, so was not fully aware of what was going on in the clinic. In CHAT this meant poor provision of mediational artefacts (resources) with failure to attain a division of labour. It short-changes rules, as stated:

A: It's hard and it's not very easy for one person to do all these and we have to stick to the NDSO requisition tables and we have to submit reports to EGPAF and DHMT. …doing group counselling and doing forums, seminars about HIV, talking to the SRC people, like we used to do when we were two. The health expo, inviting the PSI to come and do the HIV, it has not been done for ages and it is not good for our students and our communities in general (LCKIF3).

Due to the number of tasks and the lack of personnel to do all of them, the service provider (the subject) was unable to conduct the very tools and activities of reaching students with the information required to minimise the spread of HIV, and this was a secondary functional contradiction. Although TB/HIV related services were free, all other services attracted a M10 (equal ZAR.10) fee, as reported:

> A: We have a clinic though it's not that effective enough. Because we are still paying to get those services at the clinic…Yes, ten maloti... per visit. Sometimes we don't have that cash... we struggle … When you need to go you can't go **(LCFG1M4)**.

This statement highlighted a known barrier to effective health services; a lack of money to pay for care (Abel-Smith 1994). In CHAT, this implied a secondary contradiction of a deficiency in the subject's artefacts in support of the main activity.

> A: Or they are volunteers so they cannot commit themselves [as to] when they are doing their job **(LCFG2M6)**.

This view showed that voluntary campus clinic workers inherently lacked commitment. From a CHAT perspective subjects implemented activity, thus hindrances to motivation implied neglect of the division of labour, a secondary contradiction giving rise to failed outcomes. The users of the clinic's services (KIs and FGD participants) expressed a poor professional approach to work by the clinicians, with gaps in access, even during daytime hours. All in all, the clinic performed poorly on the key activity of providing access to services. All these due to functional contradictions related to neglect of roles and responsibilities by the subjects and consequently the material contradiction to not address the object.

5.3.4 The LCEs HIV testing and services (HTS)

As shown in the literature, circa 2007, voluntary counselling and testing (VCT) had morphed into HIV testing and counselling (HTS). In 2015, the notion expanded further to HIV testing and services (HTS) (UNAIDS 2016). At the LCE HIV testing and services followed a trend, (LCE 2009) shown in Table 5.1 below:

Table 5.1: A summary HIV Testing at LCE (January to April 2015)
Source: LCE Clinic and Researcher (2015)

Month	Clients tested				Total
	Female		Male		
	Neg.	Pos.	Neg.	Pos.	
January	3	0	1	0	4
February	8	0	3	0	11
March	5	1	1	0	7
April	4	0	2	0	6
TOTAL	**20**	**1**	**7**	**0**	**28**
Percentages of total	**71.4%**	**3.6%**	**25%**	**0%**	**100%**

Table 5.1 shows the data trend obtained from the document review, in this case the clinic register. The trend showed 'seasonality' in that during examination months, fewer students took the HIV test. The 'seasonality of HIV testing' implied gaps in the 'know your status' (KYS) campaign as risky sexual behaviour did not stop with exams. This was a contradiction of subject/community (students)/object. Table 5.1 shows that just 28 of the 2500 students registered at the LCE tested for HIV in 2015. This was just 1.12 per cent for the quarter; a tiny fraction of the targets set in the BU-LCE partnership. Also, nearly three times more females (21, of whom 1 was HIV positive) than males tested. Although based on a small sample, these findings could be interpreted by the DNA metaphor as comparable to Lesotho's national HIV studies. What contradictions in HIV testing were revealed by these findings?

5.3.4.1 Contradictions in LCEs HIV testing services

The contradictions are stated here against the UNAIDS (2014a) 3x90s strategy. First IEC for awareness was key to the promotion of HIV testing, but IEC programmes were poor, leading to the low turn-out in the 1x90 of HIV 'testing' in LCE's community. The second 2x90, 'enrolment' on ARVs was not achieved, and no 'viral suppression' was noted in the third phase (3x90). The 28 clients averaged out at 7 clients per month. At just 8.7 per cent, this fell far short of the BU-LCE agreement target (see Babich et al, 2008)) where opt-out testing was introduced, with approximately 80 patients tested per month. One KI said:

> A: Our clinic, which is [a] home-based clinic on college... The nurses there ensure that people… HIV positive are assisted with Anti-retrovirals... We are getting a lot of extra-ordinary support from the Government and… EGPAF, another partner who actually volunteer[s] along in partnership. Every month they give us a consignment of HIV/AIDS treatments, the ARVs mainly. They also follow up on statistics… But yes, there are still challenges: some people sometimes lapse, sometimes they go into depression, and they need to be resuscitated by further counselling and stuff **(LCKIM2).**

There were strong partnerships with voluntary external service providers, with material contradictions related to the LCE's commitment. This was evidenced by their ineffective performance of roles – poor enacting of division of labour to the response. Due to the numbers and the fact that external partners (MoH and EGPAF) were involved, LCE top management's attitude was to 'leave the job to these external partners'. These service hand-outs meant that

the partners decided on the LCE's client data. The KI (LCKIM2) quoted above saw long-term effects on clients, such as depression and treatment interruptions, yet the administration did not correct the shortage of staff. It was a secondary contradiction – the subject (LCE) not enacting its roles and responsibilities, i.e. meeting the division of labour to provide the required services.

5.3.5 Voluntary male medical circumcision (VMMC)

The literature showed in-depth the key issues around VMMC. Although VMMC/MC was not offered at the LCE's clinic, there were efforts to provide it through collaboration with the MoH the partner JHPIEGO. In the KI and FGD participants' views, the service was noted:

> A: Umm, this year in February March we had PSI people who came here for male circumcision and they did a lot of HIV testing before they circumcise[d] the children. That helped me a lot and they have been… No I don't want to say anything more… **(LCKIF3)**.

The service provider/participant commended the LCE's recognition of the need/demand for VMMC, and highlighted that HIV testing was performed before the MC procedure. She referred to the LCE students as "children", showing how the lecturers and managers saw the students. In service relationships, the lingo could affect students' health seeking behaviour, and avoided the clinic. The LCE relied heavily on outside partners' help for MC as it was not performed on-site, but the KI is hesitant to speak further on this. This could be characterised as her protecting her employer's weakness. On VMMC and IHEs, one KI said:

> A: So you need to have a lot of work on indigenization and making sure that you capitalise on some of your cultural and traditional strengths and make sure that they form part and parcel of the (gestures to 'protect') service **(LCKIM1)**.

This KI had a keen eye on indigenous traditional cultural matters, saying that culture was not tradition, although they co-existed in the response. Traditional schools *(lebollo)* allegedly perform MC. What is conformed is their part in the 'rite of passage to manhood' (Pitikoe 2016) and institutions performing the procedure using a modern surgical method could compliment and benefit each other, improving not just the VMMC programme for the uptake problems cited by Carrasco et al (2018), but the LCE's participation in health and education.

5.3.6 The role of teaching and learning

Chapter One set the rationale for Lesotho's view of education as the key to unlock the battle against AIDS. The WHO and UNAIDS (2003); WHO (2003; 2016) and UNAIDS (2004; 2010;

2014a; 2015) shown in Table 1.2: WHO/UNAIDS global strategies by numbers - and quoted in the 'unit of analysis', all centred around 'education' in the global response. The research questions probed the LCE on how it used its core business and the term 'institutional' implied the 'provision of education and learning'. It implied that the LCE committed its core business to change and improvement, not only of its own community but the nation at large. One KI said one way to use the curriculum to change and improve was:

> A: Incorporation – every institution with its autonomy is given academic freedom to operate in a manner that best addresses society's ailments, society's malaise and… HIV/AIDS can be put into [the] curriculum. Incorporated or as [a] stand-alone [course] because there are those two things... which may be made compulsory… from the very beginning of the year… You can have some of those compulsory courses before they graduate. In the middle here, I don't know…it's up to the creativity of the institution **(LCKIM1)**.

This KI covered a number of considerations for the integration[8] of HIV/AIDS into the curriculum, as did Raselimo (2012). This was echoed by an FGD participant thus:

> A: I think the college has to implement a course to every first-year student, especially in the… what you call orientation… **(LCFG1M6)**.

Both the KI and FGD participant above suggested positioning the AIDS course in the first year of study, and at initial orientation. This was in agreement with the LCE leadership's view. In contradiction however, and as will be shown later, another participant affirmed that HIV and AIDS was part of the LCE's curriculum and was incorporated in their life-skills course, but expressed reservations about the adequacy of the education about HIV/AIDS:

> A: Yes, they are trying but it's not enough, I think. Because I'm in the third year and right now we have a course; its counselling and life skills. That course teaches us about HIV, and about the counselling and about all those things that may get you into contact with HIV and AIDS **(LCFG1M6)**.

[8] In the findings chapters, the researcher used incorporation, infusion, integration, etc. of HIV/AIDS into the curriculum, as said by the sources of data. In the researcher's own statement, he retained incorporation to mean CHAT and other models, and integration for curriculum.

Despite this FGD participant being in their third year of study, these findings did not show adequacy or particular enthusiasm for the topic or an educational offering that exceeded their expectations. However, the KI provided another metaphor for an 'educational vaccine' thus:

> A: Uh, if it's a whole year course - which I would love – that's fine with lots of units to do it in the first year. You have an injection – before these people come to a life of extreme freedom… they need to give them the tools of survival **(LCKIM1)**.

The LCE's response needed tools to enable subjects to be better prepared for enacting the object in their new environments, where they had much more social freedom than they were used to at home. The LCE's vaccine was envisaged to provide graduates with immunity gained through education to the wider society's social misbehaviour. Another view of student activity within the current educational framework at the LCE was:

> A: …we need to have strong mobilisation where we develop student's teams of practice …about HIV and AIDS… Those years when we started and we developed the clinic, we had a group called 'Arise and Shine'… [a] dynamic group of students that was… campaigning around campus and even outside going to radios **(LCFG1M1)**
>
> Q: What happened to the group?
>
> A: As students graduated they didn't (and we didn't help them) institutionalise that and even at their last student union…and therefore it seems to have died a natural death… There was no more leadership… and of course we could also have taken interest in supporting them to ensure that not only [did] they have students in one year of study, but [that] there [were] students in the first, second… [and] third year so that those in the first year could learn from those... before them **(LCFG1M1)**.

These findings showed that these innovative students had left a vacuum when they graduated, taking their skills with them, hence the researcher's own metaphor of a 'kettle syndrome'. (like a kettle which took in new cold water each time it was emptied of boiled water, and the process started afresh). The syndrome affected the LCE as its creative students left. While the manager blamed the LCE for not supporting dynamic students to ensure continuity of the HIV/AIDS awareness work on their part, one of the FGD participants blamed the students for lacking initiative and their fear of taking responsibility.

> A: *Re le Basotho, re lula re expect-a* someone (Us Basotho, we always expect) someone) to start and show an example, then we follow… I still believe we can have people who can lead us. So…we are not that brave to stand first. We thinking of the challenges (that) we are going to meet…, our peers - that they are not going to listen to us. I think we need leadership and I think we need to produce it ourselves (LCFG2F2).

Unlike other FGDs and KIs, this participant blamed society and the Basotho culture for not producing home grown leaders who took responsibility despite challenges such as negative peer influences. In conclusion, the LCE had 'cold feet', a metaphor to mean a persistent inability to incorporate, integrate or infuse HIV/AIDS better into the curriculum than merely as a semester course offered in the third year. This quaternary contradiction between the LCEs AIDS prevention activity and incorporation into the curriculum and education activity however lost the opportunity as a self-given vaccine to survive HIV.

5.3.7 The LCE's research agenda

The interest in the LCE's desired research unit in this study arose from an expressed desire and intent by management to establish one. One LCE KI stated:

> A:…So we still need to have a policy…that would be as consultative in its process of development as possible... Secondly we need to have… a research unit. We need to strengthen that and begin to have a community of researchers within the colleges … who have interest in various areas of research ... area of HIV and AIDS because it is a national challenge **(LCKIM1)**.

This KI captured and linked the development of a policy that would serve as a tool to establish a research unit, with a clear purpose to bring about a research unit. The respondent is evidently unsure about LCE having already established or about to establish the research unit. Evidence will later show the status of the unit. Regarding life-skills education and research, one said:

> A:..Yes, so, she (named the LCEs Life Skills Educator) and a few others could begin to form that community of researchers that would be supported and allocated resources as an institution to this initiative – research and campaigns [for] information, education and so on **(LCKIM1)**.

This leader's vision and emphasis on research and a community of researchers was aligned with Wenger's (1998) Communities of Practice (COP) theory. The findings showed gaps

between the leaders' ideal for policy, research and the as yet unestablished research unit. The implications of the LCE's vision for a research unit was need for more funding.

5.3.8 Financing the LCEs response

Generally, the LCE's FGD and KII participants understood that resources, including finance, were key to the response. In the CHAT perspective, communities, subjects, rules, activity and divisions of labour were all tied to finance as the single most pivotal, catalytic mediational artefact. As the LCE did not have an AIDS policy, which would reveal the financing architecture, the Good Practice Model cited by LCKIM2 showed a form of funding to fight AIDS. Regarding policy and finance, one of LCE KIs stated:

> A: Policy… or verbal statements are just rhetoric and they remain rhetoric if they are not followed by practice and… allocation of resources… as part of the commitment, but that allocation has to be followed by strategies for the use of... resources **(LCKIM1)**.

The KI's inputs linked policy statements with the need to allocate resources, with commitment as a basis. Regarding the availability of finances, one KI was specific:

> A: Yes, we do have a budget; we have (M75,000.00) seventy-five thousand (maloti) for the (financial) year, but because it doesn't really need a lot of things – it's mainly consultation and but the anti-retrovirals, we don't pay for them, they come for free **(LCKIM2).**

The LCE's total annual budget for HIV/AIDS in 2015-2016 was M75,000.00 which divided by 2500 students equalled M30 maloti or roughly USD 2.00 (two US dollars) per student in 2015. As the salary of only one nurse exceeded[9] the M75,000.00 allocation this implied that the nurses were not paid from the clinic's budget. The administrator said that the clinic did "not need a lot of things" but the clinic manager expanded the contradiction in terms of the cost of quality thus:

> A: …And so they are at risk of building resistance very easily, and financially, I see the population of Basotho taking ARVs going up and so needing more money **(LCKIF3)**.

[9] The salary of a Registered Nurse in Lesotho was roughly M150,000.00 pa, hence it was unlikely that any nurse would be employed below that annual salary range. The fund would thus be for activities rather than salaries.

This meant that more money was needed, and another KI officer had already shown that finance was minimal but priority. This study cannot know the financial cost of the response versus the risk of leaving HIV unattended at LCE. On finance, one FGD participant said:

> A: … We have too many initiatives that are not well synchronised; you find that it's like mushrooms... everybody is having his own thing; they are managing HIV but you see resources that are not converged **(LCKIM2).**

The KI expressed doubts regarding response initiatives that did not combine monetary resources to fight AIDS in general, with a quaternary functional contradiction at the LCE in particular. The next section covers the social impacts of HIV/AIDS in IHEs.

5.4 Social influences on the LCE's response

This section highlights the influences and issues which were not, unlike in the previous sub-sections, directly connected to the LCE's primary role as an education provider (thus division of labour), but which lay in the wider societal arena and affected its response. The influences were identified by KIs and FGD participants and included geographic locations, demographics, personal freedoms, mobility and finances.

5.4.1 Demographic factors

The relationships between age, gender, behaviour and HIV prevalence were shown in the literature chapter. The LCE's risks such as MCPs, ignorance and care-free attitudes towards sex cited before created a hot spot for HIV transmission. The MoH (2009) showed that HIV prevalence for the ages of 15-49 years was higher in urban areas at 27.2 per cent, than in rural areas at 21.1 per cent. Females had greater chances (27%) compared to males (18%) of being HIV positive. Given the larger numbers of females at the LCE than males, the extrapolation was that the risk profile was similar to those in the general population for both sexes.

Table 5.1 (HTC at LCE) showed evidence, albeit of a small LCE clinic sample, that more females than males tested for HIV and one female tested HIV positive, whereas no males had tested positive. As the MoH (2009) reported a low contraceptive prevalence among young women, and their 48 percent versus 60 percent condom use for males, the risk of HIV transmission at the LCE was high for both sexes.

In conclusion, the challenge for LCE's response lay with the DHS report's (ibid) indication of unmet family planning (FP) and sexual and reproductive health (SRH) services. Lesotho's

unplanned pregnancy rate was as high as 52 per cent. At the LCE's clinic one of the most frequently used services was FP– an indicator of the current demand for contraception.

5.4.2 Of sex work, 'sugar daddies' and 'jumping castles'[10]

One important findings in the LCE's response was the view of sex-work, inter-generational relationships and unprotected sex. This was captured in the following extract from a KI interview:

> A: … Lesotho is a third world country, still I think in relation to economic factors, the children here they come to study but not solely to study. They come here to support their families with their money... allowances.
>
> Q: From NMDS?
>
> A: Yes… So if I am student here, my father passed away, my mother is not working and I have three siblings and I have two kids, I will do everything in my power to make sure they are taken care of, so I don't know where this falls but there is a lot of concealed prostitution here...and prostitution, for you to have a higher tip, you have to be naked; you can't say 'no, I use only condoms...' **(LCKIF3)**.

These students' needs and wants culminated in them borrowing money from 'loan sharks' (Mashaba 2019), engaging in sex-work, and unprotected sex, hence the HIV transmission. This was acknowledged by the FGD participants. When probed, the FGD participants explained the trap of falling into relationships with external community members, and sometimes lecturers and other students. On the prevalence of this behaviour, one said:

> A: It is very common here at school. Because letting alone poverty and coming to not doing well in our studies, well…, we fall into a trap of falling in love with our lecturers for marks.
>
> Q: And with other people for what [purpose]?
>
> A: Money **(LCFG1F5)**.

[10] The sugar daddy was an older working male who dated a younger lady (usually a student). A sugar-mummy was the opposite while a jumping-castle suggested an older, fuller-bodied female dating a younger (college age) male.

The students' poverty was compounded by their inability to do well in their studies. The combined factors expanded the risk for HIV, as revealed in a probe on coping mechanisms:

> A: Yes, the level of money drives us to do some things that are not good because in our youth, girls have 'sugar daddies', and nowadays boys have 'jumping castles' and 'sugar mommies' because if we have the sugar-mummy it means like…. that sugar-daddy, he's used to hav[ing] unprotected sex with her, [and] with his … wife **(LCFG1M4)**.

The scenario cut across MCP, sex-work and ended with unprotected inter-generational sex, often with older, male and married ('sugar-daddy') sex-partners, putting the younger, unemployed, female and single college students at risk of STIs, HIV and pregnancy. This contradicted the intended community/subject/division of labour/object/outcome. The reverse, however, in which older, married and working females ('jumping castles' or 'sugar-mummies') engaged in transactional sex with younger single males ('Ben-ten') was second in prevalence to the sugar daddy scenario. In all instances, HIV was anecdotally transmitted from older higher HIV prevalence groups to younger lower prevalence groups.

The findings did not reveal an occult trend (HEAIDS 2010, NAC 2008) of same and mixed sex - lesbian, gay, bi-sexual, transsexual and intersex (LGBTI) relationships. Although the HEAIDS (2010) cited student associations for gays and lesbians in South Africa, there was as yet no mention of students disclosing gay and lesbian behaviour at the LCE. In conclusion, this study saw a conceptual primary contradiction of MCP, intergenerational sex, sex-work, unprotected sex and a high risk for HIV at the LCE. It was narrated in the FGDs and KIIs, and it impacted the overall response.

5.4.3 Multiple concurrent sex partnerships (MCP) at LCE

To explain the linkage between MCP and the risk of HIV, the NAC (2008, p.37) report noted a higher risk of infection for young people when they engaged in sex with more than one sex partner within a short period of time and with partners from the older age group. This was because HIV prevalence varied significantly with each age group – it was higher in the middle age group than in the lower one. The foregoing accounts of students' behaviour at the college provided sufficient evidence of risk. Since MCP, a primary conceptual contradiction, has been referred to frequently throughout this thesis, this short highlight for the LCE sufficed as a basis to consider interventions within the response across the three IHEs.

5.4.4 Student accommodation

Accommodation referred to housing, usually called student residences or hostels. Student accommodation was a function of the student welfare department and students could choose whether to reside on or off campus. In CHAT, accommodation was an artefact to promote the comfort of the students. It had advantages and disadvantages and provided opportunities for youths to explore living with roommates, friends and sex partners. Accommodation and other college services were known to be a bargaining factor for sex, and vice-versa, as reported by HEAIDS (2009, p. 82) when quoting a respondent:

> A: Our parents don't even know. We get this [admission to university] ourselves, we get inside, get ourselves registered, find accommodation somehow, get into a class, and nobody's asking you, "How did you get in?" And yes, I've slept my way through that. I have. **(LCFG1F2)**

Even where accommodation was not a bargaining artefact, it prompted students to make decisions they would otherwise not make. One respondent explained thus:

> A: ... I will be, you know, looking for sex and... for that reason..., poverty..., this girl... when she thinks of going back to her apartment…, eating only a loaf and... you have something better...in your apartment she will just say, 'I will just go and sleep over' for the rest of the night or the rest of the weekend maybe… **(LCFG2M3)**.

The scenario occurred because of freedoms availed by accommodation on campus. Hunger and a feeling of loneliness led to visits to other students' rooms, ending in sleep overs for a night or a weekend. These encounters led to casual unprotected sex, MCP, and HIV and STIs. Where on-campus accommodation was lacking, students incurred transport costs, unsafe housing, and vulnerability to crime such as theft and mugging. The GEPF (2018, p. 32) commended a company which offered clean, affordable and convenient accommodation as an investment to prevent students from resorting to "exploitative, poorly maintained and expensive accommodation". Another factor to personal freedom was the use of alcohol, covered in the next sub-section.

5.4.5 Alcohol abuse and HIV/AIDS

The NAC report (2008) showed a variety of social and economic factors that influenced the spread of HIV, one of which in the LCE's context was alcohol abuse. One KI stated:

> A: Traditionally, we knew that alcohol was meant for our elderly people and they used to do it with dignity and… at particular times and places. Now it is rampant and people are drinking all over... even during work **(LCKIM1)**.

This contradiction lay within the nodes in CHAT, but narrowed down to being between old and modern ages, times and places. It indicated that consumption of alcohol was now disrespectful of social norms, work and study. This impacted the response and needed interventions. Furthermore:

> A: In the institution, I think we need that regulated. Business can set up shops around institutions, but not [to sell] liquor. Err, not liquor, for me. Unfortunately, I may sound very conservative, but it is, I think, counterproductive... drinking (LCKIM1).

Even though HEAIDS (2009, p.xv) found "no significant associations between alcohol or drug use and HIV", nevertheless college students were killed in violent interactions with peers and community members at *shebeens*, bars, taverns and parties. There was a need for laws to consider the locations of commercial businesses and goods (e.g. alcohol) and services for students. The MOT's Report (2008) connected alcohol abuse to gender roles, unprotected sex and a failure in behaviour change communication (BCC). Where alcohol was sold and abused, attitudes differed, as one KI indicated:

> A: Yes, so the attitude becomes; "...you see even law allows it, if they (taverns and bars) can come and surround us like this..." So the state doesn't see anything wrong with this... because law is a state instrument, so I think for me legislation would be necessary **(LCKIM1)**.

In conclusion, the KI urged legal artefacts or laws to control the start-up of public bars, taverns and alcohol outlets, specifically in, near or around colleges where they primarily targeted students as customers. The findings showed how the concern reached high levels of the LCE's administration, to the point of them contemplating legal instruments to counter it.

5.4.6 Access to care

This sub-section focuses on the activity of accessing health care. Health care was key because the environment had its risk factors so an intervention with access was necessary. The existence of a health clinic was a reality at the LCE, and the findings in the next extracts focussed on the

accessibility, availability and affordability of services as the main promise in the LCE's response. In CHAT, the clinic was an artefact used to provide services. For first-time visitors, there was often ignorance regarding their HIV status and what to expect of the service. Furthermore, the participants also addressed the role of the subject and material factors (artefacts) in improving services, with one saying:

> A: First of all, I think they should start with us by allowing us to create that group that will teach other students about HIV. Secondly I would sincerely ask them to put posters. No, no, no, yes, to put posters on the walls so that everyone would see.
>
> Q: What should the posters say?
>
> A: The posters should advise them to get tested, yes ... **(LCFG1F1)**.

The community expected the subjects to create and support action groups that dispersed messages about interventions on the object. Posters with messages against HIV were key artifacts. At the LCE poster messaging was not in practice and there were none in and around the students' lecture halls, residences and recreational facilities. Another barrier to access was the fee of ten maloti to obtain treatment. It seemed negligible but could be a serious barrier for students who were cash strapped. In conclusion, the foregoing statements on factors influencing access to, availability and the affordability of services saw three dimensions interplayed and all pointed to a need to overhaul the LCE's response.

5.4.7 Summary of social influences on the LCEs response

To conclude this section, the findings on the LCE's social influences found a mix of the contradictions probed in Table 2.1. These range between conceptual primary ones which involve, mediational challenges due to lack of education on HIV/AIDS among students. Second was the care-free attitude expressed by the students, compounded by a trend of sex work, multiple sex partners and intergenerational sex. There are functional quaternary contradictions exemplified first by poor incorporation of AIDS within the LCE's curriculum.

The other contradiction was a lack of LCE's AIDS policy, which hampered divisions of labour for management roles and was evidenced by a disproportion in the number of personnel and monetary resources assigned to the LCE's clinic versus the demand for health services. Actors and factors such as students, accommodation, MCP, access to services, condoms and IEC

created tensions across all categories and types of contradictions. The response could thus risk a failed outcome. The next section addresses the question on interplay in the LCE context.

5.5 The LCEs interplay with external organisations

This subsection addresses the second research question on the interplay between IHEs' structures (management and clients) and services. It is divided into three parts: i) the influences of international and regional partners and other IHEs; ii) the roles of entities within the LCE and iii), the interplay between the LCE and other IHEs. The evidence lies in the KIIs, FGDs and document reviews that have indicated that the Boston University was the only institution that contributed to the LCE's response.

5.5.1 The Boston University-LCE project against HIV/AIDS

The BU-LCE collaborative project was discussed in earlier sections of this chapter. The Boston University brought an external contribution to kick-start the LCE's response. The BU-LCE partnership was begun, as reported by Babic et al. (2008, p. 145):

> A: Because of a specific request by the deputy Prime Minister, then Minister of Education, to focus on keeping teachers alive.

This high level intervention involved the Government of Lesotho and the Boston University (in the United States) and conformed to the WHO and UNAIDS recommendations. The project goals included: i) curriculum improvement to incorporate HIV/AIDS; ii) starting a health clinic to provide basic services; iii) ensuring a sustainable supply of ARVs; and vi) the establishment of the health clinic; all only partly achieved. This was evidenced in the KIIs' and FGDs' data.

Noteworthy was that the project did not support the development of the LCE's policy on AIDS. This was contradictory to the Lesotho Labour Code Amendment Act (No. 5 of 2006) which asked that all employers with at least ten staff implement policies and resources for a response to counter HIV/AIDS. The challenge did not only occur in Lesotho. George and Sprague (2011) critiqued employer reluctance to invest in the response to AIDS in the SSA context. The roles and influences of a major international agency, and the lack of policy at the LCE were in breach of the rules in CHAT, negating a sustainable intervention. The LCE-BU project had five focused and specific result areas, and for its historical significance for the stated purpose of this study, it was evaluated through FGD and KI feedback as a service promise and in the context of CHAT. The evaluation was based on 'what key result was promised?' versus 'what happened in terms of CHAT?' This is shown in Table 10 below:

Table 5.2: Feedback by KIs and FGDs on the BU-LCE Project
Source: Researcher (2016)

LCE-BU Project Key Result	Feedback from the Study Participants (KIs and FGDs)
Making an HIV curriculum mandatory for all future teachers.	… It is up to the creativity of each and every institution to see that HIV and AIDS can be put into the curriculum. Incorporated or as stand-alone because there are those two things; you can have it as part of the existing disciplines but you can also have it as a stand-alone course…. it can even be made compulsory (LCKIM1)
Clinic opened and sustained without donor support.	This counsellor was provided by the Ministry of Health fortunately but she has had to leave (LCKIM1).
Conducts 200-350 patient visits per month	We have to submit the reports to EGPAF and DHMT. All done by one person (LCKIF3).
Opt-out testing introduced	None were positive and in March… oh it's still February: 11, 22, 3, 4, 5, 6… (aggregate) 28 (LCKIF3).
Approximately 80 patients tested per month	Aggregate… 28. (LCKIF3). (See detailed report by month in Table 5.1 for January to April 2015 above).

Table 5.2 above summarised the findings on the BU-LCE project which indicated that institutional commitments needed to be followed-up on to strengthen the response. The involvement of a more advanced (Boston University) experience confirms a tertiary contradiction which had conceptual, functional and material facets. This is evidenced by the findings of much higher projections in (thinking) key results/outcomes, with disproportionate (functional) resources (artefacts) such as staff/nurses (subjects) and duties (divisions of labour), which led to its poor material performance. Having briefly evaluated the BU-LCE's programme, the next sub-section focuses on the interplay between the LCE, the MoET and the MoH in fighting HIV/AIDS.

5.5.2 Interplays with the ministries of Education (MoET) and of Health (MoH)

This sub-section highlights the roles of the two key ministries which had a substantial stake in the LCE's response. The ministries featured in the documentary reports, in interviews with the KIs and the FGD participants, and were the main co-parenting, leadership, capacity building and HIV/AIDS response roles at LCE. Kymario et al.'s (2004, p. xxvii) preface stated that the MoET trained 7,000 of the 10,000 teachers targeted for AIDS competence in the workplace. HEAIDS (2009a) concurred with Kymario et al.'s (2004, p.78) view of "education that result[ed] in … behaviour change as the core of the national response". Three of the LCE's management levels were assessed for their interplays with the Ministries.

The first was the *top management level*, which was responsible for formulating the strategic direction and providing policy guidelines. One KI showed a top-down relationship between the MoET and the LCE as one of its IHE constituents. The Ministry did not seek input from the IHEs when formulating strategic plans that affected them:

> A: Yes, but they also need to be supported by those that need to support them; their stakeholders - the Government, Ministries, under which they fall - and I want to see the Ministry's (of Education) next Strategic plan which would be developed from hopefully this year (2015) or next year (2016) talks to these kinds of things and we would like to have some input into that **(LCKIM1)**.

The 'parenting role' of business units (Johnson and Scholes 1999) was a relationship in which the LCE leading subjects expected contributions ranging from support for activities to strategy development from the MoET and the MoH. The two were seen by one KI thus:

> A: The response to HIV, and if you have such communities the voice from such communities is likely to be heard probably more than … when we are standing alone. The powers that be - the Ministries, Government in its entirety and all of that... **(LCKIM1)**.

This KI recognised synergies between the MoET and the MoH, in unique collaboration in education and health. It was interagency work, which Daniels et al (2010, p.108) identified as the "creation of new forms of practice that require joined-up solutions to meet complex and diverse client needs". The second level was the *interagency/middle or tactical level*, where capacity building and resource allocation necessary to support the response happened. It represented enabling the team, and required divisions of labour and resources to work on the object for better outcomes. One said:

> A: Um, and we are thinking of expanding that facility (clinic)... Expanding it so that it entails a lot of other things. This nurse works also alongside a professional counsellor. This counsellor was provided by the Ministry of Health fortunately but she has had to leave **(LCKIM2)**.

The LCE relied on the MoH to expand services to accommodate a range of artefacts, rules and divisions of effort, and new sets of, and replacement of lost human skills. Although the findings did not show the reasons for the resource gaps, among the MoET, the MoH and the LCE, no

one took responsibility for ensuring that the necessary requirements/artefacts remained in place as there was no written agreement or joint decision making on the matter.

The third level was the *operational level.* It connected the capacity evidenced above to the in the LCE's actual services. Short-comings could emanate from the view raised earlier that HIV/AIDS was not the core business at the LCE, hence the two primary contradicting views. One KI said staff coverage was inadequate and another said it was adequate. Explaining the experience, the service provider stated:

> A: I have been working alone and it's very hard for me to do… You see these registers, its OPD, its ANC, its HTS, its FP… four registers… We have to stick to the NDSO requisition tables and we have to submit the reports to EGPAF and DHMT. I only do what I can afford and reaching out to the students and doing group counselling and doing forums, seminars about HIV, talking to the SRC people, like we used to do when we were two **(LCKIF3)**,

At the operational level, the extract showed the irony and extent of the adverse effects of interagency work in the LCE's response, and its impact on the clinician and on the quality of care provided. The findings showed a capacity drainage with inability to cover a reasonable area of work. The service provider experienced burnout and demotivation, which affected the outcome, as evidenced by minimal HIV testing data in a combined secondary and quaternary functional contradiction. After the MoET and the MoH, the next sub-section examines the role of the IHEs' forum in the interplays.

5.5.3 The LCE and IHEs' forum/initiative in the response

This subsection highlights Lesotho's IHEs' cooperation, collaboration and communication modes against HIV/AIDS and the involvement of the LCE. This was evidenced with written records of meetings of the IHEs' forums, and Annexure B shows the participants, date and venue of one meeting, and the deliberations thereof. The LCE participated in these meetings to share its own challenges, mainly the lack of staff, finance and knowledge to fight HIV/AIDS among the students. One KI stated:

> A: Of course we can draw from various experiences, expertise… If we were able to draw from the experiences of somebody like you, I have no problem that we used to operate together like I know you used to come here do this and that… We need to

> strengthen that; that inter-institutional collaboration to draw from experiences of one another but also to develop another community of practice **(LCKIM1)**.

Importantly, the subject referred to the role of one individual who led the collective IHEs with experience and expertise. Both these artefacts mediated other components such as making the IHEs focal persons to cooperate, perhaps as a community of practise (Wenger 1998) and in CHAT. Knowledge was seen as key in one FGD:

> A: I think if we know, we're going to feel the need to interact with other students from other institutions so we have [to] teach one another and know better **(LCFG1F3)**.

This view built on the preceding one relating to the 'how' of inter-IHEs' responses. In this instance, the respondent cited 'counselling' between IHEs forming 'links' and 'interactions' as the mediational means to the common response, with the LCE as part of the process.

> A: If we all focus here, let's say the Lesotho College of Education students focus on a project, they are going to infect the nearby institutions and the nearby institution will infect the other one. And it will be an on-going process like that until most us have done something like a coalition in schools (group laughs), whatever **(LCFG2M6)**.

The participant suggested cross-infection (cross-influencing) as a form of expansion and the formation of 'coalitions' against AIDS. In spite of the affirmation about the IHEs' responses, the forum's response had not transformed the LCE's position. This was due to various reasons, one of which was ignorance:

> A: I think first of all ignorance by the lecturers, ignorance by the students, ignorance by the communities who are our parents and guardians and who will have to push us to know more about this. But if they don't push us, no progress… **(LCFG2M6)**.

As evidenced previously, ignorance by the subjects and community of the LCE signalled deficiencies in the artefacts at the LCE. The forum could help, as one introspective view for this was seen by one FGD member:

> A: I think we have a tendency of expecting someone to say to us we must do things. **(LCFG1F3)**.

These findings reflected the need for LCE students and staff to be proactive and stop expecting other people or the IHE to intervene. In the context of CHAT this meant that the subjects

admitted to lacking self-motivation and a pro-active attitude to fight HIV/AIDS. What conclusion could be drawn from the interplays?

5.5.4 Reflections on interplay in the LCE's response

The above sub-section discussed the interplay between the LCE's structures and services, both internal and external, for their influences on its response. These included evidence of interplays with international and national partners, the MoET, MoH and the IHEs forum. The Council on Higher Education has been deferred to Chapter Eight (synthesis) as it served all IHEs. Finally, the LCE's response hinged on a fledgling interagency collaboration (Daniel et al 2010) to be operational and sustainable. While potential synergy was widely appreciated, institutional autonomy, resource limitation and a lack of policy hindered progress, against the good intentions of LCEs partners. The roles of partners in the LCEs response were unclear, subjective and not supported by senior management.

Expansions were assessed as a journey through the ZPD, and in the LCE's context that space was very small among the three points. The LCE's current response was embedded in historical and conceptual contradictions, dating back to when it first opened its clinic in the mid 90's. In the foreseeable activity, the contradiction of the staff to client ratio was not being resolved despite the evidence of the need for additional staff, and the LCE was missing opportunities for building a 'community of practice' (Wenger 1998) with the other IHEs. The next section overviews the strategies used to improve the LCE's response.

5.6 Strategies to improve the quality of the LCE's response

This section shows the strategies to improve the LCE's response, to move from the current response to near-compliance with the WHO's (2004b) proposed standard. The strategies hinged firstly on 'quality', in the context of the research methodology in this qualitative design, and secondly on the 'context' of the services. As the LCE had no quality assurance (QA) protocol, this study borrowed the CHE's Strategic plan: *Focus Area 3: Developing Quality Assurance Systems and Mechanisms* to give context to assess the LCE's response. The rest of the section discusses the findings on the key strategies, which are defined, explained in the current context and efforts for improvement by the LCE, using CHAT.

5.6.1 WHO Proposed Standards of quality in LCE's response

The WHO (2004b) Standards of Quality for Health Services was described in Table 2.1. Although the LCE has not formally adopted the Standard, the third principle of CHAT required the use of internationally accepted standards for medical interventions (response). The main

finding was the absence of a QA plan at the LCE. The performance of the LCE was assessed in terms of the WHO standards. The researcher first checked if the proposed services were available at the LCE in their response, and only those on offer were critiqued.

Table 5.3: WHO Proposed Standards for Health – service ratings for LCE
Source: Researcher (2017)

Category	Functions	Availability at NHTC	Assessed performance
Functions related to health care delivery (CHAT: object, rules)		**Yes**	**Overall poor**
A	HIV testing, counselling and referral	No	Fair/average
B	Management of opportunistic infections (incl. TB)	No	Fair
C	Provision of anti-retroviral therapy	No	None
D	Support for adherence to treatment	Yes	Fair
E	Prevention of mother-to-child transmission of HIV	Yes	Good
F	Palliative care	None	N/A
G	Rights of PLWHA and reducing stigmatisation	Yes	Fair
Functions related to links with communities (CHAT: community, activity)		**Yes**	**Overall good**
H	Community links	Yes	Good
I	Promoting health, preventing and treating disease	Yes	Good
Functions related to service delivery (CHAT: subjects, divisions of labour and artifacts)		**Yes**	**Very poor**
J	Leadership and human resource management	Yes	Fair
K	Management of drugs and supplies	Yes	Poor
L	Laboratory management	Referral	Fair
M	Management information	Yes	Fair
N	Financial management	Yes	Poor

Given that the LCE had most of the WHO (2004b) Proposed Standards for Health checklist of key interventions, they are discussed next, drawing from the assessment in Table 5.3.

5.6.2 Functions related to health care delivery

The next sub-sections briefly discuss the core elements of the response at the LCE. These included HIV testing and services, the management of opportunistic infections, the provision of anti-retroviral medications, support for adherence to medication, the prevention of mother-to-child transmission, the provision of palliative care, and the promotion of the rights of people living with HIV/AIDS in the LCE's context.

5.6.2.1 HIV testing, counselling and referral

The definition, modes of transmission and results of HIV infection, testing and counselling were detailed in Chapter 1 – the Introduction. In simple terms, testing was a biological test used to determine the presence or otherwise of antibodies to HIV, and counselling was the helping interview where individuals could come to terms with the new experience of testing positive for HIV. The findings showed that although HTS was adopted as a gateway to 'Know Your Status' (KYS) (Kimaryo et al. 2004), the LCE had no written and approved policy, and staff could not familiarise themselves with the KYS or HTS programmes.

