MONITORING AND EVALUATION MECHANISMS OF COMMUNITY ENGAGEMENT INITIATIVES IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA

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DECLARATION

I, OLAJUMOKE FOLUSHO OGUNSANYA, hereby declare that this dissertation titled "Monitoring and evaluation mechanisms of community engagement initiatives in universities of technology in South Africa" is my original work and a result of my independent investigation.

I declare that this work has not been submitted for any other qualification, degree program or examination at any other higher education institution.

I declare that where I have used and cited the works of others, they are appropriately indicated and acknowledged by means of references in-text in the dissertation as well as in the bibliography.

OLAJUMOKE F. OGUNSANYA		10 NOVEMBER 2021
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DEDICATION

Firstly, this work is dedicated, with my utmost gratitude, to JEHOVAH, THE ALMIGHTY GOD. THE ALPHA AND OMEGA started this good work and has been faithful to bring it to completion through the workings of His grace and abundant mercies in my life. “Now to the KING eternal, immortal, invisible, to GOD Who alone is wise, be honour and glory forever and ever. Amen” (1Timothy 1:17; The Holy Bible, New King James version).

Secondly, I dedicate this work to the memory of my father, the late High Chief J. Kolawole Omonije and my mother, Chief A. Yetunde Omonije. My father’s mantra which he shared very often with his children was, “S*e iwon t’o le se. Ki o tun se die si*”, which means “Do your best. Then, add some more effort to the best you’ve already given”. My father’s words propelled me time and time again, giving me vigour and spirit each time the weight of a doctoral study seemed too much to bear.

Finally, I dedicate this work to my spouse and children, Babatunde, AtilolaOluwa and Oloruntoba, whose support throughout this journey have been incredible and amazing. The success of this project is OUR success.

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ABSTRACT

The contemporary higher education institution realizes that the process of accomplishing their vision, mission and objectives involves multi-level interactions with diverse stakeholders within their external environment. Universities and other designations of higher education institutions are no longer walled off from society but required to assume a position of relevance to the society in all of their activities related to creation, transformation, transfer and distribution of knowledge. It is in this context that community engagement has emerged as a vehicle to broaden higher education's direct participation in society's development.

The main roles of higher education institutions are adjudged to be research, teaching and learning, and community engagement. This study focused on community engagement in higher education in South Africa. The purpose of the study was to examine the nature of community engagement and its institutionalization in universities of technology in South Africa. Furthermore, another central purpose of the study was to examine how community engagement initiatives are currently being monitored and evaluated in universities of technology in South Africa. The choice of universities of technology as the focus of the study was to provide an understanding into the development, growth, direction and activities pertaining to community engagement in this typology of higher education institution, and more importantly, the monitoring and evaluation mechanisms used in the process.

Guided by a constructivist paradigm, the research study was undertaken using a qualitative methodology, exploratory and multiple case study design. Purposive sampling was applied to select six universities of technology as case studies for the research. Semi-structured in-depth interviews were used to obtain data from key informants in the institutional case studies. Key informants or interviewees were made up of university officials in charge of the institutions' community engagement portfolio and managers of community engagement projects or initiatives in the institutions. Also, additional data was obtained from university documents. Documentary evidence was critical to this study because university documents supplemented data obtained from the semi-structured interviews. Data analysis was carried out using qualitative thematic content analysis in order to make sense of the qualitative data and make interpretations and inferences.

Primary findings from this study showed that the practice of community engagement in universities of technology in South Africa is highly contextual. Each institution undertakes community engagement in their own context and unique positioning influenced by factors such

as institutional history, geographical location, institutional definition of community and community engagement, focus area, amongst others. In terms of the particular degree to which community engagement is institutionalized, the study found that community engagement does not receive the same level of emphasis as teaching and learning and research in universities of technology in South Africa. Although organizational structures for the institutionalization of community engagement are in place in most of the universities, the actual practice of community engagement requires improvement in order for it to be deeper in the institutional fabric of the universities of technology.

Additional findings indicate that monitoring and evaluation of community engagement initiatives occurs in universities of technology, albeit informally, in most of them with improvised approaches and methodologies which differ among projects and from institution to institution. Hence, monitoring and evaluation is not consistently applied to community engagement projects in the institutions. Such inconsistency was evident in non-enforcement of monitoring and evaluation as a practice in management of community engagement projects, lack of standardized monitoring and evaluation tools in majority of the institutions, and unequal weightings for community engagement in staff performance management. Therefore, the study concludes that monitoring and evaluation of community engagement lacks depth in universities of technology in South Africa.

The study's recommendations were, amongst others, to propose a systems model for the practice of community engagement; a model for the form of community engagement; as well as a model for monitoring and evaluation of community engagement initiatives. The monitoring and evaluation framework emphasizes the integration of community engagement projects into the academic curriculum at every point either through research or through teaching and learning. Universities express community engagement based on their own individual contexts. This research study places institutional context of the university as the platform from and on which the monitoring and evaluation model functions, and uses curriculum integration as the grounding for institutionalization of community engagement in the core of university activities. In addition to providing feedback on project performance, the proposed monitoring and evaluation model focuses on emphasizing engaged scholarship in indicators at each level of the model. This contribution to knowledge provides direction on how to put community engagement projects together in a manner that promotes meaningful and practical scholarship.

Keywords: Community engagement, monitoring and evaluation, universities of technology

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LIST OF ABBREVIATIONS

ANC	African National Congress
CPUT	Cape Peninsula University of Technology
CCE	Central Council on Education
CUT	Central University of Technology
CE	Community-based research
CE	Community engagement
CCEWIL	Community Engagement and Work Integrated Learning
CHE	Council on Higher Education
DoE	Department of Education
DHET	Department of Higher Education & Training
DUT	Durban University of Technology
4IR	Fourth industrial evolution
FMPPI	Framework for Managing Programme Performance Information
GWMES	Government-Wide Monitoring and Evaluation System
HEI	Higher Education Institution
HEQC	Higher Education Quality Committee
ICT	Information And Communication Technology
IRDCE	Institute for Rural Development and Community Engagement
IFRC	International Federation of Red Cross and Crescent Societies
LFA	Logic Framework Approach
MBR	Management by Results
MfDR	Managing for Development Results
MUT	Mangosuthu University of Technology
M&E	Monitoring and Evaluation

NCHE	National Commission on Higher Education
NDP	National Development Plan
NPC	National Planning Commission
NPHE	National Plan for Higher Education
NRF	National Research Foundation
NFF	New Funding Framework
NPM	New Public Management
OECD	Organization for Economic Cooperation and Development
PAR	Participatory action research
PM&E	Participatory Monitoring and Evaluation
RBM	Results-based management
SL	Service learning
STEPS	Strategic Transformation of Educational Programmes and Structures
TUT	Tshwane University of Technology
USA	United States of America
UGC	University Grants Committee
HKUL	University of Hong Kong Library
UNDP	United Nations Development Programme
UNEG	United Nations Evaluation Group
RSU	University Social Responsibility (*Responsabilidad Social Universitaria*)
UoT	University of Technology
VUT	Vaal University of Technology
WIL	Work-integrated learning

CHAPTER ONE

INTRODUCTION TO THE RESEARCH STUDY

1.1 INTRODUCTION

Higher education institutions occupy a prominent place in society. In their central roles of teaching and learning, research and engagement, universities should develop and equip the student cohorts with skills and competencies for application in society; create and disseminate knowledge; and contribute to society's development. In view of this, universities pursue the vision, mission and goals which they set for themselves. The contemporary university understands that the process of accomplishing their plans involves interaction with stakeholders in their internal environment (students, staff) and external environment (businesses, industry, government, local communities, non-governmental/non-profit organizations, and other educational establishments). Universities' interactions can occur at local, national, regional, or international levels. Universities are no longer considered walled-off from society. It is in this context that community engagement has emerged as a vehicle to broaden higher education's direct participation in society's development.

This exploratory study sought to examine community engagement in universities of technology in South Africa, and monitoring and evaluation mechanisms applied to community engagement initiatives. This introductory chapter of the dissertation first presents a discussion that defines the place of public management in higher education. The discussion touches on the introduction of new public management principles within public administration of higher education institutions in general and in South Africa. The back ground of the study frames broad issues that surround the research problem addressed in the study to provide a context to community engagement in higher education. The research problem was focused on the challenges associated with monitoring and evaluating community engagement in universities of technology in South Africa. In addition, the chapter outlines the aim, research objectives and research questions of the study as well as justification for undertaking the research inquiry. Other sections presented in this chapter are scope of the study, overview of research methodology, definition of key concepts and a brief layout of the dissertation.

1.2 HIGHER EDUCATION AND PUBLIC MANAGEMENT

Knowledge and innovation play significant roles for economic development as a vital factor of production in contemporary society. The capacity of nations to compete is increasingly becoming dependent on their ability to accrue and utilize their knowledge capital, and governments are emphasizing policies that promote the creation, stimulation and exploitation of knowledge capital (Benneworth, 2013a:10). Knowledge-driven activities have implications for higher education. As all major undertakings of a university are related to creation, transformation, transfer and distribution of knowledge, the development of the knowledge economy and knowledge society generally reinforces the relative importance of universities and higher education (Bejinaru, 2017:252). In developed and developing nations alike, the emergence of the knowledge-intensive economy and the competitiveness associated with it have moved governments to require higher education's responsiveness to the demands of a globalized society (Sam and Van der Sijde, 2014:892). Therefore, higher education has progressively become one of key priority areas for many national governments with significant increased interest in and support for university-based activities that foster innovation and economic development (Tornatzky and Rideout, 2014:3; Bleiklie, Enders, Lepori and Musselin, 2011:161). In many countries including Finland, Ireland, East Asia and South Africa as examples, higher education is a key consideration in development policies (Maasen and Cloete, 2007:7). Universities are high priority items on the policy agenda as the connection between higher education and policy goals of economic growth become sharper, and governments are exploring ways of managing the sector through cost-effective and more efficient means (Ferlie, Musselin and Andresani, 2008:332; Ferlie Musselin and Andresani, 2009:9).

A greater involvement of the state in higher education opened doors to increased funding but also involved a reorientation and repositioning of higher education systems through implementation of detailed regulation, planning and government coordination (Bleiklie *et al*, 2011:163). The result of which are changes to the sector as the drive increases on the part of the state to shape higher education more actively by controlling and directing higher education systems as it does its other public sector institutions (Ferlie *et al*, 2008:326). Changes are placing demands on higher education institutions (HEIs) – to increase their productivity, to develop new missions that involve engagement with socio-economic and developmental needs in the society; to assume a prominent role in technology transfer and innovation; to achieve cost-efficient operations; to improve their graduation and drop-out rates; to ensure outputs meet

the skills needs of the labour market. Though changes undergone by universities as institutions over the years have also emerged from wider societal transformation, significant changes in higher education in the last decades have ensued from public reform policies instituted by governments. These reforms have brought in new ideas and added a new layer of expectations and pressures on higher education institutions. In Benneworth (2013a:12), a "modernization agenda" is identified as key instrument through which universities are being integrated into new models of public management and strategically managed for the achievement of excellence. These management patterns are connected to underlying narratives of public management reform applicable to other public service sectors in the society.

Ferlie *et al* (2008:327) argue that under public management there has been a move away from the traditional classical formulation of autonomy where higher education systems were insulated from government steering and had a high level of independence, despite reliance on the public purse. Historically, self-governance of institutions or institutional autonomy as well as the freedom of academics to engage in teaching and research without censorship or interference of any form, are held as fundamental values although often contested issues with universities (Donina, Meoli and Paleari, 2015:216; Enders, de Boer and Weyer, 2013:7; Bleiklie, 1998:87). The modern conceptualization of the university involves the idea that, for the university to best function, it needs independence from influences from political and/or corporate establishments, and the state in its role as guardian of the university must guarantee sustained state funding, professional self-governance and protection of academic freedom for the institution (Enders *et al*, 2013:7). However, the special status of university in this regard has increasingly come under scrutiny and is being challenged especially in the light of socio-economic and political developments which have spurred higher education reforms within a broader context of reforms in public services and public management in order to transform and manage higher education more optimally (Bleiklie, 1998:94-95; Christensen, 2011:507; Enders *et al*, 2013:8). Ferlie *et al* (2008:326) argue further that bringing higher education under the umbrella of public management facilitates the connection of higher education institutions' micro world with developments within the macro world of the state.

New public management (NPM) principles advocate the introduction of private sector managerial tools within public administration with an emphasis on delegation and performance management, cost-cutting and budgetary discipline, managerialism (Christensen and Laegreid, 2011:2-3). Among others, the goals of NPM include making the public sector more effective and efficient; improving how public agencies respond to the public; reducing public

expenditure, inculcating a sense of excellence and improving managerial accountability (Christensen and Laegreid, 2011:1). In addition, NPM stresses accountability for results and strongly advocates the efficient and effective use of resources. The focus of NPM on outcomes achieved makes it relevant and appropriate to apply to community engagement and its monitoring and evaluation.

In South Africa, the approach to higher education in public management has been to adopt a model based on a "less centrist form of control" where the state has a supervisory role of steering (Cloete, 2007:54). The government's steering role involves the use of government-derived instruments and institutional arrangements to oversee organisational and academic operations within higher education institutions (Ferlie *et al*, 2008: 326). The South African government provides broad regulatory frameworks within which administrators of higher education institutions are expected to produce results which government desire (Cloete, 2007:54). This is regarded as a leaner and smarter means of public management because state actions are concentrated more on outlining the parameters of steering and less on actual administration of the institutions.

The redefinition of the state's role in provision and management of higher education in South Africa is pertinent in view of the country's positioning as a developmental state. The African National Congress-led (ANC) government has committed to building a developmental state that will intervene to restructure the South African economy (Edigheji, 2010:1). Literature reveals many debates around the framing of the concept of developmental state and its constituent elements. However, Swilling, Musango and Wakeford (2016:652) sum up the defining feature of a developmental state as being "primarily concerned with the structural transformation of modernizing economies". They advance that validation of the status of developmental states stems mainly from their ability to stimulate sustained growth and development through aggressive industrialization. Subban and Vyas-Doorgapersad (2014: 500) describe a developmental state as one "where politics have assured that power, autonomy and capacity are centralized in order to achieve explicit developmental goals". Undergirded by principles of democratic governance, the South African government's thrust towards the realization of a developmental state has been to link economic imperatives (accelerated economic growth, efficiency and productivity) with social challenges (entrenched inequality, high levels of unemployment and poverty) confronting majority of the population (Edigheji, 2010:1-2).

In contrast to neoliberal narrative that is characteristically in favour of competition and free markets, minimal government intervention, private enterprise, free trade and strict protection of intellectual property (Hilgers, 2012:81; Kuye and Ajam, 2012:52); the developmental state approach is considered to be "interventionist, productivist, ideologically opportunist, protectionist and quite often authoritarian" (Swilling, 2008:3). One of key elements of a developmental model is state-led industrial policy to nurture strategic industries (Burger, 2014:161). Consequently, the pursuit of a developmental state agenda allows the South African government to play a central and strategic role by actively intervening in society to promote economic growth and to ensure that the growth has the resultant effect of social benefits, redistribution and subsequent improved living conditions for majority of the populace (Routley, 2014:162; Subban and Vyas-Doorgapersad, 2014:501).

It is in this context that higher education in South Africa is facing scrutiny to produce knowledge that is pertinent to the country's economic and social demands, as well as knowledge that acknowledges and represents diverse sources in terms of those producing the knowledge and locations where knowledge is produced (Winberg, 2006:159). In the White Paper 3 on Education commissioned by the Department of Education (DoE) (1997, section 1.3), one of the roles of higher education in a knowledge-driven world is identified as "production, acquisition and application of new knowledge". Economic growth and competitiveness is contingent on factors which include continuous technological development and innovation. This must be steered by a coordinated and effective research and development system which incorporates higher education's research and training capacity with the needs of industry, social reconstruction and other national development needs. In addition, the National Planning Commission's (2011:263) National Development Plan (NDP) recognizes that new knowledge and innovation arises from many sites in modern society. The NDP calls on HEIs to address the development needs of society in collaboration with diverse knowledge systems. Therefore, there is a fit for higher education community engagement in the context of public management to address South Africa's reconstruction and developmental needs.

1.3 BACKGROUND TO THE STUDY

HEIs globally have been challenged for many decades to shed the "ivory tower image" synonymous with them and become active partners and collaborators with their external communities. According to Benneworth (2013:3), it would seem there is a consensus that the role of HEIs in contemporary society includes an increasingly important factor of providing useful knowledge and contributing to emergent societal problems. Boyer's model of scholarship (1996 cited in Wilson, 2013:30), commonly referred to as scholarship of engagement, proposed that higher education institutions must extend their roles of teaching, research and service (community engagement) to building the society by being relevant to their communities' most pressing civic, social, economic and moral challenges. Community engagement in higher education refers to formal, informal, structured and unstructured activities, processes and projects through which the know-how of a higher education institution are deployed to issues relevant to its local, national, regional, and international communities using research and teaching (Higher Education Quality Committee (HEQC), 2004:19,26; Jacobs, Sutin, Weidman and Yeager, 2015:1).

In South Africa, the publication of the DoE's (1997) White Paper on Higher Education elevated and reinforced community engagement as one of the three core missions of higher education institutions together with research, and teaching and learning (Council on Higher Education (CHE), 2016:247). This document and the National Plan for Higher Education (DoE, 2001) are very specific about the role that the South African government expects higher education institutions to play in the development and transformation of communities and as a result contribute to the well-being of the society (Mazibuko, 2005:75). The emergence of these significant policy levers have served to facilitate institutional shifts in HEIs towards engagement given that the post-apartheid government regards higher education as key in the projects of transformation and renewal in the country (Webbstock, 2016:5). Hence, it is considered that increased engagement on the part of higher education institutions will support fulfilment of those transformation goals (Bender, 2008a:84). Such expectations about the role of higher education institutions in society are not out of place but are very relevant in the South African context taking into account the challenges of inequality, poverty, public governance failures, service delivery backlogs, violence and social unrest which necessitate new and innovative approaches for solutions (Brown-Luthango, 2012:312).

Consequently, the importance of community engagement has gained considerable momentum, with increasing pressure on higher education institutions in South Africa to raise their levels of community engagement and elevate the status of their teaching and research (Wilson, 2013:1).

HEIs are believed to have the capacity to play an important role in tackling the development needs of the society but many institutions are still struggling to meet those expectations. Notably, many HEIs in South Africa have accepted the university-community engagement mandate, denoted by prominent statements in strategic vision and mission documents. However, many institutions still have challenges with fully institutionalizing community engagement. According to the Favish and Simpson (2016:253), there are challenges with ascertaining actual levels of community engagement activity in HEIs in South Africa because it is not compulsory that they supply such information to any national database. Therefore, a need exists to identify and assess community engagement in higher education institutions and to clarify to what extent engagement strategies are truly embedded and institutionally aligned. Institutionalisation of community engagement involves the establishment of monitoring and evaluation systems (Fitzgerald, Bruns, Sonka *et al*, 2012:16). Monitoring and evaluation in community engagement is intended to facilitate an assessment of processes, outputs, outcomes and impact of initiatives undertaken, which will help determine the success or failure of a program, project or policy (Govender, 2013:815). Because the university-community engagement partnership is one where each party shares a stake it is often necessary to establish what constitutes a successful outcome in the partnership, hence the relevance of monitoring and evaluation.

The choice of universities of technology (UoTs) as the focus of the study provides insight into the development, growth, direction and activities of this type of HEI in relation to community engagement. In a longitudinal study conducted in the United States of America, Astin, Vogelgesang, Misa *et al* (2006:56) found that priorities, where community engagement is concerned, varied significantly across different types of HEIs. The same study also found substantial differences in levels of participation in community engagement among the different types of HEIs. There are different types of higher education institutions in South Africa. The high degree of institutional differentiation is observed in the histories of the HEIs, their institutional missions and cultures, as well as academic norms amongst others, all of which may influence the practice of community engagement. Therefore, the probability is high that HEIs in South Africa have different approaches to community engagement. By nature and delivery of their programmes, UoTs are regarded as outward-focused institutions that apply

their expertise to identifying the problems and needs of society and industry, and together finding solutions to those problems (Du Pre, 2010:13).

The study examined how UoT typology of higher education institution brings its close links and on-going interaction with the external environment to bear on its implementation of community engagement. The study is relevant because its particular focus on UoTs in South Africa fills a knowledge gap that currently exists as there is a lack of documented research information relating to how this category of higher education institution has operationalized its community engagement mandate. There are many studies which have investigated community engagement in traditional universities but there has not been any with a singular focus on a group of UoTs to examine the implementation of community engagement and the challenges specifically associated with monitoring and evaluation of same. Therefore, the study contributes a unique element to the body of knowledge in higher education community engagement.

1.4 RESEARCH PROBLEM

In spite of increasing significance and value of community engagement in higher education, many HEIs experience challenges with respect to institutionalization especially in the area of monitoring and evaluation (Favish and Simpson, 2016:267). Most HEIs have strategic intent and purpose towards community engagement, and are operationalizing the concept through several initiatives and projects, but a knowledge gap exists in terms of research studies regarding outputs, outcomes and impact of community engagement (Garlick and Langworthy, 2008:157). In Govender (2011:3), outputs are results of activities of service, outcomes refer to experiences of recipients of the service in the medium term, and impact concerns the long term effect or significance of the services provided. With respect to community engagement, there is a need to understand the effectiveness of engagement in higher education, changes made in communities as a result of engagement as well as the effect of community engagement in the communities.

Studies (see Hart and Northmore (2011), Olowu (2012) and Snyman (2014)) found that results of many community engagement initiatives by HEIs are not known because monitoring and evaluation mechanisms are not well-established. Appraisal of community engagement, even in terms of basic tracking and documentation of engagement activities continues to be an ongoing challenge for HEIs with many not being able to maintain a systematic institution-wide process

(Driscoll, 2009:8, 9; Van Schalkwyk, 2015:205). The lack of consistent assessment of community engagement brings to the fore inherent challenges faced by HEIs with respect to lack of expertise and resources to assess and evaluate engagement practices. Weerts and Sandmann's study (2008: 99) highlights the need for further inquiry to understand the outcomes associated with community engagement with a specific call for better methods of appraisal to track changes in communities due to engagement activities. Inadequate monitoring and evaluation structures pose a challenge because it impedes the ability to judge how well or badly HEIs are implementing community engagement. Furthermore, community engagement is included as one of the variables for academics' performance evaluation. However, there are pertinent questions on how community engagement activities by faculty should be quantified using adequate measures in order for it to be comparable to the conventional measures used for teaching and research. Hall (2010:36) notes that there is a considerable level of difficulty in developing appraisal systems for community engagement because of ambiguity as to what such systems are intended to measure in community engagement. Therefore, in proposing a monitoring and evaluation framework, this study attempted to translate the construct of engagement into elements which can be assessed.

In addition, there is the problem associated with the meaning of community engagement in higher education institutions. Internationally and in South Africa, a lack of conceptual clarity exists in academia around the term "community engagement". According to Pinheiro, Langa and Pausits (2015:228) efforts to define the implications of community engagement for the internal fabric of HEIs, in terms of rules and structures, as well as the identities and values of academics have generally been ineffectual. This is because different academic communities and knowledge domains have different notions of what community engagement covers. Many HEIs define the term very differently in diverse contexts; there is a wide spectrum of activities covered under the umbrella term of community engagement; there is an inconsistency of measurement indicators; and there are several approaches to the way that HEIs engage with communities (Favish and Simpson, 2016:242; Jongbloed and Benneworth, 2013:268). There are differences in how different higher education institutions interpret and define community engagement. This contributes to some levels of contradiction and ambiguity in the notion of community engagement (Dempsey, 2010:375). Therefore, the study pursued a line of inquiry to understand what community engagement is in South African UoTs and how the concept is defined.

As a result of the applied nature of knowledge in UoTs, they emphasize relevance in curricula and research programmes where knowledge is suited to real-world problems and concerns of industry, the community and society at large. This attribute obtains from the evolution from what was previously known as technikons, whereby technikons had a local and regional orientation, and were guided by local economic development and meeting labour market needs (Ng'ethe, Subotzky and Afeti, 2008:123). Concurring, Cooke, Naidoo and Sattar (2010:145) note the historical development of South African UoTs which has given them a wealth of experience in collaborative partnerships with a range of stakeholders. However, this legacy of collaboration is yet to be examined within the framework of community engagement. In the context that the higher education community engagement mandate requires teaching and research programmes to be aimed towards meeting the needs of the society, there is a dearth of information regarding outcomes of community engagement that UoTs carry out with their varied local, regional, national and international stakeholders. Therefore, it is important to interrogate how UoTs are performing given they are regarded to be more in touch with their communities.

Du Pre (2010:35) and Van Staden (2010:164) note that, despite the suitability and relevance of their programmes, the UoT concept and the nature of its typology are not well known or recognised in South Africa, and continue to suffer from a perception of inferiority in comparison to the other types of universities. This is related to the fact that UoTs when they were formerly known as technikons were less favoured. Hence, there is a need for better understanding of the unique identity and contribution of UoTs. Slamat (2010:112), emphasizing the issue of differentiation amongst HEIs, argues for a profiling of all activities defined as community engagement within and between institutions. In South Africa's reconfigured higher education sector, the UoT typology is a specific institutional type in view of its role, function, focus and approach to academic functions (Van Staden, 2010:164). According to Slamat, there is a need to recognize differences in how institutions implement community engagement which can contribute to the development of more strategic approaches to institutionalising community engagement.

Summarily, despite the efforts of universities to engage communities to uplift their quality of livelihood, many challenges remain. Universities need to better institutionalise community engagement with policies that address the complex contemporary challenges experienced by both communities and academia. Of particular concern are leadership, human and financial resources, power balances, sustainability of the interventions and impact evaluation.

1.5 RESEARCH AIM

The aim of the study was to examine monitoring and evaluation mechanisms of community engagement initiatives in UoTs in South Africa.

1.6 RESEARCH OBJECTIVES

- To examine the nature of community engagement in UoTs in South Africa;
- To examine the extent to which community engagement is institutionalized in UoTs in South Africa;
- To explore factors that impede institutionalization of community engagement in UoTs in South Africa;
- To examine how community engagement projects are monitored and evaluated in UoTs in South Africa;
- To identify challenges of monitoring and evaluation of community engagement projects in UoTs in South Africa;

1.7 RESEARCH QUESTIONS

- What is community engagement in UoTs in South Africa?
- What is the extent to which community engagement is institutionalized in UoTs in South Africa?
- What factors impede the institutionalization of community engagement in UoTs in South Africa?
- How are community engagement projects monitored and evaluated in UoTs in South Africa?
- What are the challenges confronting UoTs regarding monitoring and evaluation of community engagement projects?

1.8 JUSTIFICATION FOR THE RESEARCH STUDY

In view of the importance of establishing evidence that HEIs' community engagement goals and objectives are essentially being met, the rationale for the study lies in the need to bring into sharper focus what community engagement is in South African UoTs, and how same is being monitored and evaluated. The study contributes to knowledge given a dearth of literature especially from a South African context as well as a knowledge gap that exists with regard to how institutions evaluate their practice of community engagement, how they track and measure outcomes to document progress or failure in achievement of set goals and results.