During data collection the HTS kits were physically examined for storage, packaging, expiry dates and disposal by the LCE, and were found to be valid and compliant to the current MoH (2007; 2016) HIV testing protocol. The conclusion for this standard was that although there was no policy, the LCE had evidence of using the national HTS policy. The total number of 28 clients tested over a four-month period was very low and inconsistent with the promises of the LCE-BU project of 300-350 clients per month. The functional and material contradictions were that this was too little HTS activity in LCEs population of 4,000 students and 421 staff at the time of Lesotho's second highest global prevalence. The next standard assesses the LCE's response to opportunistic infections.

5.6.2.2 Management of opportunistic infections (OIs)

During data collection the researcher noted that the LCE's response had a new service in the management of OIs as per the MoH (2016) guidelines. In Lesotho OIs mainly included TB, candida, pneumonias, and gastro-intestinal and skin diseases among the communities (MoH 2010; 2016; 2017e); and each one could be a new 'object' in CHAT. The 'rules' were national protocols, the 'artefacts' were medications, while, 'divisions of labour' occurred at service encounters. Although the clinic adhered to the national and WHO protocols in providing treatments for OIs, it reported interruptions in commodity supply. The outcome here could be defaults, treatment failure and death of the clients. All in all, this standard had major conceptual, functional and quaternary contradictions, evidenced by shortage of staff, finance and access beyond the LCE's control. The LCE's performance was rated as poor.

5.6.2.3 Provision of anti-retroviral therapy (ARVs)

Providing ARVs was an essential component of any scientific response to HIV/AIDS. This component was part of the LCE's service package. The findings in the context of CHAT were that the LCE's subjects (clinic staff and management) used a transparent process to identify community members (students and staff) eligible for ARVs, using rules stipulated by the MoH.

The main activity within this standard was to provide ARV tools to act on HIV as an object. The outcome lay in the 'reduction in viral loads' and an 'increase in CD4 counts', as well as the 'elimination of OIs'.

The LCEs overall performance in this standard pointed to a failure to meet the UNAIDS' (2014) 3x90 standard. As no one was tested, officially, nobody took ARVs and the rates of viral suppression could not be determined. The findings were poor HIV test rates, poorer resource provision, risk of resistance and treatment failure for LCEs health clients, if any. The contradictions with ARVs could match all the 'expanded contradictions' in Table 2.1.

5.6.2.4 Support for adherence to treatment

Adherence simply referred to an ability by clients to maintain the regimen of medications in terms of nursing's 'five rights' of medications: right patient, medication, dose, route and time (Institute for Safety Medication Practitioners 2007). The focus was to provide an enabling environment for a new 'object' (adherence) whose 'outcomes' could be compliance or failure. Its 'activities' (mediational artefacts) included IEC, ABC, counselling and emotional support. The clinic staff supported adherence for ARVs and OIs medicines by taking on clients from other test points, in recognition of client's rights to choose providers as a service reality. The LCEs two part-time staff's provided only an average quality of adherence.

5.6.2.5 Prevention of mother-to-child transmission of HIV

This sub-section summarises the LCE's performance with respect to the services stipulated by the WHO's Proposed Standards (2009b) for the prevention of mother-to-child transmission (PMTCT). The performance was assessed using the inputs from the KIs, FGD participants and document reviews. Evidence showed a prevalence of unprotected sex in the IHEs (SARUA 2006, NAC 2008), resulting in views of 'high rates of youth pregnancy'. Both the national and IHE policies have addressed, although often not in writing, the subject of students having babies while studying. In the absence of an AIDS policy at the LCE, the felt need to ensure the good health of mothers and their babies was largely not acted upon. However, the WHO Standard indicated the LCE's specific position on PMTCT; to start expectant mothers on ARVs irrespective of their CD4 counts, as per the national protocol. The LCE Life Skills manual urged psycho-social support for students who fell pregnant, although the college's actual annual pregnancy rate was unknown.

In CHAT, the 'object' was HIV, the 'outcomes' could be a reduction of, or zero HIV transmission, with 'artefacts' including ARVs and the activities of IEC, ABC, nutrition, etc. in

a self-care model (Orem 1991) by the clients. A complexity of contradictions lay with the rule/object/outcome and other elements. While the LCE recognised the need for PMTCT, there was no infant-specific programme, and no written policy on breast-feeding to allow babies to grow before the student-mothers resumed their studies. The standard was poorly performed as pregnancy rates (planned and unwanted) were considered 'high', plus the LCE did not, however bar pregnant or new mothers from school.

5.6.2.6 Palliative care

In general, palliative care meant the provision of terminal or end-of-life care. Although students and staff of the LCE informally raised concerns over the high morbidity related to HIV/AIDS and TB, the death rate did not warrant a palliative care programme for two reasons. One was that it could be outsourced to other more appropriate service providers and two; it could not physically be housed anywhere within the LCE programmes without over-stretching the health services and the core business of the college. Palliative care was outside the scope of both the CHE strategy and the LCE's response. As an activity in CHAT, its outcome could still be recovery, the prolonging of life, or death with dignity. As a distant activity for the LCE, the palliative care standard could not be assessed.

5.6.2.7 Rights of PLWHA and reducing stigma

In respect of the rights of PLWHA, the evidence showed that the LCE provided health services and acknowledged clients' rights to choice and to access alternative services in both public and private, traditional, modern and alternative medicine. The clients' choices considered matters such as user fees ranging from R/M10.00 (at the LCE) to R/M20.00 (at a nearby public facility), to R/M250.00 (at a private clinic), time and convenience costs of the services and the proximity of the service providers. The many facets of choice meant that clients did not necessarily choose the most affordable services, but rather the ones where they felt most at ease to express themselves to the service providers.

In CHAT the 'subjects' were service providers and the 'object' was the client's right. The 'rules' ranged between international human rights provisions and the national/constitutional ones. However, the main influencer lay, not only in the costs of the services, the range and types of artefacts, landscapes, tools, divisions of labour and human skills, but in each client's own right to access care. This study found tensions between enabling clients to access care as promised by the LCE, and the available resources which contracted the opportunities to access it. The LCE was in violation of the rights to access, but clients' right to access *other* services meant that it adequately met the WHO Standard (2009b).

5.6.3 Functions related to links with communities

It was evidenced in this study that IHE communities came from the general society and societies comprised of and were influenced significantly by the products of higher education. This validated the WHO Standards (2004b) for community links as a viable tool to assess the LCE's top, middle and operational level leadership on how they planned, executed and evaluated the response for their own and external communities. The following components reveal the LCE's performance in its functions.

5.6.3.1 Promoting health, preventing and treating disease

The findings from the CHAT perspective showed the efforts of the LCE's subjects to extend health promotion as an activity, using the (Lesotho College of Education 2012a) Life Skill Course Book for Teacher Trainees (artefact). Reaching the community meant messages on T-Shirts and on radio; a task best suited to college associations to buy-in to the wider audience. As such, health education and promotion were both part of the response in which the 'object' was 'the status quo' in the levels of awareness, knowledge and behaviour, not only at the LCE, but also in the wider community, whose promotion quality had to be improved.

The evidence from the clinician revealed that the LCE's health promotion and education activities were seriously hampered by a lack of human resources (subjects) – specifically that only one of two nurses remained at the LCE's clinic. The college had no other alternative health promotion strategies, which was a contradiction of subject/division of labour/object. The LCE compensated with the Life Skills programme, albeit starting at the third year level of study, to promote healthy lifestyles and prevent disease. The standard was poorly met.

5.6.4 Functions related to service delivery

This last sub-section on the functions of the WHO's (2004b) Quality Standard comprises of leadership and human resources, the management of drugs, laboratory information, finance and other components before a conclusion is made.

5.6.4.1 Leadership and human resource management

Within the LCE's organisational structure, the position of Senior Nurse reported to the Administration/Dean of Students Affairs. In the CHAT context, the key components were subjects, whose 'leadership' was key to identifying and managing the human skills, numbers, artefacts, the roles (divisions of labour) and the services provided in the LCE's response.

Secondary contradictions lay with the extent to which the LCE's leaders matched the 'human and other organisational resources with the needs of the community'. One senior KI cited two

nurses and the under-utilisation of the clinic as a problem, while the operational manager at the clinic cited one nurse and denied that the quality of services was good. The LCE had a service provider to student ratio of 1:4000 versus the WHO's (2004b) guideline of 1:350.

As poor quality prevailed, the senior manager opened doors for clients to seek alternative services if dissatisfied with those provided by the LCE. The operational manager rued the lost opportunities in servicing the demand, satisfying clients' needs and collecting and using data to inform decisions. For both the top and operational leadership, opportunities were lost due to the disproportion of staff to clients, the many registers, and staff working alone and being overworked. In conclusion, the LCE's top, middle and operational leadership needed sensitisation on their roles in the response. The LCE performed poorly in its leadership for effective health human resource.

5.6.4.2 Management of drugs and supplies

The LCE's health commodities were supplied by the National Drug Supply Organisation (NDSO) who, from a CHAT perspective, played a two-fold role as regulator (rules) and stakeholder (community). In the NDSO-LCE joint activity on medications, the object became the infecting agent (HIV and other opportunistic infections) and pain or other symptoms, with the outcomes to achieve viral or other microbial suppression or elimination, an increased CD4 count, pain management and/or any other outcomes as per the prescription.

The findings were that LCE adhered to the NDSO's quality control measures, with supplies matching the expected standards. The contradiction was that the LCE's staff fell below standard as the service provider asserted dissatisfaction with her own service. The tension lay between the subject and object as the mediating activity was compromised by resource shortages. The LCE poorly met this quality standard.

5.6.4.3 Laboratory management

Laboratory services involved the identification and collection of a tissue sample from a client to be tested for pathogens or abnormality in a laboratory. The LCE outsourced laboratory services as it did with pharmaceutical supplies. In CHAT, the care providers were the 'subjects'. The main activity was the collection and testing of tissue samples such as blood and other body fluids for STIs, HIV or OIs. In laboratory work, the 'object' was the human tissue sample, whose outcome would be a positive, indeterminate or negative test result.

The findings were that LCE staff sent samples to the central laboratory and later collected the results because the college had no on-campus/on-site laboratory and because the quality control

requirements were better assured at the central laboratory. However, the unchanging factor of one clinic staff hampered the cycle of collecting samples, delivering them for testing, receiving the results/reports and informing the clients of their results. A primary and conceptual contradiction, the multi-tasking proved too challenging for one nurses. Shortage of staff was yet again the main culprit. The LCE however rated fair for this standard.

Management of information

In simple terms, this standard constituted the acquisition, interpretation and usage of the LCE's health services data and facts to inform managers and clients to improve upon the service. The facts were drawn from KIIs, one of whom was a health service provider, and assessed against the selected WHO's Standard (2004b).

The core activity with 'managing information' was that of managing by grouping, summarising and interpreting data and facts for information and sense making (Checkland and Holwell 1988). In CHAT the 'object' was lack of knowledge and the 'outcome' was improved insight and understanding of issues and their influencers. The tools were the various MoH (2004; 2007; 2009; 2016) reports among others. The information systems (IS) artefacts included paper and software-based data input devices. Divisions of labour ranged between the on-site or primary users who input the data, secondary users who aggregated and interpreted the data, and tertiary users who made decisions based on the data. In modern health care, the standard required the interface of humans and technologies. Showcasing another contradiction, a KI said:

> Q: What happened to your data?
> A: I took out some but an 8-Gig flash disk cannot take out all that data, so I lost some. And now it's a little bit umm,… everything I do manually it's not easy. It's made my job even more harder.
> Q: Because you have to process …
> A: Everything manually, I have to turn on the pages while on the computer it was really much easier**. (LCKIF3)**

The dialogue revealed the drawbacks of storing the data on one electronic system because when it got lost, it was lost forever because there was no back-up. This left the provider with only carbon copies of reports to the DHMT and other partners. In conclusion, the LCE poorly met the standard due to insufficient human resourcing for services and information, and the lack of an adequate back-up system.

5.6.4.5 Managing finance

Finance here referred to money invested in an activity. The 'object' of financing was the budget and its 'outcome' was how well or how poorly it was executed for stock-taking, ordering, invoicing, paying suppliers and reporting. The budget of M75,000.00 cited by the clinician was inaccurate as it excluded salaries and operating costs; the salary of M150,000 to M200,000 p.a,, the operating costs, and the cost of the pharmaceuticals and the prevention components were thus not all covered in that year's budget. The value and use of the budget in relation to the HIV/AIDS response was thus unclear.

In conclusion, the LCE's financial management was vested in an able and qualified financial officer and the budgetary allocation for the clinic was M75,000.00 (USD 6,000.00) for a community of 4400 students and 241 staff (nearly 4700), which translated to USD 0.78 (three quarters of a dollar) per person per annum. Although only a cursory analysis of the LCE's spending on AIDS was done, the budget breakdown suggested a combination of conceptual and secondary contradictions, which invoke functional and material ones, regarding LCEs spending on HIV/AIDS to improve response. The third aspect of the WHO (2004b) Standard concerned the LCE's use of funds as per the objectives in the AIDS policy. The fact that there was no AIDS policy despite it being the responsibility of the LCE to develop the policy, and the fact that the details provided regarding the clinic's budget were inaccurate meant that the college performed poorly on this standard.

5.6.5. Reflections on the LCEs response strategies to improve response

The quality of the LCE's response, based on the WHO Standards (2004b), did not match the aforesaid promises for the institution's response to HIV/AIDS, nor did they provide the (human, financial and information) resources necessary to sustain it. The major contradictions lay in the internal service gaps such as the information gap between the senior administrator and the clinic manager regarding the actual number of staff at the clinic. It evidenced poor commitment from the LCE's top management. As a result, the middle and operational leadership lacked information and the capacity for the response.

The LCE's response was fraught with contradictions. Daniels et al. (2010) cited conceptual, material and functional contradictions in an activity system. At least four questions could be raised regarding the implications of the contradictions. The first was a functional one: why had the LCE's leadership/'subjects', despite full awareness of an AIDS policy as a key conceptual 'artefact' to guide the response, not developed one? The second question, a material one, was:

how were the LCE's finances allocated and used, given that the clinic's budget was paid for by user-fees and ARVs were supplied for free? The third question was functional: why had the LCE failed to employ a second nurse at the clinic despite the evidence of a shortage of staff/ 'subjects' over two financial years? The fourth question was: why were the targets set out in the BU-LCE project (Babich et al. 2008) not reached? The next section studies the implications for the LCE and key stakeholders.

5.7 Implications for key stakeholders in education and training

Implication is defined in the Oxford Advanced Learners Dictionary (2015, p.392), first as the "possible effect or result of an action or decision" and second, as "something that is suggested or indirectly stated". The discussion focuses on the key stakeholders as the LCEs students, staff and parent ministry, across six areas, namely: the contradictions, aligning to the national strategy; providing services; investing in staff and finance; planning, monitoring and evaluation; and sustainability.

5.7.1 Contradictions in the LCE's response

Aligned to the five principles of CHAT, in Engeström's (1999) activity system, this subsection draws on the Table 2.1 which juxtaposes *categories* (e.g. primary, secondary) and *types* (e.g. conceptual, functional) of contradictions, and shows, gaps and implications for the LCE. A SARUA (2006, p.26) report on Rhodes University stated:

> The University recognise[d] the extreme seriousness of HIV infection and AIDS, and in view of the implications of the disease both at the workplace and wider society it [was] committed to formulating a policy to deal with the problem.

Similarly, the LCE had evidence of a strong recognition of the threat of AIDS at both the community and workplace levels, and committed itself to developing and implementing a response. The following contradictions and implications will help to draw analyses and recommendations to the LCEs commitment.

5.7.1.1 Implications for aligning the LCEs strategy

As the conceptual contradiction was that a policy which could be a mediational artefact or rule in CHAT did not exist, it was a challenge to align the LCE's response to the national one. The idea existed, but there was no evidence to support it with a written artefact. Thus, tertiary contradictions lay with the LCE's leadership not emulating the WHO (2004b) standard on policy. The implications were twofold. First, it created major functional gaps. Second, it

implied poor management commitment. It meant that the LCE was non-compliant to the (MoL 2006) *Labour Code Amendment Act* and had to act to address the gap

5.7.1.2 Implications for services improvement

For an intervention to work, a form of service or goods had to be provided. Zeithaml and Bitner's (2000) expanded service mix was linked in synergy with CHAT (Figure 2.3; Table 2.2) and have revealed lost opportunities at LCE. Upon observation, the LCE's clinic had limited space in the waiting area, the HTS test room and for the other privacy-intensive, sexual reproductive health (SHR) services. Due to space issues, one KI (LCKIF3) said that clients shunned the clinic, resulting in low turnout and eventually low performance to enact the object. Promotion efforts and IEC increased clients' awareness of the LCEs services, but too few staff answered the demand. The price of M10 was unaffordable for the students. Both the elements of physical space and finance caused artefacts-object gaps, hence tertiary functional contradictions to enacting the object. The LCE's problems implied a need to increase staff and improve capacity, quality and processes of admittance, information, testing, documenting and referrals. Failure to do this could undo attaining the outcome.

5.7.1.3 Implications for human, financial and information resources

In assessing the implications for the LCE's response, a triangulation of human, financial and information systems was conveniently used, hence a triad of subjects, object (resources) and a mediating artefact (finance). However, finance could also be an object to be acted upon due to its central role in buying human skills, equipment and services.

i. ***Human and leadership elements***

The most challenging factor at the LCE was the conceptual contradiction of too few skills invested or shortage of staff. Zeithaml and Bitner (2000) identified service delivery staff as:

> … All human actors who play a part in the service delivery and thus influence the buyer's perceptions, the firm's personnel, the customer, and other customers in the service environment.

Thus, people provided leadership. As subjects in the CHAT framework and as people in the Seven-Ps of services mix, the LCE leadership had failed by not owning an HIV/AIDS policy. The leadership failed to fulfil the clinic's staff quota, and had a budget that was disproportionate to the LCE's population. Although Mullins (1998) shows leadership as key to interventions, the findings showed poor agency, communication and access to one another across the LCE's

top, middle and operational levels about AIDS. The LCE outsourced services, with HIV testing data not accounted for. It implied the need for accountability and improved communication.

ii. Finance as an artefact

After leadership, finance was cited more often than human resources as a critical success factor in the LCE's response. In CHAT, money was an enabling artefact. The funding at the time of the research was at a lowly quarter of a dollar per head (LCE students/staff) per annum. The budget was increased from 0.97 per cent in the 2013-2014 financial year to 1.02 per cent in the 2014/15 financial year. It was the lowest ranked of all the components and implied that the LCE needed to increase its budget for better services.

iii. Information as a mediating factor

The adage 'information before formations' was associated with using data for decision making and related to people using information to decide on financial requirements. The findings for the LCE showed gaps in that top management knew neither how many staff nor how much money was invested in the response. The promise of an increased budget had not materialised and AIDS remained a serious concern. The LCE's failure to employ the appropriate clinic staff and allocate a material budget to HIV/AIDS implied a lack of information and commitment among the leadership subjects in CHAT.

5.7.1.4 Implications for planning, monitoring and evaluation

Aligning the LCE's response to the national strategy on AIDS required planning, monitoring and evaluation tools. Abel-Smith's (1994, p.47) planning model emphasised "taking inter-sectoral action seriously". However, the LCE had conceptual contradictions with planning, monitoring and evaluation. The tools were essential but not prioritised for facts and information to form a general agreement (Checkland and Holwell 1998). As one KI noted:

> A: …you see these registers, its OPD, its ANC, its HTS its FP…Four registers. It's hard and it's not very easy for one person to do all these and we have to stick to the NDSO requisition ...and... submit the reports to EGPAF and DHMT **(LCKIF3)**.

This comment showed six reporting tools for at least three partners and implied a functional contradiction and reporting constraints for the LCE clinic's single staff member. Material contradictions lay with not converging efforts to reach the LCE's young people due to a 'systemic' disjointedness around staff, finance and planning. It implied a need for the MoH, MoET, CHE and the LCE to jointly reshape the response. If this did not happen, the cooperation

and knot-working among the partners would undermine the response, with tensions that spread across expanded contradictions in Table 2.1.

5.7.2 Implications for sustainability in the LCEs response

Sustainability is key in this study as the combination of the above alignment, services, resources and planning and monitoring tools. It was derived from the verb 'sustain', which meant to 'uphold, continue or keep up'. For the LCE, Babich et al. (2008, p.147) observed:

> …Although an approach that offers instant results creates fewer barriers to implementation, the partners in this programme have chosen a conservative approach to ensure sustainability and long-term success.

This suggested two ways to achieve sustainability. One was conservative and the other was progressive. The LCE adopted a conservative approach for the BU-LCE project. Babich et al. (2008, p.145) envisaged the "HIV/AIDS curriculum [as] mandatory for all future teachers", with the "clinic opened and sustained without donor funds". The vision was sustainability and in the long-term but suffered poor student association activity in a tertiary contradiction to Painter et al.'s (2010) call for community involvement. Creese et al. (2002, p.17) said "cost-effectiveness data [we]re few, and much more high quality research [was] needed for detailed planning and programming". This study provides part of that much needed research.

5.8 Conclusion

This chapter showed the LCEs current response, interplays, strategies for improvement and implications for its stakeholders. The research questions were answered, with the connection between CHAT and the LCE's response components evident. Since the BU-LCE agreement, the response promised much higher targets than were achieved; the envisaged 300 HIV tests per month turned out to be just 3 tests per week. A contradiction other than staff, physical and finance was poor communication between the MoH, MoET and the CHE.

On 'interplays'; the LCE's structures, regional and local organisation projects did not impact the LCE's response, even with a policy. The strategies recommended by the WHO (2004b) Standard showed that the LCE had all the key components, but was only partly compliant to each of the standards. In ZPD terms, the LCE was embedded in the old, historical context of campus health, with lost opportunities for research, IEC and WHO (2004b) quality compliance. These which could not be resolved with limited staff and contradictions that span the categories and types in Table 2.1. The next chapter focuses on the NHTCs response.

CHAPTER 6 – FINDINGS ON THE NHTC

6.1 Introduction

The previous chapter discussed the findings on the LCE. This chapter presents the findings on the National Health Training College's (NHTC) response as the second of three findings chapters. As with Chapter Five, it is divided into eight sections; an introduction covering Lesotho's response, the NHTC's current response, the interplay among the structures, the strategies adopted for its response, the implications thereof and a conclusion. The eight sections show the main categories and types contradictions in NHTCs fight against AIDS.

6.1.1 Lesotho's response: through the eyes of the NHTC

This sub-section covers the research questions on the NHTC's response history, cultural influences, policies and existing services seen through CHAT. Due to the link between the country and its IHEs in the fight against AIDS (SARUA 2006, Kelly 2002), the findings draw from the country reports, KIIs, FGD inputs and observation. This sub-section covers the research question: 'what is the current response at the NHTC?' One respondent stated:

> A: Well, we are winning as a country but there are still a lot of challenges... still a lot to do so that... there will be some information... at national level mainly; everyone should work at his/her own level so that this concern can succumb…**(HKIM2)**.

These views on 'national level', 'information', 'leadership' and 'working at own levels' echoed the need to implement 'the three ones' principle (UNAIDS 2004) to create *one national HIV/AIDS framework for coordination*, *one national AIDS coordinating authority* with a multi-sector mandate, and *one country level monitoring and evaluation* system in the fight against AIDS. These principles were discussed in Chapter Three. Thus, while some views said Lesotho was winning the battle against AIDS, one FGDs raised a contradiction:

> A: The fight against HIV/AIDS in Lesotho is important, firstly, the individual; if you protect yourself… That means you are increasing your life expectancy and then you are increasing your chances of pursuing your career. And… it is important because as the prevalence rate goes down, the mortality rates also go down **(NHFGF3)**.

The FGD member did not say whether or not the national response had improved, but encouraged individual action; a self-care plan (Orem 1991) to fight AIDS, and appealed to students and the general population to lower the rate of new infections. In CHAT, this showed

that the student's 'object' was HIV, whose two outcomes could be a reduction in prevalence or an increased mortality. One FGDs input expanded into the economic sphere:

> I think it is important… for the benefit of the country; if we are not eradicating HIV and AIDS, productivity is going to be affected and… prevalence is high in higher learning… the product[s] of nursing are not going to be realised… so it's going to affect the nation at large **(NHFGM6)**.

In conclusion, Lesotho's response had multiple contradictions for its inability to meet the HIV/AIDS related targets in the MDG 2000-2015 era (UN 2000). However, the FGD participant understood that unless new infections and prevalence fell, all community sectors, including the IHEs, would be affected. The next sub-section covers the NHTC's response.

6.2 The NHTC's current response

The research questions addressed were:

- What institutional strategies and services for HIV/AIDS existed in the three IHEs?
- What was the interplay between the IHE's structures (management and clients) and services in response to HIV and AIDS?

The next section shows the historical and cultural response issues, the services available, the related economic and socio-cultural influences and the perceived outcomes at the NHTC.

6.2.1 A historical overview of the NHTC's response

This discussion profiles the NHTC's response based on Engeström's (1999b) principle of historicity which called for assessing activities against their own histories. In this case, it included demographics. The NHTC's response history showed a two-fold student population growth over the past two decades since its formation in an extract of the CHE (2010) Strategic Plan 2010/11-2014/15, as shown in Table 6.1 below:

Table 6.1: NHTC Student population by year - percentage of all IHEs
Source: Researcher (2014)

Academic year	NHTC's population	All IHEs' populations	Percentage
2008-2009	325	19,474	1.6
2009-2010	345	22,201	1.5
2010-2011	291	23,987	1.2
Average	**320**	**21,887**	**1.4**

The NHTC had a student population which declined annually, as shown in Table 6.1 above. The age range of the students was 18-26 years, averaging 22 years of age across the academic years, with 102 academic and support staff. The NHTC's age and gender demographics implied vulnerability in a nation in which HIV/AIDS was a concern and an object from the CHAT perspective. Lesotho's youth, including those studying at the NHTC, were at risk due to their physical mobility, the (sexual) mode of transmission and multiple concurrent sex partnerships (MCP) (NAC 2008). These factors necessitated a response, as one KI said:

> A: What we have done is to try and be very inclusive in our approach, both in terms of academic staff and support staff, as well as students so that everybody... has no barrier what-so-ever… as it cuts across all levels… **(NHKIF1)**.

As a top manager, the KI suggested an all-inclusive approach that strengthened the subject's collective action through individual agency. In addition to the all-inclusive historical approach in the response, one KI involved in the NHTC's Wellness Centre (WC) said:

> A: My role is I'm taking part in developing nurses who have worked in the field for some years... So they come back to train. We 're-skill' them to work at health centres **(NHKIF2)**.

The KI played a supporting role to the collective action and drew from the second and third generation of CHAT which included the subject (NHTC management), object (HIV/AIDS) and mediation (developing, re-skilling nurses) to act on AIDS to affect an outcome (Engeström 2001). Stetsenko and Arievitch (2004, p.489) affirmed an individual subject's role in influencing institutional culture:

> Another meaning in which individuals [we]re active agents of their own development and the development of the humanity—as not only subjects who appropriate[d] culture but as actors who create[d] and constantly change[d] it—was relatively disregarded by Leontiev.

The role of the two nurse-educators turned Wellness Centre managers was thus to change the NHTC's approach to the response, but this had not happened. One WC manager said:

> A: The very fact that it wasn't… umm, it had no fulltime person… taking care of the service. It was a challenge and as a result we really didn't find ourselves err… deciding

> on things that we thought were really necessary for the students and workers... **(NHKIF3)**.

This participant (a subject) felt helpless about institutional support to lead, access to mediatory resources and making decisions on the "really necessary" things for the desired outcome in CHAT. The medical work at the NHTC was thus seen in two ways. One was its external role in higher education and another was the internal response. Regarding the latter, one KI said:

> A: Its rather a difficult question, but it's not so difficult. However, since the WC is new, we are mostly concerned with everyday complaints of learners and the whole staff of this centre – of the college **(NHKIF3)**.

There was an urgency to strengthen the NHTC's response to AIDS. This was because HIV/AIDS was declared a national emergency in 2003 and the HIV/AIDS policy required by the *Labour Code Amendment Act No. 5 of 2006* (MoL 2006) was still outstanding. What was the AIDS policy environment at the NHTC?

6.2.2 Policy background on the NHTC's current response

As it was evident that no HIV/AIDS policy had been written and implemented at the NHTC, a plan was urgently needed to develop one that provided an objective context for the NHTC's response and in taking action, one KI stated:

> A: So what we did was to establish a committee including head representations from the different levels... elected by the NHTC community... They underwent a training... to be familiar with the whole concept of HIV; the testing that was necessary. **(NHKIF1)**

With the subject (committee), the specific activity which embodied purposefulness and transformation in practice (Stetsenko 2013), established one KI said:

> A: The main purpose was to serve the health personnel who [we]re working in this college, so that all their needs [could] be found under one roof... to avoid staff going to queue for health services elsewhere. And also especially for the young people for HIV/AIDS… **(NHKIF2)**.

The purpose of the committee was to guide the nascent response and acquire, allocate and monitor the resources for it. The committee appointed a manager, usually a nurse, to manage the clinic so that staff and students could access services under one roof. A reply to the probe on the decision making situation was:

Q: Were you able to make decisions?

A: We were not able to say 'we want this' because of [the] shortage of someone who should man the WC. For example, the students needed family planning... **(NHKIF3)**.

If the committee had appointed two part-time nurses to the clinic and made one of them responsible, the responsibility/authority for making decisions would not have been a problem. However, as no-one had been made responsible to make decisions, the NHTC's response was hampered by a primary conceptual contradiction, shown in answer to a direct question:

Q: Do you have policy/regulations that specifically address HIV and AIDS?

A: Not really **(NHKIF3)**

The absence of an AIDS policy functionally contradicted the response and constituted a gap in what Saint (2004, p.9) referred to as "the first step" in any response. The author (ibid) maintained that a "written institutional policy provide[ed] explanation[s] for internal decisions and legitimacy for actions taken in the process of AIDS control and prevention". This study found the policy gap to be the central contradiction to the laws and provisions of Lesotho's national rules, such as the *Labour Code Amendment Act No. 5 of 2006* (MoL 2006), the (MoET 2005), Education Sector Strategic Plan 2005–2015 and the Council on Higher Education Strategic Plan (MoET 2004). In CHAT, this meant a failure to apply rules and artifacts to support the response.

In conclusion, however, Engeström (1999b) asserted that contradictions were a central and essential feature of CHAT. In this case success ultimately depended on how the policy related contradictions influenced the NHTC's outcomes. While the policy tool would cover and mitigate the sources of 'conceptual', 'functional' and 'material' contradictions (Daniels et al 2010), as well as Beatty and Feldman (2012) categories of primary, secondary, tertiary and quaternary contradictions, this would only be achieved through the NHTCs subjects: if they saw contradictions as barriers to development or as sources of change (Langemeyer 2006). The two views combined expand choices based on the subject's interpretation of contradictions in their own activity system. Activity to build NHTCs capacity was initiated:

A: They underwent training for them to familiarise [themselves] with the whole concept of HIV; the testing that was necessary and… everything else **(NHK1F1)**.

This meant that the NHTC trained the committee to build staff capacity to initiate, maintain and monitor the response, and this training presumably included policy development. The next section shows the main components of the NHTC's current response:

6.3 Components of the NHTC's current services

The section covers the NHTC's current response regarding the key components of IEC, ABC, the health clinic/wellness centre, HIV testing, male circumcision, the research unit, the curriculum and financing, and provides a conclusion. It shows the rationale, activities, resources and challenges for each strategy.

6.3.1 Information, education and communication (IEC)

In the absence of an AIDS policy, the NHTC's response borrowed from national information, education and communication (IEC) strategies. Regarding IEC, van der Riet (2009) said that IEC approaches aimed to improve individual knowledge and attitudes for behavioural change. The contradiction was that despite Kymario et al.'s (2004, p.78) emphasis on IEC as the "core component of the national response", and Saint's (2004) view on the importance of prevention and care strategies giving access to information about an individual's HIV status, most IEC conceptions and messages were "overly negative and fatalistic" (HEAIDS 2010, p.97). In Lesotho an IEC sticker stating "AIDS Kills" was used to create 'awareness through fear' in the 90s. Regarding the NHTC's coverage on IEC, one KI said:

> A: … At all times when we open the college we try to brief all students regarding HIV/AIDS... Second is...they are taught about it as curriculum... a course, so that they gain more information. Apart from that..., we have nurses who work in the department of psychiatry who provide counselling… **(NHKIM2)**.

In CHAT, IEC was a critical mediatory tool to influence behaviour change for the prevention of AIDS. The NHTC had an IEC system of an 'open-day' where health sessions included information on hygiene, nutrition and HIV/AIDS. However, the NHTC did not have an IEC strategy and instead adopted the MoH (2007; 2016 guidelines for care and counselling. Despite these platforms, a respondent showed a contradiction:

> A: There is information... but people, despite their knowledge, fall into temptation, but the reported cases that we have here is not a big number....despite their knowledge people still want to taste poison ...to see if it kills (laughs) **(NHKIM2)**.

This primary contradiction extended to quaternary features to lie between the NHTC's and the National AIDS Commission's (2008) interventions. In other words, the contradiction lay within the community, where educated young people showed awareness of HIV/AIDS, but this awareness had not achieved success in terms of HIV prevention because of poor behaviour change at national level. Van der Riet (2009, p.16) identified a "gap" in individual knowledge and behaviour change, saying; "many researchers in the HIV and AIDS field have thus argued that changes in knowledge do not necessarily lead to changes in behaviour". The large numbers of young people at the NHTC were at high risk of IEC not impacting their behaviour and bringing about changes in critical response areas. These included multiple concurrent sex partnerships (MCP), consistent condom use, and men having sex with men (MSM). To the NHTC, it showed the need for greater activity to deepen the IEC.

6.3.2 Abstain, be faithful and condomise (ABC) strategy

Coupled with IEC, one current and key national strategy to prevent HIV transmission at the NHTC was to encourage young people to refrain from sexual activity (abstinence), to be faithful to their sexual partners, and/or to consistently and correctly use condoms. In CHAT, these were activities that the subjects/individuals had to engage in to realise the outcome of a lesser risk of contracting HIV.

There were, however, challenges. First, 'abstinence' was the single most efficacious means of prevention of HIV transmission. The MoET policy's first choice was abstinence (National AIDS Commission's 2008, p.50). In contradiction, abstinence was criticised by HEAIDS (2009, p.78) as it was "unlikely that promoting abstinence [was] going to have a strong effect". Saint (2004) placed more emphasis on secondary abstinence, mostly due to peer pressure and myths. The NHTC's students' own initiatives included working with faith-based organisations (FBO) to promote abstinence. One FGD said:

> A: ... We have an organisation - Christian Union. It teaches about the importance of abstinence, as youth... it's one of the methods of preventing HIV. It teaches us that sexual intercourse before marriage is not encouraged **(NHFGF8)**.

Despite even faith-based efforts, abstinence appeared not to be a sustainable option among sexually active students. The second option was 'being faithful to one's sex partner'. A contradiction of subjects/community/object which predisposed the NHTC's students to HIV was brought about by the high number of multiple concurrent partnerships (MCP) in Lesotho (MoH 2004; CIET Trust 2007; NAC 2008; ALAFA 2008; MoH and ICF International 2016).

For NHTC students, being faithful was influenced by social and economic circumstances. The third component of the ABC strategy was 'correct and consistent condom use'. The MoH (2004) showed that 54.9 per cent of females had used a condom during their last sexual intercourse versus 54.2 per cent of males who had done so. A later report by the MoH and ICF International (2016) showed a minor increase in this statistic to 71.0 per cent for females and 77.3 per cent for males. At the NHTC, male condoms were accessible to both sexes and were supported in the curriculum, services and research. One participant said:

> A: … We have AIDS related courses, we also do some researches, and they provide [us] with contraception methods like there are condoms in the toilets **(NHFGF2)**.

On inspecting the NHTC's students' halls of residence and bathrooms, only male but no female condoms were found. The mix of young peoples' preferences and choices applied as much to the NHTC as it did to van der Riet's (2009) study. Arguably, the NHTC's students showed a different, healthier attitude to condoms than van der Riet's (2009) subjects, perhaps due to the influence of their IHE curriculum on IEC and AIDS. The NHTC's clinic follows.

6.3.3 The NHTC's health clinic

This study linked CHAT and the Seven-Ps, since both these augmented the NHTC's Strategic Plan for 2013/14-2017/18 - Key Functional Areas (KFA) (NHTC 2013 p.7). The first of these was 'human resource management', with strategic objectives that focussed more on staff than students. The third KFA was 'student affairs', whose strategic goal was to strengthen student support systems and to "promote the welfare of students as a foundation for academic and life success". The strategic KFAs affirmed the NHTC's intent to develop a healthy workforce through the WC by providing in-house services.

6.3.4 The NHTCs HIV testing and services (HTS)

The purpose of HTS was to test and inform clients of their status in order to plan self-care. As described earlier, in the CHAT context the 'object' (HIV) had three possible 'outcomes': a negative, positive or indeterminate test result. The rules that were supposed to guide the HTS were the national protocol and NHTCs policy, neither of which were evident as one KI said:

> A: I never tested (clients) for HIV. The reason... it was not easy for me to do my duties as a tutor and then be fully involved with the services that errr, one would expect to be done in the WC Centre. So, I really didn't even ask for test kits because I found it overwhelming with my normal duties **(NHKIF3)**.

This KI raised a material contradiction to the purpose of the WC, in that the nurses (subjects) had competing interests over time as educators and as volunteers. Tensions between the two roles resulted in the failure to acquire critical HIV test-kits, invoking a secondary functional contradiction. The response thus suffered poor commitment, yet somehow despite this the subjects knew of HIV positive students. One KI stated:

> A: No, no, no. For those with HIV, we just give them prophylaxis as required, but not to really do hands on completely on the care of someone with HIV... **(NHKIF4)**.

As it was necessary to service the NHTC clients in some way, the WC opted for prophylaxis to fight opportunistic infections (OIs). This implied gaps in the continuity of care due to the dependence on other HTS providers as the WC could not conduct its own HIV and CD4 tests. Secondly, opportunities were missed where the NHTC referred clients and not could not 'learn by doing' in its response. An estimate of the numbers of clients using the WC was:

> A: Hmm… the females would be, let's say around seven, eight and the males, two or three **(NHKIF3)**.

An estimate or guess by a nurse managing of the clinic clientele shows secondary, functional and material contradictions. The main findings pointed to the lack of properly documented client data at the NHTC. Table 6.2 below presents the HTS data gleaned from the WC register for March to May 2015.

Table 6.2: HIV Testing at NHTC March-May 2015[11]

Source: Researcher (2016)

Month	Clients tested				Total
	Female		Male		
	Neg.	Pos.	Neg.	Pos.	
March, April, May 2015	7	1	3	0	11
TOTAL	**8**		**3**		**11**
Percentages of total	**72.7**	**9**	**27.2**	**0**	**100**

Table 6.2 also shows the numbers of known HIV positive students reportedly tested outside of the NHTC in this quarter in 2015. The findings showed the potential to promote the NHTC's

[11] The HTS data in Table 6.2 above were drawn from a register of clients who had reported having taken an HIV test and knew their status even though they were not tested at the NHTC.

own HTS programme, but the data is ironically too low for the health training college and is not even comparable to other IHEs and HTS providers in Lesotho.

6.3.4.1 Contradictions in the NHTC's HIV testing services

Table 6.2 above also showed secondary, functional contradictions due to lack of mediational tools and dedicated subjects, but not the object. Firstly, on-campus HTS was non-existent at the NHTC. Secondly, the WC register/notebook was poor in design and detail, and thirdly, the NHTCs provision of ARVs without their own HIV testing, although possible, was deplorable for Lesotho's premier health training college. On this contradiction, one KI said:

> A: Yes, they were, but unfortunately we were not doing that; we had to refer them to New Start and other agencies where they can be tested **(NHKIF3)**.