The study's proposed model for monitoring and evaluation of community engagement initiatives focuses on how community engagement practices translate to outcomes in research and teaching and learning as well as in the community. The indicators used attempt to make monitoring and evaluation in community engagement more focused on results. This contributes to knowledge as far as what to benchmark in monitoring and evaluation of community engagement initiatives. Furthermore, results of the study can be used as inputs for institutional planning in the different UoTs as a means for gauging the extent to which current community engagement practices are aligned to institutional goals.

1.9 SCOPE OF THE RESEARCH STUDY

The scope of the research study defines the specific focus of the research undertaking. Firstly, it is focused on UoTs in South Africa, therefore the generalisability of results is limited to this specific subsystem of HEIs. Secondly, the inquiry into monitoring and evaluation of community engagement is conducted from the university side of university-community collaboration and engagement. The study did not consider stakeholder partners' monitoring and evaluation practices in their engagement relationships with UoTs.

1.10 OVERVIEW OF RESEARCH METHODOLOGY

The research study used a qualitative, descriptive and cross-sectional approach as the strategy of inquiry into monitoring and evaluation mechanisms of community engagement initiatives in South African UoTs. The research design for the study was a multiple case study design. Six UoTs were the case studies for the research study: Durban University of Technology (DUT),

Mangosuthu University of Technology (MUT), Vaal University of Technology (VUT), Tshwane University of Technology (TUT), Cape Peninsula University of Technology (CPUT) and Central University of Technology (CUT).

The institutions were selected into the study sample using purposive sampling, a non-probability sampling method. Primary data for the study was obtained through semi-structured in-depth interviews using an interview schedule. The interview schedule was designed by the researcher and informed by critical literature review. The study proposed to interview three respondents in each university of technology: one senior executive (strategic level) who oversees the institution's community engagement portfolio and two (2) project managers/heads/supervisors at operational level who manage any two community engagement programs/initiatives in the institution. However, due to reluctance to participate in the study evidenced by a lack of response to invitations, the study conducted only seven interviews and had to substitute with documentary analysis. Additional data was obtained through analysis of significant documents such as strategic policy documents, mission statements, institutional reports, newsletters, and websites to inform the study's inquiry of community engagement at each of the six universities of technology. The research data was transcribed and coded to define connecting and interrelating themes from the data. Content analysis was used to identify, examine and record patterns within the data.

1.11 DEFINITION OF KEY CONCEPTS

i. Higher Education Institution

The Higher Education Act No 101 of 1997 (Republic of South Africa (RSA), 1997) defines a HEI in South Africa as:

"Any institution that provides higher education on a fulltime, part-time or distance basis and which is -

a. Merged, 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 provisionally registered as a private higher education institution under this Act."

Key functions of HEIs include, among others, the following: innovation, transmission and repository of knowledge and learning; development of individual students in skill, intellect and ethics; provision of mechanisms for the nation's development and growth; provision of significant connections to socio-economic and socio-political development of the society; and contribution to the well-being of communities, nations and societies locally and globally (Hayward, Ncayiana and Johnson, 2003:viii). An operational definition for higher education institutions is all institutions that are authorized by the state to provide post-secondary education, training and research guidance.

ii. Community Engagement

In the context of the study's focus, community engagement is a general term that encompasses an extensive conceptualization of broad interactions and collaborations between higher education and its internal and external communities at local, regional, national and global levels (Driscoll, 2009:6). It is an intentional process to facilitate reciprocal, mutually beneficial two-way sharing of knowledge, information, skills and expertise to deepen scholarship, research, creativity and innovation; enhance the academic curriculum as well as teaching and learning; develop engaged citizenship and civic responsibility in graduates and staff of higher education institutions; reinforce democratic values; contribute to the public good, social justice and transformation; and promote social, economic and ecological sustainability (De Lange, 2012:102). This approach to community engagement is undergirded by an appreciation of the fact that universities do not have a monopoly on all knowledge and expertise, and that both expertise and great learning opportunities in teaching and scholarship also exist in non-academic settings (Fitzgerald *et al*, 2012: 7). This definition serves as a theoretical and operational definition of the concept of community engagement.

iii. Institutionalization of Community Engagement

Institutionalization of community engagement refers to the extent to which community engagement is an integral part of the core structures and primary activities of HEIs (Pinheiro *et al*, 2015:229). It is the degree to which community engagement is at the centre of institutional mission and culture, and embedded in all aspects of structures, academic fabric and functions (Fitzgerald *et al*, 2016: 247). The purpose of institutionalization is to ensure that community

engagement becomes the guiding principle of HEIs' approach to teaching and learning and research rather than being positioned as a separate pillar of the academic function. A contemporary approach to institutionalization is to promote transformation of overall higher education culture to adopt ways of knowing and forms of scholarship which enable community engagement to thrive in universities. This definition serves as a theoretical and operational definition of the concept of institutionalization of community engagement.

iv. Monitoring and Evaluation

The conventional view on the concept of monitoring is that it is an ongoing process of collection, capture and analysis of pertinent information regarding a program or project for the purpose of observation and control of its progress (see Williams, 2016:12; Basheka and Byamugisha, 2015:78; Organization for Economic Cooperation and Development (OECD), 2009:93). Kusek and Rist (2004 cited in Zwane, 2012:13) refer to monitoring as an ongoing activity involving regular, systematic collection of data on specified indicators to provide management and stakeholders with indications of the extent of progress, achievement of defined objectives and use of allocated resources regarding an ongoing project.

Evaluation builds on monitoring by assessing or determining the worth of a project, programme or process (Auriacombe, 2013:715). Evaluation is a periodic, objective and systematic assessment of an ongoing or completed project for the purpose of ascertaining the relevance of objectives, adequacy of design and implementation, efficient use of resources, and sustainability of outcomes (Gertler, Martinez, Premand *et al*, 2016:7).

Monitoring has an internal focus and management-driven emphasis on the efficiency of the project under review, while evaluation is externally-focussed with a stakeholder-driven emphasis on the effectiveness of the project (Crawford and Bryce, 2003:366). Both concepts function in synergy as a management tool that supports learning and accountability to weigh organizational performance and meet the needs of diverse stakeholders. This description above sufficiently provides a theoretical and operational description of monitoring and evaluation.

v. University of Technology

Universities of technology in South Africa were created from what was formerly known as *technikons* which were HEIs that concentrated on the application of scientific principles to practical problems and to technology in their academic pursuits (Du Pre, 2010:2, 13). As a distinct institutional typology, UoTs focus on the study and applied use of technology in a practice-oriented, real-world focused manner in various knowledge disciplines and fields of study (Du Pre, 2010:9). UoTs' *technikon* background has accorded them a long standing reputation for providing practical training and vocationally-oriented programmes in industrial and technological disciplines.

In Reddy (2006: 36) and Scott (2006: 56), some identified general characteristics of UoTs include:

- Being research-informed (rather than research-driven) and outcomes-oriented (rather than input-oriented
- Engaging in focused and applied research that meets the needs of professions and industry
- Curriculum focus is on meeting the needs of related industry and professions
- Attention to social critique of all forms of technology and their application to national development agenda
- Providing high quality vocational education at both degree and sub-degree levels
- Offering qualifications that are vocationally relevant and involve the acquisition of technological competence

1.12 LAYOUT OF DISSERTATION

Chapter One provides an introduction to the research study. The chapter presents a background context, focus and description of the problem the study addressed, as well as the study's aim, objectives and research questions.

Chapter Two presents the study's conceptual framework with a discussion of theories and concepts informing the research inquiry. Using systems theory, business environment model (macro/PESTEL and micro environment), institutional theory and logic framework approach, the conceptual framework describes the university as a system interacting with external

environmental factors as well as elements within its own internal environment to inform its expression of community engagement, the extent to which community engagement is institutionalized and the monitoring and evaluation component.

Chapter Three is a literature review which discusses higher education in South Africa. The chapter deliberates on the nature of higher education and its unique characteristics in the South African context. Higher education reforms and transformation are reviewed. In addition, the chapter examines UoTs as a typology of South African higher education institution.

Chapter Four is a literature review of community engagement within the context of higher education. It presents an analysis of how community engagement is conceptualized in its different forms and models. Also, the chapter presents an international perspective of higher education community engagement by examining precedents in Africa, Asia, South America as well as the United States of America.

Chapter Five is a literature review of monitoring and evaluation as a management tool, and its application in higher education community engagement.

Chapter Six outlines the research design and methodology used in the empirical part of the study. The case study design, data collection methods and data analysis procedures used are described. The trustworthiness (reliability and validity) of the study are also addressed in the chapter.

Chapter Seven presents and discusses data obtained during the study. The chapter provides an analysis of data, with detailed discussion of findings, as well as an interpretation of the results.

Chapter Eight is a summary of the study outlining conclusions on main findings of the study, the contributions made to the body of knowledge which culminate in a monitoring and evaluation framework for community engagement initiatives. The chapter also presents recommendations and implications of the research findings on theory and practice.

1.13 CHAPTER CONCLUSION

This chapter provided an introduction to the study examining the monitoring and evaluation of community engagement in UoTs in South Africa. The chapter discussed the background to the study and outlined the research problem addressed in the study. Also, the research objectives, research questions, as well as significance of the study were highlighted in this chapter. The next chapter presents a literature review of existing knowledge on community engagement in higher education.

CHAPTER TWO

THEORETICAL AND CONCEPTUAL FRAMEWORK

2.1 INTRODUCTION

This chapter of the dissertation provides a theoretical and conceptual framework for studying monitoring and evaluation mechanisms of community engagement initiatives in universities of technology in South Africa. The conceptualization of the framework articulates the researcher's framing of broad ideas, principles, concepts and theories that underscore the study's approach in exploring the subject matter.

The theories and concepts that informed the research inquiry include systems theory, management environment model (macro/PESTEL and micro environment), institutional theory and logic framework model. The study used the conceptual framework to advance an understanding of higher education community engagement in universities of technology, and the place of monitoring and evaluation in community engagement initiatives by articulating the possible connections and influences between these key concepts and constructs in the research inquiry.

The theoretical and conceptual framework explains the university institution as a sub-system of a broader system. The university is considered to be an open system interacting with external environmental factors as well as elements within its own internal environment to inform its expression of community engagement, the extent to which community engagement is institutionalized and the monitoring and evaluation component.

2.2 SYSTEMS THEORY

Systems theory is the main theoretical premise of the research inquiry. Systems thinking explains interdependencies occurring in phenomena. According to Jackson (2003:3) and Ackoff (1999:6-8), a system is a complex whole whose functioning depends on its parts comprised of interrelated elements and the interactions between those parts functioning as a unified whole. Universities' traditional organizational form is characterized by decentralized, semi-independent disciplinary divisions - colleges or faculties, schools, departments – under one institutional umbrella operating along parallel lines (Bleiklie, Enders and Lepori, 2017:4). Organizational theorists such as Cohen, March and Olsen (1972:1) use the term "organized

anarchies" to refer to universities' loosely coupled organizational configuration (Pinheiro and Stensaker, 2014:498). Organized anarchies are such because of their main properties: its own processes are not understood by its members, paradoxical goals and procedures, and vulnerability to environmental shifts. With regard to loose coupling, the coupled entity as a whole is regarded to be responsive, and each unit in it preserves its individual identity and maintains some indication of its physical or logical separateness (Weick, 1976:3). In other words, loosely coupled systems comprise sub elements that have their own internal authority and autonomy relative to the larger system (Chavez, 2018:2).

The application of systems thinking in the research inquiry was influenced by how universities are not independent of their environment but are subsystems in the higher education system which itself is a subsystem of society. While there are specific relationships within and among interrelated subsystems in the university, the institution as a whole interacts with the environment. So, a system emerges from the configurations of interactions and interdependence of elements within and the relationship between the university and the environment (Lai and Lin, 2017:2). The systems perspective stresses that interchanges between the system and the environment are essential to the system's viability (Scott and Davis, 2007:91; Weerts, 2005:86) because within the environment are important variables critical to the system's existence. Open systems interact and engage with the environment, adapting as is required and in that way maintain their functional existence (Jackson, 2003:6; Ackoff, 1999:7). Most universities are open systems that experience considerable influence from and are compelled to respond to environmental changes and demands. These environmental factors and their implications for higher education community engagement are discussed in this chapter. However, this study suggests that in some instances universities can be regarded as closed systems detached from some sections of society in terms of spatial barriers, difficulty of access to information within universities, structural limits to ability of some sections of society to participate in knowledge development, lingering vestiges of citizens' perceptions of some universities linked to the role those institutions played during apartheid.

The main tenets of systems thinking include holism, which is consideration of a system to be more than the sum of its parts (Jackson, 2003:4); rationalizing the subject of inquiry from the perspectives of a wide range of stakeholders with interest in the problem or from different perspectives on the possible purposes of the system in question (McNall et al, 2015:3); and using key relationships among system elements, between systems and subsystems, to see how dynamics of these relationships contribute to the perpetuation of the phenomenon (McNall et

al, 2015:4). This is how the theory attempts to explain complex organizational behaviour while considering the agency of the organization. Systems theory explains how interactions among components give rise to the structure and the properties of a system, which is known as emergence (Lai and Lin, 2017:4). This emergence denotes the outcomes or results of a complex system, stemming from interactions between and among lower level and higher-order entities. The researcher found this relevant in applying the theory to this research inquiry where framing higher education community engagement as a wicked problem existing within the subsystem of the university of technology taking into account the networks of interactions between different elements in higher education system that contribute to sustain the existence of community engagement as an academic function.

Systems theory is a rational framing for the study because it furnishes a perspective to view the interdependence between higher education institutions' internal environment and external forces, and how it influences engagement. The response of the higher education sector to prompts from the environment has stimulated transformation, effects of which are observed in how universities engage with the world beyond their walls. Furthermore, a systems perspective takes into account the networks of interactions between different elements in a university system that contribute to sustain the existence of community engagement as an academic function. The performance of a university where community engagement is concerned depends on how different parts of the system (faculty, students, university leadership, institutional units, academic disciplines, communities, government, and industry) interact, not on how they act separately. Furthermore, open systems create experiential learning platforms which enhances learning possibilities in a group or social context, something which community engagement promotes because by their participation the university and communities become co-owners of the process or knowledge sharing, development and learning.

Some authors have highlighted several shortcomings of the systems approach in understanding organizational behaviour. Stacey, Griffin and Shaw (2000:58) opine that to think of an organization as a "system" is to locate the freedom and participation of individuals outside the system being used to explain it, bearing in mind that organizational behaviour is the sum of the patterns of individual behaviour within that entity. The authors argue that there is an exclusion of human behaviour from the specification of a system. The response of this research study to this argument is that human behaviour is given adequate consideration in the use of systems theory in this inquiry through evaluation of faculty's response to community engagement in the case studies.

2.2.1 Systems theory and wicked problems

Systems theory is applicable in developing an understanding of wicked problems. This research inquiry suggests that higher education community engagement is a wicked problem. Rittel and Webber (1973:160) used the concept of "wicked problems" to explain how challenges confronting society are not isolated problems but are multifactorial systems of interrelated problems that continuously reinforce one another (Ackoff, 1999:13). The resultant complexity associated with wicked problems means there is not one correct or clear definition of the problem because they are unstructured, and the understanding of the problem is dependent on the perspective from which the problem is being viewed as well as the solution one has in mind for it (Rittel and Webber, 1973:160-161; McNall, Barnes-Najor, Brown *et al*, 2015:3). Universities and communities are complex entities. There are debates around what community engagement is, how it should be defined and what its scope should cover (Favish and Simpson, 2016:242; Kruss, 2012:6; Hall, 2010:4). There are divergent interpretations ascribed to community engagement with long-standing arguments around the idea of who the community is in community engagement (Ogunsanya and Govender, 2019:56).

Wicked problems have no final solutions because there is no way to determine that one has gained complete understanding of the problem although a better understanding of the problem often emerges in trying to create solutions (Rittel and Webber, 1973:162). Evaluating an appropriate response or solution to wicked problems is not based on correctness but rather in how a proposed solution may address the problem in a better or worse way (Rittel and Webber, 1973:163). Conceptual ambiguities plague community engagement in terms of different interpretations, varying terminologies used to caption activities under the aegis of engagement, and diverse approaches to community engagement (Ogunsanya and Govender, 2019:57). Moreover, there is no straightforward, singular solution (or sets of solutions) that exhaustively solves a wicked problem. Although each wicked problem is deemed to be unique, one is regarded as a pointer to another problem (Rittel and Webber, 1973:164). This is attributable to multidimensional, multi-causal, over-lapping, interconnectedness of elements in the system. Hence, there are various ways to make sense of wicked problems, and the choice of explanation determines the approach to resolving the problem (Rittel and Webber, 1973:165). There is no singular way to do community engagement, and this explains the contextual nature of community engagement where each university's practice depends on their context and understanding of the concept.

The nature of wicked problems require multidimensional collaborative solutions which inter- and trans-disciplinary partnership can offer. Engaged scholarship which community engagement advances, draws on a broad spectrum of information and knowledge "built upon many disciplinary perspectives and experiences" (Ramaley, 2014:18). Community engagement makes the case for transdisciplinary mobilisation of both theoretical perspectives and practical methodologies to guide inquiry and action in problem-oriented research (Nowotny, Scott and Gibbons, 2001:223). New thinking about interconnected challenges require greater collaboration across knowledge domains and involvement of new participants who bring ingenious insight from their own proficiencies (Ogunsanya and Govender, 2019:62).

The following sections discuss elements or factors in the system in which higher education and universities operate. The discussions indicate influences which such element have on higher education community engagement. The research study used these elements to propose a community engagement model for a university of technology from a systems theory viewpoint. The model is presented as a recommendation in chapter 8 of the dissertation.

2.2.2 PESTEL model - External environment of universities

Using a strategic analysis approach to evaluate the external and internal environments in which universities operate, the study leaned on the PESTEL framework which is used to scan, monitor and evaluate important factors and trends in an organization's macro environment (Rothaermel, 2017:66). The PESTEL model outlines how relevant macro environmental factors affect UoTs to influence the practice of community engagement. Also, relevant elements in the higher education sector which make up universities' task environment are identified to show how they contribute to an institution's expression of community engagement. The application of this concept in the context of this study is relevant due to the dynamic environment in which HEIs function. It enabled the researcher outline how critical environmental factors affect a university ability to carry out its academic mission.

i. Political factors

The impact of apartheid government policies were evident in higher education as higher education institutions had a measure of autonomy and structure that accorded them an "aura of being ivory towers – cut off from society…" (Wolhuter, Higgs, Higgs et al., 2011:108). More serious was the denial and restriction of South Africans of African descent from equal educational opportunities and outcomes (Badat and Sayed, 2014:128). Mamphiswana and Noyoo (2000:22) commented on how "to a large extent South African universities were bedfellows of the oppressive regime of apartheid and because of this they lacked…a natural reciprocal relationship with the broader social, cultural and economic environment". Therefore, political changes on the wave of democratization in 1994 steered the democratic government's drive to transform higher education to eradicate an unequal, racial segregation-based system, and provide equal access and quality education to all South African citizens (Mouton, Louw and Strydom, 2013:288). Another purpose to higher education post-apartheid transformation was to usher in a new approach to higher education where the sector becomes active stakeholders in the country's development agenda by being more engaged with society in order to be able to respond appropriately to national needs and challenges. Institutions that were once complicit in advancing discrimination and inequality are now required to become agents of development.

Bawa (2013:26) draws attention to how higher education in South Africa is in a continuous state of swing because it has to align with frequently shifting educational policies which are framed within equally changing broader macroeconomic developmental strategies (Badat and Sayed, 2014:132). The author reiterates that since 1994, there has been various policies unveiled in quick succession by the governing party. Such policies include, among others, the Reconstruction and Development Programme (RDP), the National Commission on Higher Education, the Growth Employment and Reconstruction (GEAR) macroeconomic plan, the African Renaissance Project, the Accelerated and Shared Growth Initiative for South Africa (ASGISA), the National Development Plan (NDP) (Badat and Sayed, 2014:132). According to Bawa (2012:691), such frequent policy changes affect universities as they have to attempt to align within a short time frame before another policy is in effect. This introduces some level of uncertainty into planning for a function like community engagement as these national policy frameworks attempt to define the role of higher education in the South African society.

The implication of political factors on higher education community engagement can be also related to the issue of access. Apart from increasing participation of previously-excluded groups in higher education, access pertains to making universities' knowledge reserves more widely available to society in a reciprocal manner (Brennan and Naidoo, 2008:288). Access ensures there are open links between universities of technology and their communities. This study likens the concept of access to universities having "visible and open doors". Doors are a figurative reference to visibility and accessibility where stakeholders from the university and community side can easily access one another's domains. While teaching and research can be said to have visible and open doors, community engagement has yet to achieve the same status and can be considered as unseen and inaccessible. The questions arises as to how easily can the community engagement function be accessed in universities and universities of technology in particular.

ii. Legal factors

The use of legislation is regarded as one of the resultant developments contributing to increasing complexity of the environment in which the higher education sector has to operate, and the number of stakeholders involved (Fielden, 2008:7). Legislation sets out a regulatory regime for the state, higher education institutions, higher education regulatory agencies and other stakeholders, in addition to delineating the parameters in which the various stakeholders function (Fielden, 2008:7). The scope of legislation governing higher education is dependent on national context and policy priorities because the policy environment for higher education is often prompted by political considerations and the developmental position of governments (Ng'ethe *et al*, 2008:xix). In South Africa, the legislative environment governing higher education has been a major part of its reform process and a critical influence in determining the place of community engagement. Legislation has been used to establish community engagement as a core mission and role of higher education institutions. The legislation and policy documents providing a frame of reference for higher education community engagement are discussed in more detail in Chapter 3 of this dissertation. The main point of this section is to highlight how the legislative and regulatory environment in which universities operate affects or has influenced their community engagement function.

It is imperative to highlight that higher education transformation in South Africa has been guided by the White Paper 3: A Programme for Higher Education Transformation (DoE, 1997). The White Paper laid the foundation for major aspects which include institutional restructure and differentiation as well as promoting the role of higher education institutions in relation to advancing national reconstruction and development (Badat, 2015:180). Although there is legislation requiring universities of technology (as well as other types of HEIs) carry out community engagement as part of their academic mission, the questions persist as to if they are doing so.

iii. Economic factors

Increase in demand for higher education remains unabated in the face of universities' financial challenges arising from significant changes in their funding structures over the years (Altbach, 2010:28). Owens (2017:415) reports that between 2000 and 2015 an increase from 19% to 36% was recorded for global higher education gross enrolment ratio. According to Altbach (2010:26) the demand for access to higher education continues to grow regardless of the prevailing economic cycle. So, even in an environment of economic shocks the expansion of mass higher education continues. Economic factors affect how higher education is financially supported from the national fiscus. Moreover, leanings towards a neoliberal economic posture where universities' contribution to the economy is under scrutiny means universities receiving any form of state funding or support are under pressure to justify their funding by "paying back" to society by way of social responsibility (Breznitz, 2014:2; Breznitz and Feldman, 2012:141).

In South Africa, the pressure on the national fiscus and universities' budget is compounded by provision of tuition-free education at tertiary level. South African universities are having to accommodate more students with limited financial resources. Also, universities are operating in an environment where public funding is linked to universities' graduate throughput and research output (Wolhuter *et al*, 2011:111). With highly limited resources, the tendency may be to emphasize the academic mission that brings in more resources while community engagement may tend to be ignored. This would negatively impact community engagement.

iv. Social factors

South African universities are affected by social factors in the environment, key amongst these is the changing profile of the internal community of universities. There is an increasingly diverse demographic and cultural make-up of prospective and current students and staff members in terms of race, gender, nationality, disability and social class. Higher education institutions have to be cognisant and ensure they are quality, fit-for-purpose, socially-conscious institutions that are adapted to such diversity in their processes, policies and functions. In addition, change is equally affecting local communities where universities are located. To some degree, previously disadvantaged and excluded South African communities are now able to participate in social, political and economic opportunities, structures and power (Erasmus, 2005:140). Although this is true and apartheid-era restrictions which created distinct boundaries in communities no longer exist, clear dividing lines around economic power and social class among others still remain and continue to add to society's other grand challenges (Erasmus, 2005:140). Thus, there are expectations for the higher education sector to be actively responsive to different challenges faced by communities and different sectors of the society in the context of social transformation and economic development (Wells, 2017:31).

Also, this study reasons that social factors provide room to interrogate who South African universities consider to be their communities and how they (universities) define their communities. Who a university defines as its community or communities will influence the manner of engagement with such communities. This is relevant given universities' "various overlapping historical, political, and economic relationships with their surrounding communities" (Dempsey, 2010:364) which have fostered different perceptions of universities in the mind of communities. Reputation is found to be one of critical factors that determine choice of institution (Jooste, Cullen and Calitz, 2020:220; Merchant, Rose, Moody et al, 2015:26). The inference is that a university's reputation can influence the community's perceptions of that university. Communities' perception of universities will have an impact on the level and kind of interaction they have with universities; it will determine if communities consider universities to be places where they can access solutions for issues in the community.

Furthermore, the dynamic and heterogeneous nature of community as a concept can present a challenge for higher education community engagement. This means there are diverse stakeholders in communities having different stakes, interests and expectations of engagement initiatives and outcomes (Ogunsanya and Govender, 2019:56), and this creates tensions within

the system which community engagement has to occur. The challenge for community engagement will be how to accommodate the diversity of communities, different expectations from different interests groups within communities. In addition, unequal power balance between academia and communities is another element of social factors creating challenges for a university's community engagement. There are power inequalities existing around spatial location and access, resources, professional stature, knowledge, skills, and influence (Ogunsanya and Govender, 2019:59-60). Such indications of power differentials are a reflection of social imbalances in society, and when carried over into relationships between universities and communities they are capable of undermining the mission of community engagement.

v. Technological factors

The significance of technological factors for higher education is in the emergence of the knowledge economy where "the production, diffusion and use of technology and information are key to economic activity and sustainable growth" (OECD, 1999:7). Universities have moved beyond the roles of just preserving and transmitting knowledge via teaching to advancement of knowledge via research and converting this research potential to have an impact on society (Krishna, 2019:44; Etzkowitz, 2013:487). Universities are contributory to the development, growth and sustenance of a knowledge economy (Williams, 2009:9). Community engagement provides a platform for focused channelling of universities' knowledge repositories to provide solutions to shared challenges through engagement with different levels of society locally and globally (Benneworth, 2017:249).

As key participants in knowledge production and development of technologies, universities are ideally positioned to transfer subsequent innovations into social and economic practice. Community engagement advocates for knowledge co-development and bi-directional transfer. For this to occur, there must be an appreciation for local and indigenous knowledge present in communities. However, academia's perceived lack of respect for community knowledge, and the tendency to regard community members as research subjects instead of partners in research constitute a challenge for higher education community engagement (Buys and Burnsall, 2007:74; Bernado, Butcher and Howard, 2014:118). This is why true community engagement advocates for methods or approaches that enable participation of local community knowledge in knowledge co-building, as well as ensure co-learning occurs.

Two-way exchange facilitates cooperation between academics and communities to explore, discover and learn (Ogunsanya and Govender, 2019:60). Knowledge in communities can be co-opted into national innovation systems through higher education community engagement. Furthermore, the effect of technological factors on universities' community engagement cannot be side-stepped especially in institutions such universities of technology which is focus of this research study. Universities of technology are focused on applying technology in various fields of study to create solutions and add value. The pressure in community engagement initiatives in this typology of higher education institution is how to explore the practical application of technology in initiatives to address problems in communities and to add value.

vi. International/Global factors

Globalization has created a progressively open and integrated world to which higher education is having to adapt. Advancing from operating primarily in a local space or national context to being part of the global educational system is what many HEIs are having to negotiate. There is pressure to be globally competitive while maintaining local relevance in a balancing act of engaging locally and internationally. Factors at play in the local context present different set of effects and responses for HEIs while global elements produce different influences on universities. According to Grau, Escrigas, Goddard *et al* (2017:44), engaging globally and locally has implications for the purpose, subject and methodologies of HEI's research and teaching activities. One is global performance rankings of universities where ranking criteria may not do much for an institution's focus at local level but such criteria must be must be attended to for the sake of a favourable position in international ranking (Maringe and Foskett, 2010:2). Global rankings "demonstrate how globalization has transformed higher education into a marketable commodity" (Hazelkorn, 2014:13), and have increased institutional competition and polarization amongst higher education institutions (Hazelkorn, 2017:1). On one hand rankings are a measure of perceived quality and excellence of higher education systems while on the other they reflect the disparity in resources and unevenness in the global production of knowledge (Hazelkorn, 2017:4; Marginson, 2007:132). According to Hazelkorn (2015:xv), rankings are a considerable influence when HEIs make decisions and set priorities around international partnerships.

One implication for higher education community engagement is that universities' community has moved beyond their local and national borders. Internationalization opens up the development of community-university partnerships and collaborations internationally. With that comes the need for universities to consider how to integrate an international and intercultural dimension in their academic operations ((Zeleza, 2012:2; Knight, 2005:13). Universities need tools, mechanisms and resources which enable them to engage more effectively in a cross-border fashion. In South Africa, universities are not equally resourced - some are resource-rich while some other face serious resource constraints. The challenge this poses to community engagement is how universities allocate resources in a way that enables them to pursue global competitiveness while meeting local demands. Also, though internationalization provides an international dimension to research and teaching, the pursuit of internationalization may cause universities to ignore or overlook opportunities for engaged scholarship within the local communities.

2.2.3 Micro environment - Internal environment of universities

The growing attention on community engagement as a core function of higher education informs a need to examine key elements within universities' internal environment that influence their ability to realize their community engagement mandate. Analysis of the internal environment of universities is to highlight relevant institutional factors that may be drivers or obstacles to the community engagement function, depending on their presence or absence.

i. Institutional typology

Institutional typology pertains to the types of institutions resulting from classifications based on differences between HEIs. Birnbaum (1983 cited in Van Vught, 2008:152) mapped differentiation in institutional typologies using seven factors. The factors are systemic differences (institutional type, size and control); structural differences (historical and legal foundations, internal organizational structure); programme differences (academic programmes and qualifications offered); mode of delivery (contact or distance learning); reputation (global rankings, status, prestige, resource base, networks); diversity of staff and student profile; institutional cultures and values. The proposition of this research inquiry is that clarity on institutional typologies, their characteristics, and missions contributes to an understanding of their pursuit in community engagement. This reasoning is based on the premise that different typologies of higher education institutions have different profiles where research, teaching and

learning and community engagement is concerned, and will operationalize these functions differently depending on their typology (Howells, Ramlogan and Cheng, 2008:2).

In South Africa, there are three typologies of universities: traditional universities, universities of technology and comprehensive universities. Though such categorization was to encourage diversity in the higher education system a tendency towards uniformity is what is observed (Department of Education (DoE), 2001: section 4.1). The DoE states "…other than the broad distinction between universities and technikons in terms of the career-oriented and technological focus of the latter, there is little else to distinguish between and within the aspirations of the university and technikon sectors" (2001: section4.1, para.2). Webbstock (2016:44) concurs and indicates how a lack of clarity where institutional typology is concerned has had implications for some of the academic practices of post-merger institutions. Webbstock (2016:46) continues and states "both institutional type and programme purpose have significant effects on teaching and learning, as different kinds of knowledge require specific ways of being taught and learnt, how curriculum is organised and what attitudes, values and practices are cultivated". The indication that institutional type affects academic practice implies that institutional typology affects how community engagement is done. The characteristic defining the university of technology is a strong teaching orientation and focus on technological skills development and application of technology in vocation, as well as a developing research capacity. The key issue is how this translates to the community engagement practices of institutions in this category.

ii. Institutional history, identity and culture

Institutional history, identity and culture are relevant variables to consider especially from a South African context where universities have had to reimagine and redefine themselves in a post-apartheid dispensation. Bernado, Butcher and Howard (2012:190) found that universities can be organizationally defined through their history and mission the effect which is reflected in what is practiced as values, norms or guiding philosophies in academic activities. Organizational identity is about how a collective defines itself, a conceptualization of what internal stakeholders' perceptions of the core, distinctive and enduring character of their organization (Pratt, Schultz, Ashforth *et al*, 2016:3). Organizational identity influences and affects other significant activities in organizations. The identity of a university flows from its history, and institutional history contributes significantly to forging a university's mission and

culture (Weerts, 2005:87). The history and identity of a university contribute to its context, and literature indicates that institutional context affects the mode of integration of engagement into research and teaching and learning for both staff and students, and the forms of community engagement academics are involved in (O'Meara, Sandmann, Saltmarsh *et al,* 2011:87).

This study asserts that the character or identity of the university defines the character of engagement it is involved in. There are factors that characterize and shape the identities of higher education institutions in South Africa. Principal among them is the country's colonial and apartheid history which deeply influenced the identities, histories and cultures of universities in South Africa. Universities were identified and categorized on the basis of race with specific institutions designated for specific race groups and languages (Bunting, 2007:36). Several of South African universities having identities linked to racial discrimination, segregation, alienation and isolation still struggle to change perceptions that remain about them. The challenge for community engagement could be how communities accept, relate and develop trust with universities that were perceived to be instrumental in discrimination and segregation which previously prevailed. When communities have been marginalized and systematically deprived of resources, there is a tendency to feel ignored and unseen. Community engagement through engaged scholarship becomes an effective strategy to establish relationships with marginalized communities where universities become closer to communities and positively contribute to shaping the social atmosphere of such communities (Mutero and Govender, 2019:4,6).

The complexity of institutional history and culture is further compounded by mergers of higher education institutions undertaken from 2002 to 2004 as part of transformation of South African higher education. Institutions with starkly contrasting identities and cultures were merged (for example, M. L. Sultan and Natal Technikons merger to form Durban University of Technology). Though this meant the emergence of new institutions with new identities but studies such as Hall (2015:153-154) show that sometimes old cultures lingered in the new institutions because internal communities (staff, students) maintained old thinking in terms of the divide between institutions. A university's culture influences the kind of relationship it cultivates with its stakeholders on all fronts. Community engagement in its essence may necessitate changes to a university's culture especially if such culture is at odds with what is needed for the character of community engagement to thrive. Cultural changes may also be required in order to meet expectations of engagement partners and stakeholders (Sandmann and Weerts, 2008:183).

iii. Strategic Plan: Vision, Mission and Objectives

Amongst the changes to universities in the system-wide reforms in higher education is the fitting of universities into new models to public management, and subscription to strategic management in the pursuit of excellence (Benneworth, 2013a:12; Enders *al*, 2008:335). In public universities, adoption of new public management (NPM) principles has meant the utilization of business-oriented leadership and management techniques as replacement for the conventional approach to governance in universities (Enders *et al*, 2013:17; Lorenz, 2012:608; Tahar and Boutellier, 2013:688-689). This affects how universities' institutional functions are coordinated and carried out. In its strategic management process, a university will develop and implement an overall strategy consistent with its current and future needs, with review of exposure to risks and opportunities in order to ensure institutional sustainability. The strategic plan of a university – articulating its vision, mission, objectives and institutional focus - conveys what the institution stands for, giving direction, coherence and coordination in activities despite the loosely coupled, semi-independent structure of units in the university. The vision, mission and policies will outline the university's stance on community engagement. So, the strategic plan will determine the kinds of initiatives a university would engage in, which in turn will identify the community they engage with. Thus, the strategic plan contributes to creating an enabling or restrictive institution for community engagement.

In South Africa, many higher education institutions address community engagement or engagement in their strategic plans. In some institutions, there are well-crafted policy documents outlining their community engagement agenda. The inclusion of community engagement in institutional plans confers a level of legitimacy on community engagement within the institution. Also, where community engagement initiatives intersect or align with university strategic focus areas, community engagement within the university becomes directed and coordinated. However, one of the paradoxes plaguing community engagement is where it is addressed in strategic plans with mission statements affirming its place in the university, yet community engagement is invisible in research and teaching and learning or initiatives are arbitrarily carried out because staff and students are not fully committed to community engagement.

iv. University leadership and management

University leadership is a key variable in driving institutional commitment to community engagement (Bernado *et al*., 2014:107, Miller, 2008:356; Winter, Wiseman and Muirhead, 2006:221). In an environment where the inclination is for academics to maintain the status quo and concentrate on research and teaching and learning, it requires committed leadership to emphasize the place of community engagement and steer academics towards it. According to Bernado *et al* (2012:191) leadership is instrumental in community engagement being "elevated from a set of practices of doing things, towards a philosophical belief of the university's reason for being". The objective is ultimately a total institutional transformation of the university far removed from just getting things done by way of engagement projects (Ogunsanya and Govender, 2020:61). Hence, Jacoby (2014) suggests that transformational leadership is essential in instilling a heightened sense of responsibility in making a difference in communities.

Weerts and Sandmann (2008:89) suggest that the influence of leadership on community engagement can be attributed to, first, the role leadership and management have in promoting the merits of community engagement to stakeholders within the university environment and to those outside of the institution. Also, university leadership has the necessary mandate to establish community engagement into institutional policy and structures, as well as to distribute resources to facilitate the embedding of community engagement. Weert and Sandman's position is supported by Fitzgerald, Van Egeren, Bargerstock *et al* (2017:46) who assert that leadership gives legitimacy to community engagement. In addition to strategic visioning, leadership plays the role of advocacy and "space-brokering" for academia and community (Bernardo *et al*., 2014:113-114) where an enabling environment is created for academia and communities to interact. This is achieved when leadership use policies, practices and resource support to effect alignment of all university structures to achieve integration of community engagement into research and teaching and learning. The responsibility on leadership necessitates strategically crafting the university's response to society's needs in a manner that achieves an appropriate and sustainable balance with the institution's capacity, responsibilities and interests (Bernado *et al*, 2012:191).

The leadership factor creates a challenge for community engagement when effective management or oversight of the community engagement function is lacking. Also, if university leadership displays a lack of interest, enthusiasm or understanding about community

engagement, it will be impossible for such leadership to convey a clear message about the significance of community engagement to the university's internal community as well as outside communities. Without leadership setting the appropriate tone for community engagement it will be difficult for community engagement to be positioned as necessary or relevant to the academic mission and integrated into research and teaching. Liang and Sandmann (2015:56) comment on the need for substantive leadership in community engagement due to its robust and complex nature considering that community engagement cuts across disciplinary and administrative boundaries within the university as well as campus-community boundaries. The intricacies of navigating these borders, making them porous and building bridges to create access and linkages requires leadership with boundary-spanning capabilities (Ogunsanya and Govender, 2019:58). There are peculiar or commonplace factors that leadership has to deal with in engaging with different communities, and the challenge is having the dexterity to manoeuvre in different contexts. Summarily, the extent to which leadership "is committed to operationalizing community engagement has been the most critical factor determining success with the implementation of community engagement" (Lazarus, Erasmus, Hendricks et al, 2008:70).

v. Faculty involvement

Faculty members are intrinsic to higher education community engagement on account of their close connection to the academic mission. University-wide faculty involvement contributes to institutionalization of community engagement. Connecting community engagement to the academic mission means it must be established in academic programmes, and academics must link community engagement to teaching pedagogies and research agendas (Bloomgarden and O'Meara, 2007:5). This way, faculty members connect their specific knowledge and skills sets to local, regional, and national issues by working with community stakeholders in mutually beneficial partnerships to develop solution-bearing knowledge (O'Meara *et al*, 2011:84). However, literature indicates that generally university leadership face challenges in getting maximum involvement of the full complement of faculty and staff members in community engagement (Malm, Rademacher, Dunbar *et al*, 2013:25).

Holland (2016a:65, 66), Nicotera, Cutforth, Fretz *et al* (2011:38) and O'Meara *et al* (2011:86, 87) identified factors which they found to determine the extent of faculty members' involvement in community engagement. Key among the factors are personal interest and

motivation; departmental/disciplinary relevance or requirement; time associated with different aspects of community engagement initiatives; availability of resources especially funding for engagement initiatives; perceptions about the scholarly value of community engagement and its legitimacy as a university focus; value attached to engagement outcomes; institutional reward systems pertaining to community engagement; perceptions about risk-benefit ratio in community engagement; and dominant epistemology.

These factors amongst others show that academic staff involvement in community engagement has two dimensions. First is a personal or individual dimension which relates to academics themselves, and second is an institutional/organizational dimension which relates to the university's internal system and organizational design. An understanding of these dimensions points a university in the direction of what strategies to undertake to elevate faculty's involvement in order for community engagement to move from being an isolated practice to university-wide practice. Furthermore, the issue around faculty involvement in community engagement may be hinged on academics' ability to answer the question of "why community engagement is relevant to the academic mission" as well as the question of "how to incorporate community engagement into research and teaching". The first question addresses academics' understanding of the purpose of community engagement in the academic mission, while the second question speaks to practical means of realizing community engagement. Answers to the questions will guide how university leadership and management can motivate academics to be involved in community engagement.

vi. Curriculum structure

Jansen (2009:126) describes knowledge as "not only what is formally designated for learning, but includes what is widely understood within the institution to be acceptable forms of knowledge and recognised ways of knowing". If Jansen's conjecture is to be accepted, it means that in addition to the conventional mechanisms of teaching and learning articulated in HEIs' curriculum, other non-traditional ways of knowing which capture the principles of learning and accommodate an institution's context must be considered. Pertinent questions being raised include: how does curricula in HEIs serve the mission of community engagement? To what extent is community engagement fitted into academic programs on offer on both sides of teaching and research? In simple terms, does the curriculum reflect community engagement?

Different ways of knowing, dissemination and access of knowledge can influence HEIs' community engagement. Community engagement redefines epistemology and pedagogy so that universities move away from the dominance of a conventional inward-focused methodology to outward-looking methodologies that engender collaboration and consultation across academic disciplines and communities. Interactive epistemologies and pedagogies that involve external constituencies in mutual exchanges are an approach to the curriculum where HEIs adopt diverse approaches to scholarship that will enable community engagement thrive.

The discussion around curriculum brings to the fore widespread calls for decolonization of knowledge in South Africa's higher education. Demands for decolonization rose on the back of 2015/2016 student-led #FeesMustFall" protests across various universities. The colonial and apartheid establishments projected western and Eurocentric ideologies and values to shape, dominate and influence knowledge systems in SA higher education. This implies that "the curriculum at South African universities continues to favour and reproduce Eurocentric knowledge and worldviews while other knowledges and worldviews are ignored, side-lined and/or devalued" (Heleta, 2018:48,51). As such, foreign concepts have remained the baseline reference for context creating an imbalance in knowledge and understanding. Therefore, the argument for decolonization is to transform the curriculum so it reflects "the lived experiences of African people, including recognition of their scholarly work which is often on the periphery or taught as additional modules" (Langa, 2017:10).

The implication of curriculum decolonization for higher education community engagement is to ensure that knowledge creation does not exclude diverse knowledge systems existing outside of the university. The importance of curriculum content for community engagement is in addressing questions of "whose knowledge?", "how is the knowledge gathered?', and "how is lasting change achieved through an expanded cohort of knowledge contributors?' (Hall and Tandon, 2017:7). Community engagement requires a more socially aware curriculum (Soska, 2015:110) designed to be responsive and adaptable to changing local needs (Jacobs et al, 2015:13) with importance attached to local context in pedagogy and research. This will promote indigenization of scholarship for relevance.

vii. Availability of Resources

Many public universities face financial pressures, and have to supplement their state funding with other means (tuition fees, research and training grants, donations, contracts) to ensure their financial sustainability (Wangenge-Ouma and Cloete, 2008:909). Long term sustainability of community engagement as an institutionalized practice of universities is a matter of concern and debate because higher education sector is confronted by competing demands whilst having to operate in challenging environmental conditions (Boland, 2012:41). Competing priorities for limited resources is a reality in universities just as is in other types of organizations. If community engagement is considered significant in universities' missions there has to be commitment of resources in the context of advancing institutional support and commitment, and ensure its sustainability. In a study on institutional support in universities for service learning, Chadwick and Pawlowski (2007:31) found that institutional support for service learning is validated by the amount of resources allocated to service learning operations. They also found that the level of institutional support given to service learning is the second most important indicator, after faculty involvement, of the extent to which service learning is institutionalized in the university.

Resources important to institutionalization of community engagement include financial support (Weerts, 2019:11). Leisey, Holton and Davey (2012:41) argue that "the allocation of university funds for community engagement activities is seen as a strong indicator of support for community-based teaching, learning, and scholarship, but also as a sign that engagement has a value that holds permanence and prominence within the institution's mission". Holland (2016a:66) also mentions how community engagement must be reflected in strategic plans and budgetary allocations to demonstrate an institutional mind set of commitment and approval. Other resources include infrastructural support for coordination (Weerts and Sandmann, 2008:90), human resources in form of academics interested and willing to pursue community engagement agenda in universities, and local/regional/national/international community networks.

Community engagement does not receive as much funding as the other two core functions. However, the South African government through the National Research Foundation (NRF) has developed a policy that provides guidelines for funding of community engagement initiatives (Shawa, 2020:108). Figures 2.1 and 2.2 show the NRF's funding allocations to higher education community engagement over a five-year period between 2011 and 2016.

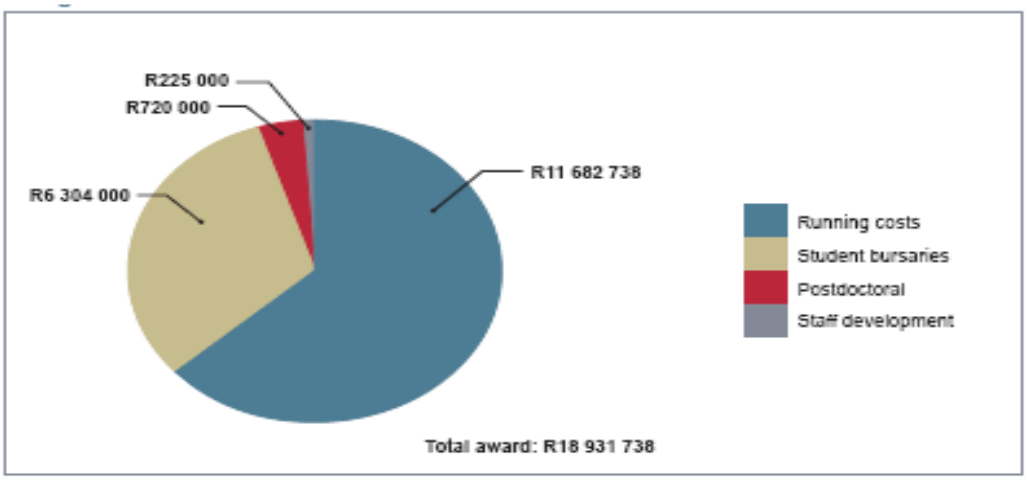

Figure 2.1 National Research Foundation community engagement allocation 2011-2013

(Source: Favish and Simpson, 2016:261)

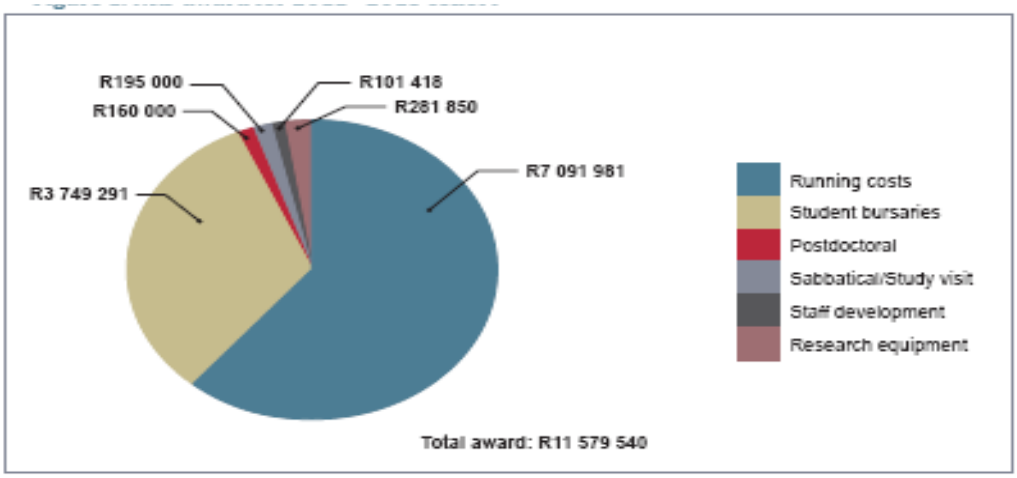

Figure 2.2 National Research Foundation community engagement allocation 2013-2015

(Source: Favish and Simpson, 2016:261)

The NRF's funding has contributed to furthering knowledge in community engagement through research, as well as in supporting community engagement practice in South African higher education (Favish and Simpson, 2016:262). However, the implication of inadequate funding of community engagement for a university is that the institution has to make strategic choices in the face of competing priorities presented by their research, teaching and learning and community engagement functions. Also, academics will tend to gravitate towards the academic mission where there is adequate financial support for their activities, and this will not bode well for community engagement.

2.3 INSTITUTIONAL THEORY

The discussion around community engagement taking a firm place in universities can be viewed from the perspective of organizational change. Engagement in higher education requires universities to make shifts from what is traditional and familiar to a dimension that is multilateral and evolving. Community engagement requires change in practice. Institutional theory was applied to the study to examine universities' institutional response, through implemented structures, to the change that community engagement brings into scholarship. Institutional theory was used to explore the extent to which universities' structure demonstrate institutionalization of community engagement.

Institutional theory is a set of approaches that view "organizations as operating within a social framework of norms, values, and taken-for-granted assumptions about what constitutes appropriate organizational behaviour" (Carpenter and Feroz, 2001:565). One of the premises of the theory is that wider social and cultural contexts influence an organization's structures, processes and practices. As open systems, organizations have to productively interact with elements in their environment to achieve their goals. Institutional theory suggests that this is achieved primarily through the basic design or rules of the organization, structures, norms, and routines (Fogarty and Dirsmith, 2001:247). Institutional theory proposes that organizations adopt certain interventions in response to coercion or strong pressures to comply with rules, mandates, and regulations (Birken, Bunger and Powell, 2017:4). The study used institutional theory to look at systems and structures in universities of technology which set out the possibilities for actioning and influencing a persistent organizational behaviour where community engagement is concerned.

Institutionalized structures generally rely on socially constructed realities, and members of institutions or organizations draw on institutionalized knowledge as a source of guidelines for their everyday performance (Mohamed, 2017:152). When accepted rules, guidelines or policies become accepted shared concepts, social roles, particular values or behaviours observed in organizations, social systems, or societies, institutionalization is the outcome. Mohamed (2017:152) describes institutionalization as a "social process that makes individuals agree on a shared definition of social realities". This indicates that institutionalization depends on human behaviour. This fact is key in view of some criticisms of institutional theory. According to Cai and Mehari (2015:11), institutional theory pays little attention to the role of human agency in institutional changes while Mohamed (2017:153) states that institutional theory is wholly focused on effects of institutionalization without any consideration for the process by which institutionalization is achieved.

Given these shortcomings, this research inquiry could have elected to use sense making theory which denotes efforts of change agents (in this case, members of the university community, specifically academics) to make meanings out of the changes that community engagement brings into higher education institutions (Luscher and Lewis, 2008:221). The researcher did not use sense making theory because it does not sufficiently capture all factors responsible for institutionalization of community engagement even though faculty involvement is one of them. Institutional theory sufficiently captures all institutionalization factors.

2.4 LOGIC FRAMEWORK

According to Kaplan and Garrett (2005:167) a logic framework is an approach to monitoring and evaluation that graphically maps the relationship between a program's inputs, activities, and intended results, while also identifying the program's underlying theory and assumptions. In Lamhauge, Lanzi and Agrawala (2012:19) and Govender (2011:92), five elements are highlighted as interrelated subsystems within the logic framework:

- Inputs: All the resources that contribute to the production and delivery of outputs
- Activities: The processes and actions that have to be implemented using the inputs to produce the outputs
- Outputs: The results that the project, initiative or program delivers

- Outcomes: The consequence of achieving particular outputs. Outcomes show progress towards objectives which is the new situation which a project, initiative or program is aiming to bring about
- Impacts: The results of achieving specific outcomes. Impact refers to change that occurs as a result of the outcomes.

The notion of logic in a logic framework approach suggests that there should be a sequential and logical flow from inputs through the relative subcomponents, leading to desired impacts that can only be achieved by performing activities that have some relationship to do with the desired outputs and outcomes (Myrick, 2013:425). Some researchers are of the thought that logic model is mostly ineffective since doing it right is usually not feasible, that is, there is no guarantee of logic when using the framework (see Wyatt-Knowlton and Phillips, 2012; Booker, 2016). Other criticisms of the logic framework by these authors include difficulty of completing the framework if it is not centred on sound program theory which presents as an additional challenge because adapting such theory can be time-consuming (Booker, 2016:1).

This research inquiry has selected the logic framework because it is a tool that describes the theory of change underlying an intervention, program or project (see section 5.3.1 of the dissertation for more on theory of change). The logic framework characterizes a project through a system of elements that show the relationships between investments, activities, and results (Booker, 2016:3). The merit of the logic framework makes it relevant to this study because its use during the course of a program or project can aid in organizing and creating a system for planning, management, and functions of the program or project. This was, it can contribute to good program design. Given the focus of this study, the researcher saw it fitting to use the logic framework to guide the proposed framework for monitoring and evaluating community engagement projects and initiatives recommended by the study.

2.5 CONCEPTUAL FRAMEWORK OF THE RESEARCH STUDY

The preceding discussions have elaborated on the constructs and theoretical elements that constitute the conceptual framework of the research study. Figure 2.1 on the next page presents a diagrammatical illustration of the study's conceptual framework showing how all the constructs and theoretical underpinnings are linked for the purpose of the study to be achieved.