The NHTC's administration resorted not to corrective action, but rather to using referral partners such as New Start. This alternative had its problems: firstly, New Start only visited the campus three times during the academic year, so the services were not readily available to clients. Secondly, New Start did not submit reports/data of HTS to the NHTC, hence the WC had no idea of how many students had tested or what their outcomes were. Thirdly, referral modalities between New Start and the NHTC were non-existent and could not be explained, even by the WC managers. These secondary functional contradictions show that HTS, a key to KYS, was not a priority. What was the role of the NHTCs wellness unit?

6.3.4.2 The NHTC's wellness centre

The NHTC's WC was started in 2010 and housed in an office building on campus. Its purpose was to provide a free, time-saving and basic service for minor ailments and HIV/AIDS related care. Two nurse clinician (NC) volunteers took turns providing services. One NC said:

> A: OK, I was involved with the clinic simply because I am a Nurse Clinician and umm,… and that it's more of a Nurse Clinician's job although at other places [the] WC is run by almost everybody; people take turns... to help **(NHKIF3)**.

In the CHAT context, the 'subjects' (NCs) acted on the 'object' of demand, using mediatory tools such as client registers, diagnostics and medicines, and importantly, divisions of labour to achieve the outcome of 'access' to services.

> A: ... But when they come... to us, we don't have the equipment, we don't have... commodities to supply them with. So they still go out of the college to get their supplies, which is a short-coming to our students **(NHKIF4)**.

The KI affirmed the existence of a health service. According to the Seven-Ps of services mix, the promise depended on health 'promotion', which could not work due to poor IEC and a lack of commodities. The price was free, and the place was conveniently on-campus, however, the WC was in one of the NC's offices and unfit for purpose in terms of space. Interruptions in the supply chain weakened the physical evidence. Although open during the researcher's data collection period, the WC consequently became dormant due to a lack of resources. The WC nurses compiled their reports in a notebook (register), which on inspection revealed gaps such as lists of names without visit dates, ages, sexes, diagnoses, prescriptions and follow-up. In conclusion, the WC, despite having been founded to meet a perceived need, cultural ideals and a promise to fight HIV/AIDS, did not satisfy the expectations of clients and managers. Within this activity system the subjects did not apply the rules and artefacts at their disposal hence the core service by which the object was enacted failed to yield the outcome.

6.3.5 Voluntary male medical circumcision (VMMC)

Despite knowing that VMMC was scientifically proven to reduce the risk of HIV transmission to men by 60 per cent (WHO 2009a), the NHTC had neither a promotion strategy nor a services programme for it. This was because the health clinic was not operational due to a staff shortage. There was no record of VMMC activity with partners JHPIEGO or the nearby Tsepong hospital. As an object in CHAT, the biggest contradiction lay with NHTC's basic role to lead health innovation and training. Since VMMC was a controversial health issue in Lesotho, the NHTC lost an opportunity, through a quaternary contradiction, to lead in putting traditional, service-related, human rights and legal issues into perspective through its academic role.

6.3.6 The role of teaching and learning

Chapter One evidenced the rationale behind the national view of education as key to unlocking the battle against AIDS. In interaction with other IHEs, the NHTC committed its core business to influencing change within and outside its own institutional reach. One FGD member said:

> A: ... When I was doing that HIV/AIDS related course... I was a second year student… we went deep into everything about HIV... Our teachers helped us to notice the consequences... and encouraged us to take part in voluntary testing... **(NHFGF3)**.

By providing health education, research and community work, the NHTC created a deep understanding among its students and staff of the need for behaviour change. As the HTS was 'outsourced' and data were not copied for the NHTC, students could not use it to support their learning. This contradicted the fact that AIDS and TB lay at the core of the NHTC's curriculum as a health IHE. The NHTC's response was thus ineffectual when it mattered. The findings countered the purpose for which the WC was established: to provide a service, and an opportunity for educators to teach students to test other students (in a peer counselling and testing experience), monitor trends and report on the NHTC's contribution to fighting AIDS. Finally, and irrespective of the models used for behaviour change, the NHTC achieved far less than its potential through teaching in learning. How did its research unit perform?

6.3.7 The NHTC's AIDS research agenda

The NHTC's research unit, based on its Strategic Plan (*2013/14-2017/18)* and Key Functional Area 7, Marketing and Research Goal 7.1 (NHTC 2013) was "to attain [a] competitive advantage" through two strategies, namely:

i. Selling NHTC services and products.
ii. Promoting research and evidence-based education.

The research function of the NHTC was based on the CHE (2010) Strategic Plan 2010/11-2014/15, Key Focal Area (KFA) 4: 'Raising public and stakeholder awareness about CHE and its operations, as well as developments in higher education'. In CHAT, both strategic foci were artefacts held by subjects (leadership) working in synergy to provide the CHE's and the NHTC's services and products through research and evidence.

However, there were many conceptual, functional and material contradictions. First, the NHTC's research agenda was only conceptualised in KFA 7; second before last in their KFA hierarchy. Should the NHTC not have prioritised research higher up, for example under KFA 2 - Academic Affairs, its core mandate? Second, poor HIV testing attested to a lack of commitment. It exposed capacity gaps in the middle management services, research and client care. Third, the failure to keep the HIV testing data meant that students could not practice on other students (NHKIF2), so planning and service improvement could not happen.

Based on these findings, the NHTC's research agenda was a neglected mandate. During this study's period of data collection, there was no evidence (save student projects on HIV/AIDS)

of institutional level research and/or a publication of note, despite the many years of HIV/AIDS-related challenges facing both the NHTC and the MoH. What could have gone wrong? As one KI put it;

> A: ... The very fact that... it had no fulltime person … taking care of the service. It was a challenge and as a result we really didn't find ourselves… deciding on things that we thought were really necessary... **(NHKIF3)**.

All in all, the challenges for research emanated from the single most powerful fact of the lack of dedicated staff to manage the NHTC's clinic. The primary conceptual contradiction was that the NHTC had the best mix of health related human resources, and hosted Lesotho's first medical school in 2012. Like the research unit, the school proved unsustainable and closed in 2013. The next subsection assesses monetary aspects of NHTCs response.

6.3.8 Financing the NHTCs response

The key factor influencing the NHTC's finances in response to HIV/AIDS was the MoH, the parent organisation responsible for all budgetary support at the college. This discussion highlights funding at the personal, institutional and national levels. One respondent stated:

> A: No. Money was not a problem because we were not paying and we were ordering from the headquarters and Government was taking care of that. So we never took a cent from anyone; they were seen free of charge **(NHKI3F)**.

Although on an individual level the NHTC's students and staff concurred that they did not incur personal costs to access care, this did not increase their usage of the WC. In the CHAT framework, an 'artefact' such as cash was a mediating tool with which 'subjects' acted on the 'object' or need for services, and were then satisfied by the 'outcome', namely the provision of care. The revelation regarding personal level finance not being a requirement for care indicated that the service was less about money to access the care, and more about deeper things which will be revealed in the next sub-sections.

At an institutional level, the findings indicated that a lack of finance was a major challenge to the operation of the WC and the response. There was no clear plan of action to acquire finance and this lack of finance had not even been identified as a strategic threat to the HIV/AIDS response. The NHTC operated within a recurring budget from the MoH, with little capital funding for new projects. There was no evidence of proposals having been written to raise funds for short-term academic and welfare programmes.

The national level issue was the lack of funding through the MoH bureaucracy. Thus, the ultimate cost to the nation lay with the leading health IHE not investing in the response for the country's young health workforce. It indicated a lack of fund-raising initiative, dependence on the MoH and poor innovation at expanding the service. In ZPD terms, opportunities to find partners were lost. The response was embedded in passive activity and was not resolved.

6.4 Social Influences on the NHTC's Response

This chapter presents the findings on the key societal influences on the NHTC's response as noted, among others, by SARUA (2006) and HEAIDS (2010). These influences include the demographics or areas of origin of the students, on-campus sex practices such as multiple concurrent partnerships, sex work, student accommodation, use of alcohol and drugs, and access to care. The main relevant contradictions are identified and a conclusion drawn.

6.4.1 Demographic factors

The NHTC was geographically located in the lowlands, in the capital city of Maseru. Evidence from various studies by the National AIDS Commission (2008); ALAFA (2008); the CIET Trust (2007); as well as the MoH's (2004, p.235) Demographic Health Survey (DHS) showed varying numbers of sex partners, varying degrees of condom use, and varying levels of knowledge, attitudes and practices, among others, all of which effected the response. Mukeredzi (2009) discussed rurality and showed how under-development in rural areas led to poor social services. On the flip-side, the urbanity of the NHTC created a higher HIV transmission risk for students due to the sex work observed.

Regarding bio-demographic factors, HEAIDS (2010, p.xii) stated that of all the "demographic factors, age was strongly associated with HIV, as was race, sex and socio-economic bracket". In terms of sex, the MoH's (2009) Demographic Health Survey showed that men generally had their sexual debut earlier than women, and that women aged 20-49 with a secondary education had their sexual debut 2.7 years later than those without that level of education. This applied to the NHTC where secondary education was essential for entry and implied that in CHAT, enacting the object required specific rules and artifacts such as education among communities.

Another factor was knowledge, attitudes and the practice (KAP) of sex with regards to HIV/AIDS. KAP varied considerably among the IHEs, depending on their focus on education. As the NHTC educated health professionals, HIV/AIDS was core to the curriculum and lecturers often addressed sexuality, behaviour, prevention, etc. As a result, 'AIDS competency'

among the NHTC's students was higher than in the LCE. In conclusion, different demographic factors required tailor-made strategies based on their different features.

6.4.2 Of Sex work, 'sugar daddies and 'jumping castles'

Although there was no direct acknowledgement of sex work at the NHTC by the KIs or FGD participants, the IHE forums shared anecdotal evidence of sex work by students of most of the IHEs. The causative factor was economic; the student offered sex to their working partner/s for cash. Acknowledging sex work among students, one KI stated:

> A: Well, our students are resident and paid stipends and catered for with three meals a day... I do not see why they would resort to sex work... **(NHKIF5)**.

The respondent substantiated a motive for students to refrain from sex work. However, anecdotal evidence showed that even with personal day-to-day needs catered for, sex work was a personal choice and a preferred income lifestyle for some students. With sex work came inter-generational, unprotected sex and the risk of pregnancy, STIs and HIV, and it was mostly young female college students who had sexual relationships with older males. The HEAIDS (2010, p.82) defined intergenerational sex as "sex acts where one partner is young (usually under the age of 25 years) and the other partner is considerably older (usually five years older for teenagers and 10 years older for those 20 to 25 years old)". In CHAT the subjects could not achieve the desired outcome with the high risk behavior in the community.

6.4.3 Multiple concurrent sex partnerships (MCP) at NHTC

Linked to the above evidence on sex-work and intergenerational sex, MCP was a well-known phenomenon in which individuals/students had more than one sex partner at one time – a primary contradiction. This defeated mediation attempts by subjects to attain the outcome of low HIV prevalence. Figure 1.4 showed the trend of HIV prevalence by age, which could be generalised to the NHTC. The MoH's (2009) DHS showed that 11 per cent of women and 30 per cent of men had had more than two sex partners in the preceding 12 months. The figures suggested a high risk of HIV. The object in CHAT was for subjects (educators) to act to achieve HIV free outcomes among students. As women of all age groups had a higher HIV prevalence than their male counterparts (HEAIDS 2010; MoH 2009), this required specific educational, preventive and personal rules for the NHTCs female population, including life-skills education and family planning (FP). One KI said:

> A: There was a very big demand for Family Planning services. Unfortunately, we do not have commodities… We asked the Family Heath Division to supply… commodities but since it's not fully functional, they have not been able to supply us **(NHKIF4)**.

This quaternary functional contradiction lay in inefficiency in the parent-strategic business unit (Johnson and Scholes 1999) relationship between the NHTC and the MoH. Despite the demand for FP services, the MOH did not provide the commodities and support to the NHTC. In CHAT the rules and artefacts by which the family planning service operated were not applied. As such the NHTC could not honour its promise to students and staff to prevent HIV, unwanted pregnancy and STIs. The findings reiterated concerns over HIV and the MoH's lack of commitment to devolve authority to better support the NHTC's response.

6.4.4 Student accommodation

The basic provision for housing in most IHEs included student hostels/residences on campus, usually with single, double or multiple occupants per room. Nearly 80 per cent of the NHTC's students stayed on-campus, and students could opt in or out of the on-campus accommodation due to factors such as parenting, home ownership, proximity and convenience. Recognising stigma and discrimination in residential facilities, HEAIDS (2010, p.114) asks residence managers to recognise and develop solutions for HIV positive students.

At the NHTC accommodation on and off-campus had its drawbacks and benefits. It was an artefact of a student's personal privacy to choose what they wanted to do with it. They could study, engage in sexual intercourse, use alcohol and drugs, and even engage in criminal activity; rarely as suspects but mostly as victims. These choices were associated with the location and quality of the residence, and the area crime profile. Accommodation benefited both the core (education) and supporting activities. A contradiction was that the NHTC had the least health promotion tools, signages, messages or posters on HIV/AIDS in the students' residence halls. Other than comfort and convenience to the students, anecdotes suggested that accommodation (artefacts) could imply risk of HIV transmission due to personal freedom and privacy, with the outcomes of higher HIV prevalence and failed response. The artefact thus depended on individual agency to attain a good self-care (Orem 1991) outcome.

6.4.5 Alcohol abuse and HIV/AIDS

Alcohol abuse was widely cited as a predisposing factor for HIV transmission (MoH 2004; National AIDS Commission 2008; ALAFA 2008; HEAIDS 2008; MoH 2009), alongside other social and economic influences in the spread of HIV in communities. One FGD said:

> A: .... If one of the causes of HIV transmission in colleges is substance abuse, I think... the rate at which college students use alcohol should be controlled **(NHFGF8)**.

In CHAT, the object acted upon was alcohol and drug abuse. The role of subjects (educators and students) was to avail information regarding the adverse effects of alcohol abuse, and was a primary function of health education. As the NHTC had the capacity and skills for this activity, the respondent called for control over students' drinking behaviour, with a view to reduce HIV risk and prevalence among the students. The MoH's (2009, p.211) LDHS stated:

> The consumption of alcohol is also strongly related to HIV prevalence for men. Almost one-quarter of men who used alcohol in the past three months or previously are HIV positive, compared with 16 per cent of men who never drank alcohol.

The link between alcohol abuse and HIV transmission pivoted around poor decision making resulting in unprotected sex, making it imperative to target males. A contradiction at the NHTC was that despite awareness of the prevalence of alcohol abuse by the students, there was no intervention. To cope with alcohol abuse, Ntombela, Stilwel and Leach (2008) recommended counselling for students' relationships, stress and academic pressure to include prevention, care, support and treatment for HIV. What was the NHTC's access to care?

6.4.6 Access to care

Access is a noun which means 'a way of entering a place or service point' and it is also a verb which means 'to reach, enter or use something'. It is a key dimension in the WHO Guidelines (2004b). The subjects (care-givers) were to act on accessibility (entry into areas of care), availability (being in place) and affordability (ability to pay for service) for the students.

Due to too few staff, access was not tenable at the NHTC. Jacobs et al. (2012) showed that a central feature of poor access to health services in Asian countries was the lack of appropriately trained staff. Likewise, the NHTC could not sustain its clinic due to combined and cross-cutting conceptual (the idea not working), functional (response system not working) and material (key outputs/activities not achieved) according to Daniels et al. (2010) and Beatty and Feldman (2012) categories of contradictions. The problem lay with the 'subjects' in CHAT, or 'people' in Zeithaml and Bitners' (2000) Seven-Ps of services marketing mix.

6.4.7 Summary of social influences on NHTCs response

In summary, the NHTC's response had tensions in key knots/nodes from a CHAT stand point. First, dedicated staff (subjects) were the missing mediatory link. Second, the clinic (artefact)

was not functional. Third, the activity lacked focus on HIV/AIDS, with no clear division of labour as staff operated on a voluntary basis and divided time between teaching and providing clinic services. The findings around 'activity' showed that the NHTC's response had tensions in the core activity with major functional contradictions. The provision of services hung between suspended and active modes - the KIs denied an outright suspension, but did not accept a sustained, accessible health and HIV/AIDS service. As Lesotho's major health training college, the NHTC's response was shaky, not exemplary and ironic in CHAT aspects. Recommendations to improve are made in later chapters in this study. The next sub-section shows the interplay among the NHTC's structures in its response.

6.5 The NHTCs interplay with external organisations

This discussion addresses the second research question: what is the interplay between the IHE's structures (management and clients) and services in response to HIV and AIDS? It covers the influences of international, regional and local organisations such as WHO, UNAIDS, UNESCO, with bigger roles locally by the MoET, MoH, the NAC, the LPPA, New Start and other IHEs. In CHAT, these organisations constitute the NHTCs 'community'. The findings are drawn from KIs, FGD participants, documents and observations.

6.5.1 PSI, New Start and NHTC partnerships

The roles of the PSI and New Start were to provide testing and counselling at the NHTC. On the part of these two organisations, the main activity involved setting up mobile tents for testing, often moving between selected public places, IHEs and work places to call individuals for HIV testing. In attestation to the efforts of New Start, one KI stated:

> A: Yes, they were, but unfortunately we were not doing that. We had to refer them to New Start and other agencies where they can be tested **(NHKIF4)**.

A conceptual tertiary contradiction, in which the ideas of a more advanced entity (PSI) were not translated to a lesser advanced entity (NHTC), to improve its response, occurred: although PSI-New Start promoted testing in the NHTC's community, the college did not have its own HTS programme to assist the 'complimentary' role played by New Start to any existing interventions. There were issues in this relationship, as one KI illustrated:

> A: … I think PSI, yes. I remember such people outside here.... I didn't know what that mobile clinic was. They once came, wishing to test the students.
> Q: You allowed them access to the students?

A: Since they go through the authorities, I am sure they are allowed because they come and meet our students here instead of them going out.

Q: Do they copy you on the data that they have collected from your students? So that you have an idea what the reports look like?

A: Indeed, I am not sure. Perhaps they give it to our authorities, but maybe we didn't have any interest or it's given to the high authorities....

Q: … Do you think it is important to know how many... women, men,.. have tested…?

A: It would be important. The only thing that makes us lose interest is that we are now engaged with other activities **(NHKIF4)**.

The interview revealed the nature of the NHTC-New Start partnership. In CHAT the findings showed contradictions and tensions, first with a communication breakdown between the subjects and community regarding authorisation. The HTS managers did not know beforehand of plans to work with the PSI, nor had they received last minute notice. The contradiction illuminated a deeper information gap in that New Start did not copy the day's test results in terms of how many students had tested, and their status by sex and age, etc. to the NHTC, negating its accountability to its community. In other activities, New Start organised sporting activities among the IHEs including the NHTC, to promote AIDS awareness and prevention.

6.5.2 JHPIEGO-NHTC partnership

The John Hopkins Programme for International Education in Gynaecology and Obstetrics (JHPIEGO) had a partnership programme with the NHTC, which one KI said began in 2011. It aimed to provide a platform to share public health expertise between the two institutions. According to one KI, the JHPIEGO programme was to assist the NHTC to build capacity to expand the education on HIV/AIDS to district high schools through the NHTC's students. This initiative was corroborated by the students in the FGDs. Despite the relationship between the JHPIEGO and the NHTC, this study found that it had no artefacts such as a written policy or agreement, at least not one that the NHTC could copy. The partnership did not have a memorandum of understanding, as stated in the NHTC's strategic plan 2013/14-2017/18 (NHTC 2013) for collaboration with external partners. Thus, this relationship was informal, and was inactive during the data collection period for this study. No records were available at the WC to assess the NHTCs achievements and challenges in its response.

All in all, the JHPIEGO-NHTC partnership featured tertiary contradiction in which the more advanced partner could not influence change in the host organisation response. The lack of

official evidence created tensions in accountability of the NHTC response. Other than international and local partners, the NHTC inevitably partnered with the MoH and the MoET.

6.5.3 Interplays with the ministries of Education and of Health

The NHTC's Strategic Plan 2013/14-2017/18 (NHTC 2013) identified nine principal strategic partners, including government ministries (MoH and MoET), regulatory bodies, the National Manpower Development Secretariat (NMDS), the private sector, the National Drug Supply Organisation (NDSO), pharmaceutical companies and the Lesotho Red Cross. The MoH established the NHTC as its training institution, the MoET prescribed the curriculum and the CHE accredited its courses for health training. This setup was key to the NHTC's response.

The functional quaternary contradiction was that both the MoH and the MoET (community in CHAT) were key players in Kymario et al.'s (2004, p.181-184) narrative on "pragmatic actions for care streaming [of] HIV/AIDS by [the] Government sector", did not bring strong role recognitions between the two ministries in IHEs response. The concepts of health (for the MoH) and education (MoET) lacked reference to and emphasis on one another. As such, 'school health' was not mentioned in the MoET's curriculum to target health and AIDS, and the MoH did not emphasise education, and 'health education' was not even listed among the two inter-ministerial actions. One KI noted:

> A: Sometimes… we use strategies that are used by the Ministry of Health, as part of our team. We had a team here running the WC Centre which we as employees used a lot. But for the students and employees too, we use New Start... with the Ministry of Health, the AIDS Directorate through the Disease Control Unit **(NHKIM2)**.

These findings showed a deep embeddedness of the NHTC within the MoH's bureaucracy. Despite its strong community partners, the NHTC did not have evidence of the response to attract new strategic partnerships. One KI showed a top-down relationship between the MoH and the NHTC:

> A: I went to the Director of Nursing Services and talked to her about that. She said that it should be (done)… someone was identified... She said 'OK' there must be a letter written by the Director. I went to the Director Academic. I even drafted the letter but things never went forward. What happened, please don't…(shrugs, laughs) **(NHKIF3)**.

Against the backdrop of this communication gap, the NHTC's Strategic Plan 2013/14-2017/18 (NHTC 2013) stakeholder analysis identified positive and negative contributors. The strategic

plan lamented the fact that the MoH's involvement in the management of the NHTC's finances created dependency, delayed actions, and did not exploit opportunities for clinical and pre-service training. It said that the MoH gave the monopoly of the pharmaceutical supply to the inefficient NDSO, over other pharmaceutical organisations. It also said that the MoET's budget was based on historicity rather than current realities, red tape and rigid policies that stifled procurement processes. All in all, the findings indicated that the NHTC was trapped between two powerful ministries that did not allow it or themselves to exploit response opportunities.

6.5.3 The NHTCs and IHEs' forum/initiative in the response

This section shows the role of the NHTC in the IHEs' forum to deal with HIV/AIDS and answers the following research questions:

- What is the interplay between the IHE's structures (management and clients) and services in response to HIV and AIDS?
- How can strategies be developed to improve the quality of the selected institutions' response to HIV and AIDS?

In the researcher's witnessed view, an historical event in Lesotho's IHEs' response to HIV/AIDS came in 2008 with a visit and lecture by Professor Kelly**,** a renowned activist in universities fight against HIV/AIDS. The NHTC participated in the lecture, whose way-forward was to create a forum to share experiences, collaborate to promote awareness, infuse HIV/AIDS into curricula and mobilise resources (Kelly 2008). In CHAT, in this expansion subjects 'acted' on the 'object' of AIDS, albeit with fewer IHEs than at inception. The NHTC was elected as chair of the forum (Annexure E) and its focal persons showed an urgent need for a policy, with an opportunity among the forum's resources. One FGD participant said:

> A: ... It's just to take what's already existing that links all other IHEs i.e. LUCSA, the sporting activities that is Lesotho Union of College Sport Activities... use that forum to expand the mandate of working together of the colleges as they come **(NHFGF1)**.

This showed initiatives among the IHEs to combat AIDS, in this case through sports, which could "expand" collaboration. An observation for cross-disciplinary work was explained thus:

> A: Yes, it is necessary for them to work together because we all need each other, regardless of the course we are doing **(NHFG11F)**.

Despite this view by students (FGD participants), the level of collaboration among the NHTC, other IHEs and the two key ministries proved to be poor. Another KI said:

> Right now it's non-existent. Yes, sir, each one is training at his own corner, alone and each one's doing his own thing **(NHKIM2)**.

This section evidenced that at the NHTC the desired results proved elusive. Not only had it failed to tap sufficient support from the two ministries, it had also failed to utilise forum opportunities for policy support. Its response lagged far behind that of the LCE due to poor commitment by the top management and poor capacity at the middle level of management, in contradiction to the felt need evidenced at the operational level.

6.5.4 Reflections on NHTC's interplays with key partners

This section covered the interplay between the NHTC and its partners such as the Ministries of Health and of Education and Training, the JHPIEGO and the CHE. Despite its stature in health education and training, the NHTC experienced tensions with the top management's agency to enact the response. While the threat of AIDS loomed large given the estimated 80 per cent of the NHTCs population aged 19 to 23 years, the management did not engage in a meaningful way due to limited resources (tools). Excerpts from senior management KIs' inputs showed full awareness over long periods of time, of the need to initiate, participate in and realise the benefits of the NHTC's response. This was not happening.

In CHAT this meant that there were chronic gaps between the subjects (management of the NHTC) and the community (MoH and MoET), with the inability to apply HIS artifacts and rules to the object. The outcomes were unknown as the key partners in the interplay did not account for their actions by reporting data; an ironic response for a national health training college. In ZPD terms, the partnerships remained embedded in old-fashioned, historical ways of providing ad-hoc and "piecemeal" services (Kelly (2002, p.28). The next section covers the strategies used to improve the NHTC's response.

6.6 Strategies to improve the quality of the NHTC's response

This section assesses the strategies used to improve the NHTC's response. The researcher used the WHO (2004b) standard following CHAT's fifth principle, and the CHE's (2008) QA dimensions, since the NHTC had no quality assurance protocol. The CHE's Strategic Plan (2011), *Focus Area Three: Developing Quality Assurance Systems and Mechanisms*, provided

the context to assess the NHTC's quality of response. KIIs, FGDs and documentary reviews were used to triangulate the findings for reliability and validity.

Quality was seen as a 'methodological concept' and as a 'judgement' of the response, in line with expansion in CHAT, as Engeström (2001, p.137) stated that "an expansive transformation is accomplished when the object and motive of the activity are reconceptualised to embrace a radically wider horizon of possibilities than in the previous mode of the activity". At the NHTC, reconceptualization was an opportunity that was lost due to lack of people ideas to realize the response. The next sub-section gives context on how to move from the current to a new mode, based on the WHO (2004b) Proposed Standards.

6.6.1 The WHO proposed standard of quality in the NHTC's response

This sub-section shows the dashboard findings of the NHTC's current response using a qualitative diagnostic tool, based on the WHO standard (Table 2.1), and shows general linkages to CHAT. The researcher used the KIIs and FGDs, documents and observations to confirm the availability and qualitative performance for each standard in Table 6.3 below.

Table 6.3: WHO Proposed Standards for Health – service ratings for NHTC
Source: Adapted from WHO (2004b)

Category	Functions	Availability at NHTC	Assessed performance
Functions related to health care delivery (CHAT: object, rules)		**Yes**	**Overall poor**
A	HIV testing, counselling and referral	Yes	Fair
B	Management of opportunistic infections (incl. TB)	Yes	Poor
C	Provision of anti-retroviral therapy	Yes	None
D	Support for adherence to treatment	Yes	Poor
E	Prevention of mother-to-child transmission of HIV	Yes	Poor
F	Palliative care	None	N/A
G	Rights of PLWHA and reducing stigmatisation	Yes	Fair
Functions related to links with communities (CHAT: community, activity)		**Yes**	**Overall good**
H	Community links	Yes	Good
I	Promoting health, preventing and treating disease	Yes	Good
Functions related to service delivery (CHAT: subjects, divisions of labour and artifacts)		**Yes**	**Very poor**
J	Leadership and human resource management	Yes	Poor
K	Management of drugs and supplies	Yes	Poor
L	Laboratory management	Referral	Poor
M	Management information	Yes	Poor
N	Financial management	Yes	Poor

By this assessment, the WHO standard (2004b) readily applied to the NHTC in all, and particularly two, of its overlapping principles. Firstly, the second of the nine principles addressed HIV as being part of a comprehensive HIV service delivery, promoting safe sex, condom use, prevention of mother-to-child transmission of HIV, harm reduction and universal precautions. Secondly, the seventh principle covered human, logistic and financial resources for sustainable AIDS programmes and services.

Together with the WHO standard (2004b), and since the NHTC had no quality assurance (QA) protocol of its own, this study incorporated the CHE's (2004) Strategic plan, *Focus Area 3: Developing Quality Assurance Systems and Mechanisms*, to deepen the context when reviewing the NHTC's strategies. The limitation lay with primary contradictions, mainly the NHTC's intermittent response, very poor record keeping and having no one assigned the day-to-day management of the clinic. The findings were as follows:

6.6.2 Functions related to health care delivery

These functions formed the core of any IHE's response and informed the overall review of the NHTC's response. This sub-section discusses HTS and referral, the management of OIs, the provision of ARVs, support for adherence, the prevention of mother-to-child transmission, palliative care and the rights of people living with HIV/AIDS.

6.6.2.1 HIV testing, counselling and referral

The findings on the NHTC were that HTS was suspended at the time of this study's data collection. Students and staff who needed services self-referred to other service points. There was verbal evidence (KIIs and FGDs) of outsourcing of HTS with an organisation called New Start, but this alternative partner did not copy the NHTC on the results of the HIV outreach testing on the students. Other than health education and the HTS guidelines in the NHTC's health curriculum, this study reached a dead-end on the NHTC's HTS strategy and performance, in contradiction to the CHE's expectation for HIV support services. Without HTS data, the risk of HIV at the NHTC could not be evidenced. This showed the need to reconceptualise the service, using the WHO (2004b) standard and the CHE (2008) guidelines.

6.6.2.2 The management of opportunistic infections (OIs)

As the NHTC's clinic could not provide a basic consultation service, it could not provide services to manage OIs and TB. This was despite these two diseases being major public health

threats in Lesotho, with a 72 per cent co-morbidity rate (MoH 2017e). The lack of services expanded the risk of TB due to its communicability, in the close-contact community of students in the IHEs. Although the WHO standard (2004b) provided for prevention as part of a comprehensive service delivery, there was no evidence of activity to avert TB transmission, and the provisions of this standard suggested viable options for the NHTC. In CHAT this gap implied a missing artifact of ARVs to achieve outcomes against TB/HIV.

6.6.2.3 Provision of ARVs

As with HTS and referral and management of OIs, this service was cited as non-existent by the KIs and FGD participants. This happened while Lesotho's population experienced challenges in improving access to ARVs, and despite the fact that ARVs were being supplied without cost to the institution. The ZPD scenario therefore shows the NHTC stuck in a historical situation and not expanding its services to address a major national concern in HIV. It undermined viral suppression efforts in the UNAIDS 3x90s, and occurred despite evidence of 'treatment as prevention' (UNAIDS 2012; WHO 2012) among students and the wider community.

6.6.2.4 Support for adherence to treatment

This support helped students and staff who lived with HIV to better cope with their experiences and to access services and (physical evidence of) medications as tools for their wellbeing. The lack of institutional support at the NHTC posed a risk for students who spent much time on campus. A contradiction thus occurred in subject/community/mediational tool/division of labour and object. In a country with a 25 per cent national HIV prevalence, in which youth aged 18 to 39 years comprised 40 per cent of the population (MoH 2017e), poor support for adherence risked treatment failure for the users. This WHO standard (2004b) provided fitting guidelines for improvement, given the NHTC's skills and potential capacity in its response.

6.6.2.5 Prevention of mother-to-child transmission of HIV

The prevention of mother-to-child transmission was recognised as key to breaking the cycle of HIV transmission between mothers and their children (Semba 1997). It was already acknowledged that the NHTC had a sexually active population of young people, and that there were confirmed occurrences of pregnancy among its students who continued with their studies nonetheless. PMTCT was a necessary strategy for prevention, yet it was non-existent at the time of the study, despite evidence of students falling pregnant for various reasons. It created a contradiction of subject/community/division of labour/object and negatively affected the outcome. In reconceptualising its response, the WHO (2004b) standard on PMTCT was ready-

made and available to the NHTC as an IHE under the MoH. As such, PMTCT services had to be implemented in accordance with this standard to assist with the evolution of the response.

6.6.2.6 Palliative care

Palliative care was often cited as near-terminal care. Other than in the syllabi, the strategy for palliative care was understandably neither available nor expected at the NHTC. It was evident in the NHTC's nursing and other discipline curricula for practice, but not as an in-house service. Although palliative care was an outlier in the IHEs' responses, the NHTC and five other nursing training institutions (NTIs) had opportunities to expand their curriculum and specialities to build professional practise capacity for improved palliative care. The opportunity was, however, lost due to poor overall strategy of the response.

6.6.2.7 The rights of PLWHA and reducing stigma

Providing services was one way in which a response addressed the rights of customers. However, starting with evidence, this study did not find any students or staff living with HIV, nor any taking the lead in the NHTC's response. It was notoriously difficult to have students disclose being HIV positive on campus, and take the lead as people living with HIV and AIDS (HEAIDS 2010). Stigma was cited as a major cause of shunning not only of campus services, but also of taking noteworthy leadership/activism roles among students. The NHTC's strategy was to address rights and reduce stigma in lecture rooms only. As this had an unknown effect, it affirmed the NHTC's overall poor performance.

6.6.3 Functions related to links with communities

This section discusses community links and promoting health, preventing and treating disease. Noteworthy here was that both CHAT and the WHO standard used 'community' to mean the same society, public or citizenry, in this case around the IHEs and the NHTC in particular. The findings showed an overall good performance attested to by the KIs and especially by the FGD participants. This was due to community health and practicum work among the students being an essential component of the NHTC's curriculum, but not as part of a deliberate strategy in the NHTC's response. It had one component of health promotion.

6.6.3.1 Promoting health, preventing and treating disease

Health promotion was one of the core mandates of health-training in the IHEs. Promotion in this context equated with promotion in Zeithaml and Bitners (2000) Seven-Ps of expanded services mix. Although health promotion was within its curriculum, it was not practised at the NHTC except at students' sporting and social events. For an institution with health promotion

as its core mandate, the NHTC's performance in ZPD was shrunken and failed to embrace wider horizons to support prevention, both within its own and the wider community.

6.6.4 Functions related to service delivery

This third component, functions related to service delivery, covers leadership, the management of drugs and supplies, laboratory management, information, finance and a number of other strategies. While the services related to health above covered core health services, these service related functions address the supporting components.

6.6.4.1 Leadership for the NHTC's response

In the context of CHAT, leadership was a subject, actor or human trait by which one person could influence action by others. At the NHTC, the findings showed poor overall leadership performance as there was no 'leadership and human resource management' strategy for the response. It was acutely lacking and resulted in systemic contradictions and other challenges evidenced in the NHTC's response prior to this section. As was evidenced in the literature review, leadership had to influence mass action but the NHTC failed the leadership test. In ZPD terms, the apparent embeddedness in the status quo by top management implied limited expansion and lost opportunities to plan and develop the institutional response capacity.

6.6.4.2 Management of drugs and supplies

The management of drugs and supplies in CHAT meant the tools/artefacts of care were procured, distributed, monitored and reported on within the quality cycle. The NHTC short-changed the WHO's (2004b) Standard for logistics and supplies, with functional contradictions that cut across the primary to quaternary levels. The lack of dedicated staff, the shortage of consultations, and the shortage of storage and dispensing rooms stand as manifest to the four aspects of Zeithaml and Bitners (2000) customer gap. On observation, the NHTC stored a basic supply of medicines in unlocked card-boxes, for any volunteer health officer to access them. This suggested poor conceptualization, failed safety rules and lacking tools of services in a major health training institution.

6.6.4.3 Laboratory management

Although most IHEs' HIV/AIDS services did not often offer on-site laboratory management and tests, a well-managed response at the NHTC should have (at the time of this study and thirty years into Lesotho's official fight against AIDS) included a good laboratory service for both its own training needs for medical laboratory sciences and to support its response. However, functional and conceptual contradictions suggested that the laboratory was not

conceptualised to also support the response, missing expanded benefits for NHTC. No plans were made to exploit opportunities, but it was embedded in historic ways while the NHTC's students queued for services with the public in other off-campus health service points.

6.6.4.4 Management of information

The NHTC's health information systems (a tool in CHAT) were evidently poor, due to poor conceptualization and functionality of record keeping for WC clients. During data collection, the researcher's request to see a register resulted in an unsure search for a notebook. When found, it showed sketchy details with no specific format such as listing of names, ages, sex, diagnoses and treatments, etc. for each patient. The users of this notebook could not even aggregate the visitor's demographic data with the HTS results. Besides HTS being non-existent on campus, the NHTC's HIS did not incorporate the HTS data from outreach partners such as New Start. As a result, the HTS reports on the students did not reach the NHTC's authorities and the college could not evidence, plan and report on HIV testing.

6.6.4.5 Managing finance

A lack of financing strategy and low levels of institutional budgeting were amply cited as a threat in the NHTC's Strategic Plan SWOT analysis. As a management tool used to enable service delivery, finance was not budgeted for and was thus inaccessible to the NHTC's WC unit. Rather, the NHTC depended on the MoH's "piecemeal" approvals for commodities procurement and staff recruitment (Kelly 2002, p.28). In CHAT this was a contradiction between subjects and artefacts and the lack of monetary mediation led to failed outcomes. This had implications for the key stakeholders.

6.6.5 Reflections on the NHTCs strategies to improve response

The evidence in this section substantiates the key observation that the response needs first, human resources for leadership, decision making, services provision and reporting. Secondly, the service was intermittent and possibly frustrating the NHTCs customers. Without an ongoing service, the college could not evidence its challenges with student's welfare or the threat of HIV. The NHTCs response components were in systemic contradictions, with the main one being poor communication between the parent ministries of Education (MOET) and of Health (MoH) in their oversight roles.

6.7 Implications for education and training – key stakeholders

'Implications' referred to what was required to find a way out to redress a situation. Like the LCE, the NHTC's implications were based first on 'contradictions and tensions', followed by

summaries of: ‘aligning the NHTC’s response to the national strategy’; the promise to ‘provide services’; the need to ‘invest in human and financial resources’; the ‘development of a planning, monitoring and evaluation system’ and a ‘sustainability model’ against AIDS. Cross-cutting themes were drawn from the five principles of CHAT: the collective, object-oriented, artefact-mediated activity, multivoicedness, historicity, contradictions and transformation.

6.7.1 Contradictions in the NHTC’s response

Daniels et al.’s (2010) view of contradictions were threefold: conceptual, material and functional. On the principle of multivoicedness, none of the NHTC’s many partners had conceptualized an AIDS policy. Other than this conceptual one, the material contradictions involved poor resource allocations, which led to functional ones in operating the clinic and components of the response. At NHTC, the principle of expansion and transformation could not be measured against a goal-oriented practise, and opportunities for experiential learning were lost due to the quaternary contradiction in which response-related systems failed. n

6.7.1.1 Implications for aligning the NHTC’s strategy to the national response

The evidence showed that the NHTC had no health service. This suggested the need for a new SWOT analysis to replace the existing top-down approach as it had not worked. A bottom-up approach meant that the NHTC had to justify its need for capacity for the response to the MoH. Abel-Smith’s (1994, p.47) six planning steps (see Chapter Three) detailed the work ahead for the NHTC in re-planning its response: recognising where the college was and deciding quantitatively what had to be done was necessary. However, without a policy, there could be no objective plan to reinstate, improve and align its response to the national strategy.

6.7.1.2 Implications for service improvement

The evidence indicated that there was no health service at the NHTC. The greatest irony of the NHTC’s poor response boiled down to staff. This implied failed delivery on promises for the campus, the IHEs’ forum and the national response. Although it could not be held to account in this study, the NHTC’s subjects had no clue as to why and how Lesotho’s premier health training college could not expand beyond the existing practice and transform its response. This implied the need for a total overhaul of the response, its associated services and a policy to guide the process and stipulate the required components.

6.7.1.3 Implications for human, financial and information management

This sub-section interprets the NHTC’s human, financial and information situation using Zeithaml and Bitner’s (2000) services marketing mix (product, price, promotion, place,

physical evidence, processes and people). The people factor in CHAT meant 'subjects' who met needs and expectations and fulfilled promises to the 'community' by dividing labour. A report by Saint (2004) on crafting institutional responses to HIV/AIDS cited a University of KwaZulu-Natal (2000) study saying:

> Sustainability and accountability for results cannot depend entirely on voluntary workers. A visible focal point – an office with two or three competent staff – is necessary to provide day to day attention, encouragement to other units, strategic reflection, and a means of disseminating new knowledge and ideas in the AIDS arena.

Staffing was the weakest link in the NHTC's response. This implied that service improvement needed a shift from voluntary to substantive staff, in good numbers and appropriate management, research and clinical skills to assume full responsibility for the NHTCs response.

6.7.1.4 Implications for planning, monitoring and evaluation

This study found poor service planning at the NHTC, thus Abel-Smith's (1994) approach to health planning applied to the NHTC. Its response lacked key components: 'knowing where the (college) was'; 'deciding where to go'; 'targets'; and 'how to get there'. The NHTC findings suggested that opportunities existed which had to be exploited forthwith, so that the subjects could reconceptualise in its AIDS policy the planning, execution and data sources for the monitoring and evaluation of the institution's response using its current evidence.

6.7.2 Implications for sustainability of NHTCs response

This subsection combines the overall implications for the NHTCs response. In defining the concept of sustainability, the UN (2009) on revitalising higher education stated:

> … Sustainability (can be perceived) as a way of managing the social, economic and environmental consequences and opportunities (of material and human resources) in order to transform them into lasting advantages at both local and world levels.

Despite a non-existent response at NHTC, the above definition could be used to assist the NHTC to formulate its response, as sustainability pointed to need to manage the social, economic and environmental areas of activity. From the CHAT perspective, sustainability implied expansion by multiple activity systems and long term/strategic planning, leadership

and a policy all form the “first step” (Saint 2004, p.9) of intervention. This had to be followed by support in the form of human, financial and material resources.

6.8 Conclusion

This chapter focused on the NHTC as one of three IHEs in this study. The findings were based on four research questions and the unit of analysis, making clear the links between CHAT and the components of the NHTC’s response. Despite the links, an exploration of the NHTC’s response, based on the WHO standard, and the Seven-Ps of services mix, revealed sustained, expanded contradictions, mostly stemming from conceptual challenges.

The NHTC’s response was practically non-existent, with a mic of the types and categories of contradictions notably ironic for a national health training college. The social influences on its response were typified by sexual and behavioural patterns in which MCP thrives - a known contributor to Lesotho’s high prevalence and incidence of HIV. The interplays among the NHTC, the MoH, the MoET, the PSI and CHE and other IHEs were embedded in tertiary and quaternary contradictions, where poor resourced could not support basic activities such as an HIV/AIDS policy, much less HIV testing. Since the NHTC did not have a known plan or policy for its response, the WHO’s (2004b) yardstick to improve strategies showed gaps between the minimum provisions and what the NHTC actually offered.

The implications were clear: the NHTC’s response strategy, its leadership, resources, innovation with curriculum and the monitoring of it all had to be reconceptualised. Although the NHTC typified the ‘expanded contradictions’ (Table 2.1), it all depended on how its subjects saw contradictions: as inhibitors or as enablers of change, that it can transform from zero to hero in its response. The next chapter covers the response at the NUL.

CHAPTER 7 – FINDINGS ON THE NUL

7.1 Introduction

This chapter is the seventh, and last of the three findings chapters on the three IHEs' responses, and precedes the analysis and recommendations and conclusions chapters of this study. It focuses on the National University of Lesotho (NUL), and as with the two preceding ones, it is divided into eight sections; an introduction covering Lesotho's response, the NULs own response, the components of NULs response, its social influences, the interplays with partners, strategies to improve the response, implications for the NUL's key stakeholders and a conclusion. The next sub-section is a historical account of Lesotho's response by the NUL's KIs and FGD respondents and documentary review.

7.1.1 Lesotho's current response: through the eyes of the NUL

This chapter first explores the views of the NUL's KIs and FGD participants regarding its response. Due to the history, culture, size of 7 faculties and 4 institutes with 12,000 students (NUL 2010) and the whole curriculum activity, the KI and FGD inputs reflect the NUL's response. This sub-section answers a hidden question, namely: 'what is Lesotho's current response?' One FGD member said:

> A: I think the country is not doing well. Looking at the rate at which people are still reluctant to test for HIV, the lack of support for those who have tested HIV positive and the amount of information given…all show that the fight is still far from over. The country really needs to do more **(NUFG4F)**.

In CHAT, the feedback showed a poor national response (outcome) in the key areas of information (activity) and resources (tools) in the fight against HIV (object). This said that Lesotho's response was inadequate despite improved IEC, HTS, KYS and ARV campaigns, and access to services. One KI said:

> A: We are a dying nation... I wanted to verify where I got these statistics, that somewhere around mid-1990's the population of Lesotho was around 2.1 million. Err, the last census... indicated that we are 1.8 (million)… **(NUKIM1)**.

This view was echoed in the demographic health survey (MoH 2009), citing the Bureau of Statistics Census (2006, p.1) that Lesotho's population was 1,876,633, and had "not increased much since then". The growth rate was 0.08 per cent between the years 1996 to 2006, down

from 2.3, 2.6 and 1.5 per cent in the intercensal years 1976, 1986 and 2006 respectively. On the factors behind this, one KI said:

> A: ... There are two explanations... one is migration, two is HIV/AIDS... These two are the drivers of population decline. **(NUKIM1)**

A recent International Organisation on Migration (IOM) study (undated) compared the knowledge, attitudes and practices (KAP) and multiple concurrent partnerships (MCP) of migrant and local groups in Lesotho. Of the migrants studied, 68 per cent had knowledge of HIV related KAPs and 10 per cent indulged in MCP. Of the local communities studied, 41 per cent had knowledge of HIV related KAPs and 30 per cent indulged in MCP in the preceding 12-month period. The locals were thus at higher risk for HIV infection. The UN (2014) MDGs, Cohen et al (2013) and the Global AIDS Report (UNIADS 2013) concurred that AIDS still caused much of SSA's morbidity and mortality and there was an increased incidence of HIV, TB and opportunistic infections. Despite declining fertility (MoH 2004), increased child and maternal mortality (MoH 2009) and increasing HIV prevalence, Lesotho's national response was rated in the MoH (2016, p.6) MDGs review as "stable".

To sum up, Lesotho had an unchanging mosaic in the long-term image of its response. A 'stable' assessment in CHAT implied that subjects and communities were just breaking even, and were not sufficiently active to 'improve' the outcome. This required national political commitment, policies and operational level changes in knowledge, attitudes and practices (Wondemagegn, Bayeh and Mulat, 2014), and reducing MCP and new infections (UNAIDS Global Report 2013; LePHIA 2017), all of which affected the NUL's student community.

7.2 The NUL's current response

As with the two preceding chapters, this section addresses the following two research questions in the context of the IHE in focus, the NUL:

- What institutional strategies and services for HIV/AIDS exist in the three IHEs?
- What is the interplay between the IHE structures (management and clients) and services in response to HIV and AIDS?

The next sub section shows the NULs historical and cultural response issues, the services available, the related economic and socio-cultural influences using the five principles of

CHAT. The findings draw from documents, FGDs and KIIs, the researcher's observations and converge with the identification of the key categories and types of contradictions.

7.2.1 A historical overview of the NUL response

The history of the NUL's response was evidently shorter in relation to its own founding and contribution to education in Lesotho. A contradiction was that despite being declared a national emergency in 2003, the NUL took a long time to respond (six years) and only affirmed its commitment to tackling the HIV/AIDS crisis when it launched its policy in 2009. Based on the NAC (2000) National AIDS Strategic Plan for 2000/2001-2003/2004, Kymario et al (2004) and the NUL's policy (NUL 2009). As a key tool in CHAT, the policy was the seminal artefact that characterised NULs response after 2009.

7.2.2 Policy background on the NUL's current response

Mukeredzi (2009. p.199) stated the role of "policy makers" was to provide the "mediating tools and artifacts", while the role of "different community members" was the "division of labour" when formulating the response. The NUL featured in SARUA (2006) as one of 47 universities in the Southern African Development Community (SADC) region fighting AIDS. An excerpt of that 2006 report read:

> NUL does not have an institutional policy on HIV/AIDS in place although a draft policy and strategic plan was produced by a group of volunteers who constituted an NUL HIV/AIDS Coordinating Committee in 2002. Recent changes in management, however, have delayed the formalisation of the policy (SARUA 2006, p. 10).

The NUL was one of 47 SSA universities with five key cross-cutting issues: a growing HIV epidemic in the parent countries, a lack of AIDS policies, poor commitment to incorporate AIDS into the curriculum, a shortage of clinic staff and finance, and poor information systems. Documents showed that the NUL had planned to own an AIDS policy as early as 2002. This did not happen9, although health services and HIV testing were provided (SARUA 2006).

The NUL finally launched a policy in September 2009; after 23 years of Lesotho's first confirmed case of AIDS, and 6 years after the King declared AIDS a national emergency and still 3 years after the Labour Code Amendment Act No. 5 of 2006 (MoL 2006) which required employers to own policies. The NUL policy had seven thematic areas, namely: policy; prevention; capacity building; care and support; community outreach; resource mobilisation

and research; and monitoring, evaluation and reporting. The next section covers the NUL's response before, during and after the launch of the policy.

7.3 Components of the NUL's current response

This section covers the NUL's response components of: information; education and communication (IEC); abstinence; being faithful and condoms (ABC); the NUL health clinic; HIV testing; the AIDS Coordinating office; male circumcision; the curriculum and research; finance; and finally provides a conclusion. It shows the activities, challenges, benefits of strategy, the main contradictions, cross-cutting issues and interprets findings across the research questions.

7.3.1 Information, education and communication (IEC)

In CHAT, IEC was a tool by which the community could learn the basic facts on prevention, HIV testing and care and support. Mahlaoane-Tau (2016) emphasised its role in the IHEs' prevention strategies. One FGD participant stated:

> A: ... There is little communication... the 'Condoms are Cool'... people attended because there were T-shirts... with important messages... With ten thousand students... they don't have the audience. Even when the Vice Chancellor is going to address... only find a hundred students ... so there is a problem of communication **(NUFG2M5)**.

The FGD participant echoed Mahloane-Tau's (2016) view that the NUL had too little IEC to address its demand. Students attended IEC events for T-shirts, not to learn of safe sex, delaying sexual debut and consistent condom use. They rejected IEC, affirming Mahloane-Tau (2016) and van der Riet's (2009) views that education did not necessarily result in a positive behaviour change. One FGD participant said:

> A: I saw campaigns here and there... would be... testing services where the youth would be encouraged to test... taught about HIV, condoms and other ways to prevent HIV infection and... boards put up though some were controversial with messages like 'Graduate with A's not with AIDS' **(NUFG2F6)**.

The NUL's IEC campaign had some controversial messages, some of which were blamed for the stigma against the people living with AIDS (HEAIDS 2010). In Lesotho these included slogans such as "AIDS Kills" and "God Forgives, AIDS Does Not" (see Figure 8.1) that could cause stigma and fear. It exemplified Mahloane-Tau's (2016, p.34) "fear undertones in IEC materials". One FGD member said:

> A: ... It's like we have heard about it again and again but the problem is how you do and what you do, and the young people have a problem conducting themselves and with programmes like that it's on the university **(NUFG13F)**.

This view captures the burnt-out attitudes and community frustration with the same IEC content over and over again, without causing behaviour change. Van der Riet (2009 p.11) wrote "IEC approaches focus on individual level goals of knowledge, attitude and behavioural changes", and quoted Holtgrave (1997) and Kalichman and Hospers' (1997) recommendations to "provide information about HIV and safer sex practices, such as delaying debut sex and using condoms prevention". The primary conceptual contradiction lay with the conflict between education as an IEC tool for change, and the unchanging sexual practices of the IHEs educated. The next sub-section covers the NULs ABC strategy.

7.3.2 Abstain, be faithful and condomise (ABC) strategy

Coupled with IEC, the ABC strategy remained the most doable means of prevention against HIV/AIDS. **Abstinence** was the safest option and it was encouraged by influential faith-based organisations (FBOs), as one FGD participant stated:

> A: By allowing churches to come to campus... most cases you find that churches encourage us to abstain so that's another thing they are doing **(NUFG1M6)**.

In CHAT, abstinence was a key mediation tool cited by the MoET (2008, p.50) as its"first choice" (ibid, p.57). Its 'outcome' could be 100 per cent protection against HIV in the absence of two other modes of transmission: parental and mother-to-child transmission. The HEAIDS report (2010, p.79) said that the "primary motivation for sexual abstinence in the campus communities was noted to be related to religious beliefs". This enters the realm of individual, knowledge, attitudes and practices. First, how did faith influence abstinence?

The influence was associated with **being faithful**; a key message after abstinence. The influential Christian Council of Lesotho (CCL), the Christian Health Association of Lesotho (CHAL), the Bible Society of Lesotho, other FBOs and some civil society organisations (CSOs) generally supported abstinence and being faithful, but mostly not the use of condoms. Oluduro (2010, p.215) quotes political and faith leaders such as Zambia's President Chiluba saying that condoms were "a sign of weak morals" and Sheik Mohamed Dor of the Council of Imams and Preachers who said that Zambia was "committing suicide" by promoting the use of condoms among the youth. The debate was fertile. In contradiction, HEAIDS (2010, p.78) said

that given the "casual relationships in IHEs", it seemed very unlikely that the promotion of abstinence would have a "strong effect". On IHEs, one FGD participant said:

> A: ... What the institutions are doing is not really enough because most of us are not really afraid of HIV and AIDS… We are afraid of having a baby (all laugh) **(NUFG2F3)**.

Although laughable, this FGD participant's view reflected the reality that students fall pregnant while studying at the NUL. It indicated a secondary conceptual contradiction that the NUL faith leadership (subjects) was missing the point on students' (community) fears and priorities. One added:

> A: We are really bored about HIV and the ABC thing. I have heard that ABC thing since I was in standard one (all laugh)... Even if they do some campaigns, I already know that they are going to say... ABC, and it's boring. Yah they should come up with a new one… like 'have sex as much as you want but condomise' (all laugh) **(NUFG2F4)**.

The boredom was associated with the contradiction that empowering women with the female condom (femidom) was not successful. Male condoms were preferred while the femidom was shunned for its 'inconvenience, bulk and noise' in anecdotal evidence. The increased prevalence of AIDS in Lesotho from 1.7 per cent in 1988 to 26.3 per cent in 2017 suggests a failure of the IEC which focussed on ABC alone. This secondary, material contradiction between the NULs IEC and ABC strategies affirms that education may not influence behaviour.

7.3.3 The NUL's health clinic

This next sub-section focuses on the NUL's health clinic, which provides services that are key in this study, and in relation to Zeithaml and Bitner's (2000) Seven-Ps of services marketing mix. The next part of this section overviews the NUL's AIDS Coordinating office to indicate its purpose and functions as the primary focal subject to coordinate the response.

The NUL established a clinic in the late 1970s, long before Lesotho's first AIDS case in 1986. In the late 1980s the NUL's clinic adopted the MoH's rules and tools (e.g. the HTS protocol), employed nurses, a pharmacy technician and support staff, and contracted a private medical doctor to attend to referrals once a week. In expanding to AIDS services, the NUL adopted the National AIDS Commission's (2000) AIDS Strategic Plan. The MoET's (2005) Education Sector Strategic Plan *2005-2015* (2005, p.51) had a "plan to make schools centres for sexual

and reproductive health education, including aspects of HIV/AIDS". These developments had implications for the IHEs, including the NUL. The SWOT analysis conducted as part of the *NUL Strategic Plan 2007-2012* identified AIDS as a threat (NUL 2007). The NUL thus recruited an AIDS Coordinator in May 2008 to work closely with its health clinic and the nearby St. Joseph's Hospital which generally accepted the NUL clinic referrals. Table 7.1 below shows the main reasons for the health visits over a period of three months in 2013.

Table 7.1: NUL Health Services August to October 2013
Source: NUL Clinic data (2013)

NUL Key clinic services	**Period in month 2013**				
Services	**Aug**	**Sept**	**Oct**	**Total**	**% of Total**
Antenatal care (ANC)	**14**	**10**	**11**	**35**	**5.4**
Family Planning (FP)	**73**	**84**	**94**	**251**	**39.3**
Gastro-intestinal tract (GIT) ailments	**13**	**18**	**19**	**50**	**7.8**
HIV positives found	**6**	**9**	**8**	**23**	**3.9**
HIV testing and services (HTS) done	**14**	**20**	**29**	**63**	**9.8**
Sexually transmitted infections (STIs)	**16**	**15**	**13**	**44**	**6.9**
Upper respiratory tract infection URTIs	**45**	**67**	**41**	**153**	**23.9**
Other illnesses	**5**	**7**	**7**	**19**	**3.0**
TOTAL	**186**	**230**	**222**	**638**	100 %
Note: The data were for the quarter only					

Table 7.1 showed that the main reason for visits to the clinic was family planning (FP) services, thus contraceptive artefacts were in demand. Upper respiratory tract infections followed, with HTS encouragingly third and gastro-intestinal (GIT) ailments fourth. Sexually transmitted infections (STIs) ranked fifth, followed by antenatal care (ANC). Pregnancy was a sign of unprotected sex in the preceding nine months, and was affirmed by high numbers of ANC clients and STI clients, all in contradiction to the FP and HIV prevention efforts. These students and staff were attended to despite a limited number of clinic staff.

> A: ... At the clinic we have only one counsellor and ... two nurses who are not enough to address the needs of about 10,000 students. And err, money-wise I am not sure if we are given enough money to run an AIDS programme. I am not sure… **(NUKIF3)**.

The service demand required one HTS counsellor to divide their time between the clients. Students waited a long time for services and sought treatment around their study engagements. The narrative revealed Zeithaml and Bitner's (2000) customer gaps two, three and four, and is a secondary functional contradiction in which the subject-community-tool (mainly time)

weaved a too disproportionate ZPD mosaic to enact the object. At closing time, staff rescheduled clients to the next day. Despite these challenges HTS was maintained.

7.3.4 The NULs HIV testing and services (HTS)

This discussion on HTS cuts across the research questions on the NUL's current services, interplays and the implications for key stakeholders. Since HTS was "medical work" (Engeström (2001, p.136), in the CHAT context the 'object' could transform from HIV to AIDS, to TB, ignorance, etc. The 'tools' of the HTS were the test kits used on the 'object', the (unknown) HIV status. The 'outcome' was a negative, (rarely indeterminate) or positive status. Table 7.2 below shows the HTS activity at the NUL from 2009 to 2013.

Table 7.2: NUL HTS - Summary of annual tests 2009-2013
Source: NUL AIDS Programme HTS Report (NUL 2014)

	Male			Female			TOTAL
Year	**Pos.**	**Neg.**	**Sub**	**Pos.**	**Neg.**	**Sub**	**(M+F)**
2009	19	58	77	13	148	161	238
2010	3	91	94	19	228	247	341
2011	8	144	152	37	467	504	656
2012	19	293	312	69	843	912	1224[12]
2013	7	114	121	39	201	240	361
TOTAL	**56**	700	**756**	**177**	1887	**2064**	2820

MALE	**56/756x100** = 7.41%
FEMALE	**177/2064** x 100 = 8.57%
TOTAL HIV+	**(56+177) / (756+2064) x 100 = 8.26%**
(NOTE: Data for 2013 were for January to July)	

Table 7.2 showed that of the 2820 HTS clients tested. The males were 756 (26%) while females were 2064 (73%) for the five years. The male HIV prevalence was thus (56/756x100), equal 7 per cent. The female HIV prevalence was (177/2064x100) equals 8.57 per cent for females - both at one third of the 23 per cent national HIV prevalence. The trend was an increase in HIV testing. SARUA's (2006, p.10) report on the NUL's response said:

[12] The figure 1,224 represents the highest ever recorded total number of HIV tests per annum at the NUL before 2013. This study has not had access to HIV testing done after that year.

> … Promote VCT [had] been ad hoc and uncoordinated. This [was] partly due to the lack of autonomy and inadequate staffing of the university's HIV/AIDS office and also to the temporary nature of the key positions.

The SARUA (2006) findings were accurate then, but Table 7.2 represented progress made in 2013, albeit with new contradictions emerging in the student's knowledge, attitudes and behaviour. One FGD participant said:

> A: Yes the other point is... peer pressure. The guys are saying 'you only get AIDS once you are tested, if you don't know you won't get AIDS. You get tested, then you will find yourself positive'. Like me, I won't test (all laugh…) **(NUFG2M4)**.

In one study Tewabe et al. (2012) bemoaned students' reluctance to use campus HIV testing services. More women tested for HIV than men (MoH 2004; HEAIDS 2008), and the only time in this study that this was recorded differently was in the NUL's PESP Survey (NUL 2010), with 58.2 per cent males versus 42 per cent females who tested. This anomaly was attributed to male domination in the science courses. On peer influence, one KI said:

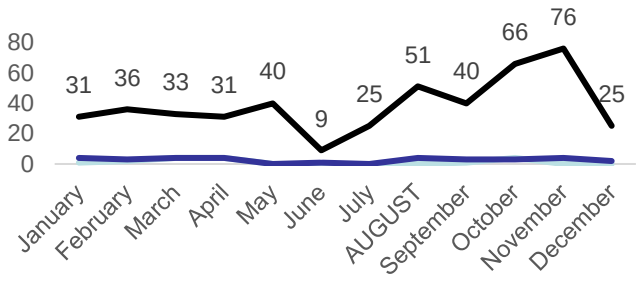
> A: … Everyone suffers from the fear of the unknown... testing exercises your mind to say 'what if...' People die psychologically... before they die physically; people prefer not to know **(NUKIM1)**.

Fear of the unknown was a reason for not testing, but since the HIV testing service was provided under the same roof as the in-demand FP service, the numbers of clients for both services should be at par. This primary, personal level contradiction affirmed NUL students protected themselves more against pregnancy than HIV, becoming a material contradiction.

7.3.4.1 Contradictions in NULs HIV testing services

Despite being a billed as a gateway to knowing their status (KYS), the poor uptake of HIV testing at the NUL was evidenced by a typical annual trend of HTS by month (in this case for 2014), in Figure 7.1 below:

Figure 7.1: HTS by month at the NUL for 2014
Source: Researcher graphs of NUL clinic data (2014)



The graph above showed a seasonal HTS, influenced by the university's peak academic and break periods. Poor HTS performance could be linked to Zeithaml and Bitners' (2000) Seven-Ps, each of which interact with CHAT and can invoke evoke more 'expanded contradictions' around testing alone. Countrywide promotion of HIV testing (KYS) did not translate into increased KYS uptake at the NUL or indeed in most other IHEs in general. This testing service did not match the promises at most 'places', and were less robust at the densely populated NUL. Due to people/staff shortages, clients were held up by lengthy 'processes', which included completing the HTS registers, pre and post-test counselling, referrals for CD4 counts, initiation on ARVs, etc. Despite the UNAIDS (2014) 3x90s strategy already having been adopted in Lesotho, the NUL's HTS number was just 463, hence (463/12,000 x 100 = 3.86) which 3.86 per cent was too little of the NUL's 12,000 students. Amid this blend of contradictions, it could be asked, what was the role of the AIDS coordinator at the NUL?

7.3.4.2 NUL HIV/AIDS coordinating office

This sub-section summarises the NUL coordination office's history, staffing, its relationship with committees and its influence on NULs AIDS policy. In 2003, the NUL HIV/AIDS coordinator's office was assigned a part-time officer (lecturer), a KI in this study. She said:

> A: I was paid for the job of teaching and I wasn't paid for the job of coordinating the HIV and AIDS **(NUKIF2)**.

A duty of this 'proxy' coordinator was to hold workshops, despite poor attendance by committee members at the planning meetings. In CHAT, a 'proxy' (subject) meant improvisation, which typified many SSA universities' attempts to staff AIDS programmes (SARUA 2006). The HEAIDS (2008, p. 6) observed: "academics [did] not always feel properly equipped… to include HIV/AIDS... lack knowledge and expertise… [were] hard pressed for time". The surrogate set-up did not work, and instead, the KI said that "negative attitudes... affected the work" of the office:

> A: … Relations deteriorated... The new (acting) Vice Chancellor... was told a lot of gossip about the office; about myself. I didn't really know what... but... support dwindled. In fact, it was now non-existent... and so I decided to quit **(NUKIF2)**.

Inter-personal conflict among the key subjects led to the collapse of the committee and it reneged on all of the CHAT rules, artifacts, activities and outcomes. The HEAIDS report (2008, p.7) stated that to "offset difficulties such as these, some universities [extended] help to academics via dedicated HIV/AIDS units". The NUL took this option. A substantive AIDS Coordinator was recruited in May 2008, who used the *Labour Code Amendment Act No. 5 of 2006* (MoL 2006) and the National AIDS Commission (2000) to help the NUL draft its first AIDS policy. Stakeholder reviews passed it on to the NUL Senate and later for approval by the NUL Council. It was then launched by the Minister of Health on September 23, 2009.

The AIDS Coordinator departed in 2015 and a follow-up observation found that, at completion of this study, NUL had only just employed a new coordinator, after a five-year gap with no dedicated coordination. One new NULs program was male circumcision.

7.3.5 Voluntary male medical circumcision (VMMC)

In 2011, the NUL adopted the MoH recommended WHO (2009a) strategy for VMMC that used a surgical technique to remove the foreskin to reduce the transmission and incidence of HIV. The NUL launched a project with the SADC (2005) HIV/AIDS Programme in March 2013. The project VMMC outputs data for March to May 2013 is shown in Figure 7.2 below:

Student - HIV Status at the Time of Male Circumcision

Age	Neg.	Pos.	No Test	Tot
18-21	14	1	2	17
22-24	15	0	3	18
25-27	9	2	4	15
28-29	2	0	0	2
30-33	2	0	1	3
34+	0	0	0	0
Total	**42**	**3**	**10**	**55**

Figure 7.2: NUL HTS and VMMC data for March to May 2013
Source: Researcher - compiled from NUL Clinic (2015)

The above table shows VMMC and HTS at NUL. It was promoted through IEC and supported by a question and answer session before enlisting clients for the operation. The main challenge was that nearly one in three students withdrew on operation day. In all, 55 students were

operated. Of these 55 clients, 42 (76.4%) tested HIV negative, while 3 (5.5%) were positive and 10 (18.1%) had not tested so their HIV status was unknown. The age group of 18 to 27 year olds comprised a turnout of 91 per cent, and the remaining 9 per cent was comprised of those 28 years of age and older.

For those that were 'not tested', it was due to a stock-out of the HIV test kits. The average monthly test rate was (55/3) 18 clients per month from March until May, but then VMMC and HTS numbers declined. The number of VMMCs totalled 55 students in the first 3 months, and the figure should have tripled to near 165, but the rest of the 2013-2014 academic year saw just 12 more VMMC clients. The decline was firstly due to the fact that the PSI, JHPIEGO, New Start and St Joseph's began providing VMMC services, giving the NUL students new options. Second was disruption of the services by a student strike. The third cause was seasonality; the winter season was preferred for the MC procedure. The fourth cause was preference for a hospital over the campus clinic, in case of emergency. Due to poor turnout, however, the NUL decided to refer all its MC clients to St Joseph's hospital.

7.3.6 The role of teaching and learning

Chapter One evidenced education as the key to unlocking the response to HIV/AIDS. The second goal of the university's last strategic plan was 'to improve the relevance and quality of the teaching and learning, with the objective to 'develop new and relevant programmes' (NUL 2007) to combat the disease. In CHAT, strategies were mediated by teaching and learning. The 'subjects' (educators) acted on students' knowledge (object) to achieve AIDS competency (outcome). In a paper titled *the rationale for integrating HIV/AIDS into higher education curriculum*, Raselimo (2012) stated that teaching and learning had to:

- Enable students to face and solve real world challenges and problems such as HIV/AIDS; and
- Enable the development of skills, values and attitudes (e.g. critical thinking and problem-solving, assertiveness, interpersonal skills).

Some students had a better understanding of HIV/AIDS than others. Talwar and Rahman (2015, p.36) cited Rai et al.'s (2009) findings that science students were better aware of STIs compared to arts students, and those with more knowledge were more likely to take better care of themselves (Orem 1991). In the context of "implicit curriculum", the AAU (2010 p.27) stated that IHEs' curricula could be "designed as part of concerted institutional action" and

could capitalise on major events (such as International AIDS Day) to enhance preventive messages. The contradiction was captured by van der Riet (2009, p.16) thus:

> Many researchers in the HIV and AIDS field have argued that changes in knowledge [did] not necessarily lead to changes in behaviour (Aggleton and Homans, 1988; Attawell 1998; Caldwell, 1999; Campbell, 2003; Höjer, 1999; Preston-Whyte, 1999; Stephenson, Imrie and Sutton, 2000; UNAIDS, 1999). This [raised] questions about the theories of behaviour and the assumptions on which these theories [were] based.

In addition to education not changing behaviour, the NUL's education failed its own strategic vision by not managing tensions between activity and the desired outcomes. The NUL's inability to infuse AIDS into the curriculum since 1986 or to employ staff showed poor commitment. Raselimo (2012) suggested that there were implications for the change of the belief system from a "discipline-based and didactic approach to a "constructivist-oriented pedagogy". This begged the infusion of HIV/AIDS in the curriculum to sustain interventions. The next sub-section covers the NUL's research on HIV/AIDS.

7.3.7 The NUL AIDS research agenda

The mandate of the NUL was teaching, research and consultancies (NUL 2007). Lecturers and students identified topics and then investigated and disseminated their findings in fora, journals and seminars. There was a general feeling that research was poor at the NUL, a conceptual contradiction given its third strategic goal of its strategic plan to improve its research and innovation profile (NUL 2007). One KI stated:

> A: ... The research part… activities have been conducted in the pockets of the university by our experts – the academics... our efforts at that level are not adequately structured. We deliberated a plan... (with) seven flagship research areas: poverty, water, leadership... and of course HIV/AIDS **(NUKIM1)**.

In CHAT, the NUL was the 'subject' whose research (activity) targeted university staff and students' (community) issues such as AIDS (objects), to bring about change (outcome). The NUL AIDS Coordinator's work included research. During an interview, one KI asked the researcher about his own experience as an AIDS Coordinator. The researcher[13] said:

[13] In this part the researcher used his own reply to a question by the key informant (NUKIF2) during the interview regarding the researchers own experiences while working as the NUL AIDS Coordinator. The dialogue was recorded in NUKIF2's interview transcript.

> A: We failed as a committee to see the point ... in 2010 we tested five hundred and ten (510) PESP students and we found... 1.7 per cent prevalence of HIV… while the national (prevalence) was 23 per cent. We had money at year four to re-test them but... the committee ...refused with the money **(Researcher in response to NUKIF2)**.

The tertiary contradiction (failure to copy from best practises) saw the NUL lose an opportunity for further research by not re-testing the PESP 2010 cohort in 2014, thus contradicting its own research and innovation mandate. This would have added a great value to IHEs response by revealing the trend of HIV between entry and exit over a period of four years. The AIDS committee completely failed the response and reallocated the money for an 'advocacy campaign', buying T-Shirts and lunches. The role of the substantive AIDS Coordinator in research included being on the Faculty of Health Sciences' panel to review students' project proposals, compiling HIV data for the clinic's monthly reports, promoting research at the IHE forum and lecturing part-time to humanities students on HIV/AIDS. The research and curriculum role drew from Rau's (2009, p.2) view that:

> … Academics [said]... too much focus on HIV/AIDS in curricula... students suffer[ed] HIV/AIDS fatigue... research found few studies that systematically investigate[d] student fatigue or boredom in... HIV/AIDS curricular interventions. So research [was] needed before claims of overload [could] be upheld or dispelled... need[ed] to be designed to eliminate, as much as possible... easy answers from students.

Debates regarding the role of AIDS coordinators in research and academic work were noted among the NUL community. From the dialogue of the two previous NUL AIDS coordinators, the NUL Coordinating office generally experienced secondary contradictions with 'modalities of agency' (Table 3.1): although the coordinator was empowered with 'knowing how', wanting to do', 'having to do' the evidence showed their not 'being able to' and not 'having a possibility to do' due to poor top management support. The action taken depended on the coordinator's emotional intelligence, innovation and communication skills.

7.3.8 Financing the NUL's response

This section shows how the NUL managed its funding sources. In the CHAT framework finance was a tool to mediate the transfer of goods and services between subjects. HEAIDS (2009 p.4) cited "compelling reasons" for finances "being allocated to enable a higher education response" (action on the object). Finance impacted the demand and quality of the higher education components of staff, finance, curriculum and equipment.

The NUL's (2013, p. 3) strategic plan for 2013-2014 envisioned "self-sufficiency through increased income" and the AIDS Policy's thematic areas of capacity building, resource mobilisation and research supported this vision. The contradictions were firstly, the lack of staff (subjects) due to low allocation of the NUL's own funds. Just ZAR70, 000 was allocated to the AIDS Programme in 2014; the equivalent of R5.00 per capita per annum. Secondly, the benefits of employing a substantive AIDS Coordinator (subject) were seen when the NUL acquired three project grants: one with the National AIDS Commission (NAC), a second with the Australian-based Joint Economic AIDS and Poverty Programme (JEAPP), and later a third with the Southern African Development Community (SADC). The partners agreed to jointly fund NUL (2010)[14] PESP HIV and KAPB survey and other knowledge building activities to a total value of USD750, 000 between 2008 to 2015.

The projects achieved their intended outcomes as the Coordinator saw all of them through to completion. A Coordinator was thus key to funding and commitment for the NUL's response. The AAU (2010, pp 8, 23) reported that funding only trickled in and cost-sharing between IHEs and donors (HEAIDS 2008) became the precedent amid increased donor fatigue in Lesotho. Noting the NUL's current response, the next section shows the social influences.

7.4 Social Influences on the NUL's Response

The role of social factors in a response was undisputedly key in any setting. These social factors included population demographics (MoH 2009), commercial sex (HEAIDS 2010), multiple concurrent partnerships (National AIDS Commission 2008), accommodation (HEAIDS 2010), alcohol abuse (ALAFA 2008) and access to care (MoH 2014), among others. These are discussed in the next sub-sections.

7.4.1 Demographic factors

Demography related to 'place' and 'community' in the CHAT framework (Zeithaml and Bitner 2000). The NUL was located in Lesotho's lowland western district, and the National AIDS Commission (2008, p.16) reported that there were "substantial differences" in HIV prevalence in the different areas of Lesotho. For example, Mokhotlong, a rural town, had a 17 per cent HIV prevalence, while the city of Maseru (urban) had a 27 per cent HIV prevalence. One KI commented on geographic influences thus:

[14] The NUL AIDS project involved the three partners NAC, JEAPP and SADC to jointly fund a KAPB survey, capacity building and knowledge building activities on campus in a collaborative and cost-share arrangement.

> A: ... HIV is an ignorance disease... a cultural and economic disease. And where are the people who live under the burden of all of the three? They are down in the village; the poor … with little knowledge. Walk into any village... and check whether you will find condoms on the shelves of any shop **(NUKIM1)**.

The findings identified ignorance, culture and poverty in rural villages. Access to condoms/sex tools (van der Riet 2009) was limited, even at the NUL. The MoH (2009) and ALAFA (2008) concurred that sex debut occurred earlier for girls in rural areas than for those in urban areas. The NUL was a hot-spot for sex debut, as evidenced in the NUL's (2010) PESP study. In relation to the role of demographics, the KI continued:

> A: … Don't focus narrowly on the disease; focus on the environment that ensures that the disease thrives **(NUKIM1)**.

This input expanded the view of HIV/AIDS to include the 'subject's' culture, access to sex tools, health, education, poverty and other factors. These factors all converged at the NUL: the 'place' was the most densely populated three-square kilometre IHE area in Lesotho.

7.4.2 Of sex work, "sugar daddies and "jumping castles"

Sex work in this study meant consensual sexual intercourse between two people in exchange for money. The definition excluded sex for a reward other than money. One FGD member said that students "have sex with strangers for money and with teachers for marks" **(NUFG2F3)**. Confirming sex-work, another FGD member linked soliciting money for sex more with female than with male students at the NUL:

> A: For instance, I think I could use that one of allowances in time because sometimes as girls we could even use means of prostitution to get… money **(NUFG2F4)**.

Sex work accommodated intergenerational sex, defined by the HEAIDS (2008, p.82) as "sex acts where one partner [was] young (usually under the age of 25 years) and the other partner [was] considerably older (usually 5 years older for teenagers and 10 years older for those 20 to 25 years old)". The report (ibid) hints that students engaged in sex work to support their drug habits, pay fees, and buy books (Bennell, Hyde and Swainson 2002), food and clothes.

Thus sex work, trans-generational sex and transactional sex were all 'activities' in CHAT which influenced the NUL's response. Power relations between sex partners could lead to primary contradictions where 'subjects' in the exchange got their desired 'outcomes'

(satisfaction or money) in that particular activity, without using the 'tools' (e.g condoms) required for the 'activity' (sex) and then had unwanted outcomes (STIs, HIV and pregnancy).

7.4.3 Multiple concurrent sex partnerships (MCP) at NUL

According to the National AIDS Commission (2008, p.29), MCP was the single most important cause of HIV transmission; not only in Lesotho, but in Sub-Saharan Africa as a whole. One KI posed this scenario:

> A: The women trusting their men and the men being unfaithful... Some women are unfaithful but it is mostly the men who are unfaithful... When I ask them why, my class... will tell you: 'no it is because these women love us' **(NUKIF2)**.

This affirmed that more men than women engaged in MCP (MoH 2009); on average 42 per cent of married men engaged in MCP. As a community rife with intergenerational sex, sex work and MCP activity, and where IEC and ABC messages were almost a nuisance, the NUL's response occurred in a ground fertile for the transmission of HIV. So common were casual multiple sex partnerships between the years 2000 to 2015 that the phrase '*ho penya'* (literally means 'to squeeze') arose, which described consensual casual sex for the fun of it. *Ho penya* was a fun act which took place at parties, sports and entertainment and represented meant casual sex with high risk of contracting STIs, HIV and unwanted pregnancy.

7.4.4 Student accommodation

Accommodation was essential for the safety, health and welfare of students acting as mediational tools. At the NUL, an estimated 30 per cent of students stayed on campus. There was shared accommodation with two to four students per room, as well as single accommodation. Another 60 per cent stayed off-campus while the remaining 10 per cent commuted each day. Rented rooms called '*malaene*' (lines) cost between USD30 to USD50 per month, depending on their quality and proximity to campus.

Regarding HIV/AIDS, HEAIDS (2008) charged residence managers to recognise and assist HIV positive students. In CHAT, accommodation was a mediational tool which enabled the student as the subject to enact the object HIV/AIDS (or even learning) and rules were agreed upon by the landlord and clients. The unavoidable accommodation (tool) is increasingly seen as premium investment (Newell and Marrzuki 2018; GEPF 2018). It posed related risks that varied from sub-standard quality to being far from campus, to exposing students to mugging, exploitation, theft, rape and contracting HIV. At times, it was a bargaining tool for sex with

other students or landlords. Students often opted to co-habit with community members to cut costs, and engaged in risky sex. Another factor was alcohol abuse.