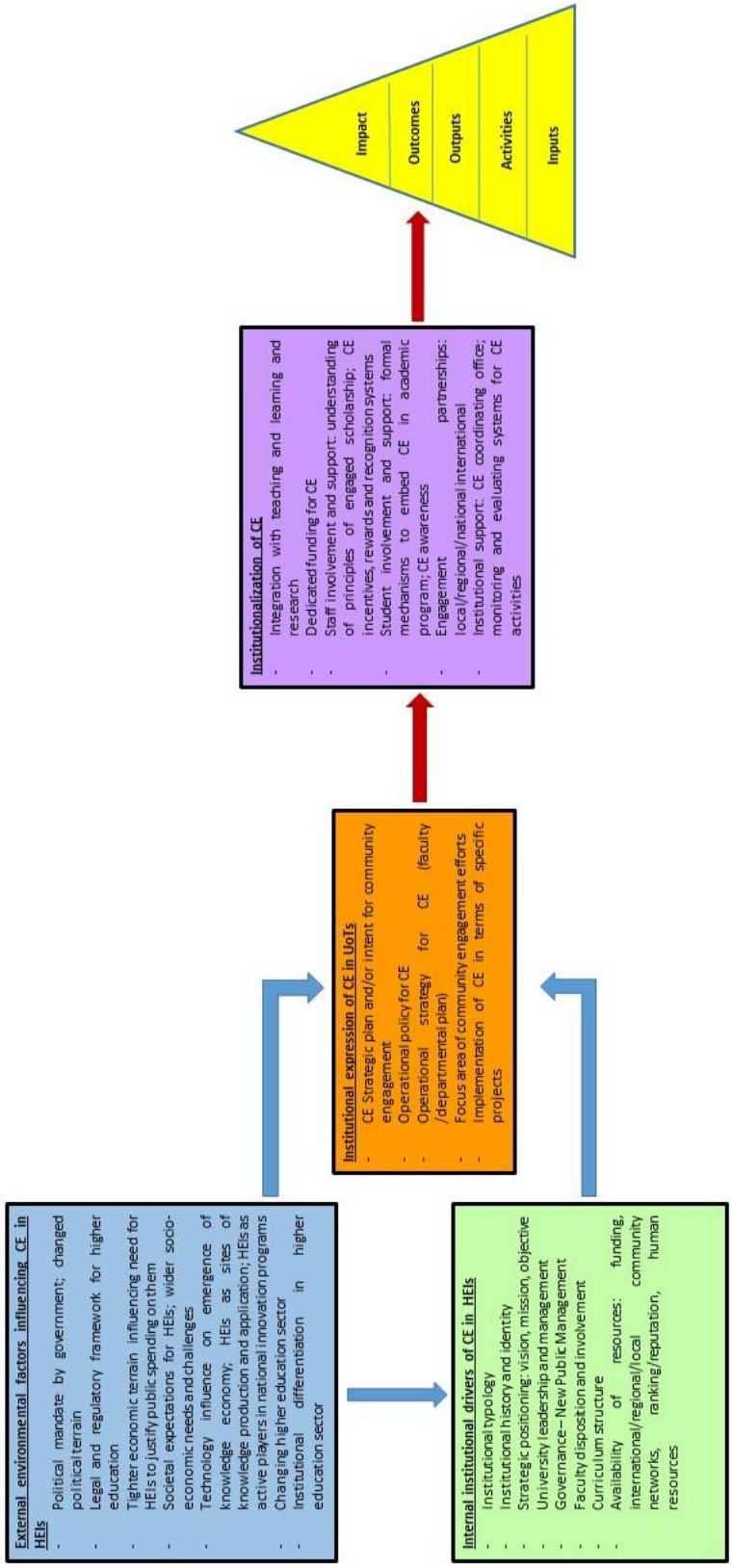

Figure 2.3 Conceptual framework of the study (Author/researcher, 2020)

2.6 CHAPTER CONCLUSION

The purpose of this chapter was to discuss the conceptual framework of the study. The chapter discussed the constructs and theoretical perspectives that gave form to the conceptual framework. Systems theory showed how a university is a system interacting and engaging with the environment as required to maintain its functional existence. The systems perspective was used to emphasize how universities are not independent of their environment as interchanges between them and the environment is essential to their viability. The business environment model (macro/PESTEL and micro environment) discussed key variables in the universities' external and internal environments which influence their practice of community engagement. Also, systems theory was used to discuss higher education community engagement as a wicked problem. Institutional theory was applied to examine the extent to which universities' structure demonstrate institutionalization of community engagement. Finally, the logic framework was introduced to show how it provides support for the monitoring and evaluation of community engagement initiatives.

CHAPTER THREE

HIGHER EDUCATION AND THE INSTITUTIONAL LANSDCAPE IN SOUTH AFRICA

3.1 INTRODUCTION

The democratization process in South Africa has been underpinned by reforms providing guidelines for transformation in almost all aspects of the society. The country's history provides background and perspectives to the complex forces and rationale behind much needed development and implementation of transformation. Higher education has undergone substantial changes which have had very significant effects on the sector, its constituent institutions and their functions. This study's approach to literature review is to perform a review of literature on three main elements that make up the research topic: community engagement in higher education, universities of technology as an institutional typology in South Africa's higher education sector; and monitoring and evaluation of community engagement.

This chapter commences with a general overview of the South African higher education system in the context of reforms undertaken in the post-apartheid democratic dispensation. Policies framing higher education's transformation are discussed with highlights on their position on the aspect of community engagement being one of the main functions of higher education institutions. Furthermore, the chapter discusses the institutional landscape of higher education by examining different institutional typologies historically and currently available. The focus of this research study is on universities of technology, therefore this sector of the higher education system is examined to understand the context of its emergence. The critical issue of institutional identity as it affects the university of technology in South Africa and how it carries out its academic mission is also discussed.

3.2 POST-APARTHEID HIGHER EDUCATION REFORM IN SOUTH AFRICA

The novelty of South Africa's democratic dispensation created demands of higher education in ways which the sector had not encountered during the apartheid era. South Africa embarked on a trajectory of transformation in several aspects of national life, one of which was dismantling structures of the educational system the government of 1994 had inherited. The nature of the educational order left from colonial and apartheid legacies was one that was highly

differentiated, segregated and fragmented on the basis of racial discrimination, gross inequality and abject repression (Badat and Sayed, 2014:128; Reddy, 2004:6). Extreme racial and ethnic discrimination, gendering in staffing patterns, segregation of institutions, unequal funding in educational budgets, resource disparities amongst institutions, variance in research productivity, entrenched traditions of exclusion manifesting in unequal access and opportunity for students, gross differences in student pass and progression rates, skewed distribution across fields of study, resistant symbols of dominance and oppression, as well as prejudiced notions of quality, among others, characterized higher education pre-1994 democracy (Badat and Sayed, 2014:129, Moloi, Mkhwanazi and Bojabotseha, 2014:469, Carim, 2006:172; Barnes, 2006:151).

The aim of system-wide transformation of the South African higher education system was to remove institutional, social, and material barriers that impede equality, accessibility, inclusivity and social justice in the system. This transformation drive methodically addressed three major imperatives amongst others (Ng'ethe *et al*, 2008:117). Foremost was the critical need to deal with inequality in all of its expressions identified above. Secondly, the new government saw a need for higher education to contribute to and support growth, development and societal transformation of post-apartheid South Africa. This entailed HEIs orientating their activities more directly towards supporting the nation's reconstruction and development goals as well as becoming more outward-looking by engaging with their external communities in order to proffer solutions to the basic needs of the population around them. Thirdly, there was the need to ensure effectiveness and efficiency of the higher education system under changing local and global financial conditions.

3.3 THE NATIONAL POLICY CONTEXT OF HIGHER EDUCATION

The transition from an apartheid state to a democratic society was accompanied by an overarching policy of transformation across all spheres of society (Pinheiro, Wangenge-Ouma and Pillay, 2012: 99). The imperatives of the new Constitution informed legislative frameworks that set the agenda for this undertaking (Hay and Monnapula-Mapesela, 2009:12). The framework for large-scale, system-wide transformation of higher education was instituted with formulation and approval of key policies and documents which provided guidelines for the government-driven program of transformation. These policy frameworks and documents are

presented and discussed in the following sections, as well as how they relate to community engagement.

3.3.1 National Commission on Higher Education report of 1996

The objective of the National Commission on Higher Education (NCHE) was to make recommendations on how the discriminatory and fragmented higher education system could be reformed and made to be more cognisant of the needs of a democratic society (Ensor, 2007:183). The NCHE in 1996 released a report in which the central policy proposal was massification of South African higher education. The aim of massification was to "provide greater opportunity for access while also producing more high level skills" required for development and economic growth (Cloete, 2007:59). The NCHE report also articulated increased responsiveness and cooperation, both of which were intended to address reconstruction and development needs of the country. The concept of responsiveness of higher education was projected to lead to more robust interactions between higher education and society which can be used as catalyst for development and accountability (Cloete, 2007:59). By this, the NCHE report stressed universities' social role, stating that "…society depends on higher education for the socialization of enlightened, responsible and critically constructive citizens." (NCHE, 1996:69). In discussing a new structure for higher education, the report highlighted a necessity for increased accessibility of higher education such that there is a shift towards more openness and responsiveness to society's diverse interests and needs, and in the process higher education is able to adapt to the changes in this environment (NCHE, 1996:79).

3.3.2 Education White Paper 3: A programme for the transformation of higher education

The propositions of the National Commission on Higher Education (NCHE) informed the Education White Paper 3 of 1997 by the Department of Education (DoE) (1997). The White Paper outlined a programme of transformation with policy propositions to address issues of equitable access, redress of past injustices, democratization, academic freedom and institutional autonomy, human capacity and infrastructural development, quality of academic functions, effectiveness and efficiency and public accountability (Cloete, 2007:60).

The document laid the foundation for promoting the role of HEIs in relation to advancing national reconstruction and development.

In terms of community engagement, the White Paper criticised the insular nature of research undertakings and teaching and learning practices in higher education resulting in inadequate response to the needs of society (DoE, 1997:section 1.4). This study notes that in outlining the role of higher education in South Africa, the White Paper validates the place of community engagement in universities. The document mentions that one of higher education's main obligations is to engage research and teaching and learning in addressing diverse societal issues at local, national and global fronts. The White Paper also states how higher education can bolster the advancement of "democracy and human rights through education programmes and practices" that are beneficial to "critical discourse and creative thinking" (DoE, 1997:section 1.14). At institutional level, universities are expected to develop students to be socially aware and responsible, using the process to expand higher education's role in social and economic development through community service programmes (DoE, 1997:section 1.28). Also, the White Paper expressed the need for collaborations and partnerships between HEIs and other stakeholder partners to foster exchange of knowledge, skills and competencies for the public good.

3.3.3 Higher Education Act 101 of 1997

The Higher Education Act 101 of 1997 and its subsequent amendments (Republic of South Africa (RSA), 1997) regulates higher education in South Africa and the funding formula which determines how public funding is allocated to higher education institutions. The legislation is not expressive about higher education community engagement, nor does the funding formula provide guidelines for funding of university-community engagement. According to Favish and Simpson (2016:248) this has contributed to lagging development and growth of community engagement as an established practice in HEIs. Due to a lack of funding provision for community engagement in the Act, references to community service and greater social responsiveness of universities in the Education White Paper are regarded as figurative.

3.3.4 National Plan for Higher Education 2001

Cooper (2001:9) explains that preceding the year 2000, the most important higher education policy document, the White Paper of 1997, and other strategic advisory documents were principally about symbolic policy to outline the values, missions and broad frameworks essential for change and renewal in higher education. These documents did not specify particular policy choices, implementation plans or appraisal of outcomes. However, the arrival of the National Plan for Higher Education (NPHE) (DoE, 2001) could be termed the establishment of an implementation plan because it delineated the structure, mechanisms and practical steps for implementing and achieving the policy goals set out in the White Paper (Reddy, 2004:38). The NPHE was about substantive, procedural, and material approaches to policy with enumeration of concrete actions, implementation processes, and mechanisms of resource allocation.

The NPHE is not exact about the developmental role of higher education institutions but it makes a case for positioning South African higher education institutions as a significant group in advancing social justice in the society, and relevant stakeholders in strategic partnerships with other sectors of society to address issues and challenges (DoE, 2001: section 6.1). In what can be considered a higher education philosophy that is a mix of academic, professional and societal needs, the NPHE tasks universities with addressing issues related to reconstruction of the South African society by means of their core functions (Lategan, 2005:186). The NPHE recognizes the proficiency of universities in producing and disseminating knowledge. The policy also recognizes the role of universities in developing policies, plans and national capacity that contribute to human development (educating the citizenry), reducing poverty, sustainable growth, and better living standards among the population.

3.4 INSTITUTIONAL LANDSCAPE OF SOUTH AFRICAN HIGHER EDUCATION

The South African higher education system has existed as a two-sector system with a long-established binary character where on one side is the traditional university with a focus on research and teaching, and on the other side is the technical, career-oriented or vocational college with a focused teaching role (Johnson, Louw and Smit, 2010:114). The higher institutional landscape up till 2005 had 36 public higher education institutions divided into 21 universities and 15 technikons. In terms of their origins, the 36 institutions could further be classified into 11 white universities, ten black universities, and eight white technikons and seven black technikons (Jansen, 2003: 290).

The separation of higher education institutions into two mutually exclusive types - universities and technikons - had its basis in the philosophical underpinnings of apartheid ideology with claims that a phenomenon, object, group or institution possessed an "essence", defined as unique attributes, properties or features which distinguished it from all others (Bunting, 2007:37). According to the apartheid government, it had identified on one hand the essence of a university to be science or scientific inquiry, which covers all scholarly activities where knowledge is studied for the sake of knowledge. On the other hand, technology was designated as the essence of technikons where scholarly activities were primarily related to the applications of knowledge. The assertions of same philosophy of essence also implied that one institutional type could not be involved in what the other did. That is, universities were not be engaged in technological application of knowledge, and technikons were not to engage in scholarly development of new knowledge (Bunting, 2007:37). Therefore, the rigid binary demarcation between universities and technikons was created and as a result the former offered academic programmes while the latter offered career or vocational programmes (Bunting, 2007:38; Ng'ethe *et al*, 2008:119).

There has been a significant redesigning process of the education and training landscape in South Africa. An explicit transformation agenda and policy imperatives were approached from the perspective of systematic redress for past inequities, expansion of the system to increase access, improving internal and external efficiency and effectiveness of the system, national development to address needs of a fledgling democracy and majority of its population, and global competitiveness (Ng'ethe *et al*, 2008:117; Cloete, 2007:64; Jansen, 2003:304).

The White Paper of 1997 stated that:

> "an important task in planning and managing a single national co-ordinated system was to ensure diversity in its organisational form and in the institutional landscape, and offset pressures for homogenisation" (DoE, 1997, section 2.37)

and

> "to diversify the system in terms of the mix of institutional missions and programmes that will be required to meet national and regional needs in social, cultural and economic development" (DoE, 1997, section 1.27)

Subsequently the creation of a new expanded and diversified institutional landscape in higher education involved two elements - restructuring universities and deciding academic offerings and programme combinations on offer in institutions (Moloi *et al*, 2014:471; Badat, 2010: 12). Restructuring of universities was undertaken using mergers and amalgamations and various criteria. The number of public higher education institutions was reduced from the previous figure of 36 to 23 (Arnolds, Stofile and Lillah, 2013:2). In recent years, three additional universities have been established making the total number to be 26. The current typologies of institutions in public higher education (Ng'ethe *et al*, 2008: 119; Arnolds *et al*, 2013:5) are:

i. Traditional or research universities that are typically research- and theoretically-oriented and offer professional degree programmes. Currently, there are 12 traditional universities.
ii. Universities of technology which offer academic programmes that are more vocational and technical inclined. There are six universities of technology.
iii. Comprehensive universities which are a combination of traditional universities and technikons, and offer a mix of qualifications of the above two to improve articulation between career-focused and general academic programmes. Currently, there are six comprehensive universities.

Badat (2010:13) suggests that differentiation and diversity in the higher education system is important for the attainment of national socio-economic and educational objectives. A homogenous system where "every higher education institution seeks to be the same and do the same thing, and all aspire to be a 'research' university" cannot serve South Africa in good stead

considering the substantial and wide-ranging challenges in the nation. So, a diverse spectrum of institutions is correct if higher education will be responsive in the context discussed. However, Badat (2010: 14) points out that "while institutional restructuring is a necessary condition of the transformation of South African higher education it is not a sufficient condition". There are other associated initiatives that influence transformation of higher education and the realization of its contribution to social equity as well as the socio-economic, socio-cultural and development goals of South Africa.

3.5 UNIVERSITY OF TECHNOLOGY SECTOR IN HIGHER EDUCATION

The university of technology (UoT) as a concept and institutional type is not novel and exists globally under different names. For example, other designations it goes by in different parts of North America, Europe, Asia and Australia include technical university, university of applied sciences, university of applied technology, institute of technology, university of applied science and technology (Leyh, 2012:218; Lepori and Kyvik, 2010:295; Reddy, 2006:31). The UoT has developed under different names according to the unique environment and in response to local and international demands. Importantly, regardless of the designation it goes by, the UoT retains its convergence point of technology as the qualifying factor that is characteristic to all academic activities (Du Pre, 2006:5). The interweaving of technology with the typical pursuits of a university makes a UoT the institutional typology it is where the emphasis is on the know-how or proficiency in applying technology from the perspective of various fields of study, instead of technology itself as a specific field of study (Du Pre, 2010:9).

In South Africa, UoTs have their origins in technikons. The binary divide which separated tertiary education into higher education and vocational education and training meant that technikons operated in a narrow spectrum in the higher education sector. However, they had a unique institutional mission to offer flexible, relevant and good quality vocational programmes that meet the needs of industry and demands of an evolving labour market (Ng'ethe *et al*, 2008:123). Technikons were focused on applying scientific principles to practical problems and creating solutions through application of technology. In this manner, technikon students were being trained for the practice and transfer of knowledge and technology within their specific vocations or industries. The main academic emphasis was provision of education and training to supply the labour market with particular mid- and high-level skills, technological

know-how and practical knowledge for effective and productive application in business and industry (Van Staden, 2010:170).

The evolution of technikons' mission and programmes has been defined by government regulation and environmental influences. The policy framework of post-apartheid transformation of higher education favoured a single, coordinated but differentiated system where there is a unified system of universities but institutions are different in focus (Du Pre, 2006:5). In addition, other factors such as globalization and reputational image negatively affected technikons. Despite the high regard by industry because of the fit and propriety of their programmes, technikons were less favorably perceived than universities and suffered a lack of recognition from international associations, professional bodies and learners because they did not award degrees (Rosentreter, Singh and Schönbohm, 2013:8). All these contributed to the need for a change in the designation "technikon". The restructuring process led to the award of university status to technikons and their reclassification as UoTs. The change brought a shift of focus from just equipping students with technical skills for a specific occupation or industry to developing a robust understanding of the use and management of technology in both industrial and social contexts, as well as taking technological leadership in multi-disciplinary teams working on solutions to critical social problems (Kruss, Visser, Aphane *et al*, 2012:106).

3.5.1 Identity issues and universities of technology in South Africa

The main challenges of UoTs include definition of their identity and role, as well as building their academic reputation as a novel type of institution (Kruss *et al*, 2012:106). There is some degree of debate around the emergence of UoTs in South Africa. Lategan (2005: 183) criticized the policy documents on which the restructuring of South African higher education was premised. Lategan highlights that they do not offer a clear definition of what a university is but characterize the idea of a university from the context of what the institution does. Lategan's argument is that it is incorrect for universities to be regarded as such solely by what they do, more so when policy documents deem these functions from a perspective driven predominantly by social objectives. This shortcoming affects UoTs in that the unique nature of technikons was not sufficiently considered in the change to UoTs. This raises questions of whether technikons were already deemed universities and only needed a name change when in reality, technikons were still required to meet university criteria and standards to achieve parity of status with universities (Lategan, 2005:184-185). If the long term end results of the creation

of UoTs is a weak imitation of traditional universities, it means the distinct character of UoT and the type of education they are known for becomes of no importance. Then, differentiation which the restructure process set out to achieve in the higher education sector will be futile.

Christiansen and Baijnath (2007:221) agree with Lategan that the South African higher education sector has not been able to provide a clear description of what a UoT should be and how it is meant to differ from a traditional university. However, Christiansen and Baijnath's (2007:218) views are premised on the notion that Western concepts of UoTs are the standards for UoTs, and if these standards were applied to South African UoTs, they did not meet them. Furthermore, there are perceptions that UoTs in SA are simply extensions of technikons, though with improved research capacity and robust post graduate programmes (Christiansen and Baijnath, 2007:221). The identity of UoTs has been affected by several factors that have continuously challenged the UoT type of higher education institution since inception (Webbstock, 2016:44). Since being classified as "universities", there is an increasing blurring of distinction between UoTs and traditional (or research) universities. In areas such as programmes offered, curriculum, nomenclature of qualifications, research profile, academic staff development, it appears that UoTs are configuring themselves in the mold of traditional universities. Subsequently, there is an academic drift in UoTs' vocational orientation which appears to weaken their vocation mandate.

Du Pre (2009:14) states that if UoTs are indeed universities it is necessary to emphasize the commonalities and differences they share with traditional or research universities. With regard to similarities, UoTs perform the same functions as traditional universities: they are academic institutions where research and teaching and learning take place with support, collaboration, networking, and cooperation with external partners to achieve the creation, development and transfer and dissemination of knowledge. The approach to research differentiates UoTs from traditional universities. Technikons did not initially have a research focus but the change to UoTs has meant developing research capacity which includes research publications and postgraduate qualifications up to doctorate level (Singh, 2011:1191). Kruss *et al* (2012: 106) describe research in UoTs as having a keen applied and strategic direction where it is often trans- or multi-disciplinary with the aim of relevance to society, contributing to technology transfer and supporting innovation. Despite their efforts, UoTs still struggle with a weak research culture. On the other hand, the teaching and learning mission ensures a close alignment of academic programmes and curricula with industry, business or community

demands, and involve a range of integrated experiential learning modes conceptualized as work-integrated learning.

Kraak (2005:137) posits that since UoTs, in the new dispensation of a transformed higher education system, are required to carry out functions (research, teaching and community engagement) similar to traditional universities, they must do so in the characteristically unique manner that makes UoTs the institutions they are to ensure differentiation. This means focusing on business and industry needs, and connecting technology to issues in a manner that it adds value to society through partnership with industry (Du Pre, 2006:7). In the same vein, Du Pre (2009: 35) proposes that a university of technology should identify niche areas to concentrate its research efforts on. This presents possible advantages such as the opportunity of becoming a significant player in the national system of innovation and securing research funding to boost research capabilities.

3.6 CHAPTER CONCLUSION

This chapter explored the higher education sector in South Africa from the perspective of reforms undertaken in the democratic era to establish transformation. The chapter identified and discussed key policies and legislation introduced by the post-Apartheid South African government to address imbalances and structural challenges and frame transformation in the higher education. These policies are the National Commission on Higher Education report of 1996, the Education White Paper 3, National Plan for Higher Education 2001 as well as the Higher Education Act 101 of 1997. The discussion around the policies touched on their implication for community engagement. Furthermore, the chapter discussed the higher education institutional landscape in South African outlining the three typologies of institutions available in public higher education – traditional universities, universities of technology and comprehensive universities. Then, the chapters zeroes in on universities of technology as a typology and the identity issues facing this typology of university. The next chapter is about community engagement in higher education.

CHAPTER FOUR

COMMUNITY ENGAGEMENT AND HIGHER EDUCATION

4.1 INTRODUCTION

Universities are central in the system of continuous development, transference and application of knowledge. A robust community engagement function enables universities to function in this role especially to impact society. A university's engagement activities involves creating useful linkages that connect academe's knowledge resources to real-world challenges with the purpose of generating practical solutions. In this way, higher education institutions are not isolated and removed from the realities of society but are making efforts as part of their mission and academic functions to bridge the gap between academia and society.

This study's approach to literature review was to perform a review of literature on the three main elements that make up the research topic. The previous chapter was a literature review on the South African higher education sector and universities of technology as an institutional typology. This chapter examines literature on higher education community engagement and its conceptualisation in higher education institutions. Various forms and conceptual models of community engagement that are obtainable in universities are discussed with a view of examining the approaches with which higher education is moving community engagement from the periphery to being established in its core activities. Given that community is key in community engagement, debates around the concept of "community" and who the university's community is are also presented. Furthermore, the chapter discusses the conceptual development of the scholarship of engagement as it has evolved into a distinct dimension of scholarly expression in the engagement movement to build on traditional scholarship. The chapter touches on the underlying principles of scholarship of engagement. An overview of community engagement in the universities that are the case studies for this research is also discussed.

4.2 UNIVERSITIES AS SOCIETAL INSTITUTIONS

Historically, the university's mission and responsibilities has been seen as three-fold: (i.) research that produces and advances knowledge; (ii.) the provision of higher education through teaching and learning; and (iii.) service to the wider community beyond the borders of the campus (Millican and Bourner, 2011:90). In this tripartite mission teaching and research have been more dominant while service was traditionally viewed as less important and thereby given much less weight though over the last few decades this perception of service has changed (Rubens, Spigarelli, Cavicchi *et al*, 2017: 355). Benneworth (2013a: 9) asserts that universities have always been connected with societal needs and through reflective learning, they have ensured their relevance in meeting such needs. Benneworth's assertions are made on the premise that the university's value lies advancing knowledge that facilitates a better understanding of organized societies, and is practically valuable to stakeholders in those societies.

According to Arbo and Benneworth (2007:19) the emergence of universities in different eras is interlinked with underlying social factors in the environment. The primary purpose of universities during the medieval, Renaissance and early modern periods was to offer higher education that was aimed at Christendom. Universities were established to advance knowledge by interpreting and disseminating religious text and doctrines of the Latin Church; to provide a higher education fit to equip students with morally, intellectually, aesthetically and socially civilising influence (Bourner, 2010:142). Therefore, universities were mainly dedicated to teaching. However, factors including Europe's burgeoning agricultural sector, growing trade and expanding urbanization influenced development of new universities to augment the philosophical and classical disciplines of religion-oriented education with advanced vocational scholarship necessary for practical professional skills (Ernste, 2007:72-73).

Further notions of universities developed alongside significant societal shifts such as the advent of post-Westphalian model of nationhood which asserted the ideas of equal state sovereignty of political units, territoriality and non-intervention (Stirk, 2012:642, Newman, 2009:422). During this period, universities were used to validate countries' claims towards nationhood. Universities were instrumental in nation building, with roles as custodians of national culture and providing education to the elite (Benneworth, 2013a:10). In the late 18th century, the industrial revolution had created a new society with evolved needs. The founding of the Humboldt University at the start of the 19th century in 1810 to educate a technical elite, and to

assist in national and economic development of Prussia and, later Germany was well suited (Benneworth, 2013a:10, Altbach, 2011:67, Perkin, 2007:160). The establishment of Wilhelm von Humboldt's (1767-1835) reformed University of Berlin (EMBO Reports, 2007: 804) was significant in that it gave birth to the research university emphasizing the research mission which was the pursuit of knowledge for universities (Millican and Bourner, 2011:90). The dominant theme of the modern university became the advancement of knowledge as the Humboldtian model, inspired by von Humboldt, Friedrich Schleiermacher and Johann Fichte, focused on research with emphasis on applied research for national development and industry (Nicolaides, 2012: 912). Higher education became valued to the degree it supported and reflected the pursuit of knowledge which was considered the major means that universities could contribute more broadly to society. In Humboldt's words:

> "At the highest level, the teacher does not exist for the sake of the student: both teacher and student have their justification in the common pursuit of knowledge" (von Humboldt, 1970 cited in Bourner, Rospigliosi and Heath, 2017:9)

The effect of the Humboldtian ideal on the teaching component was that impartation of skills and competencies for independent thought and scientific inquiry became the new principle of teaching (Schimank and Winnes, 2000: 399). The Humboldtian model advocates for connections or links between teaching and research as well as the role of a university as a research institution. Teaching and research (*Einheit von Lehre und Forschung*) should have coherence and integration, and all learning should occur in a shared context where academics and students alike engage in critical inquiry for the promotion of science, scholarship and culture (Nicolaides, 2012: 914). This and many of Humboldt's principles on higher education still retain much of their attraction today.