7.4.5 Alcohol abuse and HIV/AIDS

Alcohol abuse was a risk factor for HIV transmission (MoH 2004; National AIDS Commission 2008; HEAIDS 2009b; MoH 2009). Since the 1970's, *Mzalas* was a well-known on-campus bar where students binged on alcohol. It was closed in the 1990s, but alcohol remained a daily part of student life, and liquor outlets thrived near the campus. Saint (2004, p. 35) said "students [were] often vulnerable because of risky social and sexual behavior that [was] common amongst young adults in residential campus settings", citing "alcohol abuse, drug use and low quality housing" as factors. Rau (2009 p.10) wrote: "opportunities for parental oversight of students diminish[ed], while sexual debut and high risk behaviours such as alcohol consumption increase[d]". At the NUL, violence, rape and other criminal activities were often reported in association with alcohol abuse.

The ALAFA (2008) found that 51 per cent of workers who frequented *shebeens* were HIV positive, versus 41.8 per cent of HIV positives who did not. The MoH (2009 p.211) said that "consumption of alcohol [was] also strongly related to HIV prevalence for men". The *shebeen* and students' behavior were catalysts for *ho penya* discussed above. The contradictions were that despite calls to stop alcohol abuse, students did not support the NUL rules to limit its access. Second, the NUL informed freshmen on the risks of alcohol, but did not do so in subsequent years. Third, while Ntombela et al. (2008) recommended counselling for substance abuse, stress and academic work, the NUL lacked capacity for it.

7.4.6 Access to care

Access simply referred to 'a way of entering a place or service point'. It also means 'to reach, enter or use something'. Access to health was key in the WHO Standards (2004b) and a human rights issue. According to Rau (2009, p.61), HIV/AIDS entered the "curriculum in the area of human rights, specifically to provide antiretrovirals and the right of access to medical services." For NUL, access to services was thus a constitutional right and rules in CHAT, while 'divisions of labour' (roles of carers), 'activity' were activities to conduct counselling, tests (HTS), medicines (ART) and followed up. The FGDs confirmed access but one contradiction noted:

> A: … At the clinic we have only one counsellor and ... only two nurses who are not enough to address the needs of about 10,000 students. And err, money-wise I am not sure if we are given enough money to run an AIDS programme**… (NUKIF3)**.

This conceptual contradiction lay with the provision of services that did not match the service capacity, as subjects were outnumbered by users. The material contradiction was poor access due to service fees of M10 payable by students; not all could afford this. Thus the NUL's access to care lacked 'subjects' in CHAT or 'people' in Zeithaml and Bitners (2000) Seven-P's of services mix. Other barriers to access included (usually older) staff attitudes and stigma from fear of being seen using HIV-related services by other students.

7.4.7 Summary of social influences on NULs response

The findings for the NUL shows tensions in the NUL's current response. Not only were there inner contradictions between the key elements of NULs response, there were material contradictions between subjects and the rules available to them, there were also limited tools (finance) and subjects (personnel), all unable to effectively impact the object.

The systemic tensions by categories and types of contradictions meant that the envisaged response outcome of a low HIV prevalence was unattained. With minimum staff providing services, there was tension across all activity elements: division of efforts was undoable, and the staff reported being 'overworked' and 'underpaid'. The core activities within of HTS, ARV enrolment, and reporting of the NUL's response were under-performed. Unable to follow up on a 2010 study to re-assess prevalence in 2014, the outcome meant that the NUL had failed its contribution to lowering the HIV prevalence among students and could not own a unique study to inform its future response.

The findings showed systemic yet manageable gaps in the NUL's response. As a major IHE, it had a commitment to fight AIDS at the top management level, and to a lesser degree at the middle management level (e.g. the HR department). However, it lacked the capacity to recognise and support the subjects in activities such as HTS, ARV provision and curriculum development to improve its response. The next section covers the interplays with NGOs, ministerial partners and other IHEs.

7.5 The NULs interplay with external organisations

This sub-section answers the research question on the interplay between the NUL's internal and external partners. It assesses the roles of international non-governmental organisations

(NGOs), government ministries and other IHEs which, according to the CHAT framework, form the community. They provided the tools for mediation and the rules for guiding the activities on the object to achieve the common outcome in the NUL's response.

7.5.1 The NULs interplays with external organisations

Historical interplays between international and local organisations and the NUL included New Start, the Lesotho Planned Parenthood Association (LPPA), the Lesotho Blood Transfusion Services (LBTS), the Joint Economic AIDS Poverty Programme (JEAPP), Medicines sans Frontiers (MSF), the Southern African Development Community (SADC) and partners of its parent Ministries of Education and Training (MoET) and Health (MoH).

7.5.1.1 The role of PSI, New Start, LBTS

These international and local partners undeniably made major contributions to the NUL's response. Not only did they expand services to communities, they helped promote multi-partnerships to fight AIDS and TB and improved access to health. One FGD member said:

> A: ... I belong to the Rotaract Association... Our job is partly to fight HIV and AIDS because last week we had a campaign for testing... we brought PSI and Blood Donations (LBTS) and other health services... also... fighting AIDS through use of condoms **(NUFG2M6)**.

In complimenting the NUL's services, PSI-New Start partnered with student associations such as Rotaract to invite students to join health campaigns. They provided IEC in brochures and pamphlets and encouraged students to undergo HTS, blood pressure (BP) and body mass index (BMI) checks and to donate blood to the LBTS.

A contradiction was that while PSI-New Start and the LBTS acted as subjects, they did not copy the HTS reports to the NUL's AIDS Programme so that it could compile periodic reports. Thus the NUL was uninformed on the numbers and results of the students tested, the number of referrals and the number HIV-positive clients. Similar gaps occurred with the LBTS whose reports on the number of units donated by sex and age, etc, were not copied to the NUL. Some student donors' LBTS membership cards did not reach them as they were issued later at the LBTS head-office and not at the time of initial blood donation at the NUL.

7.5.1.2 The Lesotho Planned Parenthood Association

One of the historically active organisations in family planning (FP) and the provision of contraceptive services in Lesotho was the LPPA. Its role in the NUL's response included IEC,

the rationale for FP, the prevention of STIs and HIV, and the use of condoms. One FGD member said:

> A: ... The school have access to other HIV organisations such as LPPA who normally conduct their own programmes but... they normally come during classes and students don't have the opportunity to attend such activities… **(NUFG1F4)**.

Table 7.1 (NUL Health services) showed that FP was the service most in demand at the NUL clinic, with 39 per cent of the clients seeking this service. In CHAT, tensions and gaps existed between the demand and supply of the FP artefacts, due to stock-outs caused by delays in ordering, processing payments of suppliers and a lack of appropriately qualified staff. Students went without protection and risked unwanted pregnancies. Evidently the NUL and the LPPA had a history of collaboration in SRH services, yet both worked on an ad-hoc basis and had not entered into a memorandum of understanding to serve the NUL's demand for FP and HIV prevention. This secondary functional contradiction persisted despite students need for FP.

7.5.1.3 The Joint Economic AIDS Programme (JEAPP) - NUL partnership

Supported by the Australian government, the JEAPP accepted the NUL's AIDS Programme project proposal in 2008. The project activities included leadership capacity building of the NUL's student associations to host seminars on behaviour change. One component was to conduct a longitudinal study to assess HIV prevalence in the Pre-Entry Science Programme (PESP) students (NUL 2010). This involved a co-funding partnership of the NUL, the JEAPP and the National AIDS Commission. Of the 416 participants in the survey, 7 (1.6%) tested HIV positive, and of those, 3 (42%) were male while 4 (57%) were female. The study made national news and the NUL AIDS Programme planned to repeat the study four academic years later. But because of decisions subsequently made the NUL's AIDS committee, it did not happen. The NUL-JEAPP partnership ended in 2010, having built knowledge for HIV prevention among student organisations, who kept relations with the NUL AIDS Programme.

7.5.1.4 The Southern African Development Community (SADC-NUL) AIDS Project

In 2011 the SADC AIDS Programme called for proposals to support civil society organisations' (CSOs) responses. The then NUL Vice Chancellor submitted one titled "*Towards a Common Destination – Developing Best Practices through Shared Experiences of Institutional Responses to HIV and AIDS in Selected Universities in Southern Africa".* It involved the eight universities of Botswana, Lesotho, Swaziland, Namibia, Malawi, Open University of Tanzania, the University of the Midlands (Zimbabwe) and the Central University of Technology (SA).

The project objectives were: one, to harmonise and co-ordinate policies in line with the SADC protocols on AIDS (SADC 2003; SARUA 2004; SADC 2005; MoH (2017) HIV/AIDS Mainstreaming Guidelines. The second objective was to identify common capacity gaps in the responses. The third was to strengthen monitoring evaluation and reporting, while the fourth was to identify best practices in university responses.

With a value of USD 500,000, it improved collaboration in response to AIDS, and sensitised each university's leadership (VCs, Registrars, HR and Coordinators) to support the AIDS programmes. Through sub-grants it increased the HTS services in three universities and the inclusion of HIV/AIDS into the curriculum in four universities. At the NUL it provided: i) male circumcision (MC) services by employing an additional nurse (Project Officer) to facilitate circumcision operations at the nearby St Joseph's Hospital, ii) HTS training for two cohorts of graduates of Pastoral Care and Counselling, accredited by the MoH; and iii) support for an IHE forum to share AIDS experiences. One KI noted the SADC support, but emphasised the need to focus and stay within the NUL's own academic and research agenda:

> A: Yes, without… without them, usurping your agenda. So you meet with them in a section … and yet the overall agenda remains yours. That says... you will have resources that are independent of the donors and then it enables you to say OK, I will channel those resources in this direction **(NUKIM1)**.

Although this could be seen as 'beggars not being choosers' it drove home the need for greater partnerships with international organisations as a global humanitarian effort (Harvey 2004) to support autonomy and independence as a collaborative effort in the response.

7.5.2 Interplays with the ministries of Education and of Health

The Higher Education Strategic Plan (MoET 2005) and the Council on Higher Education (CHE) Strategic Plan (MoET 2008) pledged to fight AIDS by supporting the IHEs. The contradiction was that while the MoET and the MoH parented the NUL, neither ministry had taken verifiable action in the NUL's response by adopting the proposals of Kymario et al. (2004, p.181-184) regarding pragmatic actions for the core streaming of HIV/AIDS by the government sector. The Minister of Health had verbally committed to provide appropriate, additional staff through 'secondment' in September 2009 at the launch of NUL's AIDS Policy, but the commitment was not upheld. One HTS provider at the NUL affirmed this:

> A: No ntate, there is no resources, for example, I am just one counsellor here and when I am not around, there is nobody who is doing my work **(NUKIM4)**.

Despite this the MoH continued to impose protocols for HIV and TB, and rules and tools without adding resources to the NUL's HTS services, hence one KI stated:

> A: Yah it's too little because most of the material we are getting from the Ministry of Health, not the university **(NUKIF3)**.

The HTS protocol, guidelines and registers were notoriously time-consuming for staff, yet the MoH never provided the staff (subjects) and tools (e.g. medications for OIs/ARVs) necessary to reach the 10,000 students. The MoET's inputs into the NUL's response were done via the CHE, whose role is discussed in Chapter Eight as it cuts across all of the IHEs.

7.5.3 The NUL and IHEs' forum/initiative in the response

This sub-section briefly answers the following research questions in the context of the NUL:

- What is the interplay between IHE's structures and its services in response?
- How can strategies be developed to improve the quality of the selected IHE's response?

The brainchild of Professor Kelly's revival to address a felt need for action, the IHE forum benefited the NUL by garnering support through the SADC-NUL Project. At forum meetings and seminars, the CHE provided strategic guidance on HIV prevention across the IHEs. The forum shared individual histories, statistics, risks, activities, challenges and opportunities. All in all, the NUL's role helped sustain the forum, albeit temporally.

7.5.4 Reflections on interplays in the NUL response

In conclusion, this section has shown the interplays between the NUL and the local NGOs, international agencies, the MoET, the MoH and the CHE. Cutting across the types and categories of contradictions to the NULs response, the interplay as an activity yielded only a limited amount of the expected results to improve the response for the NUL. The parent ministries did not support the NUL as much as they should have as authorities over the IHE sector. A few international, regional and local organisations such as the JEAPP, the SADC AIDS Programme, New Start and the LPPA worked with the NUL individually but were themselves uncoordinated, cutting conceptual quaternary contradictions of their own.

Some of these organizations held health and wellness campaigns on NUL campus and collected HTS data from students, but had no health information system to copy the findings and

decisions to the NUL to improve joint monitoring. The incorporation of AIDS into the curriculum was a distant idea due to the lack of commitment, time and staff. The NUL and its partners lacked the ability to re-conceptualise and improve the interplays to improve student's experiences with the response. In ZPD terms, instead of expanding the interplays, the NUL and its interplay partners were embedded in history, contracting and destroying opportunities to reach the UNAIDS (2014) 3x90s strategy and the WHO (2004b) standards of quality.

7.6 Strategies to improve the quality of the NUL's response

This sub-section shows and discusses the quality of, and strategies used in the NUL's response. It uses the WHO Standard (1999) and the CHE (2004) Quality Assurance (QA) tool (Focal Area Three: Developing Quality Assurance Systems and Mechanisms) to address the NUL's response. The assessment relates to the International Organisation on Standardisation's ISO 9001 (2016, p.3) – a set of requirements for quality systems that define quality as:

> … The totality of features and characteristics of an entity that bears on its ability to satisfy a stated or an implied need.

Quality Assurance is defined as a:

> … More comprehensive approach to quality, (which is) based on a structure-process-outcome framework and includes a producer-provider-product-service aspect as well as client perspective (needs, rights and preferences) (ISO 9001, 2016, p.4).

Prior to examining the strategies for the quality of the services, the next sub-section shows how the WHO Standards (2004b) and CHAT are used to arrive at the ratings and conclusions on the health functions in the NUL's response.

7.6.1 WHO Proposed Standard of quality in the NUL's response

Based on the WHO Standard described in Table 2.1, the WHO model was used by expanding CHAT and by checking availability and rating the NUL's current performance to each of the seven functions. It used this study's KIIs, FGDs, documents and observations to arrive at 'good', 'fair' and 'poor' assessments, shown in Table 7.3 below.

Table 7.3: WHO Proposed Standards for Health – service ratings for the NUL
Source: Researcher (2018), adapted from the WHO (2004b)

Category	Functions	Availability at the NUL	Assessed performance

Functions related to health care delivery		Yes	Overall
		Yes	Fair
A	HIV testing, counselling and referral	Yes	Fair
B	Management of opportunistic infections (incl. TB)	Yes	Good
C	Provision of anti-retroviral therapy	Yes	Fair
D	Support for adherence to treatment	Yes	Poor
E	Prevention of mother-to-child transmission HIV	Yes	Fair
F	Palliative care	None	N/A
G	Rights of PLWHA and reducing stigmatisation	Yes	Fair
Functions related to links with communities			
H	Community links	Yes	Fair
I	Promoting health, preventing and treating disease	Yes	Fair
Functions related to Service Delivery			
J	Leadership and human resource management	Yes	Fair
K	Management of drugs and supplies	Yes	Poor
L	Laboratory management	Referral	Good
M	Management information	Yes	Fair
N	Financial management	Yes	Fair

Table 7.3 above indicated the findings on the WHO Standard for the NUL. It checked off and confirmed the availability of most functions at the NUL clinic. The next sub-section critiques each function and strategy in terms of 'why', and later in the recommendation, in terms of 'how' it can be improved. First are the functions related to health delivery.

7.6.2 Functions related to health care delivery

Table 7.3 showed that the overall performance of the NUL's response in terms of the WHO Standard was 'fair'. The NUL had a strategy to provide functions related to health care in the following components.

7.6.2.1 HIV testing, counselling and referral

The NUL's strategy for HTS was based on the MoH's protocols (2007; 2016). Observation found the MoH-prescribed clinic registers in use at the NUL. Section 7.3.4 showed the trend in the HIV testing, which as evidenced in the WHO Standard (2004b) for NUL, was rated 'fair'. Improving on the HIV testing required recognising that despite the NUL's AIDS policy, this 'fair' performance was the result of at least three factors. One was weak IEC and ABC tools to promote the HTS. Second, the key subjects (HTS providers, nurses) numbered too few to meet the demand. Third, other than expanding education to students on the value of HTS, the NUL's strategy was limited to compliance and not to change national guidelines.

7.6.2.2 Management of opportunistic infections (OIs)

The NUL had a strategy in its AIDS policy that specifically cited OIs as an object to be acted upon with medicinal tools and individual rules. The main OI encountered in Lesotho's fight against AIDS was TB, with a co-morbidity rate of 72 per cent with HIV. The NUL's supply of medicines to treat OIs was paid for by its already limited budget, which caused delays in the supply chain of medicines for OIs. Investing in resources to maintain the supply chain was key.

7.6.2.3 Provision of Anti-retroviral therapy (ARVs)

The answers given by the nurses (KIs at the NUL clinic) showed that the AIDS Policy had no problems; rather the challenge lay with the supply of medicines to treat OIs, delays in ordering, delivery and payment, and storage even though the ARVs were supplied free of charge. The procurement process was generally poor and needed improvement and better management of the processes between the NUL's clinic and the university's administrators. In other words, the subjects could not enact the object in the absence of mediational tools.

7.6.2.4 Support for adherence to treatment

The NUL clinic only supported adherence by making ARVs available. Support for adherence was evidenced in the client registers and in the follow-up system prescribed by the MoH. The extent to which the clinic achieved the second of the UNAIDS' (2014) 3x90s goal within the NUL community was not known (This goal stipulated that 90 per cent of those who tested HIV positive had to be prescribed ARVs).

Evidence by the KIs at the NUL clinic suggested that expanding the service to include psycho-social support was hampered by a shortage of staff, hence the enabling activity to achieve adherence and viral suppression was contracted due to poor mediating tools. This implied a risk of drug resistance for the individual and his/her sexual contacts. Adherence counselling thus had to be improved.

7.6.2.5 Prevention of mother-to-child transmission of HIV (PMTCT)

Although the NUL recognised that students had unplanned pregnancies, with implications for mother-to-child transmission of HIV, the university had no home-grown strategy to prevent this and again used the MoH guidelines to provide a PMTCT service to eligible students. As with other services, PMTCT was also accessed by the NUL's external community. The evidence in Table 7.1 showed that PMTCT comprised the lowest percentage of the NUL clinic's services and had to be made more accessible.

7.6.2.6 Palliative care

This service involved the provision of supportive care when no medicines could restore health. It was not in the NUL's AIDS policy, but was offered in the curricula of the NUL's humanities health disciplines. Known HIV/AIDS-related mortality among students meant that they needed palliative care at home or in hospital. The NUL did not need to provide palliative care unless it established a teaching hospital.

7.6.2.7 Rights of people living with HIV and AIDS

The rights of PLWHA were cited in the NUL's AIDS Policy and covered all intervention activities. For example, while the clinic provided medicines for OIs, it had no support system to promote adherence and thus short-changed clients' rights to comprehensive care. Other areas of violation could be their right to access IEC, PMTCT, ARVs and nutrition, due to failures and interruptions. The rights of PLWA were a particular challenge due to the stigma (HEAIDS 2010) in the IHEs and legal battles with governments, as in the case of the Minister of Health versus the Treatment Action Campaign (TAC) (2002) in SA, concerning making nevirapine accessible to pregnant women. Clients' rights to access services needed a turnaround and strengthening, such as with the NUL's 'AIDS and the Law project[15]'. This was an initiative aimed to provide affordable legal services to women and girls, while promoting gender awareness, prevention of abuse and the rights of people living with HIV/AIDS in general.

7.6.3 Functions related to links with the community

This function was rated as 'fair' due to the NUL's limited capacity to better expand the response to communities. This was in contradiction to Preece's (2011) view of service to communities as the third important mission of universities. Key to this function was promoting health.

7.6.3.1 Promoting health, preventing and treating disease

As per Zeithmal and Bitners (2000) Seven-Ps, health promotion was the key to improving the NUL's response. For this activity the NUL had an able leadership capacity to intensify its health promotion strategy, evidenced as the least practiced in the NUL's response. It went with poor IEC activity on HIV/AIDS, HTS, STIs and a host of conceptual and functional contradictions. Health promotion was also "piecemeal" (Kelly 2002, p.28) and happened during induction

[15] The KIIs and FGDs showed that the Faculty of Law had a project on 'AIDS and the Law', to improve practice in areas of prevention, transmission, policy, care and support. However, this study had no further detail on this.

programmes where students interacted with partners such as PSI-New Start, the LPPA and MSF. The next sub-section shows the NUL's functions related to services.

7.6.4 Functions related to service delivery

This section highlights the strategies on leadership, the management of drugs, laboratory information and finance, as per the functions in the WHO (2004b) Standard on the response.

7.6.4.1 Leadership and human resource management

The literature review showed the role of leadership in a response, at three levels of management (Johnson and Scholes 1999). At the NUL the leadership for the response was vested in the Vice Chancellor, Registrar, Bursar and the Directors in executive management. They provided overall leadership and assigned mostly intangible resources to the middle level management. In 2008 the executive resolved to employ an AIDS Coordinator to connect the three levels. Middle management implemented the top management's decisions and provided tangible tools namely staff, funding and health commodities to the operational level. This level interfaced with clients at the NUL's clinic, acting out the functions in the WHO Standard (2004b). Student leadership cut across the NUL's three levels.

The NUL has had leadership failures. Not only did it implement the response a quarter of a century after the substantial loss of human life among its community, it also invested too little money in the services and the curriculum. It lost the opportunity to re-test the PESP (2010) clients again in 2014, breaking its promise to the students, the social and research communities. It took years to re-group Lesotho's total IHE constituency. In ZPD terms, the NUL's leadership was disconnected, embedded in old historical and cultural ways, had lost opportunities and was neither near expansion nor resolution of the response status quo.

Despite the failures, with the NUL's AIDS policy opportunities still existed for "knot-working" (van der Riet 2009, p.56) with all partners such as the NAC, JEAPP, SADC, IHEs, NGOs and the Ministries (MoET and MoH) as a way to re-connect the university's leadership. This would help re-contextualize, expand and strengthen collaboration, cooperation and coordination.

7.6.4.2 Management of drugs and supplies

The strategy for the management of drugs in general was not articulated by the NUL but by the MoH. As was shown in the previous sub-section regarding the management of OIs, the provision of ARVs and support for adherence, the commodities and supply chains were poorly managed. Stock-outs of essential drugs, ARVs and OIs medicines were frequent. The NUL

clinic needed improved drug supply management strategies, but depended on the MoH's and the National Drug Stockpile Organization (NDSO) protocols and bureaucracy.

7.6.4.3 Laboratory management

The university needed laboratory services to diagnose and manage clients suspected or known to live with HIV. To this end, the NUL outsourced this service to the nearby St. Joseph's hospital medical laboratory. The NUL clinic collected, identified and submitted specimens such as blood, sputa, urine, etc. and referred clients for biopsies. The challenge lay with the hospital at times prioritising its own specimens ahead of those from the NUL. At times specimens were lost, implying broken service and feedback promises between provider and customer. It was, however, generally a good service.

7.6.4.4 Management of information

The NUL's health information system (HIS) was based on clinic registers, and the clinic data was periodically tallied (at this primary level). It reported to St. Joseph's hospital as it was the district health management (DHMT) facility for secondary data collection, prior to tertiary/national level aggregation by the MoH. This reporting cycle had challenges, chief of which was bulky reporting registers from MoH, delays because the national HIS policy timelines were unclear for those at the primary, secondary and tertiary levels of care. These delays affected the key areas of HTS, TB, ARVs and PMTCT interventions. This negatively impacted decision-making as the national and institutional data was poorly aggregated and often not complete. Again, failure to have partners copy HTS and other outreach data made the NUL's overall performance worse for monitoring and knowing the response. The next sub-section covers the NUL's financial response.

7.6.4.5 Managing finance in NULs response

Poor financial resource was cited as a threat in the NUL Strategic Plan's SWOT analysis (NUL 2007). In CHAT the object was the lack of funding, and its outcome was increased funding. The NUL started writing research proposals in 2008, which yielded two new projects and revived the SADC-NUL project in 2012. The strategy improved the human capacity and brought in new services such as VMMC. It proved that the NUL had opportunities to engage partners with its response, however, the absence of a substantive AIDS Coordinator killed off these opportunities. The next section covers the implications for the NUL's response based on the combined findings using CHAT and the WHO tools.

7.6.5 Reflections on the NUL's response to improve response

Of the three IHEs in this study, the NUL proved historically to be the most enduring with its health services, leadership in campus services, its diversified and well-managed relations profile with its partners in the health services, and a community with the richest discourse on topical issues, in relation to the other IHEs. The inclusion of HIV/AIDS services in the mid-eighties attested to its commitment to provide good health care alongside its academic agenda. Notwithstanding these achievements, the NUL had its own problems; the main one ironically being the lack of growth and expansion to new areas of care amidst the national crisis because of the scale and mortality of HIV/AIDS. This had implications for the NUL.

7.7 Implications for the NUL's key stakeholders

Implications refer to what it means for the NUL to have or not have certain elements of the response. This sub-section has two parts. One is Daniels et al.'s (2010) conceptual, material and functional contradictions and Beatty and Feldmans (2012) primary, secondary, tertiary and quaternary contradictions as they apply to CHAT's subjects, activity, object, rules, community, the division of labour and outcomes. The second covers the implications for aligning the NUL's response to the national strategy: the promise to provide services; investing human and monetary resources; developing planning, monitoring and evaluation systems; and sustainability in the response. The six themes relate to the CHAT principles of the collective, object-oriented activity, artefact-mediated activity, multi-voicedness, historicity, expansion and importantly prior to the implications, are the noted contradictions.

7.7.1 Contradictions in the NUL's response

Overall the findings revealed the four categories and three types of historical, conceptual contradiction in that the NUL took 23 years before launching an HIV/ASIDS policy aligned to the national strategy. When the policy came, its contradictions were too little resources invested, which implied a lack of staff to plan and execute the promotion of IEC, ABC, PMTCT and other activities. While the NUL's partners (MoH, LPPA and New Start) contributed to the response, they did not copy the HTS data to the NUL clinic for information purposes and planning management. These key contradictions had the following implications.

7.7.1.1 Implications for aligning the NUL to national response

While the NUL aligned its response with the national one, this was not straightforward. The university had functional limitations in providing basic health care personnel. Although the National AIDS Commission's (NAC 2000) strategy was itself not attaining the desired

performance, it was still too ambitious for the NUL to align to it fully. The NUL's core mandate failed to incorporate, integrate, include or infuse AIDS into the curriculum except mandatorily in the faculty of health sciences. A further issue was that the NAC was in limbo during this study, and could not make new policies available to IHEs including the NUL.

7.7.1.2 Implications for services improvement

This study's KIs and FGD participants evidenced that the NUL's response had disproportionate HR, financial and HIS capabilities. The key functional and material contradictions pivoted around the human factor – which Zeithaml and Bitner (2000) called 'people', to drive the rest of the components. The links between CHAT, the Seven-Ps of services marketing mix and the IHEs' response components were shown in Table 2.2. Because of the people factor, both at top management and at operational levels, all other Ps suffered inadequate support. As systems were designed by people (Checkland and Holwell 1988) all human, financial and information components pointed to the challenge of cost in terms of delivery of services, hence there was always a question of cost over what could be provided. Could the response be abandoned because the NUL could not afford it?

7.7.1.3 Human, financial and information management

Human resources were an asset worth investing in. Lovelock et al (2011, p.1/2) stated:

> ... A highly structured approach to staff recruitment, training and development is the natural starting point. 'It all starts with getting the right people,' says the general manager. 'You can teach skills, but what really comes across, especially to business people, is attitude'.

At the NUL's clinic there was only a minimal number of essential staff. Once recruited the clinic staff were not trained, as one KI confirmed. Staff development was ad hoc and not seen as a starting point in quality improvement. The changing nature of the response, newer medicines, and new customer behaviours and promotion strategies all implied that the clinic staff needed constant skills updates to keep up with new treatment regimes. Functional contradictions showed students complaining that clinic staff called them 'children'. This implied a community/subject/tools/object contradiction, hence the outcome would not be attained. The NUL's clinic staff thus had intrinsic and extrinsic motivation issues to address.

7.7.1.4 Implications for planning, monitoring and evaluation

Based on Abel-Smith's (1994) six-step planning method and Engeström's (1987) view of contradictions as a source of re-contextualization, the NUL's response needed a new strategic view and approach to planning its health services. In this study, this incorporated the NUL's (SWOT analysis in the implications.

7.7.1.5 Implications for sustainability of the NUL's response

The UN (2010) saw sustainability as a way to manage social, economic and environmental issues for lasting advantages. In this study three pillars of sustainability remained in the CHAT framework: first were the 'rules', which were summarised as national laws and policies. Second was 'staff' (subjects) and third, the material, financial and information 'resources' used in mediating the response. It was enough to state that the NUL had a severe sustainability problem due to poor investment in these three key areas, *vis-à-vis* the current, sustained incidence and prevalence of HIV. These three pillars of sustainable response are discussed in more detail in the next chapter with the synthesis of the three IHEs.

7.8 Conclusion

This chapter interpretively analysed the NUL's response. The key findings were: First, the current IEC tools did not provide messages of the appropriate quality needed to support individual decisions to apply the ABC process among the students. Second, behaviour change remained a problem at the NUL despite higher levels of education compared to that of the general population. Third, the clinic was a good concept, but gaps were identified in terms of the leadership's (subjects) inability to evidence their commitment, while capacity constraints at the middle management level limited the clinic's operational resources or artefacts. In CHAT, this implied that subjects were not able to enact the object without mediatory tools.

Fourth, the all-important HIV testing and KYS were subjected to most of the categories and types of contradictions (see Table 2.1). The campaigns were hampered by poor capacity for the UNAIDS' (2014) 3x90 strategy. On the three-nineties scale, starting with the first 90 (for the population tested) to the second 90 (for those enrolled on ARVs) to the third 90 (those who attained viral suppression), the achieved values all ranged less than 5 per cent at the NUL. Fifth, male circumcision numbers did not reach the expected targets as the majority of the young men at the NUL were uncircumcised – an area for further research. Sixth, the social influences of rurality, multiple concurrent partnerships (MCP), sex work, alcohol abuse, etc.

affected the NUL's response by shifting the subjects, but not the object's position regarding access to physical and psycho-social tools.

Seventh, the NUL's success in the interplays with its partners varied. External projects improved the NUL's response and brought new opportunities, and the success of these external projects was possibly due to the fact that these projects were supervised closely and jointly by the NUL and its particular partner. Strategies to improve the NUL's response were related to and dependent on UNAIDS, the WHO, the MoH and the NAC, and impacted on how the people, finances and information were to be used. The implications called for a rethink of the NULs conceptual, material and functional response. Eighth, according to CHAT, the NUL had to create an environment where subjects applied the necessary rules and accessed the needed artifacts to enact the object in line with the changing needs of its community. If not, it would validate an observation in which Engeström et al. (2002), cited in Van der Riet (2009), states:

> While systemic contradictions [were] faced and overcome time and again in everyday practice, they [would] keep coming back, and in more aggravated forms.

Having noted the systemic or combined categories and types of contradictions in the NUL's response, the "aggravated forms" could be spirals of STIs, HIV, unwanted pregnancies and failed academic goals and sustainability. In ZPD terms, the NUL was embedded in a culture of poor commitment, which destroyed its opportunities for capacity in expansive transformations and stifled its resolution of contradictions. The next chapter is a synthesis of the findings across the three IHEs: the LCE, the NHTC and the NUL.

CHAPTER 8 – SYNTHESIS OF FINDINGS ON THE IHES

8.1 Introduction

The purpose of this study is to interpret and qualitatively analyse the responses to HIV/AIDS in three selected IHEs in Lesotho. This chapter has seven sections and analyses the findings from the three IHEs using CHAT, incorporating the Qualitative Comparative Analysis (QCA) model to generalise across this study qualitative themes. First, the introduction revisits the research questions and the unit of analysis. The second is a comparison of the cultural, historical and demographic issues in the IHEs. Third is a synthesis of the findings using the WHO Standard (2004b). Fourth is a cross-cutting analysis of the IHEs current response, the interplays among structures and the strategies for improvement. Fifth are the implications for the key stakeholders in education. Sixth is a proposal to rethink the response, and seventh is the conclusion.

8.1.1 The research questions and unit of analysis

This sub-section is based on the identified problem that after nearly 30 years, there appears to be no coordinated, focused, measurable interventions among Lesotho's IHEs to halt the spread of HIVAIDS. It covers the main research question: *to what extent do the current institutional strategies in IHEs, responses and services operate in synergy in response to HIV/AIDS in Lesotho?*

At this stage, and with the knowledge gained from the previous findings chapters, the *sub-questions* were re-characterised as they relate to this study analytic tools based on CHAT, such as the Analytic scheme (Table 4.3) and the Expanded contradictions (Table 2.1). The relationships cut across the five sub-research questions as follows:

i. *What institutional strategies and services for HIV/AIDS exist in the three IHEs in Lesotho?* Based on Table 2.1, this sub-question drew mainly on the conceptual, functional and material (CFM) contradictions, and across primary, secondary, tertiary and quaternary (PSTQ) contradictions, or generalized (CFM x PSTQ) contradictions in the IHEs current strategies and services. This sub-question is addressed in the first section on cultural historical issues in IHEs;
ii. *What is the interplay between the IHE structures (management and clients) and services in response to HIV and AIDS?* This sub-question probed the conceptual, functional and material contradictions (CFM) and covered mainly the secondary,

tertiary to quaternary contradictions, (CFM x STQ). It is addressed in the second section on interplays among IHEs;

iii. *How can strategies be developed to improve the quality of the selected institutions' responses to HIV/AIDS?* This sub-question's character mostly covered conceptual, functional and material contradictions in conjunction with the tertiary and quaternary (CFM x TQ) area/layers of contradictions. It probed shifts in object/motives of 'healthy living' versus 'death sentence' views of AIDS, and relations with other systems. It is addressed in the implications and emerging themes section;

iv. *What are the implications for education and training for key stakeholders?* This question drew on the conceptual, functional and material (CFM) contradictions, while specifically calling on quaternary contradictions (Q), i.e 'between systems' linked to the response such as the IHEs stakeholders, structures, finance, curriculum and social (CFM x Q) area. This question is addressed in the conclusion and recommendations.

This review of the research questions related to the principles of CHAT such as the collective, tool-mediated, object-oriented, multivoiced, historicity, contradictions and expansion, whose main issues are synthesised in the following sub-sections.

8.1.2 A comparison of the demographic features of the IHEs

This sub-section is comparative analysis of this study's findings on the IHEs' demographics, including the KIs and FGD participants, summarised in Table 8.1 below:

Table 8.1: Three IHE Populations and KI & FGD Participants

CATEGORY	Respondent's Category	KIs & FGDs respondents age, numbers, sex				
		Age range	**LCE**	**NHTC**	**NUL**	**Sub**
Total IHEs population		18-65	4,600	300	12,000	**16,900**
Management / Educators (KIs)	Vice Chancellor/Rector/Director	50+ years	1M	1F,1M	1M	**4**
	Senior Manager/Lecturer	25+ "	1M	1F	1F	**3**
	Nurse (Clinic)	25+ "	1F	1F	1F	**3**
	HTS Manager (Clinic)	35+ "	N/A	1F	1M	**2**
Students (FGD)	Mixed students FGD 1	18-35 "	3F,3M	6F,5M	4F,4M	**25**
	Mixed students FGD 2	18-35 "	3F,3M	-	3F,4M	**13**
Total (KI and FGD used in this study)		-	**15**	**16**	**19**	**50**
Percentage participation of the three IHEs			30	32	38	100

Table 8.1 above shows that overall, the populations of the three IHEs were well represented by the sample size and data collection method for a qualitative study. The next paragraphs summarise the combined features of the IHEs populations and participants.

i. The three IHEs' population features

Earlier on in Chapter one of this study, Table 1.1 showed that the student population of all IHEs in 2010-2011 was 23,987, and the three selected ones totalled 15,852 or 69.2 per cent of the population - more than half of all of Lesotho's IHEs combined. Of the three, the NHTC had the lowest population of 400 students and 30 staff; while the LCE had 4,500 students and 280 staff and the NUL had 12,000 students and 700 staff. The total female population of the IHEs was 52 per cent. These numbers and the evidence showed three things: the population is sexually active, it is concentrated in colleges and has a generally poor response.

ii. Key informants (KIs) and focus group discussions (FGDs) by ages

Table 8.1 showed the turnout of the KIIs and FGDs. The dominant age ranges were 40 to 60 years for the KIIs and 18 to 24 years for the FGDs. In the three IHEs, staff and students of both sexes participated. The KIs (management) were snowballed while the FGD participants (students) were randomly recruited as per the methodology. Overall participation showed that the LCE had the lowest number of participants with 3 KIIs, and 2 FGDs of 6 participants each, hence 30 per cent of all the study participants. The next IHE was the NHTC with 5 KIIs and one group of 11 FGD participants, totalling 32 per cent, while the NUL had the highest number with 4 KIIs and 2 FGDs of 7 and 8 participants each, totalling 38 per cent of all the participants in this study. The KIs and FGDs turnout was deemed representative for their richness, knowledge and experience at each IHEs as evidenced in the findings. What were the key, cross-cutting, social, cultural and historical issues in the IHEs?

8.2 Cultural historical issues in the selected IHEs' responses

This section presents the cross-cutting findings on the three IHEs history, leadership culture, risk profiles and policy environment across the IHEs. The narrative drew from Chapter Four to employ the 'analytic steps' of characterise, cut, categorise, code, convert and create, and the 'metaphors' of mosaics, blending, archipelagos, etc. It uses methodological triangulation and refers to analyses in previous chapters.

8.2.1 Cultural historical background of the three IHEs

The histories of Lesotho's IHEs sector mirrored the role of Lesotho's education, dating as far back as when the first IHE (Lerotholi Polytechnic - the pilot) was established in the late 1890s. Over time, the IHEs changed names (e.g. the National Teacher Training College (NTTC) became the Lesotho College of Education (LCE), and the University of Botswana, Lesotho and Swaziland (UBLS) became the National University of Lesotho (NUL)). The IHEs identities evolved with the changing political, economic and social trends, and all underwent curricular and physical expansion with campuses in rural, underserved areas. The LCE was foremost in advancing rural outreach using teacher practicum and the geographic structure of education.

The IHEs raised additional local and international funding with partners such as the MOET, MoH, the WHO, the African Development Bank, the JEAPP, SADC, the Lesotho Boston Health Alliance (LeBOHA), and hands-on NGOs[16] such as PSI, LPPA and MSF. These were all present in the IHEs, targeting specific response areas. The tertiary contradiction within the partnerships was that although it persisted among Lesotho's IHEs, it did not impact the MDG 2: 'HIV/AIDS literacy among 15-24 year-olds' to be 'on-track'. It had more an unknown than little impact on the national response (UNAIDS 2008; 2013). Furthermore, Lesotho was 'off-track' on health-related MDG's four, five and six, with an overall poor MDGs outcome (UNDP and GoL 2014; WHO 2014, Cohen et al 2013). What was the risk profile in IHEs?

8.2.2 Main risk factors for the three IHEs

This sub-section summarises the three key risk factors in the IHEs. Risk referred to exposure to HIV/AIDS, STIs and related diseases. The major risk factors in the IHEs were evidenced in studies by Kymario et al. (2004); MoH (2004, 2009, 2014); MoET (2005); NAC (2008) and in the KIIs and FGDs inputs. All pointed to the following three main risks:

8.2.2.1 Ignorance - poor information, education and communication (IEC)

The findings across the selected IHEs revealed, first, the poor impact of the IEC strategies on behaviour change among all the population groups. Mahloane-Tau (2016) regretted that despite wide-ranging and specific efforts to improve information and knowledge and to change

[16] 'Hands-on NGOs/Partners' referred to locally active NGOs that assisted IHEs in providing direct on-campus services such as HIV testing, blood pressure (BP) and diabetes testing, body mass index (BMI) tests and blood transfusion clinics.

attitudes, the rate of change did not match the investment. This fact was attested to by the FGD participants, leading to the second risk factor - multiple concurrent partnerships (MCP).

8.2.2.2 Multiple concurrency, sex work and intergenerational sex

For this major risk, the NAC (2008) cited MCP as the commonest risk factor for HIV transmission in Lesotho, but it was evidently a way of life in IHEs. The problem here lay with sex work – there was very limited documentation specific to IHEs, yet its subjects were listed among the high risk groups for HIV (ALAFA 2008). The risks of sex work applied equally to the three IHEs, although those closer to Maseru city (the LCE and the NHTC) were more at risk because of their proximity to the known sex-work places in Maseru. Sex work among students was a controversial issue, with some believing it was very common while others believed it to be less so. It was fertile for research, and depended on the willingness of such students to speak out. Reed et al. (2017) argued that female sex workers participated in HIV research and gave the illusion of voluntariness to researchers. What if they did not do it voluntarily? They could have had economic, social, or other motives for engaging in sex work.

Most sex work was economically motivated and was linked with intergenerational sex, but there was also the practice of *ho penya*, which condoned casual, multiple partnerships among the NUL students. Even if not referred to by the same name, the practice could be generalised to other IHEs. Sex work in the IHEs was not limited to poverty and monetary gain. Some students were motivated by academic objectives too, as one FGD participant explained:

> A: … It is very common here at school. Because letting alone poverty and coming to not doing well in our studies, well... we fall into a trap of falling in love with our lecturers for marks…(**LCFGF5**).
>
> Q: And with other people for what?
>
> A: Money (**LCFGF5**).

Sex work was linked to 'intergenerational sex' between older men/women and younger college partners, as evidenced by the FGD participants' inputs. A hidden trend was homosexual activity; men who had sex with men (MSM) and perhaps equally evasive was women who had sex with women. Poteat et al. (2016) afformed stigma and discrimination against sex work in a Lesotho study.

8.2.2.3 Poor abstinence, being faithful and condom (ABC) performance

The third key risk factor, other than ignorance due to a lack of IEC and MCP, was abstinence, being faithful and consistent and correct condom use (ABC). As intergenerational sex and MCP occurred amid poor condom use, it doubled the risk of HIV transmission in the IHEs. The students of the LCE, NHTC and the NUL interacted with external communities, where the risks were equal in terms of poor access to health IEC, poor ABC behaviour and poor prevention activity. The next section gives an overall policy view of the three IHEs.

8.2.3 Comparative policy environment in the three IHEs

This sub-section provides comparative interpretive analysis to the research questions which involved policies and strategies, services and interplays:

- What institutional strategies and services for HIV/AIDS exist in the three IHEs?
- What is the interplay between the IHE structures (management and clients) and services in response to HIV and AIDS?

Table 4.4 provided an analytic scheme to derive codes from the questions posed, comparing the questions to the components of the CHAT framework. Questions such as: What were the current IHEs' responses? What was the role of the subjects? What activities were in the response? What were the object(s)? etc, were best answered by showing what policies existed to provide services. The overall picture was that of a lack of AIDS policies, or policy gaps, in all three of the IHEs. Zeithaml and Bitners' (2000) Gap Analysis model was used to show the known service gaps, giving examples of how these gaps applied to the IHEs:

Gap 1 - not knowing what customers expected.
Gap 2 - not selecting the right service design and standards.
Gap 3 - not delivering to the service standards.
Gap 4 - not matching performance to promises.

The Gap Analysis model showed that some of the key areas where gaps or forms of contradictions affected the IHEs' policy environment occurred mainly in the following areas.

8.2.3.1 Leadership, agency and gaps – 'not knowing what customers want'

Two of the IHEs, the LCE and the NHTC, experienced a leadership gap where they 'did not know what the customers wanted', despite their awareness and agency of 'having to do something' (activity) by ensuring that the institutions had their own HIV/AIDS policies (tools).

They gave only vague justifications for this lack of progress (outcome), and the FGD participants frequently accused the IHEs' leadership and lecturers of being short of strategies or knowledge on how to lead the response. An example of this was the fact that the IHE AIDS committees were often chaired by Vice Chancellors or Directors, with the belief that this would support the response. This failed due to the unavailability of the chairpersons due to their multiple engagements, hence a 'seniority versus availability' gap was cited. The IHEs' leadership differed in terms of resources and commitment. In terms of agency, top managers only "[had] to do ..." leadership roles, while operational level leadership secured, for example, HIV test kits **(LCKIF3)**. This would ensure that processes occurred to enact the object and that customer expectations in 'moments of truth' (Zeithaml and Bitner 2000, p.86) were met. Poor resources or tools were blamed for the four customer gaps, attributed to lack of commitment.

8.2.3.2 Accessing resources, limitations and prospects

Second to leadership and commitment, the three IHEs lacked human skills, finance and material artefacts (information, tools, etc.), collectively called 'resources'. This contradiction (subject/community/object) pivots around institutional 'capacity' not 'delivering to service standards'. In all three IHEs there were fora to justify, discuss the means and options available, and begin work on draft policies. However, because of the lack of 'know-how' for policy writing and the lack of finance to support the activity, none were successful before 2009. The policy limitations, contradiction and gaps were skills, finance and time, in other words, a general lack of 'capacity'. This interrelated with commitment, since capacity followed the decisions of the leadership on whether to invest in or ignore a particular problem. This gap was 'not matching performance to promises'. What about policies?

8.2.3.3 The absence of HIV/AIDS policies

While the absence of a policy exposed the LCE and the NHTC's top management as uncommitted and not "wanting to do something", in the modalities of agency (Table 3.1). The contradiction which was also found in the NUL was that its policy failed to influence the infusion, inclusion or incorporation[17] of AIDS into the curriculum. Thus a subject/community/object contradiction arose. This raised a duel challenge of 'availability versus unavailability' whereby the curriculum with or without a policy could include AIDS, as it did at the NHTC. Furthermore, an IHE could respond with neither a policy nor an inclusion

[17] Infuse, include and incorporate AIDS into curriculum were used interchangeably here, but are explained and differentiated in sub-section 8.6.

plan in a curriculum, as the LCE had done. This gap meant that service standards were not met. Evidencing this, one LCE KI said "...our policy has been in draft form since..." (LCKIM1). It was drafted, then left pending and later forgotten. SARUA (2006) note that AIDS policies failed to get approval by top management or the Senate and were never published and implemented. While the AIDS policy remained a draft at LCE, the NHTC had not even engaged in activity to develop one, and NUL only launched its policy in 2009.

8.2.3.4 Response structures and IHEs committees

Driven by the emphasis for stakeholder involvement, AIDS policies often required large numbers of staff to make up committees. The gap was thus one of 'not selecting the right design' or failing to formulate committee of manageable sizes, a fact acknowledged in all three IHEs. It soon proved neither manageable nor necessary as large committees required a large quorum (50+1) to make decisions. Failure to gain quorum was often due to the large number of participant (lecturers, managers and students) and led to postponements, cancellations of meetings, poor morale and abandonment of purpose. It raised the challenge of 'representative versus realistic' structures covering top, middle and operational level reporting.

The functional contradiction (of subject/tool/community/object) lay between representation and execution, hence there was a need for these IHEs to rethink their AIDS committees (subjects) so they were 'lean and mean' and could execute their duties in fulfilment of the promises in their HIV/AIDS policies. This gap (Gap 4 - not matching performance to promises) was evident in all these IHEs. The NUL managed to overcome this challenge with its AIDS policy. It established a 30-member committee (large) representing all faculties, institutes and 3 ex-officio members, then narrowed the committee down to a 'working committee' of 10 members, which proved doable.

8.2.3.5 Coordination, cooperation and communication

The CHAT definition of structures of coordination, cooperation and communication was discussed in the literature review. Each HIV/AIDS unit could work across the broader IHEs' educational mandates or focus only on a smaller programme such as specifically supporting the campus clinics. Coordination was located in middle management (Johnson and Scholes 1999), and served as a mediator in agency (Daniels et al. 2010). It was a capacity dimension in the IHEs' responses (HEAIDS 2010). The gap was identified as 'not selecting the right design'.

While the NUL had a coordinator in addition to staff at the clinic, the other two IHEs only had clinic services. The gap identified among the three IHEs was the coordination, cooperation and

communication gap, in that they did not define these concepts according to the varying positionality of the subjects and objects. The role of the AIDS coordinator, HIV/AIDS managers, wellness or welfare managers/officers across the IHEs was to enable health/clinic services while coordinating, cooperating and communicating with partners, other IHEs and government ministries, 'hands-on'. However, these pivotal teams were not clear about their purpose, nor had access to the key resources for their task. Generally, the three concepts were wanting in the selected IHEs – a conceptual and primary contradiction with the subjects.

8.2.3.6 The scope of the IHEs' AIDS policies

The AIDS policies of many IHEs got caught-up on scope, i.e. arguments on what and what not had to be included in the policy (see Table 8.4 – Continuum of key factors influencing IHEs responses*)*. The absence of policies at the LCE and NHTC suggested conceptual challenges with scope, while the NUL's policy provided one. Letuka et al. (2008) said a policy should include AIDS-related themes, such as gender-based violence (GBV), sexual harassment, rape etc. The University of Namibia's (UNAM) (undated) policy was titled *UNAM HIV/AIDS and Sexual Harassment Policy* to show its coverage of these themes. The scope related to the six 'modalities of agency' and showed the level of this IHE's commitment. The NUL's policy included condoms (tools) but critics, mainly the FBOs, challenged it, pressing for the exclusion of condoms and emphasis on morality and chastity. The gap created by removing the reference to the use of condoms could be seen as 'not matching performance to promises' on the IHE's part. Some of these critics said that the inclusion of condoms could lead students to experiment with sex and later unprotected sex. In CHAT, expansion meant an inclusive AIDS policy.

8.2.3.7 Financing the response

Arguably, the single most critical tool/artefact in any IHEs' response was finance. It was about *cost versus benefit* and cuts across the four customer gaps. In 2016, the NUL had a budget of M70,000 (USD5,000) for the financial year 2015-2016, equivalent to USD 0.70 per IHE capita of its population. The LCE and NHTC did not even have access to information on their annual AIDS programme budgets. Where budgets existed, however, money was rarely disbursed to the AIDS programmes, as in NULs case, which in turn carried out less than a quarter of the budget worth in activities. Thus the 'poor absorptive capacity' was due to the IHEs inability to submit realistic activities, and to cash-flow problems in the IHEs. A cultural challenge was that the IHEs leadership often saw the response as a 'non-core business' activity, and shunned committing finance to it. In ZPD in means the subjects and activity were restrained by a lack of artifacts to enact opportunities on the object, hence the legacy of gaps in the response.

8.2.4 Reflections on the IHEs social cultural influences

This section overviewed the collective cultural-historical factors influencing the IHEs' AIDS policies, leadership, resources, structures and financing based on the KIs, FGDs, documentary and observed evidence from the three IHEs. Importantly, it showed the role of top management for leadership and commitment, middle management for support and resource capacity, and operational levels to evidence HIV/AIDS in each IHE. Policy emerged as the key missing artifact. Among the IHEs, the single most harmful practice was MCP. The ABC was poorly practiced, *despite* the IEC efforts reaching 80 per cent of Lesotho's population (Bureau of Statistics 2018). The next syntheses are based on the WHO's (2004b) Standards for Health.

8.3 Synthesis by the WHO Standards to interpret IHEs response

To synthesise means to create something by combining different things, as explained in the methodology. Noting Engeström's (1999) view that from the CHAT perspective, medical work had to be analysed using international standards, this synthesis section uses the WHO Proposed Standards for Health (2004). Table 8.2 is adapted into a check-list to confirm (Yes) or reject (No) access the functions in each of the three IHEs, with an overall rating, below.

Table 8.2: WHO Proposed Standards for Health[18] – Ratings for the Three IHEs

Category	Functions	IHEs			Overall rating
		LCE	NHTC	NUL	
Functions related to health care delivery					
A	HIV Testing, counselling and referral	Yes	No	Yes	Fair
B	Management of opportunistic infections (incl. TB)	Yes	No	Yes	Poor
C	Provision of anti-retroviral therapy	Yes	No	Yes	Fair
D	Support for adherence to treatment	Yes	Yes	Yes	Poor
E	Prevention of mother-to-child transmission of HIV	Yes	No	Yes	Poor
F	Palliative care	None	None	No	N/A
G	Rights of PLWHA and reducing stigmatisation	Yes	Yes	Yes	Poor
Functions related to links with communities					
H	Community links	Yes	Yes	Yes	Good
I	Promoting health, preventing and treating disease	Yes	Yes	Yes	Fair
Functions related to (HIV/AIDS) service delivery					
J	Leadership and human resource management	Yes	Yes	Yes	Poor
K	Management of drugs and supplies	Yes	Yes	Yes	Poor

[18] Based on the disclaimer to the WHO Proposed Standards that 'the standards do not intend to exclude or suspend any health facility that does not meet all of them, especially in a resource limited setting, but is used to improve the quality of the facility', the researcher deemed it in the interest of this study to make qualitative judgments under the 'assessed performance' of the levels of the IHEs' responses.

L	Laboratory management	Ref [19].	Ref.	Ref.	N/A
M	Management information	Yes	Yes	Yes	Poor
N	Financial management	Yes	Yes	Yes	Poor

The ratings affirmed that most of the functions existed in the three selected IHEs, giving an overall view of a strong cross-cutting intent to fight AIDS. The strategies are comparatively analysed in the next sub-sections.

8.3.1 Functions related to health care delivery

This sub-section synthesises the IHEs' services in keeping their promise of a response. It covers HIV testing, referral, the management of OIs, support for adherence, the prevention of mother-to-child transmission, palliative care and the rights of people living with HIV.

8.3.1.1 HIV testing and services (HTS), referral and self-testing

This is a gateway to the functions 'A to G' on the WHO Standard (2004b) in the three IHEs. Due to poor leadership commitment and a low capacity with artefacts, most students were not aware of their HIV status (object) after receiving IEC. In CHAT, this affected the next object/component of referral. If communities did not know their HIV status, referral and enrolment on ARVs could not be effected. Across all the IHEs there was no disruption or "serious transformation of a structure... or activity" (Blin and Munro 2007, p. 488) in agency since the partners could not act on an unknown HIV prevalence of the students/staff. This defeated the purpose of collaborative testing. It was unclear which entity (between the IHEs and their HTS partners) owned the data that was submitted to the MoH, hence a risk of double reporting if both parties possessed and submitted the HTS data. A new component of HTS was self-testing. The challenges and opportunities associated with self-testing are discussed later in terms of how the innovation could not improve or hinder the IHEs' responses.

8.3.1.2 Management of opportunistic infections (OIs), ARVs and adherence

Management of adherence to ARVs and medications for OIs was impossible without knowledge of the HIV status. Although Lesotho adopted and launched the United Nations (2016) HIV Prevention 2020 Roadmap, the UNAIDS (2017) 3x90s strategy, HTS rates in the three IHEs was not immediately increased. Despite this, all three IHEs provided treatments for OIs and ARVs. One KI said "yes they come every month, except when the school is closing

[19] Ref: means referral to another service provider

and we give them three months' supplies" (NUKIF3). Adherence was interrupted by holidays and strikes. Bulky (three-months) supplies of ARVs risked access by users who concocted recreational drugs, e.g *nyaope*)[20] in South Africa (Mokwena 2016) and Lesotho. Support for adherence in the IHEs was poor due to denial, burn-out, stigma and lack of information to groups and individuals. Additionally, rehabilitation programmes for drug addiction in Lesotho were in their infancy and Mahloane-Tau (2010) lamented their poor effectiveness.

8.3.1.3 Prevention of mother-to-child transmission (PMTCT)

PMTCT was a component of ante-natal care (ANC). In CHAT, the 'object' was the risk of HIV infection to the unborn baby, and the 'outcome' was an HIV-free baby. PMTCT was offered at the LCE and NUL clinics, and its absence at the NHTC was a contradiction in the NHTC's mandate. The evidence showed three factors: first, despite the HEAIDS (2009a, p. 88) findings of a "much stronger aversion of pregnancy than HIV", the IHEs generally did not bar students who fell pregnant (in or out of wedlock) from studies. Second, the IHEs did not require such students to evidence ante-natal care, resulting in PMTCT not being managed in the IHEs.

Third, Lesotho's performance for mother and child health was generally poor (MoH 2015). There were poor modalities, mediators and dimensions of agency to enrol, sustain and monitor PMTCT. Because of these gaps, (MoH 2015, p. 43) the MDG Report showed a maternal mortality rate (MMR) of 1,155 per 100,000 births; a 61.5 per cent birth attendance by skilled personnel and a 70.4 per cent ANC coverage, with Lesotho faring poorest among five SADC countries. In CHAT, the IHEs' subjects lacked resources, artifacts and subject support to achieve multiple objects since AIDS was one of many poor indicators by the WHO, UNAIDS, MDGs and Lesotho's own national strategic plan goals.

8.3.1.4 Palliative care

This was not part of the IHEs' health services but featured in the NHTC and NUL's health sciences curriculum. Saint (2004, p.52) affirmed that the universities believed that it was "not appropriate for students with any terminal illness, including end-stage AIDS, to be in residence". This leads to the discussion on the rights of PLWHA and reducing stigma.

[20] *Nyaope*: mostly in South Africa, a smoking concoction based on certain ARVs called '*nyaope*' is known to be a common mode of drug abuse and believed to be a growing threat among youth in Lesotho's schools.

8.3.1.5 The rights of people living with HIV/AIDS (PLWHA)

This sub-section covers four aspects, broadly: faith, tradition, sexual reproductive health (SRH) and HIV discordancy. Some of the first entities to stigmatise AIDS by associating it with sexual immorality were faith-based organisations (FBOs) (Kymario et al. 2004). The artefact of violation was their IEC programme, by how it packaged and delivered messages on HIV/AIDS. For example, Figure 8.1 below shows a billboard near one cathedral in Maseru:

Figure 8.1: "God forgives" – A faith-based AIDS signage in Maseru
Source: Researcher (2015)

The above image represented part of the role of FBOs (here sponsored by a communications company), in a message designed to cause fear of AIDS. The message: "God forgives, AIDS does not" was an artefact of discrimination and stigma. It implied that AIDS was a punishable sin, despite Mahloane-Tau's (2016) call for acceptable information dissemination. Inadvertent messages by the FBOs could lace stigma into their domains of IHEs' responses.

Despite calls by some media that it should promote condoms, the FBOs generally rejected condoms and artificial contraception, saying it defeated chastity. The FBOs stayed with the message of AB *minus* C, and concurred with traditional, conservative Basotho custom to encourage abstinence until marriage. This violated sexual reproductive health (SRH) rights of the PLWA, with poor services. Regarding PLWHA and access to contraceptives, this study noted little evidence of adverse drug interactions between hormonal contraceptives and ARVs, to put PLWHA at an unknown risk even if condoms were unavailable in the three IHEs. With these complexities arises the concept of discordancy.

8.3.1.6 Discordancy, HIV and human rights in IHEs' responses

Discordancy refers to married or single couples with dissimilar HIV statuses: one is HIV positive, the other negative, or has not tested for HIV. In this study, the unknown status of one partner was considered a form of discordancy. The key question was: "what happened when one sex partner was HIV positive, and the other was negative or did not know their status?" Table 8.3 represents the views of NULs third year students incidentally asked during this study.

Table 8.3: A discordancy matrix[21] - HIV status and rights issues
Source: Researcher (2015)

	Discordancy Scenarios	**Women**		
Men		**HIV Negative**	**HIV positive**	**Unknown**
	HIV Negative	B. Excited B. Happy B. Committed (Estimated at 5%) **(A)**	M. Divorce W M. Abuse W M. Expel W (Est. 15%) **(B)**	M. Push test B. Separation M. Force testing (Est. 5%) **(C)**
	HIV positive	M. Resent. W B. Doubt B. Frustration (Est. 10%) **(D)**	B. Blame B. Abuse M. Divorce W (Est. 15%) **(E)**	(e.g. TB) B. Blame B. Suspicion (Est. 5%) **(F)**
	Unknown	B. Common B. Indifference W. Frustration M. 'Proxy' testing (Est. 10%) **(G)**	M. Blame W M. Abuse W B. Doubt M. Resentment (Est. 10%) **(I)**	B. Life goes on B. Naïve B. Unknown/risk (Est. 25%) **(J)**

Table 8.3 above shows in the squares marked A to J, the day-to-day life scenarios influenced by dissimilarities in the HIV statuses of couples. Clum et al. (2013) said sex partners treated each other relative to their HIV status, which affected disclosure in women with a history of abuse. In the three IHEs, concern over discordancy and how it affected students and their sex partners was rife. Although the discordancy scenarios were based on a class of just 30 students' inputs, they were informed by experiences and understanding of the lives of the respondents; being married, co-habiting or couples in a relationship and in the IHEs. The scenarios needed

[21] The discordancy matrix is this study's own invention. It shows for example that in the square marked (A) the men (M) and women (W) and both (B) test HIV negative. The mood is excitement, happiness and mutual commitment. There is no violation of partner's rights. An estimated 5 per cent of Lesotho's population live in this scenario. Square (J) shows that most people do not know their HIV status.

additional research to be validated, but the fact was that the abuse of rights among couples was linked to HIV status. Men were the main perpetrators and females were at the receiving end of such abuse. The matrix provided a basis for motivating HIV test linkages, case finding and treatment to improve the coverage under the UNAIDS (2012) 3 x 90 strategy. The next sub-section synthesises the functions related to communities.

8.3.2 Functions related to links with communities

Based on the WHO Standard (2009), this sub-section briefly synthesises two components: 'community links' and 'promoting health, preventing and treating disease' as the key aspects by which the IHEs have unavoidable and interdependent links with communities.

Although respondents cannot show how many IHEs students/staff engaged with communities at a time, it was arguable that smaller IHEs (e.g. NHTC) could reach more communities than larger ones (e.g. NUL). It depended, for example, on the expansion of IEC, ABC, curricula and sporting activities at each IHE. The LCE was strong on health promotion while the NHTC and NUL (through their faculties/departments of health sciences) should have been stronger on promotion, prevention and on-campus treatment. The quality of the functions depended less on the IHEs' economies of scale and more on group and individual leadership agency. Preece (2011, p.5), citing Schuetze (2010, p.25), defined community engagement as:

> …Collaboration between institutions of higher education and their larger communities... for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity.

This study had evidence of extensive community engagement, services and outreach as defined above. Although health promotion and the prevention of disease were not the core business in the IHEs, the selected ones had among them specific curricular obligations, evidenced by the LCE's health promotion manual, the NUL's AIDS policy and the NHTC's broad public health curriculum. Despite these, the IHEs lacked a deliberate, coordinated plan that could compare with Abel-Smith's (1994) planning steps to engage communities. Kelly (2002) noted piecemeal interventions, and four years later UNESCO (2006, p. 61) called on universities to "develop policy frameworks that locate[d] HIV and AIDS as part of the core business of tertiary institutions". This sub-section concludes that community links had specific challenges with HIV/AIDS and engagement opportunities were lost.

8.3.3 Functions related to HIV/AIDS service delivery

The WHO Standard refers to policy, leadership and human resource management, management of drugs and supplies, laboratory management, management information and financial management. The Standard is combined and summarised as it applied to the three IHEs.

The evidence showed wanting leadership in the IHEs' role to influence subjects to achieve policies, staff and finance for the response. Mukeredzi's (2009, p. 194) view on non-performance was that "failure to perform by any one node of the activity system affect[ed] global system performance, leading to lower achievement of the outcome by the entire system". The findings affirmed the IHEs' failures to perform at the top nodes, with less than adequate capacity in the IHEs to transform in respect of Zeithaml and Bitners' (2000) Seven-Ps of services (product, place, price, promotion, physical evidence, process and people) and the five dimensions of service quality (ibid, p. 82) namely: "reliability, responsiveness, assurance, empathy and tangibles". However, the relationship was generally poorly exploited (SARUA 2006; HEAIDS 2010) as students, even in this study, said they could not rely on services that did not answer their needs and expectations.

Because of limited staff (people) skills, the three IHEs had poor information systems. The KIs, (i.e. LCKIF4 and NUKIF3) affirmed frequent stock-outs of medicines in their respective clinics (place) and laboratory reagents (products/tools) needed to support HIV testing. This interrupted client's health outcomes, making it difficult to fulfil the promise to promote on-campus health services as part of the response. With finance**,** the common feature of the IHEs' architecture was their centralised distribution, minimal stock levels and long procurement processes beyond IHEs control. This made it impossible for AIDS focal persons/coordinators (subjects) to plan, implement and evaluate their direct contributions over time against the resources (artifacts) invested to fight HIV. The CHAT elements were imbalanced to enact the object, hence there was a systemic failure due to some nodes not contributing to the response functionality.

8.3.4 Reflections on WHO Standards in the three IHEs

This section showed how the collective IHEs fared in terms of health and the fight against AIDS. The core of the problem was that feedback rarely reached management due to gaps in the mediating health information systems (HIS). Although NIKIM1 said: *"for us as an institution we have to be dealing with facts and figures"*, leadership's decisions and attributes such as its commitment to develop capacity to fight HIV/AIDS were not informed with facts. Not that the facts did not exist; they just did not reach the decision making level, and when

they did, no action was taken. In ZPD terms, the WHO Standard (2004b) revealed that three IHEs subjects painted a large area in re-conceptualising what to do, a medium area of understanding the need to proactively meet customer support, legal obligations for policy and planning. The smallest area was the artefacts need to provide services, research and community outreach. Opportunities to expand frontiers against AIDS were lost. What key interplays featured?

8.4 Cross-cutting and interplay strategies in the three IHEs

This study's aim was to qualitatively interpret the collective activity of response in the three IHEs. This section covers 'links with communities' on the WHO model. The main ones are historical-cultural links, namely coordination, cooperation and communication strategy, IEC, ABC, MC and measurement. Additional analytic stools are thematic analysis (Table 4.4) and the expanded contradictions (Table 2.1) to address the following sub-sub-questions:

- What is the interplay among the IHEs?
- How do IHE subjects support interplay?
- What activities are involved in interplay?
- How does HIV/AIDS bring together an IHE?
- What common tools exist in the IHEs' interplay?
- What rules govern interplay?
- How do communities interplay with the IHEs?

The answers to these questions are analysed based on the selected programme themes of IEC, ABC, HTS, KYS, PMTCT, MC and research and curriculum featured in a comparison of the challenges and opportunities in the IHEs' responses.

8.4.1 Coordination, cooperation and communication

In answer to the refined research questions in the Analytic code, communication in this context represents IEC. In proportion to the threat of HIV in Lesotho's IHEs, there was very little interplay by coordination, cooperation and communication among the IHEs. The top management of the three IHEs did not themselves have any interplay regarding policy matters. There was little coordination among the leadership (top management). Some degree of cooperation was initiated by clinic managers and coordinators who discussed services improvement and evidence in clinics, albeit at a lowly level that could not make final decisions. Thus, it could not be said that HIV/AIDS contributed in any way to improve communication

to bring the IHEs together. The contradiction in ZPD terms was that the IHEs had not expanded to actual and potential public health threats other than AIDS.

The common tools in the IHEs' interplay were provided by the MoH and included mainly the HIV testing protocol whose rules governed any interplay. There was poor overall performance in IEC among the three IHEs. SARUA (2006); HEAIDS (2010) and Mahloane-Tau (2016) affirmed this across the SSA universities. Ntombela, Stilwel and Leach (2008, p.74) cited Marcus's (2002) argument for an information-based approach, saying the response required a "reflexive, flexible, information-based responsiveness in a terrain that [was] fast moving both in terms of its impact on societies…".

Kymario et al. (2004) said the scale-up of the national response was a "compelling priority" (ibid p. 135) that demanded integration across sectors. Evidence from the three IHEs, however, was that there was no agreed IEC strategy based on the national one. The contradiction lay in poor exploitation of ICT in the digital age, despite Lesotho (community) 95 per cent user rate of mobile/cell phones (MoH 2014). Thus, the gap in ICT (tools) usage for IEC and behaviour change (object) among the LCE, NHTC and the NUL's youth. This affected the ABC strategy.

8.4.2 Abstain, be faithful, condomise (ABC)

There was no evidence of purposeful interplays in the IHEs' top managements regarding ABC. The modalities, mediators and dimensions of agency for ABC lay with the student unions (SU) and student representative councils (SRC) through sports, academics, social clubs and associations. Each IHE had its own interplay with local HIV/AIDS and SRH service providers e.g. PSI, New Start, the LPPA and the MSF. The evidence showed conceptual and functional hindrances to the effective implementation of ABC. Students declared an inability to abstain, with a culture of MCP, unprotected sex and a high risk of STIs, while being choosy of condom brands. Students' collaborative networks however proved to be inadequately resourced and unsustainably managed to set and sustain appropriate IHE responses.

8.4.3 Male circumcision (MC) as an innovation platform for interagency work

In this study, as was evidenced in the findings on the three IHEs regarding VMMC; the leadership in the KIs confirmed knowing of plans to provide MC services. The contribution of the IHEs should `been to facilitate synergy between the traditional initiation schools and the higher education schools to benefit society. It would be beneficial to have teachers, chiefs, police, nurses, researchers, policy makers, etc. as alumni of both schools to access the 'inner circles' of the interplay.

In CHAT, MC expanded mediational tools and improved knowledge, attitudes and practices in universities, akin to Wondemagegn, Bayeh and Mulat's (2014) experience of improving community services. Van der Riet (2009) called this co-configuration. At the national level, the governments of Lesotho and of the United States (USG) through the Presidents Emergency Plan for AIDS Relief (PEPFAR), which invested 80 million US dollars in the *Lesotho Country Operational Plan 2017* (USG 2017). Despite these investments, new HIV infections increased in prevalence from 23 per cent in 2004 to 25.6 per cent in 2018 (USG 2017).

Figure 8.2: T-Shirt – a symbol of collaborative agency in Lesotho's response
Source: Researcher (2015)

Figure 8.2 above shows a VMMC promotion T-shirt bearing the logos of the Ministry of Health, USG-GOL Lesotho's Millennium Challenge Corporation (MCC), the United States Agency for International Development (USAID) and JHPIEGO, all working together to achieve the common goal of reduction of new infections and of prevalence through VMMC. The VMMC programme revealed deep socio-cultural and traditional issues underlying its performance. It was concluded that in relation to VMMC, the outcome/product of the collaborative work was T-Shirts, as was the case with the NUL PESP's failed longitudinal survey plan (NUL 2010), and Kelly's (2002) unchanging trend in national and IHE responses. The next subsection highlights the role of curriculum.

8.4.4 Curriculum, research, community - the 4th mission

Analysing universities' responses to AIDS, UNESCO (2006, p. 63) cited the "generation of knowledge through teaching and research as their core function". Across the three IHEs, AIDS research was driven by curricula, an influential artefact in CHAT to increase subjects' and the community's knowledge, agency and commitment. Preece (2011, p.1) noted that students had to "learn how to apply abstract knowledge in concrete situations for the purpose of problem

solving" and saw "higher education as a service industry" (ibid, p.2). This implied that IHEs had to aim for what Preece (2011), citing Oyewole (2010a, p.20), called "enabling knowledge" for community interventions. This aligned with the Community Participation model in the Ministry of Health and Social Welfare's (2010) framework.

The three IHEs supervised large numbers of student projects that collected community data on HIV/AIDS to fulfil research requirements, but rarely re-invested or communicated the findings from those communities to improve (health) education for community 'service' and 'engagement'. Preece (2011, p.5) observed "a growing interest" in the latter. In the third mission, three concepts of 'community service', 'community engagement' and 'community outreach' caused confusion. Preece (ibid) cited Schuetze's (2010, p.25) definition of 'engagement' as the "collaboration between institutions of higher education and their larger communities... for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity". From another angle, 'service' meant IHEs' "deeds, processes and performances" (Zeithaml and Bitner 2000, p3). Preece (2011, p. 4) cited Perold's (1998) interpretation of community service as "an activity that encourage[d] civic responsibility".

The three IHEs overlooked this ideal and showed little evidence of civic responsibility in terms of HIV/AIDS. While 'outreach' meant to 'reach out' to communities, Kelly (2003, p.13) noted a host of "practical consequences for university teaching, research and community outreach programmes" adding:

> …It is highly desirable that AIDS-related engagement with and service to society be incorporated into student programme requirements, particularly in countries with high HIV prevalence rates.

To conclude, the evidence distinguished between three aspects of community work. All revealed an urgent need to restructure the curriculum, for the third mission to achieve UN (2015) SDGs based on the post MDGs experience. In the three IHEs, there were no plans for curricula review to better address the response. In ZPD, the status quo prevailed and higher education lost opportunities in the middle of its main mandate.

8.4.5 Interplays in research, M and E, HIS and reporting

In terms of implications for research, HIS and M&E systems, this study found that the IHEs' capabilities to measure their own responses required expansion beyond institutional borders. It made sense to be able to compare the three IHEs' HTS data for an academic period. This did

not happen and depended on each IHEs' pro-activeness to re-assess its response, the implications thereof, develop research capability and implement M and E systems.

In the IHEs under study, the synthesis found little research on AIDS in the pilot IHE - the LP, more research at the LCE, a little more at the NHTC and more still at the NUL, much of it in the form of student projects. The triad of research, HIS and M and E could be represented in second generation CHAT as activity/process (research), object (HIS) and outcome (M and E), driven by subjects (researchers) and owned by the community (IHEs). The combined 'research, monitoring and evaluation' theme existed at the NUL (2009) and in UNAM's (undated) AIDS policies, to evidence the common felt need.

The evidence revealed that the current response data and HIS tools were not owned by the IHEs, but were rather prescribed by, submitted to and aggregated by the MoH. The data were not used for decision making (Checkland and Holwell 1998) at source, and took up to a year to be aggregated and published by the MoH. In turn, the MoH used the data for M and E but had no forum to share with the IHEs to reflect the collective and individual responses. In the end, the IHEs did not know how the data was managed, what decisions were made, and had no access to its aggregated and report formats for planning. This evidenced a serious contraction of opportunities in ZPD, unless a conceptual functional contradiction is resolved.

8.4.6 Self-testing - a cross-cutting, disruptive innovation in IHEs' response

The emergence of 'self-testing' had potentially favourable and adverse effects in IHEs. The new rapid, self-test kits would provide quick and easy HTS in the privacy of home. They would support Orem's (1991) Self-care model by giving the individual an agency to decide, diagnose and refer him/herself. It was a disruptive innovation, and invoked questions on how the subject would use the results, noting that a positive result could cause emotions ranging from fear, frustration, blame, stigma, to acceptance and improved self-care. Its usefulness depended on its promotion messaging as will be recommended later.

In CHAT, the self-test was a contradiction to the practice of testing provided by an HTS provider; it raised both concerns and opportunities - expansion, as the lone subject acted on his/her own unknown HIV status. Positive or negative, the implications of self-testing could destroy the opportunities found in testing by the IHEs' HTS clinics such as counselling, data aggregation and referral. Self-test products had to have guidelines on self-referral and self-care.

As well, innovations such as the new and effective ARV implant (Matthews et al, 2019), help to exploit opportunities in ZPD context for the expansion and resolution of the response.

8.5 From implications to emerging themes

This section answers the research question: what are the implications for education and training for key stakeholders? It is divided into two sub-sections. One covers the implications, which refer to what it means to have or not to have a specific capability in an activity, based on the contradictions in the IHEs' interplays. The second part will cover the emerging themes.

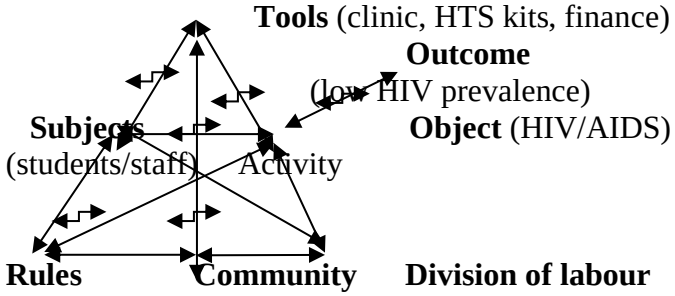
Between implications and contradictions, Mukeredzi (2009, p.81) related that although contradictions implied diversion from the expected norms and practices, they were not bad news, and could influence expansive learning, innovation and transformation. In her abstract, van der Riet (2009, p.v), noted on contradictions thus:

> Through an historical and current contextualisation of sexual activity CHAT-based analysis of the data enabled an articulation of contradictions and turbulence within the activity system. The problem of a lack of behaviour change is understood through this production of context.

This section recognized that expanded contradictions (Table 2.1) have implications and their articulation can help to produce context, in this case of what was wrong with the IHEs response. It adapts to and applies Engeström's (2001, p.137) affirmation; "an expansive transformation is accomplished when the object and motive of the activity are re-conceptualized to embrace a radically wider horizon of possibilities than in the previous mode of the activity". This study achieved beyond its object to interpret and analyse the response, by expanding contradictions to later draw a new model of unified concepts for the IHEs from the next contradictions.

8.5.1 CHAT related contradictions in the three IHEs' response

This study considered the conceptual, material and functional contradictions in all the IHEs, shown in Figure 8.3, with bent lines that represent the main areas of tension or turbulence.



(policies) (stakeholders) (managers, students' roles)

Figure 8.3: Contradictions in the three IHEs' responses
Source: Researcher (2018)

Figure 8.3 above represents the systemic contradictions, in types and categories across the three IHEs. Drawing on Zeithaml and Bitners' (2000) Seven-Ps of marketing mix, the interpretations of the five dominant relationships were:

i) **Subject-tools-object**

The contradictions in the three IHEs' responses arose as functional ones in which, first, the subjects (people) tasked with managing the response, did not have physical rooms/place to house activities such as HTS, dispensing medicines and recording service data. A second one was the recurring unavailability of test-kits (physical evidence) across all IHEs, with drug stock-outs impacting promotion and forcing clients to seek alternative HTS providers. The third functional contradiction involved finance, which was the IHEs least invested resource.

ii) **Subject-action-object**

In this triad, the conceptual and functional contradictions lay with the actors and their actions in the response. The promise of a response was unfulfilled because neither subjects (people) nor clients (community) could engage in IEC, HTS, KYS (processes) or any intervention with lacking mediating tools. An expansive aspect was HIV-self-testing. It implied that an individual student/staff member could self-test in privacy. This innovation disrupted the current HTS in the IHEs' responses by enlarging the students' responsibility to self-test, while shrinking the IHEs' ability to access their results and decide on the actions necessary. This more than doubled the importance of Orem's (1991) self-care promotion in IHEs.

iii) **Subject-rules-object**

Much of the lack of services in the selected IHEs was the result of a lack of enforcement of rules (national and institutional policies) to fight AIDS. The triad revealed tensions in the people's ability to conform and apply AIDS strategies and laws, such as the *Labour Code Amendment Act No 5 of 2006* (MoL 2006). This quaternary functional contradiction implies that, without enforcement, the mediatory functions of laws and policies remained embedded in dormancy against the declaration of AIDS as a national emergency back in 2003. Opportunities were gained and lost, while HIV thrived.

iv) **Community-tools-object**

The evidence showed at least two primary conceptual contradictions: first the three IHEs students shunned both adult and peer service providers (a dilemma of the people element) for various reasons. The tension lay in community-tools-object as in the subject-tools-object relationship, with the difference being that what subjects found acceptable (e.g. user-fees (price)), the communities said it hampered accessibility, availability and affordability of services. A second contradiction involved data and HIS: although HTS services varied between the IHEs (places), data to inform (promotion) all the IHEs of their specific vulnerabilities and achievements was lacking. In expansion, lack of information became a new object, required new artefacts, subjects and rules, such as finance and staff and which were not forthcoming.

v) **Community-object-outcome**

In conclusion, the rationale for the IHEs to mobilise communities (promotion) was to engage them in the response. However, contradictions with places (campus and community clinics), user-fees (price), service stages *(processes)*, treatments (physical evidence), and the people (staff) managing the services often led to clients deciding to use or ignore them.