Millican and Bourner (2011:90) acknowledge shifts in the role and context of higher education worldwide but dispute the relevance of the Humboldtian model in current times. Their contention borders around the unsuitability of the Humboldtian model that pursues discovery of knowledge, in a present world where HEIs are seen to have a responsibility to the communities in which they are located, and where the participation rate in higher education has vastly increased. This argument is rebutted in Altbach (2011:68) who draws attention to how von Humboldt purposefully linked the university's research agenda in practice closely to

the needs of state and society, thereby challenging the repeated criticism that universities are ivory towers. The model of serving society's needs in the course of creation and diffusion of knowledge offers a way of improving the human condition. In the Humboldtian university model knowledge is regarded as having the power to provide solutions or a means of alleviating the myriad of problems and challenges in society (Bourner *et al*, 2017:9).

The Humboldt model was adapted as the land grant universities and colleges in the United States of America, a unique higher education system focused on meeting the needs of the country's expanding agricultural and industrial sectors in an advancing economy (Fitzgerald *et al*, 2012: 8). The land grant universities provide a context to the influence of higher education on society because lands belonging to federal authority were allocated to states to grant to higher education institutions for the purpose of accelerating the diffusion of knowledge and innovations in agriculture, food production, mechanical engineering and other related fields for the needs of a growing society (Benneworth, 2013a:10). The land grant institutions were initiated on "…ideals that recognized the need to apply knowledge-based solutions to societal challenges, requiring that researchers work with people outside academia as partners with as much to offer as to learn" (Fitzgerald and Simon, 2012:34).

Towards the end of the twentieth century, a three-way balance was achieved where the three aspects of the tripartite mission were equally regarded, and service (engagement) was gradually coming into its own (Millican and Bourner, 2011:90). A paradigm shift occurred which gradually compelled HEIs to adopt a perspective that broadened the content of knowledge. Also, the shift influenced HEIs' collaborative work where theoretical knowledge structures meet with experiential and unconventional knowledge that exist beyond the walls of the institution. The public service component of the contemporary model of the university offers a wider base for research and teaching, both of which have the capacity in stimulating social change (Breznitz, 2014:2). From this perspective, universities' contribution to society and economy in general can be accomplished through what they do best in collaboration with different sectors of the society.

In conclusion, higher education has reached out to communities in a uni-directional, welfare-style, expert model of knowledge delivery but over time that connection with communities has changed to a more engaged model in which the university and its community at local, national, and global levels partner to co-create solutions (Fitzgerald *et al*, 2012:7). The idea that higher education exists to serve the public good has been at the heart of the enterprise. However, this

commitment has shifted over time and evolved as society's understanding has become clearer and evident of what it needs and how best it can be served by universities. It is the opinion of Kezar, Chambers and Burkhardt (2005:i) that higher education has always had an obligation to serve the society in certain fundamental ways, and these historical commitments have been essential in promoting healthy democracy, equity and social justice, and assisted in improving society.

4.3 COMMUNITY ENGAGEMENT IN HIGHER EDUCATION

Community engagement (CE) is described as fostering mutually beneficial between higher education institutions and their external communities in a context of partnership and reciprocity involving exchange of knowledge and resources (Driscoll, 2009:6). HEIs' external communities exist at local, national, regional, and global levels, and include local communities in the vicinities of HEIs, businesses, industry, government, non-governmental/non-profit organizations as well as other types of educational establishments. The ideal positioning of CE is that it must be fundamentally linked to the other academic functions of research and teaching and learning. With such positioning, CE creates a platform for building knowledge through involvement of those outside of the university who, by reason of their practical experiences, expertise and acumen, have an understanding which enables them to add value to universities' scholarly objectives in a way that proffers solutions for societal challenges (Holland, 2016b:79). CE facilitates connected knowledge discovery and learning through interdependent relationships that link academic goals (teaching, learning, research) with expertise, assets, questions, and opportunities outside of the university. The goal of CE is for universities to use two-way exchange of knowledge and other resources with external collaborators to elevate academic scholarship to meet individual institution's standards for teaching and learning and research. Figure 4.1 on the next page illustrates how the goals of community engagement translates into the university's core functions.

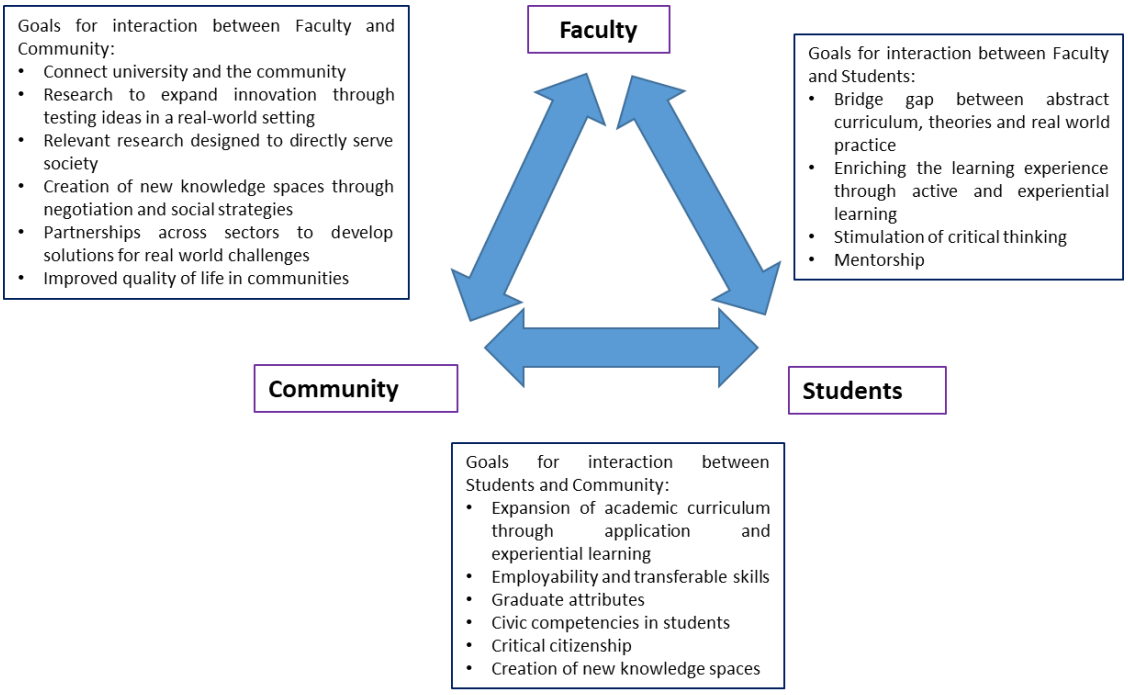

Figure 4.1. Goals of community engagement

(Adapted from Bednarz, Chalkley, Fletcher *et al*, 2008:89)

The establishment of CE as one of the core mandates of South African higher education with emphasis on CE and social responsiveness within HEIs has its origins in the Education White Paper 3 on the Transformation of Higher Education (DoE, 1997). The White Paper observes that teaching and research policies in HEIs "favour academic insularity and closed-system disciplinary programmes" with "insufficient attention to the pressing local, regional and national needs of the South African society and to the problems and challenges of the broader African context" (DoE, 1997, section 1.4). Hence, one of the goals of institutions in a transformed and restructured higher education system is to "demonstrate social responsibility…and…commitment to the common good by making available expertise and infrastructure for community service programmes" (DoE, 1997, section 1.28). The White Paper further indicates that one of the goals of South Africa's higher education system is to "promote and develop social responsibility and awareness amongst students of the role of higher education in social and economic development through community service programmes" (DoE, 1997, section 1.27).

The CHE's Higher Education Quality Committee (HEQC) (2004) describes community engagement as:

> "Initiatives and processes through which the expertise of the institution in the areas of teaching and research are applied to address issues relevant to its community. CE typically finds expression in a variety of forms, ranging from informal and relatively unstructured activities to formal and structured academic programmes addressed at particular community needs and some projects might be conducive towards the creation of a better environment for community engagement and others might be directly related to teaching, learning and research" (HEQC, 2004:19, 26).

It is important to state that CE is not a new phenomenon in South African higher education (Favish and Simpson, 2016:242). In the history of many institutions there have been practices which, though were related to CE, were not connected to any aspect of universities' core activities and were not on level pegging with teaching and research (Slamat, 2010:109). Although such practices were framed in the mold of outreach, community service or extension, they were typically philanthropic and voluntary in nature, and done outside of primary academic functions (Slamat, 2010:109). The redefinition of the status of CE by the DoE's White Paper 3 has made it to become a part of the practice of scholarship. This has led to some degree of acceptance of CE (or service as some institutions still refer to it) as a core function of higher education, although there persists a very diverse range of perspectives regarding its strategic importance (Holland, 2016b:75). Furthermore, there are debates around what CE is, its definition and scope (Favish and Simpson, 2016:242; Kruss, 2012:6; Hall, 2010:4) which reflects in divergent interpretations ascribed to CE by HEIs and even their stakeholders, differences in universities' commitment and approach to CE as well as their choices of projects or CE activities (Mouton and Wildschut, 2007:7).

The effect of the aforementioned is evident in considerable differences among universities in the extent to which CE is an integral part of their academic activities and institutional persona. Holland (2016b:75) notes that while some institutions have become highly-engaged institutions some others have not made as much progress. Jacob *et al* (2015:3) observe that differences in strength of relationships between universities and communities' contribute to disparities in the ability of institutions to build and leverage on relationships with external communities for CE

purposes. The authors state that the enduring reputations possessed by some leading universities offers an advantage in fostering national, regional, and international networks with communities at those levels. Those universities without the networks often have to find the means to establish their own connections

4.3.1 Defining the university's "community"

Community is one of the key concepts of CE because the centrality of community cannot be removed from the concept and practice of community engagement. The Kellogg Commission on the future of state and land-grant universities (1999 cited in Adamuti-Trache and Hyle, 2015:73) describes engaged universities as those that have restructured academic activities to become "more sympathetically and productively involved with their communities, *however community may be defined*" (emphasis by researcher). The emphasis is to highlight an open-endedness around the definition of "community" by HEIs. This suggests that the concept of community is open to different interpretations. The study finds there exists a substantial body of work in literature regarding the notion of community which indicate there is some level of reflection and debate around the concept (Bessant, 2012:628). It is widely acknowledged that there are highly varied definitions, different philosophical underpinnings, uses, and meanings of the term community to different stakeholders (Pavel and Ticau, 2014:120; Matarrita-Cascante and Brennan, 2011:294; Bednarz *et al*, 2008:89).

The common sociological perspective subscribed to by many emphasizes a conventional view of community having three elements (Bridger and Alter, 2006:165; Brennan, 2007:61; Foco, Fox, Ramsey *et al*, 2013:37):

i. Shared territory which could be a geo-spatial location or particular scope with defined boundaries
ii. Mutual identity which could be race, gender, language, culture, belief system, economic status, vocation or profession
iii. Collective actions where community is developed around issues or causes

Although there may be some arguments against the idea of community being only about these three elements the focus of this study is not to elaborate on those contentions. In addition, this study does not deflate the value of the perspective that links community to physical locality. Inarguably at a basic level, the engagement agenda will be most effective in purpose and

direction if considerable attention is given to space-oriented definitions of community. If the idea of community is removed from place, HEIs will have difficulty in deciding where and to whom engagement efforts should be directed, and CE will lack clarity and have no real significance. Bridger and Alter (2006:166) propose that CE must be decidedly attached to issues and problems affecting people in the places they live in order for engagement to maintain its critical force and attend to concerns about HEIs' social consciousness and responsibility. Nevertheless, to limit the idea of community to geographical or spatial locality with scant consideration for the role of technological developments in creating communities is to greatly narrow and restrict the bounds of relationships to which community can be applied. This renders the concept practically and analytically inadequate and incapacitated.

The interactional approach to community by Wilkinson (1991 cited in Balfour and Alter, 2016:432) views community as a dynamic field of interaction involving relationship-building processes among different groups of stakeholders in pursuit of mutual interests. This approach describes the contemporary community as complicated with manifestation of characteristics such as undefined boundaries where extraneous forces control several aspects of community living, communal actions are not necessarilly in the interest of the public, and special interests define identities more than the local community (Bridger and Alter, 2006:167). The interactional approach suggests that the main factor responsible for the development of community is forming and maintaining networks that facilitate connectedness, relations and interactions. According to Wilkinson (1991:17), community depends on all kinds of interaction – conflictual or harmonious (Bridger and Alter, 2006:170) - as it is the essence of community:

> "Social interaction delineates a territory as the community locale; it provides the associations that comprise the local society; it gives structure and direction to processes of collective action; and it is the source of community identity . . . the substance of community is social interaction." (Wilkinson 1991, 13)

Wilkinson (1991:14) goes further to state that social interaction produces elemental bonds which represent and express mutual interests, and where there are barriers to interactions the emergence of community is impeded (Bridger, Brennan and Luloff, 2011:88).

This study connects the interactional perspective of community to higher education community engagement from an assertion by Balfour and Alter (2016:433) that the "community field is strengthened through discoveries of points of intersection among groups around which actions occur and linkages can be made". Access to the community field, balance of power and control of decision making processes are some of the sources of tensions in CE. Brennan and Israel (2008:83) observe that an interaction makes it possible for community members to control decision making about their local needs and what affects them thereby retrieving some level of power from the elite (in this case, the university).

This study posits that a university's context defines its community. HEIs ought to define their community because it induces institutions to interrogate who they view as their community and how to engage with those constituents they have identified as their community. The notion of a university's community guides their community engagement. It is necessary to point out that a university is itself a community within the larger community in which it is geographically located or functionally operates in. Therefore, delineating community is necessary to establish HEIs' community (or communities) of interest, types of partnerships, information and ideas exchange that is possible from the various elements in those community groupings. According to Tumiel-Berhalter, Waktins and Crespo (2005:93), clearly defining the community is critical to a process involving the participation of an entity referred to as community. This is due to the dynamic and multiple layers present in what constitutes a community in addition to the fact that individuals and institutions are embedded in numerous and often overlapping communities (Bednarz *et al*, 2008:89). If a university's community is not clearly defined in the context of who or what they are, then community becomes an arbitrary or indiscriminate element in the university's community engagement plan. If a scenario as this exists, the outputs from engagement activities may culminate in being unfocussed and therefore less effective than they ought to be (Bridger and Alter, 2006:164).

In South Africa, there are debates around HEIs' definition of community. Fourie (2007:12) addresses the adaptable or amorphous nature of community's definition by HEIs. Some HEIs depict community in terms of historical apartheid-era divisions. Fourie (2007:42) points out that community is often characterized as being "equivalent to 'the local township' or 'the black community'" which is vague and very limited for application in the practicality of community engagement. Some institutions attach neediness to community resulting in interactions that are more about service-oriented philanthropic assistance instead of engagement where there is bi-directional creation and sharing of knowledge and resources (Coetzee, 2012:502; Sandmann,

2008:95). Discussions around definitions raises pertinent questions about how broad or narrow, specific or general, conservative or progressive should community be defined. Widening the concept of community to mean almost anything runs the risk of rendering the term pointless and worthless, while restricting it to a narrow definition can be constraining.

Fourie (2007:42-43) responds to the dilemma by proposing that the definition of community should be context-specific because there is always a context to community which must be considered in any discourse. To buttress the point about context, Slamat (2010:107) identifies some factors that influence how an institution may define its community. Such influences include institutional history, physical location, mission statements, institutional capacity, preferred areas of interest referred to as institutional strategic focus areas, and the institution's perceptions of its obligations to prevalent socio-economic and development challenges within and around its location. Therefore, any definition of community must give adequate consideration to the historical and current developmental state context of the South African society (Fourie, 2007:43). The developmental agenda of South Africa's post-Apartheid government to balance economic growth and social development provides a strategic platform for development needs and societal challenges to be central in the engagement between higher education institutions and communities.

Subsequently, the definition of community (or communities) suggested by Fourie (2007:43) in the context of higher education community engagement has been adapted and adopted by this study, and is as follows:

> Particular interest groups formally and informally constituted, delineated or defined by their sharing of, and search for solutions to one or more related development problems/ challenges; that furthermore:

i. "Participate or could potentially participate as partners in the community engagement activities of the institution,
ii. Contribute to the mutual search for sustainable solutions to jointly identified problems and needs, through the utilisation of the full range of knowledge, know-how, skills, resources and assets at the disposal of both the members of that community and the involved university participants".

4.4 SCHOLARSHIP OF ENGAGEMENT

Engagement in the context of higher education and focus of this research study speaks to reciprocity and mutually beneficial exchanges between universities and the constituents that make up their external communities. Engagement indicates a responsiveness of the academic mission (teaching and learning, research and service) to make knowledge relevant, accessible and beneficial to society (Khoo, 2013:21). While there is not much significant debate around what engagement is as a concept, there are differences in views in how institutions carry out engagement. However, the commonality in what is considered to be engagement is "an orientation to community interests, as well as a way of interacting with communities that goes beyond the one-way dissemination of knowledge" (Kajner, 2013:10). This characteristic is used to differentiate what is engagement and what is not, and the scholarliness of engagement as an academic activity locates it within higher education community engagement.

Scholarship is the distinctive quality of higher education institutions (Bender, 2008b:85). The concept of scholarship of engagement originated from Boyer's works (1996, 1990) who argued that academia must actively champion the productive coupling of their knowledge resources to real-world challenges with the purpose of generating practical solutions. Much more than this, Boyer (2016:27) views scholarship of engagement, at a deeper level, to be the anchor connecting HEIs to a sense of purpose and vision to guide them in their institutional missions. Though the general concept of the scholarship of engagement was initially a broad call for higher education to be more responsive to communities (Sandmann, 2008:91), it has evolved to a multifaceted field targeted at expanding the notion of scholarship. Such expansion is aimed at ensuring that actual processes of knowledge generation and dissemination in academia are effectuated to include public participation thereby strengthening the public aspects of academic scholarship (Favish and Simpson, 2016:245; Barker, 2004:123). This paradigm challenges the long-held idea of knowledge being solely produced by academics and disseminated in one direction out of universities. Consequently, the recommendations of the scholarship of engagement transcend the traditional functions of higher education - teaching, research, and service (Barker, 2004:126). It involves knowledge production, dissemination, application and preservation in collaboration with external stakeholders for society's benefit in ways that support the institutional mission of the university and its academic disciplines (Michigan State University, 2009 cited in Favish and Simpson, 2016:245). Scholarship of engagement also means fostering an environment that allows for continuous interaction between academia

different sectors of society which results in innovative solutions that positively contribute to quality of life (Boyer, 2016:27).

Bowers (2017:38-39) and Barker (2004:125) comment on how engaged scholarship is primarily framed as a challenge to the disposition of conventional academic scholarship towards narrow knowledge specialization that result in very distinct academic disciplines. According to Barker the resulting complex and technical knowledge from such specializations are not effectively communicated to the public. This perspective asserts that such rigid academic silos do not engender a democratic approach to knowledge production. Instead, they promote the advancement of "academic elitism and intellectual isolation" (Adamuchi-Trache and Hyle, 2015:74) where a university and its exclusive knowledge base and assets are institutionally uninvolved and detached from the citizenry (Barker 2004:125). Therefore, the possibility exists where knowledge is created for knowledge sake but has no connection or relevance to society in terms of socio-economic and developmental responsiveness. Engaged scholarship bridges the disconnect between academia and the public to ensure there is relevance as well as reciprocity with the public in the creation and application of knowledge. Scholarship of engagement means all three university functions must reflect engagement - engaged research, engaged teaching and engaged service. In addition, engaged scholarship explores new possibilities in knowledge with non-academic collaborators, while building on existing disciplinary knowledge (Favish, McMillan and Ngcelwane, 2012:54).

Finally, Barker (2004:128) put forward five criteria that underscore scholarship of engagement: public scholarship, participatory research, community partnerships, public information networks, and civic literacy. Each of these criteria has a distinct emphasis. Public scholarship is concerned with improving the quality of input from the public in research. Therefore, it integrates participation of scholars in public deliberations and community forums into academic work to improve the academy's understanding of challenges confronting communities and enhance scholarship (Barker, 2004:129). Participatory research or action research emphasizes the actual participation of the citizenry in the production of knowledge, and tends to promote the participation of minority, marginalized or previously excluded groups in research work (Barker, 2004:130). Community partnerships are primarily focused on using scholarly engagement to achieve social transformation (Barker, 2004:131). Public information networks address the problems of networking and communication by providing comprehensive information on resources and assets available in communities (Barker, 2004:131). Civic literacy is concerned with academic disciplines using teaching, research and service to equip

the public with skills that enhance their political participation and democratic decision making (Barker 2004:132).

4.4.1 Boyer's Model of Engagement

The concept of scholarship of engagement from Boyer's works (1996, 1990) presented four interrelated dimensions of scholarship (discovery, integration, teaching and application) that together model a new framework for scholarship where higher education institutions broaden their scope of traditional core functions to incorporate reciprocal, collaborative exchanges with the public.

i. Scholarship of discovery

The scholarship of discovery states that "…universities, through research, simply must continue to push back the frontier of human knowledge" (Boyer, 1996:26), and "….research is central to the work of higher learning" (Boyer, 1990: 17). The scholarship of discovery refers to research work done within disciplines contributing to the search for new knowledge. It is the most recognizable model of scholarship and is applicable in all disciplines as research is key to production of new knowledge in order to increase knowledge reserves. Hence, the scholarship of discovery is closely aligned to the characteristic approach to research and new knowledge production although Boyer emphasizes that the search process for knowledge is as important as the outcomes (Fourie, 2007: 39). In community engagement, the scholarship of discovery pushes for mutually beneficial, reciprocal, two-way process in knowledge production between universities and their communities (De Lange, 2012:98). Boyer's stance is that any laudable engagement initiative ought to be on the basis of production of new knowledge that serves the public or the academe (Mtawa, Fongwa and Wangenge-Ouma, 2016:127). As such, research is advanced as one of the main outcomes of community engagement.

ii. Scholarship of integration

The scholarship of integration emphasizes inter- and trans-disciplinary connections which allows for knowledge discoveries to be interpreted and used across disciplines and in wider contexts (Wilson, 2013:31). In Boyer (1990:18-19), integration is defined as "…giving

meaning to isolated facts, putting them in perspective…making connections across the disciplines, placing specialists in large context, illuminating data in a revealing way, and educating non-specialists" and "…fitting one's own research – or the research of others – into larger intellectual patterns…". Boyer's premise is that new discoveries in research can provide new insight and meanings when interpreted or applied in broader context through interdisciplinary exchanges. In community engagement context, integration connects different disciplinary expertise as well as different forms of knowledge in communities; it connects disciplines and communities of interest. Mtawa *et al* (2016:127) point out the significance of scholarship of integration to knowledge and its consequence to academia and communities. Scholarship of integration gives room for academics to begin to attempt to theorize local and indigenous knowledge of communities, and at the same time simplify complex issues (or wicked problems) to community stakeholders (Mtawa *et al*, 2016:127). The integration dimension is an important component in a time where multi- and trans-disciplinary knowledge collaborations and synthesis are being stressed in academic and governmental spheres.

iii. Scholarship of teaching

The scholarship of teaching is about transforming and expanding knowledge using the interaction that occurs between the teacher's understanding and student learning (Fourie, 2007: 39). According to Boyer (1990: 23), "…teaching is also a dynamic endeavour involving all the analogies, metaphors, and images that build bridges between the teacher's understanding and the student's learning…", and "…the work of the professor becomes consequential only as it is understood by others…". Therefore, scholarship of teaching relates to the understanding other have of the university in terms of its impact on them. Scholarship of teaching advocates for the development of a learning community where there is active intellectual engagement and exchange of knowledge equally between academics, students and communities to promote critical thinking and life-long learning (Mtawa *et al*, 2016:128). Boyer sees reading widely and continuous intellectual engagement as critical elements for academics. In the context of community engagement, the scholarship of teaching regards learning as a communal act to facilitate knowledge exchange amongst different constituents while scholarship is ongoing. It is enhancing teaching and learning to move transmission of knowledge beyond the institution. This translates teaching from theory to practice as a tool to elevate all parties involved in community engagement to be active in the continuity of knowledge.

iv. Scholarship of application

The scholarship of application is about the broader application of knowledge between academia and the real world (Wilson, 2013:31), how HEIs interface with non-academic communities to develop relevant and applicable knowledge (Boehm, 2015, para.1). The dimension of application is the juncture where knowledge moves from theory to practice and from practice to theory, thereby making theory more authentic and knowledge useful (Boyer, 1996: 28). Community engagement, as a scholarly activity, makes knowledge usable and relevant in the daily existence of communities and society at large. In other words, scholarship of application uses societal realities to test and challenge existing theory, and inspire new theories and conjectures. Scholarship of application can be closely compared to Mode 2 knowledge production model developed by Gibbons, Limoges, Nowotny *et al* (1994:4) (see also Nowotny, Scott and Gibbons (2003)).

Mode 2 is proposed as a transition from Mode 1 form of knowledge production (Gibbons et al, 1994:3) which refers basically to traditional research undertaken in universities and organized along academic disciplinary structures (Carayannis and Campbell, 2012:3). Mode 1 is set in an environment where academic interests control the focus, process and quality control of discovery and knowledge production. Hence, Mode 1 is regarded as homogeneous (Gibbons *et al*, 1994:3) and a more 'linear concept of innovation' (Boehm, 2015, para.3). Mode 2 knowledge is characterized by a focus on knowledge produced in the "context of application" (Gibbons *et al*, 1994:3). The context of application describes research that is driven by the need to address practical problems and produce knowledge that is useful and makes impact on society (Bresnen and Burrell, 2012:27; Carayannis and Campbell, 2012:3). Mode 2 knowledge engages in transdisciplinary mobilisation of both theoretical perspectives and practical methodologies to guide problem-oriented research (Nowotny, Scott and Gibbons, 2001:223). There is heterogeneity of skills, capacity and experience in terms of individual and organizational participants in the research process (Gibbons, 2000:160). Mode 2 is credited with the emergence of a "socially distributed knowledge production system" on account of technology facilitating unrestricted interaction and interconnections across boundaries and multiplicity of sites where knowledge is produced (Gibbons, 2000:160; Nowotny, Scott and Gibbons, 2006:41).

Boyer's model is an expanded view of scholarship to give validity to the full spectrum of academic work, and provide guiding principles for engagement as a process to further enhance the core activities of higher education institutions and the knowledge resident in communities. Sharing of knowledge gives recognition to the communal nature of scholarship and recognition to audiences other than peers in academia. Scholarship of engagement utilizes shared curiosity and robust interactions with knowledge and expertise outside of academe (Derret, 2013:36). This means there is a social dimension to knowledge and learning, highlighting cognitive processes of the learning individual and social context of the learning situation. Lave and Wenger (1991:49,50) demonstrate that learning does not occur in an isolated or individual frame; is no longer concentrated to a single location but is a social process positioned in a culturally and historically relevant context (Farnsworth, Kleanthous and Wenger-Trayner, 2016:140). This viewpoint focuses on the relationship between learning and the social situation in which it occurs. This further elicits a need to understand and discover types of social engagement that provide the proper situation for learning to occur.