8.5.2 Three emerging cross-cutting contradictions in the three IHEs' responses

This section marks an important summary of the overall expanded contradictions (Table 2.1) and services interpretations that cut across the three IHEs' responses. The interpretation also identifies, combines and explains the three most dominant islands in the archipelago of issues using the analytic steps of 'characterise, cut, code, categorise, convert and create' to arrive at the final findings and meaning of the data.

The contradictions pivoted around first, the role of subjects/people leadership skills, attitudes and agency as the most influential factors for writing and implementing the IHEs' AIDS policies. These combined into one word - commitment. The second contradiction lay with tools/resources, for example finance, test-kits or "tangibles" (Zeithaml and Bitner 2000) as mediators of HTS; the first step to locating the object (HIV) to be acted upon. The third contradiction lay with service designs and processes, means of access, signage, etc. that were underdeveloped and unable to support the response adequately. The single combining word for the second and third contradictions was capacity.

The fourth was poor data and information systems; evidenced by KIs, FGD participants, and documentary and observational data. It showed that the three IHEs were unable to collect, categorise, cut, code, and convert data into information with their NGO partners. The fifth contradiction was that the object (HIV) required HTS, which was poorly promoted, received

the lowest test rates and affected ARV rollout. Hence each IHE's concern over the threat of AIDS could not be evidenced. These last two main findings could be summarised as involving tools of evidence and a need to justify services. In this case the researcher used one umbrella word - concern - as the new object to be enacted.

The three key concepts of commitment, capacity and concern, henceforth called the Three-Cs (of response) in this study, were thus identified to represent and interpret the three IHEs' responses, beyond the findings as emerging themes. This was in preparation to discuss the implications of transforming the response by triangulating the Three-Cs.

8.5.3 Interpreting the emerging Three-Cs themes

This sub-section is based on the findings and cross-cutting contradictions. It triangulates the aspects of commitment, capacity and concern, showing dichotomies of a qualitative contraction or expansion, making contradictions clearer and opportunities identifiable. It draws from a paper presented at the IHEs' forum by Maraka, (2008), as in Table 8.4 below.

Table 8.4 – Continuum of key factors influencing the IHEs' responses
Source: Researcher (revised 2015)

Key IHEs response component (in CHAT)	Continuum or two-way scenarios	Interpretation in 3-Cs context in IHEs
Policy (Rules)	Availability vs. absence: whereas the IHEs need a policy to guide its response, the contradiction of having not having one means the risk of ad-hoc interventions.	Legal tools Commitment
Leadership (Divisions of labour)	Seniority vs. accessibility: The IHEs placed top managers to lead its response, hoping to leverage commitment and capacity. In contradiction, the leaders (e.g. VCs/Registrars) were rarely accessible to the AIDS committees.	Commitment
Services (Activity)	Core vs. supportive: Is the response to AIDS core or only supporting of core business?	Capacity for activities
Finance (Tools)	Cost vs. risk: despite the high cost of the IHE's response, the risk of cutting costs by not having a policy defeated its purpose in education.	Capacity
Community (Community)	Students vs. staff: The challenge was to develop policies appropriate to both students and staff, resulting in no policy due to the various complexities.	Concern or focus issues
Beneficiaries (Community)	Internal vs. external: a range of complex issues arose between writing a policy for students and staff and also addressing the external community.	Concern or focus

Table 8.4 represents an expression of how the key IHE response components were interpreted in CHAT-related components and affected the response by contraction or expansion; by being in place; and whether when in place they were accessible, available and affordable. Many influential aspects such as condoms were left out in the above example. The next sub-sections discuss the implications for IHEs when using the Three-Cs model to evidence their commitment to lead the response, improve capacity and raise, share and decide on the evidence of concern in HIV/AIDS.

8.5.3.1 Commitment in IHEs' responses

The implications for commitment were based on this study findings of finger pointing by KIs and FGD participants, documents, the researcher's observations to each IHE's 'leadership' challenges fighting AIDS. The data sources used the three concepts to describe global and local statements (commitments), human and material resources (capacities), and issues in addressing the (concern) AIDS. Mukeredzi (2009, p.292), stated:

> Whatever support and resource systems and structures may be put in place, unless the individual possesses some level of commitment to professional development, and has a sense of professional identity with it, professional development will not occur.

Professional development, like the response or any other collective work, suffered when there was poor commitment, most notably among the leadership. The 3-Cs of commitment, capacity and concern were interrelated as objects actionable in Johnson and Scholes' (1999, p.11-13) three "levels of strategy" in an organisation, namely:

- *Corporate strategy:* was concerned with the overall purpose and scope... to meet the expectations of... shareholders to add value to different parts of the enterprise;
- *Business unit strategy:* used strategic business units (SBU) and was about how to compete successfully in a particular market;
- *Operational strategy:* was concerned with how the component parts of the organisation... resources, processes, skills effectively delivered the corporate and business level strategic direction.

These were commonly called 'top, middle and operational levels' respectively. First, how did commitment relate to organisational strategy and the activity system in the IHEs' responses? This study used two modes of commitment, one was moral and the other was financial.

i. The moral commitment

Perhaps a more profound, yet intangible form of leadership commitment to the response was moral commitment. One KI said:

> A: Even as we show commitment in speeches and in allocation of resources… things that go unchecked… policy statements… are just rhetoric, if… not followed by practice… **(LCKIM1)**.
> Q: As part of that commitment?
> A: As part of the commitment but that allocation has to be followed by strategies for the use of those resources **(LCKIM1)**.

The KI acknowledged that IHEs made promises in speeches, but did not fulfil them with resources for interventions. The resources came via strategies, and progression from policy 'speeches' to the 'allocation of resources', translated into 'strategies for use' in the response. One early tie of commitment to leadership in response to AIDS came from the Panos Institute (1998, p.ii), which lauded a global response by governments, while lamenting "relatively few heads of governments having personally committed themselves to anti-AIDS mobilisations".

The World Education Forum (2000) emphasised commitment to the goal of education for all in the framework titled '*Dakar Framework for Action, Education for All: Meeting our Collective Commitments*'. One of its objectives was "to address the challenges posed by HIV/AIDS" as a cross cutting issue (ibid p. 2) and to that end, inter alia, it "enlist[ed] the needed political will and commitment from the country's political leadership". This was followed by the UNFPA's (2006, p.1) press release titled *'Prevention must be the mainstay to responses to HIV, world leaders reaffirm'.* Its preamble read:

> Twenty-five years into the AIDS pandemic, leaders of the world united here … adopted a political declaration that commits them to pursuing all necessary efforts to scale up national responses to achieve universal access to comprehensive prevention programmes, treatment, care and support in slightly more than forty months.

This supported LCKIM1's view as his "policy statement" related to top management's role to show commitment, while the UNFPA (2006, p.1) spoke of a "policy declaration that commits". LCKIM1's "allocation of resources" involved "all necessary efforts to scale up… responses" and "strategies to implement the policy", which meant operational level activities "to achieve …access, prevention… treatment, care and support". The statements affirmed the researcher's

view that the IHEs' response activity systems were rooted squarely in top managements' commitment.

A key enabler of commitment was agency. It provided top management with the psycho-social modalities that included "knowing, wanting, having a possibility and being able to do something" for strategic leadership to the response. The MoET's (2007) strategic plan for higher education suggested that commitment to answer a cause was inextricably linked to a community or organisation's key actors. Nattrass (2008) wrote of the resource context of commitment and asked whether leadership deserved good and bad reputations over response.

ii. *The monetary commitment*

This view of commitment was typified by the World Bank's (2008, p. 2) *Commitment to fight HIV/AIDS in Africa*. In it, the bank reaffirmed its long-term commitment to curb the spread of AIDS in Africa. In Lesotho, the MoET (2005, p. 136), when costing and financing the Education Sector Strategic Plan (2005-2015), lamented that "fictitious resources [we]re that part of the budget allocation for which the GOL [had] yet to mobilise resources externally and for which no commitment ha[d] been secured from any development and cooperating partner".

In a contradiction to that, the World Bank (2017) Lesotho Health Sector Expenditure Review showed major differences in the data on budget utilisation across Lesotho's health sector, with poor capital and developmental budget absorption. What interplays occur between the bank and government ministries may never be found but the evidence suggested gaps in commitments between global agencies and governments. The SARUA (2006, p.84) reported on monetary commitment linking it to capacity:

> The agreement between the EU and the SADC will provide funds for regional trade integration... HIV/AIDS… while excluding higher education and human capacity development as beneficiaries.

This showed how monetary commitment an active concept, yet difficult to realise due to the ironies in implementation. Finance overlapped conceptual commitment and functional capacity as an enabling tool. In CHAT, moral commitment was as much an object as monetary commitment, save that the two had to have the same subject and different rules, tools, divisions of labour and outcomes. The contradiction was that the object of moral commitment was people's attitudes and actions, yet it did not fund an architecture that benefitted IHEs.

In conclusion, the findings on the IHEs' leadership and financial commitments evidenced chronic parallels which lacked synergy. The leadership never 'put their money where their mouths were', hence 25 years into the national response, IHEs were still wanting in overall performance, as shown by the combined assessment in the WHO Standard (2004b). The next sub-section focuses on the second of the emerging Three-Cs: capacity.

8.5.3.2 Capacity in IHEs' responses

This sub-section defines and explains capacity, using it to interpret the role of IHEs middle level management. Summers (2004) defines capacity (n) 1. as the power of containing, receiving, experiencing or producing and 4. as 'legal competence'. This shows that capacity has several broad meanings, one of which, according to Enemark (2003, p.3), citing a UN paper on Capacity Assessment and Development (UNDP 1998), means:

> Capacity can be defined as the ability of individuals and organisations or organisational units to perform functions effectively, efficiently and sustainably.

Aspects of this definition concurred with Enemark's (2003) views of capacity as an on-going and active process, showing human skills and finance as central to capacity, and that the context of an organisational function must be considered when developing capacity. Based on the "allocation of resources" cited by LCKIM1 and the UNDP (2017) which noted the pursuit of efforts to undertake responses as a duty of commitment, this study linked capacity to the activities of middle management. While top/strategic management provided leadership and the monetary commitments needed for the IHEs' responses, the business unit strategy at each IHE (SBUs e.g. AIDS Programmes) was concerned with successfully competing in a particular market (Johnson and Scholes 1999), herein, the response.

Thus, in CHAT, capacity was an object to be acted upon by subjects to improve it (outcome). It had specific tools and rules that enabled it. Zeithaml and Bitner (2000) discussed 'managing demand and capacity' as key in their services mix. SARUA (2006, p. 6) identified eight major features of the higher education landscape, the second of which was that:

> …Demand for higher education has outstripped capacity and this has, in some cases, led to overcrowding and concerns about the quality of offerings.

To address overcrowding and the quality of the offerings implied the need to improve functional (administrative) aspects of "time, labour, equipment and facilities" (Zeithaml and

Bitner 2000, p.374). Saint (2004, p.69) characterised the link between commitment and capacity in one university thus:

> The institution had commitment and conviction that a policy was required for prevention, control and reduction of HIV/AIDS but did not have adequate capacity and resources to develop the policy.

These findings culminate in and typify awareness of the link between commitment and capacity in higher education. It urges commitment and capacity in the thinking of the subjects; a primary and conceptual contradiction. One KI summarised a link between activity and mental processes and between capacity to personal ability thus:

> A: And mentally, the training has all those modules; self-awareness, self-esteem … umm, in other words empower them to have the capacity to say 'no' when they have to say 'no' **(NUKIM1)**.

The KI explained capacity in the context of personal, mental capability, self-awareness and consciousness; keys of agency and decision making. Kelly (2002, p.12-13) noted "laboratory capacity" and "learning capacity" in African universities' responses. Capacity derives from capability: (having the necessary quality for); capacitate (to make legally competent) and capacitation (to make capable of a particular action or legally competent to act) (Kelly 2002).

The concept of capacitate combines of 'empower' and 'enable'. The three IHEs did not to invest in and sustain capacity in their various contexts to improve their responses. It was fair to conclude that the evidence of poor capacity in the three IHEs signalled middle leadership failure. The next sub-section discusses 'concern' as the third emerging theme of the Three-Cs model – a product of this study.

8.5.3.3 Concern in the IHEs' responses

Concern in this study was the third of the Three-Cs and focused on evidencing evidence. It is defined in the Concise Oxford dictionary (2013, p.102) as a verb meaning 1 a) 'be relevant or important to' and 1 b) as 'relate to, or be about'. It is also used as a noun meaning 'anxiety or worry' and 2 a) as a 'matter of interest or importance to one'.

Concern was used in this model for two reasons. First, it was frequently used in literature to indicate priority or urgency. The HEAIDS (2010, p.92) stated "academics and workplace managers tended to see HIV and AIDS as an exceptional concern to be dealt with as a project,

rather than a core concern". The UNESCO (2010, p.1) AIDS Regional report laments that "the HIV infection rate of young women was four times that of young men in 2005, and the feminisation of AIDS in Africa is a growing concern…". The combined weight of women's HIV infection and its description as a concern validate this argument.

Bennell, et al. (2002, p.i) said that "despite the mounting concern about the vulnerability of young people in SSA, there [was] still not sufficient information … in response to the AIDS threat". Stefan et al. (2015) discussed risky sexual behavior as a concern among men who had sex with men (MSM) and the youth. In IHEs service points, the HEAIDS report (2010, p. 98) noted "concern regarding confidentiality of clinic staff... who gossiped ... HIV-positive status". Van der Riet (2009, p.20), cites (Viswanath & Finnegan, 1995) view; "the knowledge-gap hypothesis, … become a central concern with the field of behaviour change".

The above examples used 'concern' to show the gravity or seriousness of HIV/AIDS (object) in the IHEs, cutting across IEC, ABC, HTS, PMTCT and ARV services. Applications ranged from 'exceptional concern', 'core concern', 'community concern', 'disempowerment… and concern', 'mounting concern', 'concern over confidentiality' and 'concern about information availability' etc. One KI also stated that IHEs had to see HIV/AIDS as:

> …It must be mainstreamed as one of our concerns for study and research and community engagement, which is why it features among the seven thematic areas **(NUKIM1)**.

The KI proposed mainstreaming AIDS as a flagship area in community engagement. In CHAT, this was interpreted as a subject committing to the response as an object for action in Preece's (2011) fourth mission. Although 'concern' was evidently an overarching concept in the IHEs' responses, it was not in policy. Enemark (2003, p.3) made the connection:

> … Even if the focus of concern is a specific capacity of an organisation to perform a particular function, there must… be a consideration of the overall policy environment and the coherence of specific actions with macro-level conditions.

This view shifted concern over AIDS from a concept into a functional policy (Hanekom 1978) element that considered the evidence in the IHE environments. Relating to Vygotsky's first generation of CHAT, the Three-Cs model can be represented as: 'concern' shown by evidence of the 'object' (AIDS), which was acted (mediated) upon with 'capacity' by people (subjects) who had the 'commitment' and agency to do so.

8.6 Rethinking the Response

This sub-section summarises the study's view on how to re-conceptualise and re-contextualise the response based on the evidence from the three IHEs. It is divided into two parts: first is the role of the Council on Higher Education (CHE) and second is the structural relationship between CHAT, the Three-Cs model, and levels of strategy.

8.6.1 The role of the Council on Higher Education (CHE)

This sub-section argues that based on the findings on the three IHEs' current responses, interplays, strategies and the implications thereof, one very critical actor to influence change was the Council on Higher Education (CHE). Examining the role of the CHE provided answers to the four research questions in general, but related to these two in particular:

- What was the interplay between the IHEs' management and clients in the response?
- How could strategies be developed to improve the quality of the IHEs' responses?

The Government of Lesotho established the Council on Higher Education (CHE) through the Higher Education Act of 2008, with a particular role in quality assurance:

i. The role of the CHE in quality assurance

The mandate of the CHE was to provide regulatory, accreditation and quality assurance (QA) frameworks to all IHEs, through its mission outlined in its Strategic Plan (CHE 2010, p.16) to:

> … Facilitate the creation of an enabling environment that defines, promotes and maintains academic excellence in higher education in the country in order to advance national development and instil public confidence in the sub-sector.

The mission embraced partnerships among the IHEs and their stakeholders, and supported ten Key Focal Areas in its Strategic Plan (CHE 2010, p.18). Two key focal areas for IHEs' were:

- **Focus Area Three:** Developing Quality Assurance Systems and Mechanisms;
- **Focal Area Nine:** Managing the spread of HIV/AIDS in institutions of higher education.

Furthermore, Objective 9.1 of the CHE's Strategic Plan envisioned "HIV and AIDS policies and implementation plans in place within IHEs", with activities including facilitating a "review of [the] existing HIV and AIDS policies and the development of new ones in institutions where

they [did] not exist". The CHE's strategic assumptions often cited "cooperation" and "commitment" by the MoET and the IHEs. These provisions empowered the CHE to improve the responses in the IHEs. The ways in which this study's KIs expected the CHE to do so included, but were not limited to, requiring the IHEs to develop AIDS policies; providing technical support and monitoring the activity of policy implementation (e.g. NUKIMI). What contradictions existed then in the CHE's mission?

ii. Contradictions in the CHE's role in the IHE' responses

At the completion of this study the CHE could not evidence the IHEs' AIDS policy statuses due to its own contradictions in commitment and capacity. The evidence suggested a lack of five critical success factors or *enablers* such as leadership, policy, finance, representation and strategy. First, the CHE's current strategic and technical leadership was limited in these four respects, which resulted in unmet expectations and promises, which expanded the responses' contradictions and tensions.

The second contradiction involved the AIDS *policies.* For example, the LCE had a draft policy, a clinic and a life-skills manual (2012a) on sexual reproductive health. The NHTC had no policy and no clinic, but had a strong health curriculum. The NUL had a policy, a Faculty of Health Sciences and a clinic. This inventory implied that the CHE had to insist that the IHEs comply with the regulations, instead of just assuming that they were cooperating. Under the CHE's strategic assumptions, a third contradiction was poor funding. Without commitment from the MoET, funding was an excuse for inaction by the CHE. One KI said:

> A: ... Even the Council on Higher Education demands that structures be available.
> Q: As part of quality assurance?
> A: Exactly. So I have... a list of items that we will need to continue with the WC, although I haven't submitted to the stores person to continue... So... we haven't closed it, it's just that the services are not active in the way they have been expected to run **(NHKI4F)**.

A fourth contradiction was that despite the IHEs' representation in, and literal constitution of the CHE, there was no synergy for cooperation, collaboration and communication on Strategic Focus Area Nine above, in the IHEs. This implied lost opportunity for leaders to influence home responses via the CHE. A fifth contradiction was that the CHE had no **specific, focused strategy** per IHE, to require each health and non-health oriented facility to improve its responses in ways best suited to its curriculum.

This synthesis concluded that the CHE paid little attention to ensuring compliance to quality control activities regarding each and all IHEs' responses. It had limited visibility and only top management KIs recognised its role, while none of the FGD participants mentioned or recognised it. Recommended actions specific to the CHE will follow. The next sub-section synthesises the role of the Three-Cs of commitment, capacity and concern in the IHEs.

8.6.2 Relating CHAT to the Three-Cs to improve IHEs response

Having summarised the implications for key stakeholders above, this sub-section argues that the selected IHEs need not new structures and resources; but need a re-think of their current intervention strategies. The new approach was based on inspiring 'commitment', improving 'capacity' and producing 'evidence', aligned to CHAT, as shown in Figure 8.4 below:

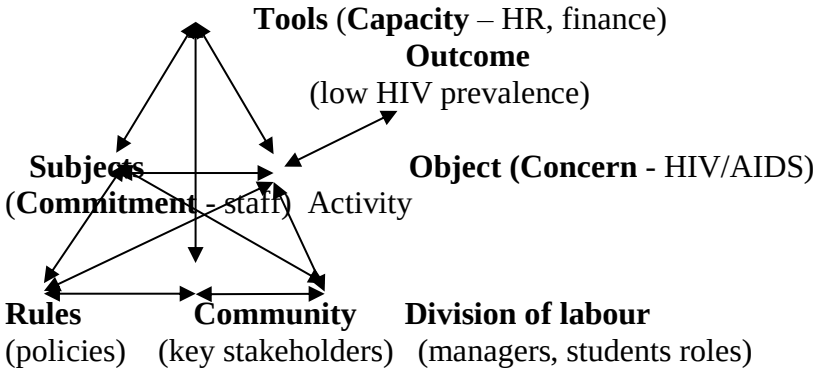


Figure 8.4 - Locating the Three-Cs in CHAT
Source: Researcher (2018)

Figure 8.4 shows that rethinking the response required first**,** a link to recognise that CHAT accommodated the Three-Cs, with 'subjects' relating to commitment, 'tools' representing capacity and object being the concern over HIV/AIDS. It included the community, rules and the division of effort in the second generation, and then further when each of the Three-Cs assumed object status in rethinking the response. Second was that leadership was key. Assessing one university's response, Rau (2009, p.80) found that:

> … Leadership structures, such as the HIV/AIDS Task Team and the Human Resources Division, were hardly mentioned, which suggests a need to improve their visibility. Leadership (particularly leadership from the 'top') is repeatedly mentioned in the higher education literature as being central to successful HIV/AIDS responses.

Similarly, the three IHEs' 'task teams were not mentioned, although the NUL's policy included an AIDS Committee. Saint (2004, p.8) asserted:

> The fight against HIV/AIDS requires leadership. Tertiary level staff and students are traditionally among the leaders of their societies, and their active commitment is essential to the development of open national debate and action responses related to the HIV/AIDS epidemic.

The findings pointed not only to the need for leadership, but also to its role in commitment, debate and action. Hence thirdly, the Three-Cs became objects for the top managements' overall leadership, with the middle level supporting capacity and the operational level performing day-to-day activities to evidence and answer the concern. The actions rarely occurred, indicating poor agency to the Three-Cs.

Fourth was the curriculum, research and students' roles in community engagement. As Talwar and Rahman (2015, p.36), citing Rai et al. (2009) observed, science students (e.g at the NHTC and the NUL) had a better awareness of STIs compared to those at the LCE (no science faculty). The IHEs did not exploit these attributes, and lost opportunities to fight ignorance, improve IEC and promote ABC practices.

Fifth, the monetary resources needed to develop the IHEs' responses only came in "in trickles" (AAU 2010, pp.8,23) and with conditions pre-set in terms of cost-sharing and partner contributions amid 'donor fatigue'. Recently, the USG and the Government of Lesotho signed a USD 250 million contract to fight AIDS (Qaitsane 2018, p.2). The contract included a men's health programme for rural areas. Both national and IHE leaders needed sustainable financing.

The sixth implication was poor planning, policy and strategy tools (Abel-Smith 1994). The three IHEs were looking to know where they were, deciding quantitatively where to go and how to get there, deciding how far to go towards their targets, attempting to get there in time, and performing regular evaluations to assess where they were not on target and how to improve in future. The complete lack of planning, policy and strategy tools in the IHEs led to ambiguity (Hanekom 1978) and contracted their opportunities, and thus needed a re-think.

The seventh and final rethink for the period between the setting of the UN (2000) MDGs, the SDGs for 2030 and the AU Agenda 2063 was that IHEs would foreseeably remain key social entities. With emerging public health threats (e.g. drug resistant TBs, Ebola, etc.), climate

change, natural disasters and conflicts, IHEs had to prepare to deal better with new health threats better than they did with AIDS. This implied a need to rethink IHEs partnerships, community engagement, services, research and new response approaches.

8.7 Conclusion

This synthesis chapter revealed the joint profile of the three IHEs' responses. The histories were nearly the same in rationale, implementation and resourcing of the responses. The difference arose in the levels of the individual IHEs' leadership commitment, organisational capacity and ability to evidence the concern that sustained them through resource limitations. The key strategies of IEC, HTS and KYS were mostly poorly performed. This invoked transitions in the responses through contradictions, to implications, and to emerging themes, in this case the Three-Cs of commitment, capacity and concern.

Triangulating the Three-Cs helped to interpret the outcomes of the responses, with their contradictions, systemic tensions and turbulences that provided alternative ways to see them. In the ZPD context, the three IHEs were embedded in a historical, non-progressive mode of unchanging commitment and capacity, with limited resources and agency. Drawing from the findings in this study, a schematic representation of the zone of proximal development (ZPD) of the three IHEs' abilities in their responses is shown in Figure 8.5

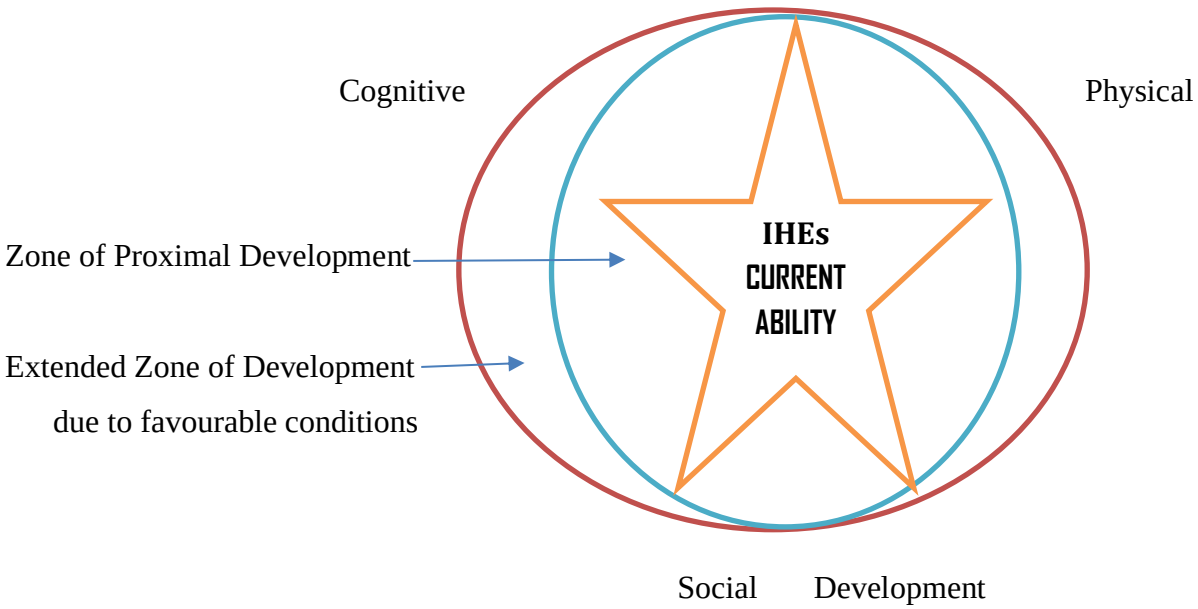


Figure 8.5: A representation of the ZPD of the three IHEs' collective responses

Source: Researcher (2018)

Adapted from Vygotsky's (1978, p.86) definition of ZPD as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers". Figure 8.5 represents this study's view of the ZPD in the three IHEs' responses. The IHEs (star) occupy the smallest conceptual, material and functional space – missing opportunities at the top, middle and operational levels, failing expansion and the resolution of challenges. A vast space is open for improvement. The next chapter concludes the study and draws recommendations to improve the response.

CHAPTER 9 – CONCLUSIONS AND RECOMMENDATIONS

9.1 Introduction

This study set out to qualitatively interpret the three IHEs' responses to HIV/AIDS. This chapter presents the conclusions and recommendations of the study, drawing from CHAT, incorporated theories and models, the findings and the synthesis. It has four main sections. First, the introduction revisits the nexus of response (Figure 1.3), overviews the study chapters, the synergies, current responses, interplays and strategies in the IHE. The second section covers the implications for policy, resources, the curriculum and key stakeholders. The third covers recommendations for the IHEs leadership, policies and services, in a new configuration of known management concepts to re-launch the response. Fourth is the contributions and limitations of this study and the conclusion. The next sub-section reminds the reader of the nexus of the IHEs' response.

9.1.1 Revisiting the nexus of the response

The nexus of the response began as an intersect of the IHEs as subjects, HIV/AIDS as an object and services as mediating tools. It expanded, first to reveal AIDS in the IHEs as a global, national and institutional issue. It was evaluated using the WHO Standards (2004b). The second expansion covered services for HIV/AIDS and employed Zethaml and Bitners' (2000) Seven-Ps of services marketing mix to refine the interpretation of the current strategies, interplays, and the implications of the IHEs response. The third expansion showed the IHEs subjects roles in contradictions that emerged as Three-Cs of leadership *commitment*, *capacity* building for services to show evidence for the *concern* with HIV/AIDS.

This conclusion notes that the CHAT principle of expansion and the ZPD were not easy tools. Creswell (2003) explained that the qualitative study was about the researcher making meaning of the participants' replies and their environment. This could suffer the researcher's own subjectivities. However, the tools of expansion and ZPD were successfully applied, mainly because the nexus of response (the unit of analysis), maintained strong cohesion with CHAT, and its core and incorporated theories, models and concepts.

9.1.2 Overview of the chapters

This section summarises the functions and key points of the nine chapters, showing how they relate, one to the next in qualitatively interpreting the three IHEs responses. Chapter One summarized the history of Lesotho, the current country situation, the escalation of HIV and AIDS and its concern for Lesotho and the youth in IHEs. The chapter originated and argued a

trilogy of HIV/AIDS, IHEs and services and their nexus. It covered the problem statement, the study objectives, the research question, the researcher's personal motivation and the main historical and current regional, national and institutional policy contexts. It left no doubt that Lesotho's IHEs are the bedrock of national development and need to urgently respond to the public health threat of HIV/AIDS.

Chapter Two laid the theoretical framework, CHAT as the lens used to study the response. It evidenced the relationships between the IHEs' responses and CHAT in its three generations. The chapter justified the researcher's use of the five principles of CHAT, dominated by contradictions and expansive transformation in Engeström's (1999b) third generation. The shortfalls and adaptability of CHAT, enabled the incorporation of well-matched theories and models, principally the WHO Standards (2004b), Zeithaml and Bitners' (2000) Seven-Ps of services marketing mix and Checkland and Holwell's (1998) Information Systems. The synergies of the incorporated models suited the interpretive analysis of the response.

Chapter Three provided the literature review, highlighting mostly regional, some national and some international research on responses in universities. The literature was based on three areas: the unit of response - focus of the case study, the documented research in universities and relevance to the research questions. The literature affirmed that HIV/AIDS was a major concern in IHEs; that students were part of vulnerable communities, highly mobile and exposed due to their engaging in multiple concurrent sexual partners. The literature supported linkages between CHAT and the IHEs' response components, and evidenced unchanging cultures (Kelly 2001) in teaching and learning, while calling for the infusion of AIDS into IHEs curricula. With case-specific contradictions, the chapter related 'agency' and 'planning' to the response, and aggregated leadership as the single most pivotal aspect of the response.

Chapter Four described the methods, the interpretive paradigm, and a qualitative approach to collecting and analysing data using derivatives of CHAT. The study collected data via KIIs, FGDs, documentary review and to some extent observation. It was thematically analysed against the background of and in answer to the research questions, and it exemplified the WHO model as a monitoring and reporting tool for the IHEs response.

Chapters Five, Six and Seven presented the findings on the LCE, the NHTC and the NUL, respectively. The chapters showed in the same format the current strategies, interplays and implications of the responses in each of the three IHEs selected for this study. Overall, there

were similarities in the historical motives for the health services in each IHE: to provide basic health services. This was overtaken by a pressing need to provide additional services for AIDS, which was the case study. The WHO Standard (2004b) yielded qualitative findings to validate that the response was needed, but yet poorly capacitated in the three IHEs.

Chapter Eight was a comparative analysis of the three selected IHEs findings. The comparison interwove CHAT, the WHO Standard, the Seven-Ps of services marketing. It interpretively and qualitatively analysed the IHEs response components and functions using the WHO Standard (2004b). The findings revealed a lack of policies, too few dedicated staff, lowly and disproportionate unit budgets, stock-outs of clinic supplies, delays incorporating AIDS into the curriculum and students' attitudes that derided HIV/AIDS-related services. This culminated in the IHEs' commitment, capacity and concern for AIDS as the themes for transformative action, in the conclusions and recommendations in Chapter Nine.

9.2 Conclusions related to the research questions

Following the overview of the chapters, this sub-section re-introduces and draws conclusions specific to each of the research questions. Several cross-cutting issues are identified due to the study methodology and literature which dominate the findings and analysis. The conclusions represent this study's own final qualitative interpretation of the responses. The first question involves the extent to which the three IHEs' responses acted in synergy.

9.2.1 The extent of the IHEs' synergies in the response

This section answers the main research question of: "to what extent did current strategies in the IHEs' responses and services operate in synergy against HIV/AIDS in Lesotho?" To address the broad question, this thesis considered the IHEs' engagement to fight AIDS as an object and threat to national development. Kaptelinin's (2008, p.5) summary view was that:

> To sum up, objects of activities [could] be considered powerful sense-makers, both for subjects of activities and for researchers. On one hand… [provided] a basis for both rational and emotional dimensions of setting priorities and goals, commitments, planning, and coordination. On another hand… helping to structure and interpret otherwise fragmented and confusing empirical data.

Thus, the research question was answered by breaking down the 'objects of activity' into sub-questions that were then used to interpret the responses from their fragmented data. Each research question was answered in the context of activity synergies among the IHEs.

Overall, the **synergies** in the IHEs were nascent against the history of HIV in Lesotho. The IHEs' responses were guided, but not actively supported, by the apex management levels. This was evidenced by unwritten, poorly articulated and subjective AIDS policies. The leadership of the three IHEs rarely converged for synergy on a collective strategy, despite all KIs and FGD participants admitting the necessity for this. Due to unlinked leadership, there was no sync in monetary or skills transfer, although students (FGD participants) acknowledged collaboration through sporting activities.

Regarding **services**, the IHEs did not see the nexus of HIV/AIDS, higher education and service promises. Services thus had little promotion and Mahlaone-Tau (2016) bemoaned that "…health promotion educational efforts often appear[ed] to lack the ability to influence attitudes or bring about expected behavioural change" among the IHEs youth. The health promotion was thus limited and did not influence expansive resolution of a behaviour change crisis now well-known in IHEs. All three IHEs' FGDs reported the cost of health services as a major barrier. This concludes the summary on the synergies. Next is the current response.

9.2.2. Current institutional strategies

The first of the four research questions in this study was: what institutional strategies and services existed in the three IHEs for HIV/AIDS? Its answers called for an audit of the IHEs' current strategies, based on the WHO Standards (2004b). This related to Kaptelenin's (2005, p.5) call for "rational and emotional dimensions of setting of priorities and goals as well as commitments, planning and coordination". However, Abel-Smith's (1994) planning steps did not apply in setting priorities and goals, hence in ZPD terms, gaps between where the selected IHEs aimed to be and where they actually were at the time of the study could not even be measured. The IHEs historically lagged behind the times, and were poorly responsive, especially with vulnerable communities where ignorance (HEAIDS 2010), poor condom use (UNAIDS 2008), multiple concurrent sex partnerships (National AIDS Commission 2008) and hidden sex work were key high risk factors.

The premier strategy in the IHEs was *information, education and communication (IEC),* which Mahloane-Tau (2016) said had contradictions. It was embedded in what Kelly (2002) called "unchanging" teaching and learner behaviours. The second strategy was *HIV Testing and Services (HTS)* and *Test and Treat,* but these services offered were poor due to the inappropriate approaches towards young people (Mahloane-Tau 2016). The IHEs did not influence behaviour change (HEAIDS 2010) and pregnancies occurred. Thus, a third strategy for the *prevention of*

mother-to-child (PMTCT) *transmission of HIV* was ushered in to address the service gaps so that eligible students could access care for themselves and their unborn babies. It was, however, unknown how many IHE students fell pregnant, tested for HIV and enrolled on ARVs annually, as required by the UNAIDS' three-90s rule.

The fourth strategy was *voluntary male medical circumcision (VMMC)*. The number of voluntary circumcisions performed generally rose in 2013 but then plateaued in 2016 (MoH 2017e). The three IHEs waited on other actors to reach students, incurring data gaps on VMMC. The fifth strategy, in accordance with the WHO model (2004b), was the *provision of ARVs and medicines for opportunistic infections*. Using the UNAIDS' (2014) 3x90s measure, the MoH (2017e) showed that Lesotho had an overall rating of 76 per cent for the detection of HIV, 88 per cent for initiating ARVs and 79 per cent for viral suppression. In general, the IHEs' contribution to the UNAIDS (2014) 3 x 90s strategy was unknown. With the 'treatment as prevention' strategy (UNAIDS 2015) came 'pre-exposure prophylaxis' (PrEP) and 'test and treat' (UNAIDS 2017). These strategies were to prevent the spread of HIV in cases of rape as well. The IHEs lacked data on the 3x90's cascade and had none for HIV positive students and those enrolled on ARVs.

These contractions meant poor commitment, low capacity and failure to evidence effective AIDS fighting strategies in the IHEs. In ZPD terms, the IHEs' current responses were embedded in the historic behaviour of reluctance to test for HIV, which destroyed opportunities to reveal the concern and led to unresolved challenges. The IHEs' current activity was negligible in the national response.

9.2.3 Interplay among the IHEs

This sub-section answers the third research question: 'what was the interplay between the IHEs' structures (management and clients) and services?' Chapter Four covered the methodology by which the researcher studied the 'object of activity' (HIV/AIDS), drawing from the IHEs' responses. The researcher used the WHO standard (2004b) and revealed contradictions: while there were opportunities for interplay, there was very little deliberate, coordinated and supported interaction among the IHEs. This was due to the commitment, capacity and concern roles of the five key higher education-related structures.

The first culprits were the Ministries of Health and of Education, who lacked exemplary leadership qualities of commitment in the form of policies, inclusion in curriculum and the supply of clinic commodities to the IHEs. The second was the Council on Higher Education

(CHE) who, despite its strategic plan mandate to guide, enforce and monitor the quality of education and the response, did not itself comply with its own mandate. The third culprit was the students' activities through student union/associations. Although KIs and FGD participants recognised the need to promote interplays, the capacity for it was not offered.

In ZPD terms the interplay was constricted, evidenced by the IHEs' embeddedness in unchanging behavioural environments. They could neither tap opportunities nor expand and resolve challenges. Some operational services by the IHEs' focal persons were characterised as an "actor-network" by van der Riet (2009, p.54), who argued that an actor network constituted "a fourth 'phase' of activity theory". The envisaged fourth phase was way out of the reach of these IHEs.

9.2.4 Improving strategies for a better quality of response

This sub-section answers the question of 'how strategies could be developed to improve the quality of the selected IHEs' response'. It draws from Chapters Five, Six and Seven on the WHO Quality Standard (YEAR), and on Chapter Eight's comparative analyses. This study concluded that strategies alone were not enough, but rather also depended on how much "learning by doing" (Mukeredzi 2009, p.270) occurred.

In ZPD terms, the IHEs were historically embedded in contractions and lost opportunities. Gagne (1970) asserted that rules were tools to build new capabilities to produce a new higher-order. The gaps called for further research on 'why' the IHEs' learning and problem solving capabilities failed to transform their responses. Zeithaml and Bitners' (2000) 'people factor' equaled CHAT's subjects, and these authors diagnosed the human factor as the core problem. It could be concluded that improving the response lay with the three levels of management identified by Johnson and Scholes' (1998) because:

i. The *top management subjects* did not improve on the key psycho-social mediators (commitment and agency) to drive the IHEs' responses by recruiting staff and monetary resources to address the day-to-day aspects of the response;

ii. The *middle management level* did not fully administer, supervise and allocate resources (capacity), namely staff, finance, rules and divisions of labour to support the activities for education, research and the integration of AIDS into the curriculum (see University of Zambia. 2009b) in the IHEs;

iii. The *operational management level,* despite interfacing with clients, this level was limited in its capacity to fully evidence the concern (e.g. the prevalence of HIV) as

the basis for interventions. Services had to provide the responses' "facts and figures" (NUKIM1).