Lave and Wenger's (1991:49-50) assertions challenge the notion that learning occurs only intellectually in an individual's mind. Their proposition is that learning lies in co-participation where it is mediated by different perspectives presented by co-participants (or community) in the learning context. This study posits that the idea that universities-community engagement can produce knowledge and learning supports the position that knowledge is socially constructed. The objective of Boyer's model of engagement is that by extending the university into the communities, engagement not only facilitates development of knowledge through traditional, scientific means, but also through the process of application. Therefore, community engagement places a demand on HEIs to become participants with a mission in a very complex learning scenario involving different sections of the society. The learning scenario integrates discovery, learning, and engagement, and comprises multiple knowledge sources from diverse disciplines and domains (Holland, 2005:12).

Therefore, this study considers Lave and Wenger's assertions as important in light of debates around decolonization of higher education in South Africa. This study argues that engaged scholarship is a vehicle (or medium) of decolonization because engagement as a scholarly practice transforms the nature of knowledge in universities. This means that contextual knowledge – knowledge that is cognisant of and imbibes local, geographical and historical peculiarities of communities and indigenous knowledge systems - is recognized as an intimate part of epistemology and pedagogy. Furthermore, engaged scholarship as a medium of

decolonization changes the process of knowledge creation by relocating from within the walls of universities to new sites outside and broadening participants.

4.4.2 The Engaged University

A considerable section of literature takes it cue on what an engaged university is from the Kellogg Commission Report (1999) on the future of state and land-grant universities. The report describes engaged universities as "those that have remodelled their teaching, research, and service functions to become more concerned and productively involved with those who make up their communities" (The Kellogg Commission, 1999:27). Therefore, an engaged institution espouses the engagement ideal of commitment to collaborative reciprocal relationships with relevant stakeholders in the community in ways that yield mutually beneficial outcomes for universities and society for the purpose of sharing, development, and application of knowledge, skills, expertise and information (Bridger and Alter, 2006:170). The Kellogg Commission developed seven characteristics of an engaged institution that would support effective engagement and foster community partnerships. These characteristics outlined in Table 4.1 also serve as a test of engagement for any university.

An engaged university requires internal stakeholders to be able to accomplish its engagement mission. Faculty play a key in driving and implementing a university's objectives where engagement is concerned. The attributes outlined in Table 4.1 must be evident in faculty on a wide scale in order for the institution to be regarded as having such attributes. This study has discussed the participation of academics in engagement as well as factors that influence their perceptions and involvement in engagement. These discussions are featured in chapters 2 and 7 indicating what is obtainable in literature and the study's finding from data collected.

Table 4.1. Defining characteristics of an engaged university

1.	Responsiveness:	What level of responsiveness does the university demonstrate towards its local, national, regional and international communities? An engaged university must periodically examine if it is listening to the communities it serves.
2.	Respect for partners:	Does the university genuinely respect the skills and capacities of partners in collaborative projects? An engaged university encourages joint ownership of problems, solutions and successes with engagement partners.
3.	Academic neutrality:	In the university's engagement, does the institution maintain its role as a neutral facilitator and source of information when engagement activities involve contentious issues which may have profound social, economic and political consequences?
4.	Accessibility:	Is the university's expertise equally accessible to all concerned constituencies within its communities?
5.	Integration:	Does the university demonstrate a commitment to interdisciplinary work and integration of engagement with the core functions of academic scholarship?
6.	Coordination:	Are engagement activities well-coordinated to ensure that all stakeholders within the university understand the institutions engagement agenda?
7.	Resource partnerships:	Can the university secure adequate resources for engagement efforts by leveraging on strong and healthy relationships with partners with whom resources can be pooled?

(Adapted from: Kellogg Commission. 1999:12)

4.5 FORMS OF COMMUNITY ENGAGEMENT

This study has established from literature that community engagement tends to be context-specific with marked differences across universities in their understanding, definition, interpretation and expression of community engagement. Therefore, community engagement takes different forms as many institutions adopt different typologies in operationalizing CE. In some universities CE practices are successfully integrated into teaching and research while in some other institutions, their idea of community engagement remains limited to outreach or philanthropic gestures.

Furco (1996 cited in Wilson, 2013:25) uses two elements – proposed beneficiary and primary goal of the activity – to distinguish between various forms of community engagement on a continuum illustrated by Figure 4.2. Each activity occupies a range of positions on the continuum depending on the intended beneficiary of the activity and the degree to which the goal of the activity is towards service or learning. In addition to the forms of community

engagement indicated in Figure 4.2, this study discusses other forms such as community-based research, participatory action research and work integrated learning (which covers cooperative education and experiential).

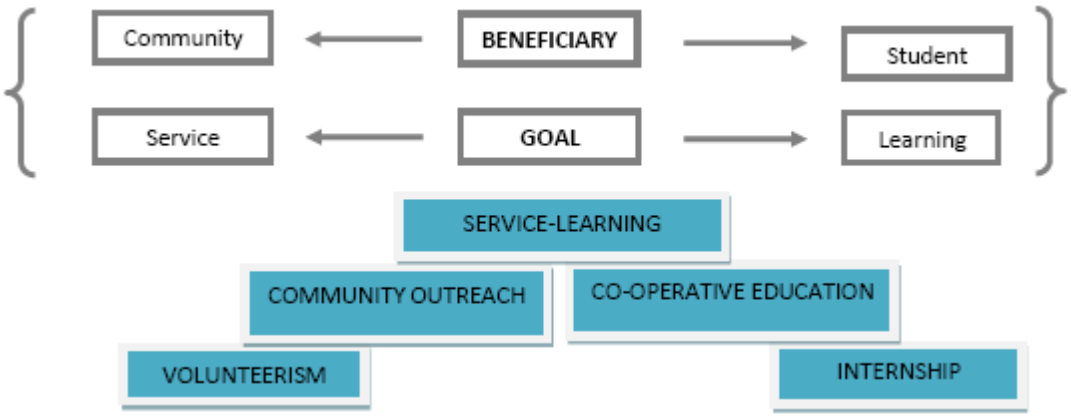

Figure 4.2: Spectrum of community engagement forms

Source: Wilson (2013:25)

4.5.1 Service Learning

Service learning (SL) is one of the more visible expressions of the integration of service with teaching in higher education institutions. SL incorporates discipline-related community service and reflection into teaching to enhance students' learning and civic awareness, as well as support communities (Johnson and Hoovler, 2012:40). Teaching and learning occupies a dominant role in South African higher education institutions, and this influenced the decision to use SL as the entry path for community engagement in South Africa (Lazarus, Erasmus, Hendricks et al, 2008:64). SL engages students in active, relevant, and collaborative learning by reinforcing the notion of "learning by doing. Students are able practice and apply theoretical knowledge in projects that meet community needs resulting in the transformation of a community (Waldner, Widener and McGorry, 2012:123). In literature, SL is widely accepted to be defined as follows:

> "a course-based credit-bearing educational experience in which students (a) participate in a mutually identified service activities that benefit the community, and (b) reflect on the service activity in such a way as to gain further understanding of course content, a broader appreciation of the

> discipline, and an enhanced sense of personal values and civic responsibility" (Bringle and Clayton, 2012:114-115).

Components of SL identifiable in the definition are, first, it is an academic activity involving a meaningful method of teaching and learning curriculum content. Secondly, service activities are relevant to meaningfully contribute to learning objectives and there is mutual agreement between the HEI and community partners as to value of service activities. Thirdly, SL contributes to the development of social and civic responsibility and public scholarship in students (Bringle and Hatcher, 2011:6). Furthermore, there is a reciprocity in SL, a factor emphasized in community engagement, where all participants - students, community partners and recipients of service, involved academics and higher education institutions - are expected to benefit from this activity (Torres, 2017:8). As a method of instruction, SL connects the academic curriculum with the needs of a community in order to achieve both the service and learning objectives (Slavkin, 2007:108), and academic credit is awarded for learning achieved through community service (Bringle and Hatcher, 2007:81).

Butin (2006:478) challenges some claims about SL bringing change to pedagogy; SL being an avenue for higher education to advance democracy and social justice; and SL achieving an outward redirection of higher education institutions toward public engagement rather than inward academic elitism. In what can be regarded as limitations of SL, Butin (2006: 474 - 480) contends that its actual institutional footprint is unclear, specifically suggesting that there are significant pedagogical, political, and institutional limits to SL across academia. Arguments put forward include the positioning of SL as a co-curricular practice supported through “soft” short-term grants; faculty perspective of SL as an arduous atheoretical pedagogy that is not taken seriously in terms of traditional tenure and promotion therefore has a minimal exchange value. Other arguments against SL include being conspicuously discipline-specific and predominantly used by soft, vocational disciplines found in humanities and social sciences. Also, Butin notes that SL is undertaken mostly by people of colour, women, and the untenured, therefore highlighting issues of unequal power relations, marginalization, race and gender in SL. Despite the aforementioned, the practice and theory of service-learning has reached a critical mass and attention is turning to ensuring its institutional longevity. Some South African researchers which include the likes of Hlengwa (2010a, 2010b), Albertyn and Daniels (2009), Erasmus (2007) have explored the pedagogical use of SL and how it has developed the curriculum in higher education.

4.5.2 Community-Based Research

Community-based research (CBR) is an orientation to research involving collaborative partnership of academics and community members for the purpose of finding a solution to crucial community problems and in so doing achieving social change (Strand, Marullo, Cutforth *et al*, 2003a:3; Minkler, 2005:3). CBR is applied research and may include student involvement but it is primarily scholarship that involves collaboration with community members to address community needs while promoting learning (Wade and Demb, 2009:7). CBR is different from traditional research in that the goal of CBR is to achieve social change and economic justice by placing socio-economic and politico-civic issues at the heart of universities' teaching, research and service missions (Strand *et al*, 2003a:4).

CBR evolved from the convergence of three basic influences: an education model that stresses self-education in social change by active involvement; an action research model used by academics and social institutions; and a participatory research model that emphasizes citizens' involvement in research to achieve change in the society (Strand, Marullo, Cutforth *et al*, 2003b:6-7). Furthermore, Strand *et al* (2003a:8; 2003b:6) highlight three key principles which underscore CBR. Firstly, CBR uses the principle of full collaboration in creating partnerships between academia and community. Researchers and community members are considered to be equally collaborators, partners and learners throughout the process undertaken to create knowledge (Strand *et al*, 2003a:8). Secondly, CBR values the knowledge all participants bring to the research process, both the local or experiential knowledge resident in the community and specialized knowledge from academics (Strand *et al*, 2003b:7). As a result, CBR acknowledges and incorporates multiple sources of knowledge, multiple methods of discovery of pertinent and useful knowledge, as well as multiple methods of dissemination of knowledge produced (Strand *et al*, 2003b:7). Finally, CBR uses social action to achieve social change and social justice. According to Strand *et al* (2003b:7) the involvement of community members in the research process empowers them with necessary information and knowledge needed to develop some capacity to contribute to social change and social justice.

4.5.3 Participatory Action Research

Participatory action research (PAR) is as an orientation towards research that embraces partnership between inquirer and those affected by the research problem in order for their voices to be represented. Westfall, Fagnan, Handley *et al* (2009:423) describe PAR as a systematic process of scholarship inquiry that involves collaboration with stakeholders affected by the issue under study so that knowledge generated become the basis of bringing about social change in the lives of the participants. According to McIntyre (2008:1), the principles that inform PAR are: a shared commitment to investigate an issue or problem; an interest in gaining a better understanding of the issue under examination through communal contemplation of the issue; a joint decision making on actions to be taken that provide relevant solutions for participants involved; and involving participants in all stages of the of the research process.

PAR is a credible form of community engagement due to its approach to scholarship where research work is done with participating groups or communities rather than *on a community*, *in a community* or *for a community* (Westfall *et al*, 2009:424). The community has a part in production of knowledge and required, useful actions to be effected; there is two-way communication, shared decision making and responsibility for action and joint ownership of solutions (Kidd and Kral, 2005:187).

4.5.4 Community Outreach

The primary focus of community outreach is to make a service available to the community who is the primary beneficiary (Wilson, 2013:27). Customarily, community outreach initiatives can be initiated by lecturers, administrative staff, students, discipline, faculty or even the institution itself. It is observed in community outreach that activities are not necessarily to the other core functions of the university but its key attribute is that university knowledge, expertise and resources are used to benefit the community in a direct way (Mtawa *et al*, 2016:130). The community is being serviced and is simply a recipient in a uni-directional flow. Van Schalkwyk (2015:205) is of the view that where community engagement is just a platform to provide services to the community, a la outreach, the contribution to scholarship and development is limited. Mtawa *et al* (2016:130) argue that promoting outreach activities as community engagement does not augur well with Boyer's scholarship of engagement model. However, the outreach model can be integrated into the academic curriculum if programs or activities are formally used in teaching and learning or research.

4.5.5 Work Integrated Learning

Work-integrated learning (WIL) in higher education is a broad-based approach to career-focused education where formal on-campus academic study is combined with periods of relevant work experience in industry settings (Jackson, 2015:350; 2013:99). WIL is a collaboration between the university, student and industry organizations to align academic learning with practical work experience for reciprocal benefit of students and organizations (Engel-Hills, Garraway, Jacobs *et al*, 2010:65). WIL is used to enhance employability and work-readiness in students. The purpose is to contribute to students' preparedness for the workplace by giving them exposure to relevant work experience in their area of academic study where they learn, train and are further equipped with skills and knowledge to function in their profession in a real-world context (Jackson, 2015:350). The student is the main beneficiary and learning is the primary goal of the engagement activity. There are different approaches to WIL, some of which include cooperative education, experiential learning, work directed theoretical learning, problem-based learning, project-based learning and workplace learning (Engel-Hills *et al*, 2010:62; Fleming and Hickey, 2013:209).

In internships, the student is the main beneficiary as the purpose is to afford students opportunities of experiential learning to develop practical knowledge and skills which optimize their theoretical knowledge in their field of study. When systematically integrated into the formal learning programme, internships are a curriculum component with academic credits (Brown, Willet, Goldfine *et al*, 2018:76). Internship as a form of community engagement involves experiential learning in a work scenario but it requires the student to produce a portfolio of evidence of work and value done in the community or work site. The ideal of reciprocity is expected to be present where both the student and community benefit from the internship programme. This is how internship as a form of community engagement differ from traditional internship which is predominantly about experience in the work place.

4.5.6 Volunteerism

Volunteerism is an active mobilization to respond to identified problems in the society by doing good to individuals, communities and society at large. It usually involves individuals or organized groups choosing to help others in need with the acts of help or assistance actively sought out by the volunteer(s) themselves and often sustained over extended periods of time with significant expenditure of time and effort. Usually the assistance offered in volunteerism

is not linked to an established prior obligation or commitment to the recipients of volunteer service because volunteers typically help those with whom they have no previous contact or association (Omoto and Snyder, 2002: 847). Community service is a form of volunteerism performed at a specific location or community, with the singular goal of service and no planned ties to teaching or learning. The focus of community service is to facilitate some form of improvement for the recipient of the service (D'Arlach *et al*, 2009:5).

Voluntary service in higher education has its roots in religious groups formed by university students who wanted to be of service to others (Brewis, 2010:440). New models of service have developed into different voluntary associations through which service to communities has become a significant aspect of student life. Brewis and Holdworth (2011:166) observe how traditional social service amongst students has transformed to community action, despite the absence of formal instruction in civic responsibility in higher education at the time and the student community action groups had minimal interaction with university authorities. Volunteering has become a way to develop public service and civic responsibility in young people. The growth of volunteering over the years has been influenced by factors such as demand for more effective student participation in community problems, questions with regard to the values of higher education, and pressures for curricula reform (Brewis, 2010: 442). According to Brewis and Holdsworth (2011: 166-167) the attention given to directing or supporting students' volunteering activities by university management maybe relatively new but there is a determined move towards according higher priority to volunteering by institutional authorities. Brewis (2010:447) notes that some universities are looking to integrate volunteering more firmly into the curriculum, to contribute to students' civic-mindedness, employability and skills development, and as a means for universities to increase their engagement with communities.

4.6 CONCEPTUALIZATION OF COMMUNITY ENGAGEMENT IN HIGHER EDUCATION INSTITUIONS

In Bender (2007:133; 2008b:87-90) there is a proposition of three possible models for the conceptualization of community engagement in higher education institutions - the silo, intersecting and infusion or cross-cutting models. Conceptualization of community engagement is relevant to this study because it is important to consider the strategy, approach or conceptual framework of community engagement in the typology of higher education institutions that is the focus of the study.

4.6.1 The Silo model

In the silo model, research, teaching and learning, and community engagement functions are pursued relatively independently of one another. There is no intersection between the three functions due to the focus of each on achieving its narrow but integral part in the university's overall mission (Trotter, Laurila, Alberts *et al*, 2015:11). Figure 4.3 illustrates the silo model with obvious gaps between the three academic missions. The promotion of permeable boundaries around each university function provides opportunities for cross collaborations and connections for scholarship purposes.

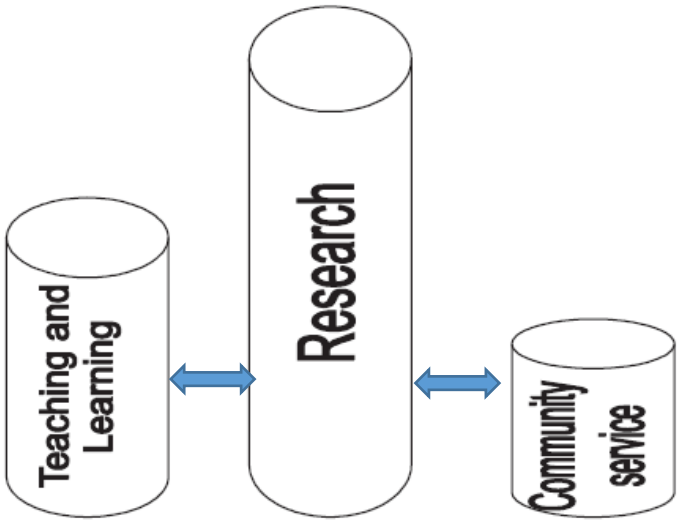

Figure 4.3: Silo model of community engagement

(Bender, 2008b:88)

Bender (2008b:87) describes the silo approach as one where community engagement is a separate and generally voluntary activity for faculty and the term "community service" is often used. "Service, as opposed to engagement, is the traditional category of community-oriented activities in universities" (Bender, 2008b:87). It is a traditional conceptualization because a welfare and predominantly uni-directional process of delivering knowledge and service to the community is adopted (Weerts and Sandmann, 2008:74). Also, community service is not regarded as having potential as a scholarly activity capable of contributing to teaching and research (HEQC, 2007:109), and is often largely limited to community outreach and volunteerism. Based on how the diagram depicts the three university functions in the silo model, research enjoys the most prominent position followed by teaching while community engagement is regarded as the least. As a result of the scant level of importance attached to it, community engagement in the silo model will typically receive less allocation of resources in comparison to resource allocations to research and teaching (Nhamo, 2012:7). With scarce resources available, community engagement is an add-on activity happening on the periphery in pockets of activities that may or may not be connected to the academic discipline in which it is being sponsored.

4.6.2 The Intersecting model

The intersecting model suggests that there is some interaction between the three HEI roles. The main assumption of the model is that all research and teaching in HEIs ultimately involve some kind of engagement with stakeholders in the community directly or indirectly, and irrespective of focus area thereby making community engagement an inexorable component of institutions' existing activities (Bender, 2008a:1161). Therefore, there is some measure of engagement already in HEI functions as universities are continuously engaging with their communities in different ways though the degree to which engagement is apparent and actively operationalized varies. This rationale is based on the fact that the very nature of scholarship or education in practice is such that it is communal and relational therefore embedded in communities (Boyer, 2016: 22). Lave and Wenger's (1991 cited in Farnsworth *et al*, 2016:140) assertions reinforce this position by stating that learning lies in co-participation where it is mediated by different perspectives presented by co-participants (or community) in the learning context. Knowledge's very nature require it to be to be shared or communicated to others. Therefore, the inherent communal nature of scholarship makes some forms of engagement expected and a natural

extension of HEIs' traditional roles and activities. Furthermore, this characteristic is why the intersectional model does not involve a radical deviation or change in universities' main functions and activities (Bender, 2008b:88). Figure 4.4 illustrates the intersecting model of university-community engagement showing some outcomes such as service learning and community-based research at points of intersection as well as where there is no intersection.

Figure 4.4. Intersecting model of community engagement

(Source: Bender, 2008b:89)

This study argues against the model's conjecture in that it is not sufficient to assume that community engagement occurs simply by reason of the existence of the institution. Also, if activities occur by reason of the existence of a university it is necessary to evaluate the approach taken to such activities with the community to know if they qualify as engagement. The practice of community engagement by a university is a strategic, purposeful and intentional effort to develop closer, robust relationships with various dimensions of community which the institution engages with. Focused action is essential to shift HEIs' traditional functions to the levels where as Houghton, Steele and Henty (2003:x) state "there is increasing diversity in the location of research activities; an increasing focus on interdisciplinary, multidisciplinary and transdisciplinary research; an increasing focus on problems, rather than techniques; greater emphasis on collaborative work and communication…".

4.6.3 The Infusion model

The infusion model views community engagement and service as the principal objective of higher education where it is deeply ingrained in teaching/learning and research functions (Bender, 2008b:89). The three functions coalesce as community engagement informs and stimulates teaching/learning and research, and is itself informed by them (HEQC, 2007:109 thereby according teaching/learning and research with context, relevance and application. The infusion model advocates for the entire institution to be community engagement-centred and oriented. Consequently, the infusion approach does away with attributing a distinct identity to community engagement as seen in the silo and intersecting models. Furthermore, community engagement is not regarded as an ordinary offshoot or useful addition to other HEI functions, but occupies a central place being interwoven into other functions (Bender, 2008b:89).

Wilson (2013:85) notes that though the silo and intersecting models allow for interconnection between two roles, the models did not provide for the integration of all three HEI roles. The silo model provides no indications to context for the performance of HEI core functions while there is a level of ambiguity to the context of "community" referred to by the intersecting model. They both fall short in their inability to acknowledge or address interconnection and exchange between the institution and engagement partners. Integration of all three functions as illustrated in the centre of Figure 4.5 allows connections across functions, roles and knowledge disciplines as advocated by Boyer (1990 cited in Boyer, 2016: 21-22) in his scholarship of integration. According to Boyer, scholarship of integration places knowledge in a broader context, linking and synthesizing knowledge across different disciplines to create more inter/multi-disciplinary conversations and collaborations where the energies of numerous disciplines are made to converge.

In the same vein, the infusion model sites the three core functions of HEIs in the context of a broader environment by including the institution, prospective partners and collaborators in the public and private sectors, as well as service agencies and communities (Bender, 2008b:90). By making provision for mutual cooperation and partnerships with stakeholders from a very broad spectrum, the infusion model offers a more robust conceptualisation of community engagement. This model acknowledges that HEIs engage for development of knowledge in a manner that has moved beyond just teaching/learning and research within the boundaries of institutions (Wilson, 2013:87).

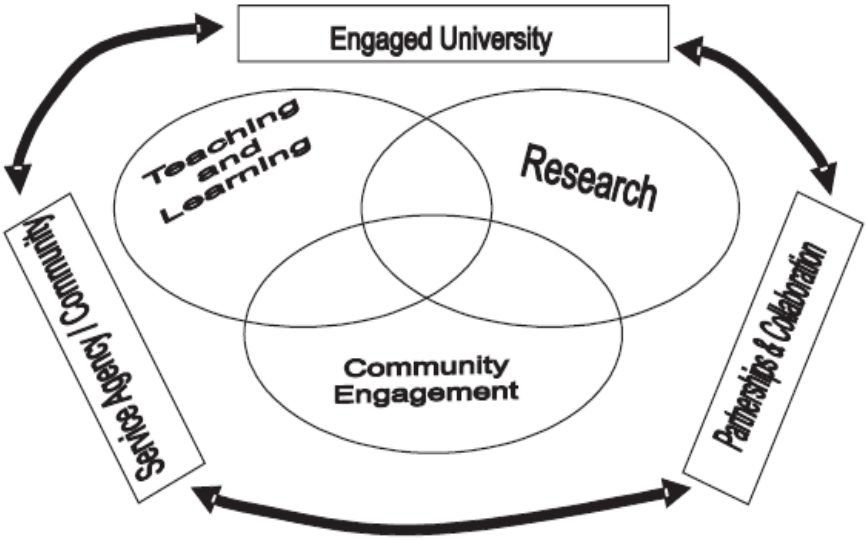

Figure 4.5. Infusion model of community engagement

(Source: Bender, 2008b:90)

The main difference between the three approaches is the degree of "engagement infusion" in a HEI, or the extent to which community engagement informs the university's core activities and across all areas of the HEI (Bender, 2008b:90). The three conceptualizations can be referred to as being "university-centric" depicting community engagement from an inside-outward perspective of the HEI (Bender, 2008b:90). Singh in HEQC (2007:100) commented that the conceptualization of community engagement illustrated in these models:

> "…is not about setting narrow, tight, exclusionary definitions of what community engagement is, thus establishing an orthodoxy in relation to this issue. Rather, it is about setting some broad parameters for community engagement; it is about trying to establish a relationship between community engagement and the other two core functions; it is, very importantly, about signalling the place of community engagement in the social development agenda; and it is about indicating some of the possible models for community engagement…"

In view of the discussion in this section around different conceptualization of community engagement, Nhamo's (2012:7) conclusion is that there is no one, true model of community engagement. Community engagement should rather be considered as a concept expressed on a continuum as HEIs target to progress from low community engagement to the highest form of

community engagement. Given the heterogeneous characteristic of communities as well as the differentiated contexts in which HEIs exist and operate, it might be more advisable to provide for a multiplicity of approaches which HEIs may implement to realize their community engagement agenda in relation to institutional vision, mission, strategic focus, objectives, values and paradigms. Furthermore, as HEIs develop and implement their engagement vision and goals taking into account evolving realities in the internal and external environments, new models of community engagement will emerge to guide program design, implementation, investments, assessment, and growth which will stimulate renewal of the community engagement mandate in HEIs.

4.7 COMMUNITY ENGAGEMENT IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA

According to Benneworth and Humphrey (2013:176,178) the typology of an institution plays a role in determining the place of community engagement within that HEI and provides insight into the debate around "whether engagement could be or should be a central mission only for certain kinds of institution" (p.176). Also, Maurrasse (2001:156) is of the persuasion that the type of institution is a principal influence that shapes the nature of engagement a university is involved in, noting that "although every institution has a particular tradition, which may or may not be related to its institutional type". The view that institutional typology influences the practice of community engagement is also supported by Ward (2003:62) and Schuetze (2012:64). This study established from literature that there are diverse types of higher education institutions where marked differences are portrayed in elements such as institutional culture, academic mission, activity mix as well as student profile. Therefore, universities would express community engagement based on their own unique context marked by these aforementioned factors. Bender (2008a:1158) notes that depending on the type of institution, the definition and concept of community engagement can be adapted to suit the institutional context, ethos, culture and functions of scholarship. The sustainability of community engagement within universities is dependent on the extent to which it is regarded and internalized as an institutional characteristic since there are universities where community engagement is a core task and others for whom it is not.

The historical development of South African universities of technology (UoTs) from technikons has granted them a laudable record and experience in collaborations with different stakeholders (Cooke *et al*, 2010:161). The institutional history of technikons covers an extensive record of engagement with different sectors of their external communities, predominantly industry and business. Links to industry reinforced the strength of UoTs in vocational disciplines through which they understood labour market needs which in turn influenced their curricula. So, UoTs have been engaging with the world of work by serving as learning laboratories where curricula and research are both theoretical and applied, enriched by business and industrial experience to deliver work-ready graduates. This aspect of engagement has reinforced the applied research focus of UoTs where problem-solving is the core of research agenda to proffer solutions to challenges in their constituent communities (Johnson *et al*, 2010: 118). Therefore, it can be said that some of the research and teaching programs of UoTs respond to needs in different sectors of the economy and society (Ng'ethe *et al*, 2008:123).

Several programmes in UoTs have an experiential learning element to them where service learning (SL) and work-integrated learning are incorporated into the curricula. Having its origins in experiential education, SL is an active pedagogy where students engage in "learning by doing", reflection and analysis in the curriculum with the aim of bringing practice closer to theory thereby ensuring the promotion of substantive learning (Lazarus *et al*, 2008:64). Due to SL's engaging framework that emphasizes real-world learning and reciprocity between HEIs and communities, SL is used as a starting point or basic strategy of community engagement in South African higher education policy (Preece, 2013a:115; Lazarus *et al*, 2008:64). Several UoTs employ SL to facilitate contact between the institutions and their local and regional communities, using it to address and solve contemporary social problems as an important element of a complete education to students (Du Pre, 2006:20). This affirms Du Pre's (2006:7) outlook, in reference to UoTs' positioning in a knowledge society, that the way for UoTs to meet demands incumbent on them is to ensure their teaching and research programmes meet the needs of the society. Also, they must identify new possibilities through which their programmes can be used to develop the knowledge society. The study explored community engagement at UoTs using the following case studies: Cape Peninsula University of Technology, Central University of Technology, Durban University of Technology, Mangosuthu University of Technology, Tshwane University of Technology and Vaal University of Technology.

4.8 INTERNATIONAL EXPERIENCES IN HIGHER EDUCATION COMMUNITY ENGAGEMENT

There is a geographical context to higher education institutions because they are physically sited in a particular geographical location or region, and can be influenced by factors in their localities and regions. There are elements in those regions which, depending on how they impact higher education, can define the nature, focus and intensity of the relationship between institutions of higher education and their geographic context. Various geographical regions across the globe provide very different settings for higher education to function due to differences in environmental factors which determine what universities are able to do. In turn, universities, by virtue of their existence and activities, are able to and can affect their localities and regions (Williams and Cochrane, 2013:71). Universities symbolize different things to their localities and regions depending on, *inter alia,* their history, institutional typology, academic mission, mode of delivery, mission-culture-values mix, student and staff profile. As in the manner of all things subject to change, universities and their localities evolve. The process of change affects how each entity exists and interacts with one another.

The above reflections prompt this section's discussion of international contexts of higher education community engagement by looking at how universities in various regions of the world practice community engagement. An international perspective that spotlights community engagement in global higher education is enlightening to this study because it demonstrates how peculiar factors in regions and localities influence institutions' responses, in form and mode, to engagement with communities. This study has chosen to survey the Global South region (Africa, Asia, and South America) and the United States of America (USA). Current literature is majorly made up of experiences from the Global North. Though this section does not discuss the European context, it includes the American experience because developments in that region have greatly influenced the subject matter across the world. This discussion shows how differences in regional contexts shape what is achievable in universities' engagement with their communities.

4.8.1 Africa

Engagement between higher education and society is an extant subject in higher education discourse on the African continent (O'Brien, 2009:29). Institutional forums and advocates for higher education such as the Association of African Universities (AAU) stress the importance of interactions between African higher education institutions and external communities to move beyond outreach mode to collaborative partnerships and networking at local, regional, continental and global levels. The importance attributed to higher education community engagement in the African context, is rooted in post-independence recognition of universities as strategic agents of development in society (Cloete, Maassen, Bunting *et al*, 2015:260). There are two perspectives that characterize demands for higher education's active role in sustainable development as well as demands for universities to enhance their capacities to be responsible agents for socio-economic progress (Cloete, Bunting and Maassen, 2015:19). The first perspective is the "developmentalist" concept which informed gearing development aid for higher education towards strengthening the competence of African university systems in knowledge production and dissemination for the purpose of community development (Cloete, Maassen, Bunting *et al*, 2015:261; Mamdani, 2008:5). The mission where universities use their abundant and accessible skills set and expertise to directly address challenges in the society in a service role has been pushed vigorously by many national governments and global aid agencies (Cloete, Bunting and Maassen, 2015:19). This has made the developmentalist concept in a direct service role more prevalent in African universities.

The second perspective of higher education in development is one where universities take up the role of "engine of development" (Cloete, Bunting and Maasen, 2015:19). The focus is on deepening capacity for production of knowledge and amplifying institutions' innovation function so universities are positioned as tools of economic development and means of practical solutions that are applicable in the society. In the past, the "engine of development" concept was not particularly promoted among African universities. This emanated from marginalization of African higher education systems where they were considered to be inferior because they lagged behind Western higher education systems, or were not regarded to be value-adding (O'Brien, 2009:29; Teferra and Greijn, 2010:1). Furthermore, development aid institutions influenced the focus and direction of national higher education policies which often did not emphasize developing universities' capacity to produce knowledge towards the goal of becoming innovation hubs for national development needs (Cloete, Maassen, Bunting *et al*, 2015:260; Walters and Openjuru, 2013:144).

However, this disposition has changed as the stance of several countries in Africa is that universities are key role players in the knowledge economy and have strategic significance to national economic growth and development as well as global productivity (Molla and Cuthbert, 2018:254-255, 258). Although Africa ranks lowest in key knowledge economy indicators (Molla and Cuthbert, 2018:251), one significance of the knowledge economy for higher education community engagement is that it induces research and other scholarship activities to transcend traditional settings of isolated disciplinary or institutional structures to collaboration. Increased collaboration with global knowledge networks contribute to universities in Africa enhancing their resource capacity, innovation potential as well as abilities to adapt knowledge and solutions to local and regional contexts (Aarts and Greijn, 2013:12). Targeted production and effective use of knowledge in various disciplinary spheres has been seen to stimulate new ideas and solutions necessary for innovation in the economy as higher education institutions engage multi-laterally with industry and government.

University-community engagement in Africa is influenced by diversity of histories, ethnicities, cultural expressions, languages across the different states and regions of the continent. Hence, there are contextual variations, differences in terminologies and approaches employed to operationalize universities' engagement (Walters and Openjuru, 2013:142). O'Brien (2012:198) presents a constructivist framework of discourses that characterize the diversity of practices in higher education community engagement in Africa. O'Brien's study finds that community engagement occurs across a spectrum which the author categorized into four main discourses - scholarship, benevolence, democracy and professionalism. In scholarship, community engagement is poised primarily as a scholarly activity of interdisciplinary research focused on generation, dissemination, integration and application of knowledge. The nature of engagement is such that existing knowledge (from the university) meets with new knowledge (in the community), and all participants have a scholarly identity where their roles are primarily geared towards contributing to knowledge production (O'Brien, 2012:199, 200).

The benevolence discourse sets engagement as purely philanthropic where the university adopts a posture of service to those who are in need. The purpose is to maintain a standing of good citizenship as an institution, and drive civic-mindedness in all participants through volunteerism and initiatives designed to "give back" to disadvantaged sections of the community and population (O'Brien, 2012:201). The focus of democratic engagement discourse is to enhance the common good. Social justice is the context that drives the university's engagement to stir commitment to social action for change.

Engagement is formulated as a dialogue between participants/stakeholders who have a shared identity as activist-change agents, and this encourages equity, reciprocity and knowledge co-creation (O'Brien, 2012:203-205). In professionalism discourse, the main focus of community engagement is resource development, especially human resource and organisational development. Priority is given to application of practical and experiential knowledge for skills development (O'Brien, 2012:206,207).

Some examples from different regions of the African continent are briefly discussed to give an insight to the nature of higher education community engagement. Studies by Musinguzi, Ssonko, Waiswa et al (2016) and Mugabi (2014) into community engagement and outreach in some Ugandan universities including the renowned Makerere University, found that universities accept community engagement as one of their core functions. The researchers' findings also indicate that the silo model (Bender, 2008b:88) where teaching and learning, research, and community engagement functions are pursued relatively independently of one another, was most prevalent in the universities. While levels of institutionalization of community engagement in the universities were found to be low, there are ongoing processes to improve and deepen institutionalization. In Kenya, Tumuti, Mule, Gecaga et al (2013:10) report that community engagement is hardly done in conjunction with teaching and research in many Kenyan universities, and remains mostly an activity carried out in isolation. Though mission statements of many Kenyan universities express "commitment to social responsiveness or service to humanity", only a fraction of key stakeholders within the university community are involved in community engagement (Tumuti et al, 2013:10).

In post-independence Ghana, the creation of public universities was in some measure to contribute to government's vision of industrializing the Ghanaian economy to achieving speedy socio-economic development (Tanko, 2015:4). This agenda has not been realized due to intermittent changes in government which resulted in unstable policies for higher education. Subsequent evaluation of the failures experienced with earlier universities led to the establishment of a university with an institutional mandate of using academic knowledge to address issues around development, resource redistribution, inequality, poverty, and social transformation in a particular region of Ghana (Tanko, 2015:4). Tanko's study (2015:5) found that the community engagement programme in this university in the form of "practically-oriented research and field-based training" has been successful based on an evaluation of impact of programmes on different stakeholders. Tanko (2015:278) states that "the emerging paradigm shift in higher education in Ghana emphasises that universities should be seen to be

driving the development of communities in their catchment areas". This example of university-community engagement shows that focused university-community engagement vision and strategy can be very successful drivers of change if there is alignment between knowledge creation and societal challenges and required resource support.

African universities are slowly but gradually adjusting their paradigms to accept communities as collaborative partners possessing critical indigenous knowledge that contribute to society (Walters and Openjuru, 2013:142). This is a shift from regarding communities purely as beneficiaries who are on the receiving end of universities' benevolence. In spite of progress that has been made in community engagement many challenges still persist. There are still continuing debates about the value of community engagement, and how best it should be practiced to promote scholarship. Community engagement is still under-theorized as knowledge gaps remain in relation to theories that explain the phenomenon in view of shifts occurring in global higher education with implications for local experiences. There is limited understanding of additional models of community engagement which adequately illuminate methods of community engagement. Also, there is inadequate focus on outcomes and impact in community engagement in African universities.

4.8.2 Asia

Asia, like Africa, is a very broad and diverse region with rich embedded histories and multiplicities of language, ethnicities, cultures and religions. The region also grapples with challenges of poverty, inequality, insecurity alongside the benefits of technological advancement, socio-economic development and political transformation. Institutions of higher learning and academic culture in Asia have been shaped by a combination of traditional, Eastern, contemporary and Western influences (Collins and Jun, 2019:6). In addition, different Asian philosophies with roots in cultural norms still wield some influence over ways of knowing, while political contexts and individual university's pursuits for national rankings and global status shape educational objectives in various regions of the continent (Collins and Jun, 2019:6). This is the environment in which higher education has to function and community engagement practised.

In India, policies governing higher education where community engagement is concerned place emphasis on "tangible and intangible contribution to the society", "participatory research", "community-university research partnerships", and "cross cutting collaborations between universities, NGOs and other institutions" as some of the key attributes of a world class higher education institution (Singh, 2017:12). According to Singh (2017:13) community engagement conceptualized as a mutually-beneficial reciprocal exchange is relatively new in India as most universities' interaction with communities has been the historic mode of extension or community outreach where social needs are addressed through charity and extra-curricular activities (O'Meara and Jaeger, 2006:13). The outreach approach modelled as the National Service Scheme (NSS) existing in every university in India, is student-oriented and more concerned with developing students' civic mindedness and responsibility towards society (Tandon, 2014:7). However, innovative forms of community engagement beyond the NSS are emerging and becoming established in different higher education institutions (Tandon, 2014:8). According to Tandon (2014:9), these innovative forms of engagement capture principles which can be classified as: connecting teaching and learning with community service, design and development of new curriculum and courses, connecting university research with indigenous knowledge in the community, knowledge mobilization and exchange with community, involving practitioners in teaching in classrooms and on-field, and social innovations by students.

In a study of community engagement practices in some universities in India and its impact on multiple stakeholders, Singh (2017:5) observed that the institutions successfully integrate their community engagement programs with teaching and learning and research. The institutions aim community engagement at enhancing curriculum objectives thereby elevating teaching and learning processes. Also, the study reveals how community engagement broadens universities' knowledge base through relevant research that connects knowledge development to societal realities. Other aspects that this example of the Indian experience of university community engagement portrays in Singh's study include recognition of indigenous or local knowledge present in communities which contributes to two-way knowledge exchange between academia and the community (Singh, 2017:10).

In Japan, there is very limited literature on how Japanese higher education institutions practice community engagement as it is defined in this study. Japan's Central Council on Education (CCE) (2012) depicts the key role of universities as training and developing the human resource necessary to move society to the future. The CCE's report emphasizes how Japanese

universities must be able to equip students with knowledge, capabilities and academic experience that facilitates their ability to create and lead Japan's envisioned future society. Though the University Council of Japan (2011:1) identifies other roles of universities as developing science and continuance of culture, and impacting local communities and industries, but prioritization of human resource development remains the focus for Japanese universities as Nagata (2018:12) also indicates. Hence, in terms of engaging and knowledge exchange, Japanese higher education institutions are more tuned towards collaborations and partnerships amongst themselves and with their international counterparts (University Council of Japan, 2011:12; Nagata, 2018:12). This is because, according to the CCE (2012) report, other universities form the core of Japanese universities' community.

In the Hong Kong Special Administrative Region (Hong Kong), the University Grants Committee (UGC) (2012:79) identifies knowledge transfer as the third mission of Hong Kong's higher education institutions in addition to teaching and research. Ma and Tandon (2013:200) describe knowledge transfer to mean "the systems and processes by which knowledge, including technology, know-how, expertise and skills are transferred between higher education institutions and society, lead to innovative, profitable or economic or social improvements". The UGC is of the opinion that knowledge transfer deepens the research function of Hong Kong's institutions which in itself contributes to global competitiveness of the higher education sector. Sidorko and Yang's (2011:386) study of knowledge exchange and community engagement using the University of Hong Kong Library (HKUL) as a case study, showed how the university had widened the concept of knowledge transfer to become knowledge exchange. This acknowledges the reality that the relationship between academia and business, government and the public society has to be conducted as a two-way exchange. HKUL's community engagement by knowledge exchange is operationalized by making information available to the university's internal and external communities through a series of initiatives, different services and special arrangements which provide access to the institution's intellectual repository. The study showed how HKUL's engagement at local, regional and international levels contributes to improving aspects of society with benefits as well for the library. In addition, service learning is one approach to community engagement that is widely adopted in Hong Kong (Ka, Fung and Hoi, 2019:3; Snell, 2019:95). This stems from the increase in use of service learning as a teaching method in higher education institutions in Asia. The practice of service learning where community service is incorporated into academic study

encourages “serving to learn” and “learning to serve” in students (Ka et al, 2019:4) while universities are able to fulfil the engagement mission.

In Vietnam, it is accepted that universities have three core functions of teaching, research and community services. However, most Vietnamese institutions of higher education are more focused on the teaching function, research in the past had been conducted by institutes (“academies of science”) separate from the higher education sector, and community engagement is treated as extra-curricula activities (Tien and Ku, 2019:184; Tran, Nghia, Nguyen et al, 2019:294; Pham, 2012:299). Tien and Ku (2019:184) highlight some factors that create challenges for community engagement in Vietnamese higher education. First is the focus of universities on teaching. Traditionally, Vietnamese higher education has given more emphasis to academic excellence without much consideration for how the curriculum connects to industry needs and labour market requirements (Tran et al, 2019:294). Teaching and learning practices were theory-oriented and teacher-centred but pedagogical practices seem to be undergoing a shift towards student-centredness and practice-orientation (Tran et al, 2019:287).

Secondly, universities in Vietnam are predominantly mono-disciplinary in nature where each institution specializes in only one discipline (Tien and Ku, 2019:184, Tran et al, 2019:292). Though this has its place in knowledge development but it can be restrictive and inadequate due to the single perspective it represents when attempting to solve complex societal problems. Thirdly, due to the research function not being domiciled in universities, research has been considered the weakest of universities’ three missions in Vietnam (Tran et al, 2019:291). The inference from this is that the likelihood of community engaged-research occurring in the institutions is negatively affected. Though Vietnamese universities now undertake research activities and positive changes are being recorded, still there is not much information and data about community engagement practices related to research (Tran et al, 2019:294). Finally, there are no incentives for higher education institutions to engage with local communities in a manner that promotes scholarship while creating solutions to challenges in the society (Tien and Ku, 2019:184). Moreover, the institutions could not link their sustainability to their relevance in meeting societal needs.

The more common perspective of community engagement in Vietnamese higher education institutions is volunteerism through national youth programmes where students volunteer during their holidays to serve in disadvantaged and rural communities (Tien and Ku, 2019:184-185). There are no academic credits attached to such programmes and they simply provide a

means for young people to gain experience and skills such as planning, time management, collaboration, public speaking and communication (Tien and Ku, 2019:185). Since participation in such programmes is voluntary, numbers of students involved are usually low in comparison to the entire student population of universities that organize the activities (Tien and Ku, 2019:185). The other approach to engagement has been from the perspective of graduates' employability. Some universities' engagement is oriented towards industry. They are taking industry demands requirements and labour market needs into consideration by aligning their curricula and developing courses to respond to industry needs (Tran et al, 2019:294). Also, service learning is emerging strongly as a form of community engagement in Vietnam, and is gradually gaining ground as an effective means of achieving knowledge exchange and mutually beneficial collaborations between universities and communities (Tien and Ku, 2019:186).

4.8.3 South America

In line with global trends in higher education, universities in South America also subscribe to the third mission being as significant a role as teaching and learning, and research are. In order to provide a clear context of higher education community engagement in South American universities, it is necessary to highlight that the third mission is classified into three dimensions in South America (Mora et al (2017:515; Marhl and Pausits, 2011:45). Because South American universities' interactions with society occurs with different sectors and multiple stakeholders, third mission initiatives are categorized into continuing education and training or lifelong learning (teaching and learning); technology transfer and innovation (research); social engagement (community engagement) (Mora et al, 2017:528). The three dimensions are established to different degrees in the region. Technology transfer dimension is uneven across countries in the region for different reasons. For example, there are countries like Brazil that have a high concentration of research-intensive universities with consistent productive interactions with government and industry resulting in effective contribution of universities to the development of such regions.

On the hand, some other countries like Peru have more numbers of teaching-oriented institutions universities with almost nil research activities (Mora et al, 2017:528). Citing Chile, Mexico, Argentina and Colombia, Thorn and Soo (2006:3) report on weak university-industry linkages leading to low levels of technology transfer and innovation activities between the two

sectors. Thorn and Soo (2006:5) attribute this to inadequate response from universities in these countries to industry needs; universities give priority attention to academics and scant consideration for application of research in industry. On the part of industry, there is a lack of recognition and poor appreciation for the research capacity of many of the universities in the highlighted countries and the quality of education they produce. Industries do not show a high level of commitment to innovation investment. Universities and public research institutions are often not the first choice of industry and the private sector on research and development, and innovation projects. Continuous education and training dimension is well developed in most universities in South America, fuelled by need to address inequalities in education, demand for advanced skills and technological developments.

Social engagement is the most prominent dimension of the third mission in universities across South America (Mora et al, 2017:517). The importance of social engagement of universities in South America lies in its Argentine origin in the Córdoba University Reform Movement of 1918 (Patterson, 2019) which advocated for a new university that was relevant to society through its social consciousness and practical contribution to socio-economic, political and cultural development of the region among other issues (Appe, Rubaii, Lippez-De Castro et al, 2017:12). As a result, social engagement is a traditional feature of the mission and culture of universities in South America and embedded in universities' institutional fabric because they have an awareness of their role in society. Also, dire socio-economic challenges in many South American countries in the region prompt governments to commission initiatives to improve their citizens' welfare. Universities would tend to key into such national or regional initiatives as their contribution to society.

Appe et al (2017:14) categorize the mode of engagement employed by universities in South America into three approaches. The first is a market-oriented approach undergirded by a free-market capitalist philosophy with an economic focus where universities and industry collaborate to achieve economic benefits and development for themselves and the wider society. This usually involves knowledge transfer and commercialization of research for application in the marketplace and input to national innovation systems (Appe et al, 2017:15). Thorn and Soo (2006:3) note how more than half of researchers in Argentina, Mexico, Colombia and Brazil South America are in the employ of universities, and universities are recipients of most of the public budget for research subsidies. Yet, most South American universities lag behind in productively exploiting their research capacity.

The second approach to university engagement is the social justice approach buoyed by a solidarity paradigm where the objective is to increase social equity through active involvement of the often-marginalized, often-excluded and those on the lower end of the power differential where academia and community is concerned. South America's historical and current realities of socio-economic inequalities and poverty give room for social justice-driven university engagement to imbibe political and social activism to drive transformation in society (Appe et al, 2017:17). Brazilian educator, Paulo Freire, is credited to be one of major influences in the South American region who inspired integration of teaching with engagement to advance social justice through his ground breaking work, "Pedagogy of the oppressed" (2005). He advocated for the participation of the oppressed or disadvantaged in their education for their own liberation. Participation means being involved in the pedagogy where the disadvantaged took the lead by challenging ideas and contributing to the knowledge discourse. Consequently, the social justice approach of university engagement uses pedagogies such as community-based research, service-learning, and participatory action research to promote participation of students and community stakeholders as equals in the process of knowledge creation and development (Appe et al, 2017:13,17; Tapia, 2012:188). The social justice approach relies on community partnerships to achieve social transformation, change and community empowerment by placing socio-economic and politico-civic issues at the heart of universities' teaching, research and service missions (Strand et al, 2013a:4).

The third approach to South American university engagement is referred to as university social responsibility or responsabilidad social universitaria in Spanish (RSU) (Appe et al, 2017:20). It brings together elements from the other two approaches by linking the economic significance of universities found in the market-oriented approach with the social justice model's assertion that knowledge creation and social transformation is achieved through participation and contribution of students and the community (Appe et al, 2017:20). It works on the premise that effective university engagement is achievable through socially responsible economic development. The RSU relies heavily on solidarity which is a strong South American value hence, the main implementation mechanism of the RSU is through networks of universities within a country or across the region (Appe et al, 2017:14). Examples across the region where the RSU approach is being used to realize and manage university engagement strategically and comprehensively include Chile's Universidad Construye País comprising 13 universities involved in a RSU project between 2001 and 2008 (Appe et al, 2017:23). Another example is the Indigenous Intercultural University (IIU) network consisting of 20 academic centres across

the South American region collaborating to advance "dissemination, exchange and collective and systematic building of indigenous knowledge and wisdom" in Latin America (Stengel, 2013:294).

4.8.4 The United States of America

The United States of America (USA) has a rich history of engagement between higher education and the society where higher education institutions have always played important civic, social, cultural, political and economic roles. The enactment of legislation (Morrill Act of 1862 and Hatch Act of 1887) which created land grant universities and colleges of agriculture fundamentally shifted higher education particularly and university-community relations to a new dimension (Soska, 2015:109; Roper and Hirth, 2005:4-5). The land grant university model had a specific focus of using public service to foster knowledge application in society. The central purpose of land grant universities was to ensure knowledge development and technology transfer to improve productivity in a specific sector of USA economy – agriculture (Cloete and Maassen, 2015:4).

Gornitzka and Maassen (2007:87-88) cite how the land grant model changed American universities in three key aspects. First, it changed the disciplinary composition of universities in that the emergence of a vibrant agro-economy at the time compelled higher education to make a major shift away from a long-standing focus on "religious-oriented classical instruction that emphasized philosophy and basic science" (Furco, 2010:346). New knowledge and technological skills were required in the newly-thriving thriving economy and associated industries. So, the success of the land grant model led to its duplication to develop programs in new knowledge areas, sectors, industries as well as other types of universities according to local, regional and national priorities (Gornitzka and Maassen 2007:88). Second, the land grant model changed the teaching style of universities. Universities began to offer teaching, research, and extension services to several constituencies in the agricultural sector such as farmers, ranchers, and small and large agro-businesses (Pudup, 2012:118). Third, land grant universities extended learning opportunities and broadened access to higher education throughout the USA thereby opening up universities to atypical students (Gornitzka and Maassen 2007:88).

University engagement through the land grant model was unidirectional in approach but was successful since the emphasis was on knowledge development and transfer (Weerts and Sandmann, 2008:78). This initial conceptualization of community engagement using service

and outreach format was based on the notion that universities create knowledge and circulate to the public. Over the course of time, university engagement has gone through different shifts, progressing from a top-down, unidirectional approach to the two-way interactive model of engagement that presses for developing engaging interactions between universities and society around them (Roper and Hirth, 2005:3). The exchanges between universities and communities have taken different forms to continue to fit into various local, regional and national purposes. Some key paradigms have influenced two-way university-society interactions in the USA, and they include the triple helix model of university-industry-government relations (Etzkowitz and Leydesdorff, 1995; 2000), mode 2 knowledge production (Gibbons et al, 1994; Gibbons, 2000) and scholarship of engagement (Boyer, 1990; 1996). Mode 2 knowledge and scholarship of engagement are discussed in section 4.4.2 in chapter 4 of this dissertation. The triple helix model seizes on academia's expanded role in an increasingly knowledge-driven society to use its research function to extend universities boundaries into industry and government, translating universities' research into a commercial commodity to be used for policy and economic development.

Having said the above, it is important to state that except for the land grant universities there is no government mandate for institutions of higher educations in the USA to undertake community engagement. Institutions are left to their discretion within the context of their individual mission statements and decisions by their management and administrative leadership (Thomson, Smith-Tolken, Naidoo *et al*, 2011:220). Engagement forms in the American context are highly varied with different terms used to describe engagement activities. These include cooperative extension, continuing education programs, professional services, technology transfer, student volunteering, outreach and service learning (Thomson *et al*, 2011:218). The USA is an example of how higher education's third mission has progressively evolved alongside societal needs and expectations of higher education. The evolution of higher education role in response to change factors has maintained the sector's relevance and sustainability.

4.9 CHAPTER CONCLUSION

The aim of this chapter was to discuss community engagement in higher education. The chapter elaborated on the place of universities as societal institutions as a preamble to the discussion on community engagement in higher education. The concept of scholarship of engagement was discussed to expound on Boyer's model of engagement as well as what is considered to be an engaged university. Furthermore, the different forms in which community engagement is operationalized in higher education institutions were also discussed, touching on service learning, participatory action research, community based research, work-integrated learning, volunteerism and community outreach. In the same vein, the model conceptualizations of community engagement were discussed – silo, intersecting and infusion models. The chapter presented brief overviews of community engagement in the research inquiry's case study universities of technology. Finally, the chapter discussed higher education community engagement in different regions of Africa, Asia, South America and the United States of America giving insight into international perspectives of community engagement.

CHAPTER FIVE

MONITORING AND EVALUATION IN COMMUNITY ENGAGEMENT

5.1 INTRODUCTION

This chapter presents a literature review on monitoring and evaluation of community engagement. First, the chapter discusses monitoring and evaluation as a concept applied in management of organizations. The key elements of a monitoring and evaluation system – inputs, activities, outputs, outcomes, impact - and the role of indicators in gauging performance of a project or program are covered in the discussion. More importantly, the chapter examines the relationship between monitoring and evaluation and the broad management strategy of results-based management approach to justify its place in community engagement for the purpose of ensuring results rather than mere activities. A monitoring and evaluation component in community engagement transcends beyond accountability for resource inputs to providing results for evaluation of impact and achievement of wider university vision and goals. Therefore, the research study views the monitoring and evaluation element of community engagement within the context of institutionalization. The chapter's discussion around the institutionalization of community engagement is an exploration of what the term represents, and factors that promote as well as challenge the degree to which community engagement is embedded in the institutional fabric and structures of universities.