In conclusion, CHAT and the role of 'subject' meant that the Three-Cs were interrelated by levels of management and interdependent in function. The conclusion was that poor commitment failed middle level management's capacity, and in turn, operational level subjects to evidence concern over HIV/AIDS.

9.3 Implications for the IHEs key stakeholders

This sub-section draws from the implications in Chapter Eight and the lessons therein. It aims to reverse the degree of "futility of learning" (Engeström 1987, p.23) evidenced by a collective, long-term lack of "problem solving ability" (ibid) in the IHEs' responses. Reversing futility and solving problems recognises evolution beyond the IHEs' control and transformation.

9.3.1 Evolution of the response

Evolution implied that the response was ever changing. In fact, the fight against AIDS was one of the most rapidly evolving scientific interventions. The IEC was better; diagnosis was faster; and the treatment, self-testing and self-care had become much more manageable. It could thus be concluded that the response would evolve and expand beyond the current phases, even with traditional and informal medicine and how the IHEs addressed it. The mutating virus, as the innermost object of the response, required new tools (medicines), subjects (specialised staff) and information systems. The 'inner/biological' elements (e.g. HIV, TB, STIs etc.), and 'outer/social' (e.g. IEC, behaviour, activity) elements all expanded and produced new implications for policy, resources and the IHEs' curricula.

9.3.2 Implications for policy makers

The conclusions on the implications were related to the existing laws. The *Labour Code Amendment Act No 5 of 2006* (MoL 2006) required employers such as IHEs to own AIDS policies. The lack of policies was an indictment on the leaderships' commitment, since 46 per cent of Lesotho's IHEs were health-focused in their curricula. The AIDS policies were not enforced and this implied further AIDS related mortality, unless the government forced the IHEs to comply with the Labour Act.

9.3.3 Implications for staff, finance and facilities

The findings made it abundantly clear that insufficient staffing was the key obstacle. On average, the selected IHEs employed at least 1 professional health worker per 6,000 students

and staff. Although attributed to AIDS not being core in the IHEs, this study concluded that unfulfilled promises remained and caused deep frustrations, with FGD participants saying that campus nurses did not know what they were doing. There was a need to invest money to avert health workers' resignations and to improve the services. Finance was merely a tool but when it was lacking there were competing priorities. Poor availability of space in clinics led to a lack of privacy, which led to gossip, stigma and discrimination.

9.3.4 Implications for the curriculum

The curriculum could be defined as what the students were taught in the IHEs. The single most challenging tool that IHEs had failed to modify was HIV and AIDS in at least one of the four modalities described by Raselimo (2015). The reasons attributed to the failure were many, with the most immediate being time, followed by the lecturer's knowledge and skills to impart the IEC to students. The lack of integration of HIV/AIDS implied defeat for the very purpose and role of IHEs in the national response. The IHEs' inability to support the response through curricula undermined 'learning by doing' and created contradictions preparing students for future, real-life projects, including but not limited to HIV/AIDS.

9.3.5 Implications for the national response

The overarching policy guide for the three IHEs was in the national response, which became the focus of this sub-section. This posed two challenges. One was that since 1986, all IHEs had adopted the national response guidelines and policies. As with '*test and treat'* (Kabi 2017), Lesotho adopted the 'leave no one behind' theme of UNAIDS (2016), promising to treat the majority of HIV positive clients; service promises not kept. This implied risk of lack of confidence in the national response by the gap of not keeping service promises. It is evidenced by the KIs and FGD participants, and could reverse the gains of UNAIDS' (2014) 3x90s in detecting HIV, initiating ARV treatments for viral suppression for clients.

The second was the quality of the 'knot-working' among the selected IHEs. It posed its own two problems. One was a lack of understanding of exactly how collaboration, cooperation and communication related to the object (AIDS), *vis-à-vis* the IHEs' partners' roles in the response. Policy tools did not exist to guide this process, the leadership lacked agency, the information systems did not press evidence, and monetary and other resources were tied. On the ZPD mosaic, the overall response featured small patches/areas in leadership commitment, some relatively larger spots for capacity and the quality of the services, and given its importance in this study, the thinnest/smallest spots went to the evidence of concern over HIV/AIDS. The

risk of unresolved resistance due to operational level failure was a case in point at the NHTC. Based on the foregoing implications for the response, the next section draws up the recommendations of this study.

9.4 Recommendations

Given the overall historical, political, economic, social, technological, ecological and legal trends of AIDS, these recommendations are based on the assumption that HIV/AIDS will remain without cure and its incidence unabated in the foreseeable future in Lesotho. The recommendations use plausible WHO Standards (2004b) scenarios and are based on 'what if?' to weigh in on the identified Three-Cs thematic interventions. They draw on Mezirow's (1996) urge for a contemporary paradigm on how adults and youths use learning to shift situations. The recommendation is to refresh top management's commitment, and for them to view their IHEs as *microcosms*, representing a bigger sector picture. The second is to develop *policies* to infuse AIDS into the curricula to build knowledge capacity. The third is to promote, community engagement and services, while increasing collaborative research to evidence the *concern*.

9.4.1 The IHEs as 'microcosms' of response in society

From a CHAT perspective, how communities and IHEs' leadership see the response can contract or expand opportunities to improve it. It requires appreciating them as entities from a macro and micro perspective of their activity systems. In Engeström's (1987) definition:

> A microcosm is a social test-bench and a spearhead of the coming culturally more advanced form of the activity system. ... Is supposed to reach within itself and propagate outwards reflective communication while at the same time expanding and therefore eventually dissolving into the whole community of the activity (Engeström 1987, p.277-278).

What if the three IHEs are microcosms? It implies that the subjects in the IHEs use their institutions as 'test-benches' and 'spearheads' of the sector response. The evidence shows that efforts to 'reach out within the sector' met with contradictions of poor ownership and low commitment because leaders saw IHEs as stand-alone entities, with no agenda for knit-working or to 'propagate outwards' in sync with the national response. This citizenship ideal is envisaged by Ngozwana (2014); Preece (2012), with African universities' community engagements, its common themes, challenges and prospects. What is key to achieve it?

9.4.2 Leadership as key to response outcomes

The IHEs' leadership lies with the subjects who enact the object, but what if there is no leadership? The evidence in this thesis supports Nattrass's (2008) question on whether leadership reputations deserve indictment for the good and bad responses to AIDS. As both national and IHEs' leadership is accountable, given the agency legitimised by their positions, and despite shortcomings of tools, but not rules, they deserve a reputation equal to the reviews of their poor responses by international and local standards (e.g, Kelly 2002; Kymario et al. 2004; SARUA 2006; UN (2014) and UNDP-GoL 2015). All of these concur about the poor national and institutional response. Thus, each level of the IHEs' leadership needs access to committed higher leadership, institutional capacity, decision making authority and sustained communication to cooperate across the boundaries of response.

9.4.3 Revisiting AIDS policies in IHEs

The IHE policies are the material and yet elusive tools while AIDS persists as a global threat, and Lesotho's youth face unrelenting new infections. IHEs must plan for the status quo with AIDS-related political, economic, social, technological, ecological and legal (PESTEL) described by Sammut-Bonnici and Galea (2017) disruptions and contradictions.

What if there are no policies in IHEs? In this scenario, the CHAT standpoint sees policy as an object. Considine's (1994) idea is that policy development emanates from particular forms of interdependencies among organisational actors. Thus, IHE actors/subjects must draft and launch AIDS policies, and find opportunities for collaborative work with government, NGOs and wider communities, as in Preece's (2004) third mission. The policies must be home-focused to capacitate IHEs beyond HIV/AIDS to more serious health threats which disrupted IHEs, such as the outbreaks of Severe Acute Respiratory Syndrome (SARS), (Christian et. al 2004) Zika, (WHO 2016a), Ebola (WHO 2019a) in the SSA, and the highly virulent Middle East respiratory syndrome virus (MERS-Cov), (WHO 2019b).

In the late 2019 and early 2020, a coronavirus (known as Covid-19) emerged and disrupted Australasian universities, affecting more than 200,000, mostly Chinese students (Parveen & Brooks 2020; Taylor 2020; Fowler 2020). The students could not move from places, parents were urged to house-keep at-risk children, allegations of social discrimination and student detentions emerged; all amidst a major public health scare with little information tools for personal and collective decision making. It is concluded that although policies alone cannot

guarantee interventions, the status quo indicts IHEs commitment and capacities, and it reveals their collective unaccountability in the face of known and emerging public health threats.

9.4.4 Research, community engagement and services

The triad of research, community engagement and services are mediators in CHAT, by which subjects act upon object (response), with one denominator; community. *What if the selected IHEs do not implement research, engagement and services?* The scenario negates the basic tenet of the existence of the IHEs. It is unthinkable, and calls for evidence of the commitment to fight AIDS among the subjects. They must identify, plan for and develop *appropriate* community interventions (MoET 2005), ranging from the pre-school, primary, secondary and higher education levels, to adult education and to education for life. This implies a transition across the MOET formal and informal learning as a new object in CHAT; to a model of the *type and scope* of the response by the level of education. This transition is represented in a model of the three 'traditional generations' of CHAT, and suggests experimenting with van der Riet's (2009) proposed fourth generation, in Table 9.1 below:

Table 9.1: Options for MOET interventions by levels of education

Educational Level	**CHAT phases**			
	Triadic phase		***Expansive transformation phase***	
	'First Phase'	**'Second Phase'**	**'Third Phase'**	**(The Proposed) 'Fourth phase'**
Pre-school	Prevention	IEC		
Primary	Prevention	IEC		
Secondary	Prevention	IEC/ABC		
Tertiary	Prevention		IEC/ABC/KYS	Key stakeholders Community Engagement
Adult education	Prevention		IEC/ABC/KYS	
Life-long education	Prevention		ABC/ABC/KYS	

The table 9.1 above represents a recommended strategy for MOET and community engagement, starting at pre-school or an integrated early childhood care and development level (UNICEF 2004), at primary, secondary and tertiary educational levels, and at adult and lifelong levels of learning, by the generations of CHAT. At each, each object has unique subjects, rules, and divisions of labour (such as condoms at tertiary but not at primary level). IHEs must lead in research, using it to answer key questions on expanding and deepening the role of IHEs in education and community arenas.

9.4.5 Services: restructuring response resources, rules and tools

IHEs must recognise that in CHAT, tools mediate the subject's outcome. *What if services do not exist, while new tools are discovered?* A contradiction is that the IHEs ignore opportunities brought about by new 'tools'. This study recommends that IHEs must intensify health education, prevention and mitigate stigma, by providing new, more efficient ARVs/medications for better diagnosis, referral, self-care and outcomes.

9.4.5.1 Self-testing as a game-changing tool

With self-testing and self-test kits as new tools (concepts and strategies) in the response, there are a myriad of expansive transformations that can occur in the areas of the finance, medical and psycho-social components. *What if self-testing overtakes institutional testing?* These expansions would affect HTS, peer counselling and discordancy, among others, prompting the need for IHEs to improve rather than maintain a business-as-usual or regression in the response. The tools enter the expansive arena, re-shaping the proportions of the three areas of the researcher's illustration of Engeström's (1987) ZPD. For example, by minimising 'contractions', opening up 'opportunities', and by causing shifts in historical 'embeddedness' towards the expansive resolution of known and envisaged contradictions with self-testing.

Thus IHEs must adapt to self-testing which empowers the individual in two ways: one is by doing the self-test and doing a self-referral for a positive outcome. The other is self-testing but without subsequent self-referral, nor submission of the result as data to be included in the respective IHEs' HTS test data base. These challenges call for refined IEC strategies to communicate with the youth in the IHEs.

9.4.5.2 Improving subject's agency, expansion, integration

The area is one of basic triadic Vygotskian (1978) components of object-oriented activity. With the three IHEs, the crux of this recommendation lies with the people who engage in the activity, why and how they perform, and what they obtain from it. The subjects are the IHE researchers and service providers shaping the response. *What if the subjects have the agency to intervene?*

The IHE subjects are too few in numbers to develop evidence using Checkland and Holwell (1989) decision support systems. Senior leadership must recognise the contractions and the destruction of opportunities in Engeström's (1987) ZPD. Efforts to redress the service gaps must consider the evidence for the need for psychological enablers (e.g. agency, commitment, behaviour change, etc.) and functional enablers (availability, accessibility and effective use of preventive, curative and reporting tools). The transformation requires re-contextualized rules,

divisions of labour, tools for decision making, leadership commitment, capacity and evidence by specialised subjects. *Exactly what then could the subjects in the IHEs do?*

9.4.5.3 The integrating role of the IHEs curriculum

As the response involves education, curriculum is key to influencing individual awareness, prevention and self-care (Orem 1991), by breaking down barriers to precautionary measures against AIDS, as evidenced in a study of the University of Zululand and the Mangosuthu University of Technology by Masters et al. (2009). Integrating AIDS into the curriculum was justified in the literature and follows at least four models (Raselimo 2012, p.7).

i) The **interdisciplinary** model where HIV/AIDS education is likely to benefit from a 'whole school approach'. Staff are given time to work together as a community of practice;

ii) **The problem-based** model which has the potential for a holistic approach (Neddermeyer, 2006) in addressing HIV/AIDS related issues. (Caution: emphasis on problems may create action paralysis, hence the need to explore possible solutions);

iii) The **theme-based** model in which subjects can retain their identity and maintain disciplinary knowledge. It affords staff (in related disciplines) the opportunity to work as a team; and

iv) The **stand-alone course**, which poses the challenge of curriculum overload.

This menu of curriculum integration requires IHEs to decide on their best model. Adopting the most cost-effective model is a priority, although this study cannot cherry-pick any one model due to the differences in the conceptual, functional and material implications across the IHEs' core mandates. What model can, in this study be adopted for IHEs response?

9.4.6 'Knit-working' as a strategy to sustain the response

To conclude the recommendations and indeed this study, the researcher introduces a new concept of 'knit-working'. The researcher's journey through CHAT began with him as the *subject* working on the *object* that was this thesis: to qualitatively interpret Lesotho's IHEs' *(community*) fight against AIDS (object) for the result (outcome) of new knowledge of it. This was achieved using (artifacts) books, reports and reading material, the rules (of thesis structure and write-up), action (writing up) and the division of labour (allocating time) for study activities. Because of the better understanding at this point, this study could expand and transform the known concepts from the works cited.

‘Knit-working’ can be defined as a refined form of “knot-working” (van der Riet 2009, p.56) in which the selected (and all other) IHEs can expand their cooperative work from big ‘nodes’ and/or ‘knots’ to smaller, closely ‘knit’ and specific actions between the IHEs’ specific line managers. Examples of ‘knot-working’ were evidenced in Chapters Five, Six and Seven, as the IHEs’ focal persons, coordinators and nurses shared campus health experiences. Students’ social clubs organised joint ‘edutainment’ activities. Innovations such as Dobson and Ha’s (2008) interactive games hardly happened in these IHEs’ top, middle and student’s levels. Such innovations caused transformations, which, as shown in the theoretical framework, spanned the breadth and length of CHAT’s second and third generations, and moved into van der Riet’s (2009, p.54) proposed ‘fourth phase’. As with ‘boundary crossing’, ‘co-configuration’ and ‘knot-working’ (all popular among today’s researchers), ‘knit-working’ needs an irrefutable context in expansive collaborative work. Since IHEs interact, the researcher concurs with Engeström’s (1987, p.1) view in one of five central arguments in “*Activity theory and expansive design”,* that:

> Expansive interaction design is best performed jointly by producer practitioners and their key customers, supported by interventionists. This requires special reflective intervention methods, ‘microcosms’ which combine joint negotiated decision making, joint future-oriented envisioning, and simulation of future modes of interaction across boundaries.

In addition to the design and boundary-crossing guidelines, a future awaits the IHEs’ responses, as van der Riet (2009, p.54) proposes transformation to the ‘fourth phase’ of CHAT, saying:

> More recent theoretical development of conceptual tools to understand dialogues, multiple perspectives and networks of interacting activity systems, such as boundary crossing (Y. Engeström, R. Engeström and Kärkkäinen, 1995), co-configuration (Engeström, 2004), and knotworking (Y. Engeström, R. Engeström and Vähäaho, 1999), could be argued to constitute a fourth ‘phase’ of activity theory.

Although currently only a proposal, van der Riet’s ‘fourth phase’ suggests that IHEs could one day use a new conceptual tool to deepen dialogues and perspectives in discourse. Noting van der Riet’s (2009, p.54) existing third generation “boundary crossing”, “co-configuration” and “knot-working”, it is opportune to add the researcher’s own ‘knit-working’ to answer the research question on the implications for key stakeholders. The researcher theorises that ‘knit-working’ occurs in an ‘expansive interaction design’ in which IHEs are in the ‘third phase’ with a clear intent and commitment as ‘producer practitioners’. IHE students act as ‘key

customers', who are 'supported by interventionists' (e.g. the MoH, the MoET and NGOs). Figure 9.1 is a proposed theoretical underpinning of knit-working.

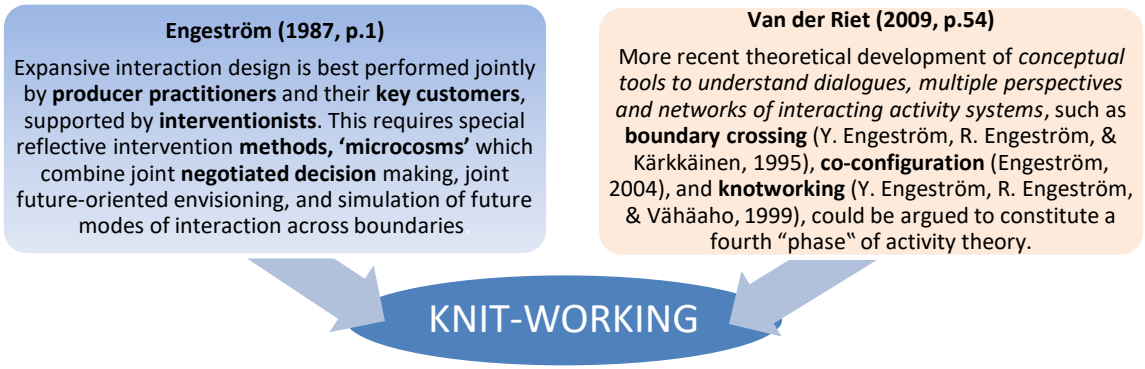


Figure 9.1: Towards 'knit-working' the response – an expanded 'third phase' model for IHEs' collaborative agency

Based on the convergence of the two perspectives in Figure 9.1 above, this study unveils a new conceptual tool of knit-working, which draws on similarities with the three others. However, firstly, and unlike **boundary crossing**, which is a "horizontal aspect" and a "powerful lens for an analysis of sideways interactions between different actors and activity systems" (Engeström 1987, xxvi), 'knit-working' excludes 'trespassing' into other activity systems and aims to unite not 'different actors' but subjects in (Lave and Wenger 1991) communities of practice. This means sharing data and information between the IHEs.

Second, and unlike *co-configuration* which is "typically needed in divided multi-activity terrains" (Engeström 1987, p. 22), knit-working will work in the same activity settings (decision making on campus responses) to enhance communication, coordination, collaboration, information, and reporting, while stitching together like and unlike patterns in the mosaic of sense-making of the IHE responses. Third, and unlike *knotworking*, in which "no single actor has the sole, fixed authority – the centre does not hold" (ibid, p.22), knit-working keeps IHE 'knots' but is not to be untied at the completion of a task because it uses monitoring as an on-going activity. While knot-working has no sole authority, knit-working has one - itself!

Thus, this recommendation proposes 'knit working' to refine the IHEs' individual and collective leadership, management and students' roles. With knit-working, vice chancellors make *commitments* to one another, directors discuss *capacity*, and focal persons share and compare HIV/AIDS evidence or data to show their *concern*. It urges cooperation, collaboration

and communication in smaller, more specific areas such as IEC, health promotion, self-testing, etc. by line managers to build 'communities of practice', akin to Worthen's (2011) proposal. These things are currently not happening.

The next sub-sections recommend knit-working in IHEs in conjunction with the three main existing tools of health information systems, the Seven-Ps of services marketing mix and the WHO standard. The fourth is a proposal to knit-work the Three-Cs for common commitment, synergies in capacity and agreed modalities to evidence the concern over AIDS.

9.4.6.1 Knit-working the IHEs health information systems

In IS thinking, knit-working should be a soft organisational system, which Checkland and Holwell (1989) say essentially serves as a fibre that connects, for example, two or more IHEs' AIDS programmes. The focal area should be sub-components and specific, comparable data sets between any two IHEs' line relationships. In Checkland and Holwell's (1989) terms, the new knit-working system would be a generalist and specialist tool, uniform and interwoven into the IHEs' local networks of producers, interventionists and customers by addressing contradictions between bits of data in the functional areas of the response.

9.4.6.2 Knit-working the Seven-Ps of services marketing mix

The above line relationships will have sub-components designed, for example, to deliberately and directly connect campus clinic managers, nurses, HTS providers and data clerks, all as people in Zeithaml and Bitners' (2000) Seven-Ps of services marketing. The close match between CHAT and the Seven-Ps of services marketing mix (see Figure 4.3) can inform knit-working. The knit-work design (a product of CHAT) can thus provide a ready and expanded version of its relationship with the Seven-Ps. Thus the selected IHEs will sell the same product, in different physical places, while maintaining similar promotion strategies and processes. Across all components there can then be automatic aggregation and analysis of data using modern health information technologies.

9.4.6.3 Knit-working the WHO Standard

True to Engeström's (1999b) guideline to apply CHAT with an international standard to analyse medical interventions, knit-working will need an overarching IHE HIV/AIDS policy tool among all of Lesotho's IHEs to ratify the WHO Standards (2009) of quality in health services. It will provide an agreed, relevant and useful tool for planning, implementation, and monitoring and reporting to all stakeholders in the response. Without an agreed tool, the IHEs

cannot implement the joint interventions envisaged by Kymario et al. (2004) or by Professor Kelly on his 2008 re-sensitisation tour of Lesotho's higher education sector.

This study concludes that IHEs are at liberty to consider individual and collective contributions to the national response through knit-working. Currently there is no agreed *modus operandi* and the continued lack of a uniting, participatory, committed, capacitated strategy implies Engeström's (1987) futilities of learning. The final, single most important challenge among the three IHEs was leadership. In Drucker's (2005) view, effective leadership is less about being liked and more about results. The IHEs leaders must recognise McGrath and Bates (2013, p.132), citing the renowned educationist Hargreaves, metaphor of "low permeability" of (e.g IHEs) walls to new ideas. *How can knit-working relate to the Three-Cs of the response?*

9.4.6.4 Knit-working the Three-Cs

The final recommendation, based on this study purpose to interpret and qualitatively analyse the responses to HIV/AIDS of three selected IHEs, is to propose a knit-work of the Three-Cs of response for greater commitment, capacity and concern in the IHEs. First, recognising the United Nations' (2001) *Declaration of commitment on HIV/AIDS*, whose key thematic area is 'leadership' (p.14), and noting the lack of progress in Lesotho's response (MoH 2016) and the unchanging rates of new infections (UNAIDS 2015), the call for commitment at all levels of the government, ministerial and institutional responses remains key. Other than the UN Declaration (2001), above, the World Bank (2012) resource offers guidance on strengthening commitment, building capacity and monitoring the response to elicit the concern in all spheres of human activity. This means that all levels of the IHEs' leadership need only refine and define 'commitment', 'capacity' and 'concern' in their own context. Context calls attention to Preece's (2013) call to 'Africanize' community engagement, perhaps mainly as part of the response. It implies identifying strong African ways to interface and engage in the finer modes of the Three-Cs through meetings, activity and periodic reports on what is being done in the IHEs. Based on all of the chapters in this thesis, the next sub-sections conclude this study's contribution, limitations and areas for further research in the IHEs responses.

9.5 The contributions and limitations of this study

Although activity theory has been increasingly popular as an analytic lens in research over the last decade (e.g. Mukeredzi 2009; van der Riet 2009), the uniqueness of this study lay in there being no studies on IHEs' responses using CHAT, and or any of the models incorporated in this study, in Lesotho. Communities had a firm place in CHAT, as did other components of

interventions, making it undoubtedly the theory of choice to assess the response. That made this study informative for subjects who led or participated in any IHE's AIDS programmes, both in Lesotho and the SSA region.

9.5.2.1 The contributions of the study

As per the intended purpose, this study contributed a qualitative interpretation of Lesotho's three major IHEs response. It provided the historical and environmental situations, the possibilities, achievements and the contradictions within the IHEs' responses. To support the visions of the (UNDP 2000) MDGs, the GoL (2001) Vision 2020, the UN (2015) Sustainable Development Goals (SDGs) and the UN (2015), AU Agenda 2063, the analyses of the three IHEs' responses contributed new knowledge on their responses through this study.

This study contributed evidence that the purpose and context of the IHEs' responses were elusive, even to their own primary users. It revealed chronic conceptual, functional and material contradictions in campus health services. Based on the researcher's lived experience, this study gave unique insights into otherwise obvious issues, through illustrations of the contradictions, tensions and turbulence within the IHEs. It debated scenarios, continuums, opportunities, users, costs and the integration of AIDS in the curriculum, unlike any study before it. It captured the essence in a uniquely in-depth Lesotho context. This will assist IHE leaders, coordinators, nurses, counsellors and students to attain improved response in IHEs.

As an academic work, this study recognised and applied CHAT to analyse Lesotho's IHEs' responses. It keenly awaited the development of van der Riet's (2009) proposed fourth generation of CHAT. Its own game-changing contributions and innovations were first, the comparative analysis of Lesotho's three major IHEs; second, the identification of the Three-Cs of commitment, capacity and concern, for their influence in IHEs responses. The third contribution was the concept of knit-working to refine actors' roles in responses. The fourth was the discordancy matrix which was crude and needed more research to validate. These contributions could help undo Kelly's (2002) unchanging trend of the response in Lesotho's IHEs and higher education in SSA.

9.5.2.2 The limitations of the study

On the other hand, however, this thesis had limitations which, like contradictions, raised opportunities for change. First, the selected IHEs were drawn from a population of thirteen IHEs, each with its own unique demographic and technical approach to the response. As such,

the cultural-historical issues, the primary mission, core areas of teaching and learning and the subjects' actions on the Three-Cs were more insightful when analysed comparatively. The comparison was limited by the differences in demographics, tools and the institutional rules. Borrowing from SARUA (2006); HEAIDS (2009a), and other regional studies that shaped it, this thesis showed common and outlier trends across the IHEs' responses.

The limitation related to written work is repetitiveness; pointing to similar issues across the higher education sector. Conversely, less data risked vagueness and the exclusion of useful content. This limitation called for balance between clarity and conciseness, demanding the careful selection of key features to interpret findings in breadth and depth. The limitations however, helped to find ways to deal with the interpretive demands of this study design based on CHAT. The thesis transformed from being an object to becoming a useful tool available to subjects, providing an opportunity to find new avenues to improve commitment, capacity and the concern in the three IHEs.

9.5 Conclusion

This study has achieved its primary objective to interpretively analyse the three IHEs, namely the Lesotho College of Education, the National Health Training College and the National University of Lesotho's responses to the threat of HIV/AIDS. Although admittedly repetitive in its writing, this was due to the narrow context of response in IHEs, the scope of the study and the need to explore in-depth the key areas of the existing components, the interplays, and the implications for the key stakeholders in Lesotho.

The take-home findings were based on the IHEs attainment of WHO Standards of quality (2004b). This enabled the analysis of the IHEs using an equal measure and the ability to dig deeper 'in' by employing the two other concepts of services marketing mix and information systems. The synergy of the models facilitated a more in-depth, objective and focused evaluation of the IHEs' performances and the rationale for the gaps identified.

The final analysis concluded that the three IHEs' individual and collective responses were short of tools or resources. First, the main ones were human resources, mainly in numbers, their leadership and agency capabilities. Second was a chronically poor financing and the third was absence of written policies to guide and support the activities required for responses. The fourth was coordination, which paid lip service to the fight against HIV/AIDS and students had no

confidence in the IHEs' interventions amid the clear and present danger of the escalating trend of HIV/AIDS and its damaging effects on Lesotho's youth.

To address these challenges, this study proposed a reconceptualization of the response based on the contradictions using CHAT, and service gaps using the services marketing mix. These are summarized as poor commitment, low capacity for response and lack of evidence to support the IHEs concern over HIV/AIDS. Drawing from van der Riet (2009) knot-working, this study proposes the knit-working approach. It adopts the themes of *commitment* by the top managers to lead and drive interventions; *capacity building* for staffing, financing and commodities supply for the middle level managers, while compiling the health clinic data to evidence the *concern* at operational levels. This strategy was not currently used in the IHEs, and could not be part of the solution to the response without getting attention and buy-in as an option by the leadership of Lesotho's IHEs. It was not only the contribution of this study to the corpus of knowledge and the warehouse of new tools in Lesotho's national and the IHEs' collective responses that would make a difference. It was more importantly the leadership and their agency that would adopt it to transform Lesotho's response through the active role of institutions of higher education.

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ANNEXURES:

ANNEXURE A – Ethical Clearance

LESOTHO

Ministry of Health
PO Box 514
Maseru 100

04 March 2014

Monaphathi ~~Makara~~ MARAKA
Lecturer
NUL

Dear Mr. M. Makara,

Re: HIV and AIDS in Higher education in Lesotho- A cultural historical activity analysis (CHAT) of four Institutions of higher education responses and services (ID37-2014)

Thank you for submitting the above mentioned proposal. The Ministry of Health Research and Ethics Committee having reviewed your protocol hereby decides that it has the criteria "A study on the education system" and "It is not generalized". The committee exempts the proposal from research and ethics review and authorizes you to conduct the study with the understanding that you comply with the following rules:

- In the event of changes in material or design or execution of the activity, the Research and Ethics Committee must be consulted through the Research Coordination Unit, MOH.
- The study is conducted among the specified population.
- The study protocol will be followed as stated. Departure from the stipulated protocol will constitute a breach of the permission.

We are looking forward to have a progress report and final report at the end of your study.

Sincerely,

Dr. Piet McPherson
Director General Health Services (acting)

Dr. Jill Sanders
Co-Chairperson
National Health Research and Ethics Committee

ANNEXURE B – Consent Form Template for Participating IHEs

DUT DURBAN UNIVERSITY OF TECHNOLOGY

INSTITUTIONAL RESEARCH ETHICS COMMITTEE

CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Mr Monaphathi Maraka, about the nature, conduct, benefits and risks of this study
- I have also received, read and understood the above written information regarding the study.
- I am aware that the results of the study, including personal details will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- Participants will be informed that they may, at any stage, without prejudice, withdraw their consent and participation in the study.
- I have had sufficient opportunity to ask questions (of my own free will) declare that I am prepared for the institution to participate in the study.
- I understand that significant new findings developed during the course of this research will be made available to me.
- I therefore give permission for the study to be conducted with relevant participants in my institution

LESOTHO COLLEGE OF EDUCATION	01/08/2016	3 pm	
Full Name of Institution	Date	Time	Signature

RESEWITSOE MOHALE	2/08/2016	.....
Full Name of Institution representative	Date	Signature

I, Monaphathi Maraka herewith confirm that the above institutional representative has been fully informed about the nature, conduct and risks of the above study.

MONAPHATHI MARAKA	29/7/2016	....
Full Name of Researcher	Date	Signature

LESOTHO COLLEGE OF EDUCATION
2016 -08- 03
REGISTRY
P.O. BOX 1393, MASERU 100
TEL.: 22320794

DUT DURBAN UNIVERSITY OF TECHNOLOGY

INSTITUTIONAL RESEARCH ETHICS COMMITTEE

CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Mr Monaphathi Maraka, about the nature, conduct, benefits and risks of this study
- I have also received, read and understood the above written information regarding the study.
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- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- Participants will be informed that they may, at any stage, without prejudice, withdraw their consent and participation in the study.
- I have had sufficient opportunity to ask questions (of my own free will) declare that I am prepared for the institution to participate in the study.
- I understand that significant new findings developed during the course of this research will be made available to me.
- I therefore give permission for the study to be conducted with relevant participants in my institution

NATIONAL HEALTH TRAINING COLLEGE	2/8/16	8:30 a.m	
Full Name of Institution	Date	Time	Signature

SHAHIDA JARR (PhD)	2/8/16	.....	.....
Full Name of Institution representative	Date	Signature	

I, Monaphathi Maraka herewith confirm that the above institutional representative has been fully informed about the nature, conduct and risks of the above study.

MONAPHATHI MARAKA	29/7/2016	.....
Full Name of Researcher	Date	Signature

NATIONAL HEALTH TRAINING COLLEGE
2016 -08- 03
DIRECTOR GENERAL'S OFFICE
MASERU 100, LESOTHO

2/3

DUT DURBAN UNIVERSITY OF TECHNOLOGY

FACULTY OF ARTS & DESIGN

Faculty of Arts and Design
Durban University of Technology
Room 30, City Campus
Durban, 4001

PO BOX 1334
Durban, South Africa, 4000
Tel: 031 373 6517/6
Fax: 031 373 6518
Fax to e-mail: 0865009579
E-mail: rsmith@dut.ac.za

Call Centre: 0860 10 31 94
www.dut.ac.za

CONSENT

Statement of Agreement to Participate in the Research Study:

- **I hereby confirm that I have been informed by the researcher, Mr Monaphathi Maraka, about the nature, conduct, benefits and risks of this study**
- **I have also received, read and understood the above written information regarding the study.**
- **I am aware that the results of the study, including personal details will be anonymously processed into a study report.**
- **In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.**
- **Participants will be informed that they may, at any stage, without prejudice, withdraw their consent and participation in the study.**
- **I have had sufficient opportunity to ask questions (of my own free will) declare that I am prepared for the institution to participate in the study.**
- **I understand that significant new findings developed during the course of this research will be made available to me.**
- **I therefore give permission for the study to be conducted with relevant participants in my institution**

NATIONAL UNIVERSITY OF LESOTHO 20/07/16 .....

Full Name of Institution **Date** **Time** **Signature**

L. MAQALIKA-LEROTHOLI 20/07/16 .....

Full Name of Institution representative **Date** **Signature**

NATIONAL UNIVERSITY OF LESOTHO
26 JUL 2016
REGISTRAR

I, Monaphathi Maraka herewith confirm that the above institutional representative has been fully informed about the nature, conduct and risks of the above study.

MONAPHATHI MARAKA 15/7/2016 .....

Full Name of Researcher **Date** **Signature**

3/3

ANNEXURE C - Key Informant Tool

No	QUESTIONS	RESPONSES			
Introduction: This is a Focus Group Discussion of (number of students) at (name of Institution of Higher Education) on this (day of interview) day of (month) in (year).					
1	**Your current position:**	**Department:**			
2	**Sex**			**Male**	**Female**
3	**Age Range:**	**20-30**	**30-40**	**40-50**	**50+**
4	**Your number of years working at LCE/NHTC/NUL:**	**0-1**	**2-5**	**6-10**	**11+**
5. In your view, how important is the fight against HIV/AIDS in Lesotho?					
6. How well is the LCE,/NHTC/NUL involved in the national response to HIV/AIDS?					
7. In your view, how is the performance of the LCE/NHTC/NUL against HIV/AIDS?					
8. How can the college/university address the concerns around HIV/AIDS as it affects its community?					
9. In your view what are the main issues for LCE/NHTC/NUL's commitment in response to HIV/AIDS?					
10. How does the LCE/NHTC/NUL need to build capacity to respond to HIV?					
11. How can Institutions of Higher Education promote collaboration to better fight HIV/AIDS?					
12. What recommendations do you have for strengthening commitment and building capacity to fight HIV/AIDS among IHEs?					

ANNEXURE D - Focus Group Discussion Tool

(Qualitative data collection tool)

No	QUESTIONS
	Introduction: This is a Focus Group Discussion of (number of students) at (name of Institution of Higher Education) on this (day of interview) day of (month) in (year).
1	**In your view, how important is the fight against HIV/AIDS in Lesotho?**
2	**How important is the involvement of the LCE/NHTC/NUL in the national response to HIV/AIDS? (Please explain).**
3	**What is your opinion regarding the fight against HIV/AIDS at the LCE/NHTC/NUL?**
4	**To your knowledge, what have LCE/NHTC/NUL students done to help in the fight against HIV/AIDS?**
5	**According to you, what are the three most important issues for the LCE/NHTC/NUL in fighting HIV/AIDS?**
6	**Please give reasons for your answer to question 5 above.**
7	**What capacity issues do you think must be addressed to fight HIV/AIDS at the LCE/NHTC/ NUL?**
8	**Do you think HIV/AIDS needs the collaboration of many Institutions of Higher Education (IHEs) in Lesotho? Please explain why.**
9	**What examples of the collaboration can you give?**
10	**What recommendations do you have to improve Institutions of Higher Education's commitment and capacity to fight HIV/AIDS?**

ANNEXURE E - Example of Minutes of Meeting of IHEs Forum on HIV/AIDS

ANNEXURE E: National University of Lesotho (2013) ***Minutes of Institutions of Higher Education Forum meeting (Friday August 13, 2013)*****. Unpublished. Maseru.** (Accessed from my existing email correspondence as evidence of meetings held during IHEs' meetings to plan for respective and common activities against HIV/AIDS as part of the Lesotho response).

MEETING OF HIGHER EDUCATION SECTOR

DATE : Friday August 31, 2013 09h00 -12h30

VENUE Council on Higher Education Boardroom

PRESENT :	INSTITUTION
1. Mr. Motlalepula Khobotlo	Council on Higher Education
2. Mr. Monaphathi Maraka	NUL
3. Ms. Mpolokeng Tsenoli	CAS
4. Mrs. Mateboho Mphana	NHTC
5. Mr. Lehlohonolo Makatjane	LP
6. Mrs. Mabela Khabele	IEMS-NUL ,
7. Mrs. Mphenetha-Lejaha	Roma College
APOLOGY:	
8. Mrs. Pascalina Mabitle	LCE

PURPOSE: To elect two new representatives to the CCM-Lesotho

BACKGROUND:

- The Global Fund is a world-wide or international funding to fight TB, AIDS, Malaria;
- Has a Country Coordinating Mechanism (CCM) which is a Board;
- Board / CCM is made up of various stakeholder representatives;
- CCM has a Secretariat housed in the Ministry of Planning and is called the Global Fund Coordinating Unit (GFCU);

- The Global Fund finances the national strategic plan (NSP);

The Country Coordinating Mechanism

- Each constituency has representation by a Substantive and Alternate member;
- The members have a responsibility to i). attend meetings, ii) participate iii) decision making, iv) report back to constituency, organise and coordinate the constituency;

ELECTIONS:

- Discussion: The meeting discussed the inclusion of the NUL and LCE into the CCM, but decided that it was in the interest of capacity building to elect new members who will be supported by the old members while they are still active;
- Based on byelaws and democratically elected and not nominated;
- Agreed to vote in one of three ways: open vote, secret ballot vote, or consensus vote;

PROCESS:

- Three HEIs nominated namely, LUCT, NHTC and LP
- The vote gave NHTC-LUCT by (6) votes and NHTC-LP (2)

ELECTED:

- The Substantive Representative is: Mrs ‘Mateboho MPHANA at NHTC;
- The Alternative Representative is: Malisemelo SEFOTHO at LUCT;
- The Reserve candidate (in case of withdrawal): Mr Lehlohonolo MAKATJANE at LP

DISCUSSION:

- The meeting discussed any other business of HEIs to develop a written plan of action;
- One of the main current joint activities is the male circumcision which is already well under way in at least two institutions;

The meeting closed at 11:30