5.2 INSTITUTIONALIZATION OF COMMUNITY ENGAGEMENT

The scenario of an increasingly complex environment in which higher education functions means management of higher education systems has to become more strategic to ensure long term sustainability (Fumasoli, Pinheiro and Stensaker, 2014:3). As HEIs become more strategically managed, the application of strategy to their community engagement function equally becomes important. A multitude of expectations on higher education from a broad spectrum of interest groups carries with it the risk of universities becoming encumbered with responsibilities and are forced to choose between diluting their strategic focus and simply focusing on a narrow number of undertakings (Benneworth, de Boer and Jongbloed, 2015:281). The consequence to community engagement in such a situation is that though it is regarded as needed it will not be considered a critical obligation making it highly improbable that it will be a key institutional focus.

This study applied Olsen's (2007:27) interpretation of institutionalization as a concept to community engagement. Institutionalization of community engagement in a university involves designing and implementing community engagement as an organized practice with guidelines. This is when engagement becomes wholly embedded within the character and identity of the institution to provide a common purpose, legitimacy, direction and significance to its community engagement activities (Olsen, 2007:27). In Clegg (2010:5) three indicators of an institutionalized practice are suggested. Applying the indicators to the context of this study, for community engagement to be institutionalized it must be widely adopted by members of the university community. Secondly, there must be no contention or argument against the academic worth of community engagement, so it is without debate. Thirdly, community engagement must be a sustained, permanent scholarly practice within teaching and research. The presence of these indicators demonstrate the extent to which community engagement has become an integral part of HEIs' core structures and primary activities (Pinheiro *et al*, 2015:229). Furthermore, the level of institutionalization is evident in the level to which community engagement is a principled institutional behaviour and how particular HEIs have embraced and elected to carry out engagement (Benneworth, Charles, Hodgson *et al*, 2013:86). This means that within and across academe, community engagement is a continuing, expected, valued, and legitimate part of the institution's intellectual core (teaching and research) and institutional culture (Furco, 2013:264). Also, there are designated institutional resources which provide adequate capabilities for community engagement to be well-actioned. This way, community engagement becomes the guiding principle of HEIs' approach to teaching and research rather than being positioned as a separate pillar of the academic function.

The embeddedness of community engagement in HEIs reveals a continuum where on one end engagement is disconnected and occurs in isolated instances in various disciplines, and at the other end engagement is robust and has created a means for a university to be rooted in its community. In between the two extremes are different levels of embeddedness of community engagement in HEIs. Fitzgerald *et al* (2012:13) propose that embeddedness of engagement in a university's academic functions must be defined by four core characteristics: a scholarship-based model of engagement; the approach to engagement must be one that intersects research, teaching and learning, and service; engagement with community stakeholders is done in reciprocity and mutual benefit where all participants are involved in key aspects of planning, execution, and evaluation of projects and activities; the ideals and practices of civil democracy are embraced.

Some of the challenges facing institutionalization of community engagement stem from ambiguities associated with the idea of HEIs' third mission in that various academic communities and knowledge domains have different conceptions of what community engagement encompasses (Van Schalkwyk, 2015:205; De Lange, 2012:94). The diverse and highly contextual nature of community engagement has implications for its institutionalization. The inability of a university to clearly delineate what community engagement is to its institutional existence makes it more difficult to connect the engagement mandate to its core or fundamental elements (Letven, Ostheimer and Statham, 2001:74). Community engagement will only make the desired progress when it is interwoven into existing activities in universities (Furco, 2010:379). Therefore, institutionalization of community engagement must be approached from two positions – a university's core activities and an institutional culture that is flexible to fit engagement into those activities.

Another challenge is lack of widespread buy-in and practice by key groups in universities who are critical to institutionalization of community engagement. The university consists of several groups with different and often competing interests. There are differences in how these constituencies understand community engagement as well as how it matters to them. Benneworth *et al* (2013:87) argue that if community engagement will be an institutional priority it must offer value to the various groups represented in the university, link with what academics value and their professional identities (Pinheiro *et al*, 2015:228). Therefore, institutionalization stems from a shared understanding of what engagement is by the different groups present. This is because institutionalization extends beyond merely ensuring engagements projects are tenable to an actualization of deep-rooted acceptance and regard of the practice across the institution (Furco, 2014:264). For community engagement to move from being ad hoc and peripheral to develop into an institutionalized mainstream practice, it must be entrenched within the culture and operational values structure of the university (Sandmann, 2008:98). A shared understanding allows for permeation of community engagement into institutional culture and influence universities' decisions on what real specific engagement activities to initiate and how they become anchored within the institution.

Different stakeholder groups within the university action their understanding of engagement in various ways. The implication is that how community engagement is established and operationalized in the internal structures of HEIs will be different. According to Benneworth *et al* (2013: 92) the presence of diverse groups "who validate and value engagement in very different ways presents a new perspective on institutionalization of community engagement".

The authors' contend that the rooting of community engagement is not determined by it being accorded the status of a critical institutional mission. Instead, institutionalization requires having adequate members or groups in the university who consider community engagement a valid university mission. Then these members ought to be given necessary support required, and their efforts can be strategically utilized for the advantage of the university and benefit of other stakeholders concerned. The authors' point is that an engaged university does not have to be an institution where everyone is compelled to be involved in engagement. Instead, focus should be on particular academics who are passionate, skilled and experienced in community engagement.

5.2.1 Dimensions of institutionalization of community engagement

Furco (2013:264) proposed a cohort of factors organized into five dimensions that will advance the institutionalization of community engagement when fully established within a university. These five dimensions are outlined in Table 5.1 where factors within each of the dimensions are indicated. Lazarus (2007:91) refers to how community engagement activities in many South African HEIs are hampered by lack of institutional efforts, agenda and strategies to embed and operationalise it. Moreover, in a study of four South African universities Lazarus *et al* (2008:70) identified critical enabling mechanisms that facilitate the functioning of the community engagement mission within HEIs in terms of implementation and embedding of policies, strategies, processes and outcomes. The mechanisms identified by Lazarus *et al* are also in Furco's work in Table 5.1. In the table, a key component of institutional support (factor no. 22) is strengthening the institutions' capacity to measure the scale, scope and impact of its community engagement effort, which requires establishing a continuous and systematic process of evaluation and assessment to account for the number, quality, outputs, outcomes and impact of community engagement activities. There is a case for monitoring and evaluation in community engagement because it is a scholarly activity that can be evaluated within the ambit of either teaching and learning or research.

Furco's categorization is an acknowledgement that monitoring and evaluation are crucial tools of institutional support in ensuring the institutionalization of community engagement.

Table 5.1: Dimensions of institutionalization of community engagement

	Dimension of Institutionalization	Corresponding Factor
A.	Institutional philosophy and mission	1. Clear definitions and purposes for CE 2. A long-term vision and strategic plan for CE 3. Direct links to the institutional mission 4. Establishment of CE as a strategy to accomplish institutional goals
B.	Faculty involvement and support	5. Clear understanding among academic staff regarding the principles of engaged scholarship 6. Increased staff involvement in community-engaged teaching and research 7. Influential faculty members who advocate community-engaged teaching and research 8. Incentives to support, recognize and reward high-quality community-engaged work
C.	Student involvement and support	9. University-wide mechanisms that promote student awareness of CE opportunities 10. Availability of CE opportunities for students across the institution 11. Appointment of students to advocate for and promote community engagement at the institution 12. Formal mechanisms to embed CE into academic programmes to encourage and reward students to participate in CE
D.	Community partnerships	13. Community awareness of the university's goals for CE and the engagement opportunities available at the institution 14. Shared understanding between community and the university about key details of the institution's engagement framework 15. Inclusion of community representatives in different capacities in institutionalizing CE at the institution
E.	Institutional support	16. A coordinating office that assists various constituencies in engagement programming and institutionalization efforts 17. A university-wide office for CE that provides leadership and develop institutional policies for the advancement of CE 18. Operational support for CE and appointment of staff/ academics who are skilled and experienced in CE 19. Adequate primary funding of CE work from the institution 20. Clear and unequivocal support from administrators and other university personnel for institutionalizing CE 21. Community engagement to be valued and funded in academic departments as part of the core academic programme 22. Establishment of systems to continuously monitor, evaluate and measure results of community-engaged activities

Adapted from Furco (2013:265)

The institutional philosophy and mission frame who the institution is and its organizational identity. Such framing provides an indication of an institution's priorities including disposition towards community engagement. The institutional philosophy and mission of university is able to show the university's position on community engagement and direction of commitment. If the factors which make up a university's institutional philosophy as indicated in table 5.1 are reflective of a deep commitment to transformational engagement with intent to effect change in the society, it impacts monitoring and evaluation of the university's community engagement because there is a focus on outcomes. On one hand, an outcomes-focus prioritizes accountability for resources committed to community engagement, and on the other hand it seeks to identify changes which may have occurred as well as differences made through community engagement interventions. This serves as motivation for establishment of a monitoring and evaluation function. However, if institutional mission is unclear, minimal or superficial with community engagement, firstly engagement activities are episodic and peripheral to academic activities rather than being an institutionalized practice, and monitoring and evaluation may be non-existent.

This study's discussions regarding faculty involvement and support in community engagement show the critical role academics play in advancing the scholarly agenda of community engagement for the reason that most community engagement initiatives are reliant on the knowledge, networks, participation and commitment of academics (Mugabi, 2015:22). Faculty increase institutional embedding of community engagement in the academic mission through an intentional, focused and consistent practise of connecting community engagement to their teaching and learning, and research agendas (Holland, 2016b:78). When faculty is required to report on their community engagement in their scholarly portfolios it contributes to development of monitoring and evaluation of community engagement (Furco, 2013:266). If there is no university policy mandating academics to report on their engaged scholarship, the inference then is the existence of a broader problem where academics are not obligated to carry out community engagement. This negatively affects institutionalization of community engagement.

Student involvement is relevant as community engagement is a pedagogical approach which enriches the learning experience for students. According to Fish (2008:12-13) embedding community engagement in the academic program introduces students to novel knowledge and inquiry methods. Also, students are equipped with problem solving skills that enable them to engage in independent research and apply different pedagogical methods.

Students' involvement in terms of contribution to ease or difficulty of monitoring and evaluation will be through their involvement in quality management practices. Students are expected to regularly participate in universities' quality assurance procedures by providing feedback on content, teaching approaches and learning outcomes of their educational experience. Whilst it cannot be definitively assumed that learning outcomes are achieved in engagement initiatives, students' inputs in the monitoring and evaluation function are able to provide required feedback on such critical outcomes, which impacts the design of monitoring and evaluation systems for community engagement.

Community inclusion in university-community engagement cannot be superficial if institutionalization will occur. A truly collaborative university-community engagement espouses a democratic paradigm where all stakeholders – academics, students and community members - contribute to partnership projects and programs, using knowledge, competencies and resources available in the community and university (Jaeger, Jameson and Clayton, 2012:151). Active participation of community in processes to produce change means they ought to be involved in determining the criteria with which change would be assessed as well as how such change would be evaluated (Fitzgerald and Simon, 2012:47). This connects community participation to monitoring and evaluation of community engagement.

The establishment of institutional structures which are support mechanisms for community engagement in universities play a key role in institutionalization if such mechanisms are employed as they ought to be. The presence of factor #16 to factor#22 in table 5.1 in a university develops the institution's capacity to facilitate the practice of quality community engagement. Further examination of factor #16 to factor #21 reveals that each factor is able to obtain information regarding community engagement activities and their outcomes thereby facilitating monitoring and evaluation. If institutional resolve is present, the factors are mechanisms for accountability to assist universities in determining if engagement goals are being met in same manner as accountability is required in research and teaching and learning.

5.3 MONITORING AND EVALUATION

Monitoring and evaluation (M&E) in community engagement is a process through which data can be collected and analyzed to provide useful information to university management and other stakeholders about the institution's community engagement function as well as aid decision making regarding projects. M&E are necessary elements of a project or program intended to help improve performance and achieve results (United Nations Development Programme (UNDP), 2002:5). The conventional view of monitoring is that it is an ongoing process of collection, capture and analysis of pertinent information regarding a program or project for the purpose of observation and control of its progress (Williams, 2016:12; Basheka and Byamugisha, 2015:78; Organization for Economic Cooperation and Development (OECD), 2009:93). In a development context, monitoring focuses on analytically assessing inputs and implementation processes of interventions to determine if there is adherence to outlined plans (Peters, 2016:315). However, this is regarded as a limited perspective to monitoring because of the narrow focus on use of resources and implementation processes. A broader approach is proposed which takes into account strategies and actions taken by pertinent stakeholders as well as decisions on new strategies and actions required to make progress in achieving the most important outcomes (UNDP (2009:8).

Consequently, included in the current focus of monitoring is assessing the influence which various factors (such as outputs, partnerships, policy advice and dialogue, advocacy, brokering, coordination) may have on a given development outcome (UNDP, 2002:5). Therefore, monitoring is "a continuous process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives" (UNDP, 2009:8). Compared to many several other definitions that render monitoring as no more than documenting progress of activities, the UNDP's definition emphasizes appraising progress against goal attainment. Similarly, in Kusek and Rist (2004, cited in Zwane, 2014:13) monitoring involves continuous methodical data collection around established indicators to communicate to stakeholders the level of progress made towards achieving defined objectives and use of assigned resources in an ongoing project.

Data obtained through monitoring can serve as an early warning system to spot potential problems so that managers are able to quickly implement necessary remedial actions (Perrin, 2012:3). While this is advantageous, Perrin (p.4) also highlights some inherent limitations in monitoring. In tracking progress against pre-set targets and indicators, monitoring works on

the assumption that programs, activities, objectives and indicators are appropriate. In addition, monitoring alone is inadequate to provide conclusive inferences about the cause(s) of the observed status of the project. Monitoring on its own is not able to ascertain why change has or has not occurred; it is not able to determine how much of the observed change is as a result of the intervention or that other factors are responsible. These shortcomings, amongst others, provide the basis for evaluation.

Evaluation builds on monitoring by determining the impact an intervention has had in achieving (or not achieving) its objectives, that is, the difference an intervention has or has not made (Peters, 2016:315). By this, evaluation is used to gauge the worth of a project, programme or process (Auriacombe, 2013:715). Evaluation is undertaken periodically, and attempts to objectively and systematically assess, at different scope and depth, an ongoing or completed project for the purpose of ascertaining the relevance of objectives, design performance, project execution, resource use efficiency, sustainability of outcomes and impact (Gertler, Martinez, Premand *et al*, 2016:7; International Federation of Red Cross and Crescent Societies (IFRC), 2011:13; UNDP, 2002:6). Evaluation is a more rigorous and independent assessment. Therefore, it is expected to provide comprehensive, reliable and useful information that enhances decision making and learning for all stakeholders.

Monitoring provides real-time information and is generally inward-looking as efforts are geared towards the efficiency of projects or initiatives while evaluation provides more in-depth assessment and is externally-focused with a stakeholder-driven emphasis on the effectiveness of the project (UNDP, 2009:9; Crawford and Bryce, 2003:366). Though at one level both concepts are distinct, however the use of the term M&E, instead of just monitoring or evaluation, is about the coherence and solidarity existing between the two, and this makes for a holistic and better understanding of M&E (Naidoo, 2011:24). Both concepts function in synergy as a management tool that supports learning and accountability, and performance evaluation to meet the needs of diverse stakeholders. The purpose of M&E is to assess execution in order to more effectively manage results. Effective M&E is able to define the level of performance of a project and identify causal factors in the project's success or failure. Basically, M&E is essential for improved decision making with respect to objectives set out in the overall plan, actions to be implemented, and resources required (Zwane, 2014:22). This decision making takes place at different levels for different activities that make up the elements of M&E, as illustrated in Table 6.2 on the next page.

Table 5.2. Elements of monitoring and evaluation

IMPACT Long term lasting change or improvement made in the larger society as a result of sustained outcomes
OUTCOMES Short to medium term effects of outputs which create changes in the development situation
OUTPUTS Tangible and intangible products and services delivered or provided as immediate results of activities performed
ACTIVITIES Processes, actions or tasks undertaken in the process of conversion of inputs into outputs
INPUTS Human, financial, infrastructure, physical and material resources that are required and used in the execution of activities in a project, programme, intervention or organization

Source: Zwane (2014:23)

5.3.1 Monitoring and Evaluation and Results-Based Management

Organizations, institutions and governments have an obligation to demonstrate achievement of results. This becomes more pertinent as stakeholders intensify their demands for transparency and accountability for resources. The goal of strategic and operational management is to achieve organizational results. Results-based management (RBM) is a broad management strategy operating on the fundamental principles of achieving demonstrable results and improving performance in an organization (United Nations Evaluation Group (UNEG), 2007:2). RBM attempts to expand the focus of traditional management by paying attention not only to processes and systems but all the more to goals and objectives to be realized (Ile, Eresia-

Eke and Allen-Ile, 2012:77). RBM achieves this by involving relevant stakeholders in defining what the expected outcomes or results are to ensure mutual understanding. Also, RBM engages applicable M&E tools to determine level of progress made towards realisation of proposed results; and uses performance reporting as a means of organizational learning for better decision making. By identifying in advance intended results and how progress towards them can be measured, managers are able to better manage a project and establish whether change has occurred as a result of the implemented plan. This is the rationale to how RBM approach achieves better performance and greater accountability.

Against the background of public management, Nielsen, Holm and Aschan (2015:443) place RBM within New Public Management (NPM) context though it has developed into its own management model. NPM is characterised by a change of focus from accountability for processes and activities to accountability for results, that is, a shift from policy- or rule-guided use of inputs to efficient and effective resource use and outcomes achieved. The output focus of NPM makes it relevant and appropriate to apply to monitoring and evaluation of community engagement. Elements of RBM include accountability, efficiency, results-orientedness and performance measurement which are also characteristic of NPM. One of RBM's key principles is the use organizational learning to improve managerial efficiency and effectiveness by incorporating insight from obtained information into decision making, and to improve accountability through performance reporting (Quell, 2016:22; Sewell, 2012:37). However, implementation of RBM continues to prove a challenge in management, and Ile *et al* (2012:81) propose actions for managers in order to maximize RBM. Some of the recommendations include: use of cause-and-effect model in problem analysis; broad-based participation of relevant stakeholders at all levels of projects; agile monitoring and evaluation processes; and documentation of institutional knowledge for improved decision making

Planning, monitoring and evaluation form the crux of results-based management (Holzapfel, 2016:5; IFRC, 2011:9). The process of clarifying the vision and setting goals or objectives gives a clear definition of projected results and presents the strategies of action for attaining those results (Ile *et al*, 2012:79). Inadequate planning and poor articulation of envisioned outcomes will result in lack of clarity about what should be monitored and how; therefore monitoring cannot be properly carried out (UNDP, 2009:7). Effective planning facilitates the development of a results framework which creates a basis for evaluation because defining results helps to translate the vision into more specific and measurable terms. Effective RBM is on-going just as monitoring is continuous. Feedback processes within the M&E framework

provide valuable information which an organization uses for critical analysis to learn from, enhance decision making and improve on targeted outcomes. Constant feedback means current plans and line of actions are regularly revised or adapted based on learning ensuing from M&E. Also, learning develops the organization's capacity for better decision making because lessons learned become a key resource when developing future plans. Hence, there is constant feedback, learning and improving. The continuous cycle consisting of action, learning and improvement is the RBM life-cycle approach (UNDP, 2009:11), and it is illustrated in Figure 5.1.

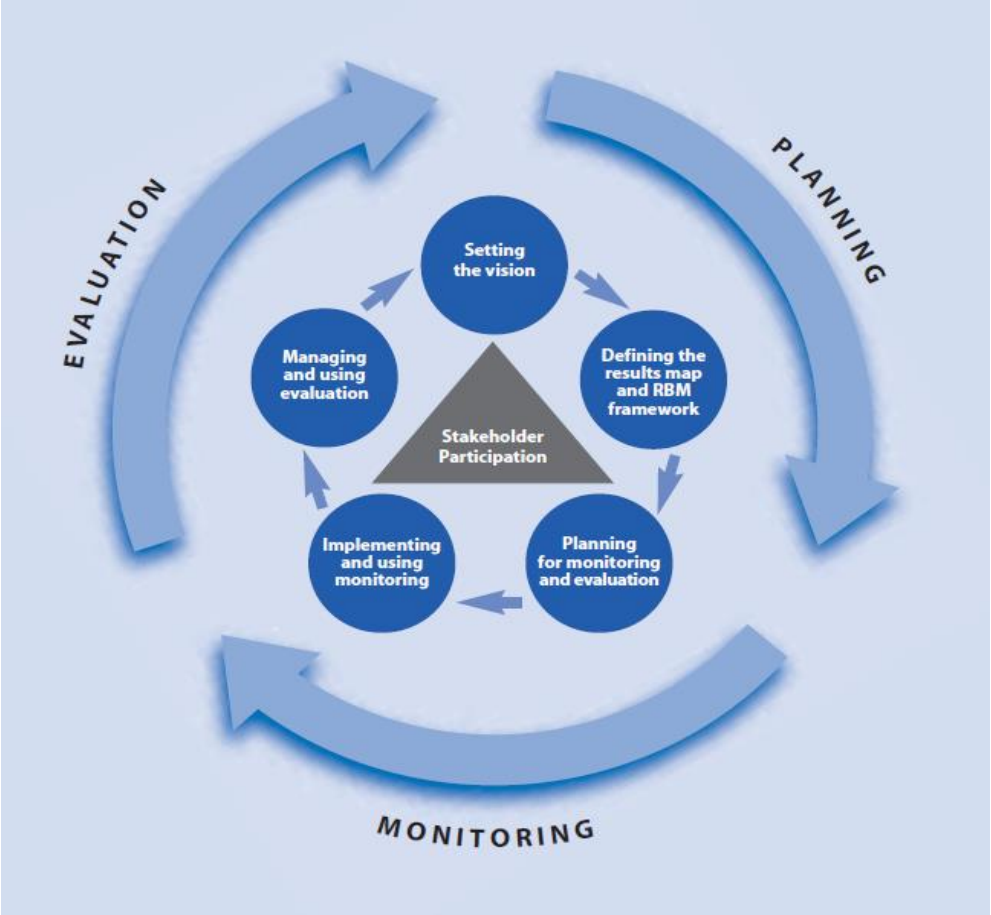

Figure 5.1. Results-based management life cycle approach

(Source: UNDP, 2009:10)

Ortiz *et al* (2004, cited in Nielsen *et al*, 2015:443) enumerate the key techniques of RBM as the following: definition of objectives and expected long term results; selection of indicators with which to assess achievement of objectives; establishment of clear performance targets for indicators; monitoring performance by regular collection of data on results; review, analysis

and reporting of actual results in relation to set targets; evaluation to harmonize monitoring information; and using obtained information to improve learning, decision-making and accountability. However, if RBM techniques are to be effective, they must be complemented by appropriate organizational policies and strategies which enable RBM to succeed.

There are several criticisms against RBM, one of which is RBM being based on the assumption that change occurs in a linear fashion where a set of inputs and activities results in outputs, outcomes and in the long run impact (Vähämäki, Schmidt and Molander, 2011:9). The assumption is informed by the theory of change which articulates a presumed logical and causal relationship between an intervention and its anticipated outcomes (Gooding, Makwinja, Nyirenda *et al*, 2018, para.4; Serrat, 2017:237). The theory of change attempts to explain how and why a sequence of logically linked events, or pathways of change, should lead to an ultimate outcome. In Perrin (2012:7) the pathway of change, or results chain, is a logical order of assumed linear relationships between inputs, activities and their immediate outputs, intermediate outcomes at various levels, and the intended long term impact. Figure 5.2 is a depiction of the results chain.

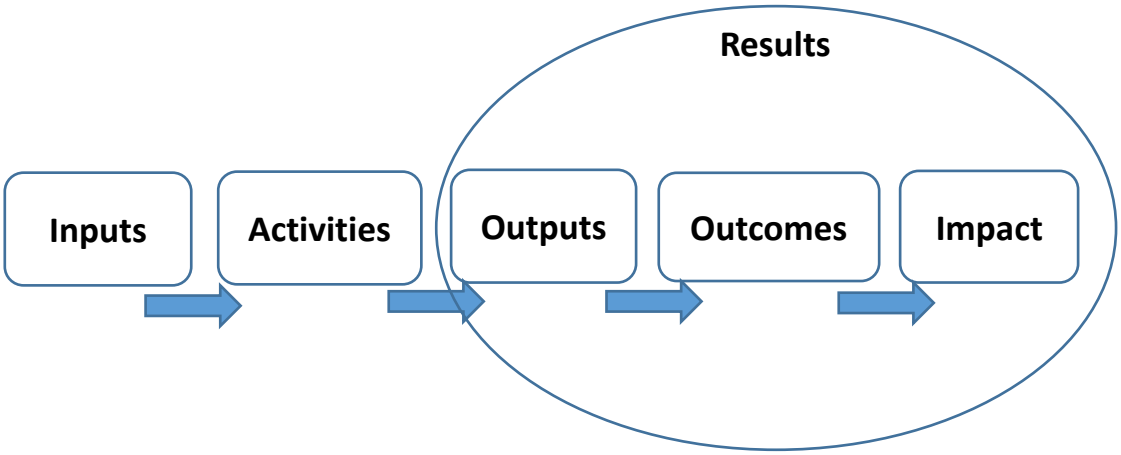

Figure 5.2. Elements of the results chain (Adapted from Ile et al, 2012)

However, to attribute outcomes to actions implemented in such a linear mode is rather simplistic. Mayne (2007:101) argues that determining the extent to which inputs and activities contribute to outcomes is not as straight forward as the RBM projects it to be. This is because there are usually a variety of factors other than what is documented in the project that contribute to observed outcomes and impact. Vähämäki *et al* (2011:32) agree with this position and asserts that change does not happen as a linear process where results are predictable. Their contention

is that change occurs through a dynamic and complex process where contextual factors and human elements have some bearing on outcomes and impacts. Therefore, monitoring and evaluation must integrate qualitative indicators into analysis of results and outcomes instead of being restricted to objective quantitative indicators. Naidoo (2011:29) makes a case for "a sensitive approach to M&E…through engaging with users and providing a critical interpretation of data and employing plural methods that triangulate and thus provide more sensitive and context specific analysis and reports". This is how M&E can make improvements rather than be just another form of audit.

5.3.2 Indicators in Monitoring and Evaluation

Measures are utilized in monitoring and evaluating to evaluate performance. Performance measures must be fit and competent to indicate the extent to which projected changes related to an intervention, project or programme have been achieved thereby giving stakeholders an overall view of the performance of the intervention (Ile *et al*, 2012:119). Performance indicators are central component of M&E systems because they are the measures used to track intended results and changes over time relative to what was planned (Lamhauge, Lanzi and Agrawala, 2012:9; UNDP, 2014:39). Where there is rigorous data collection, reliable analysis and objective reporting, indicators assist in tracking progress, establish results, compare actual results achieved with the planned outcomes, and take corrective action to improve on a programme or project's performance (Zwane, 2014:25). Described by the UNDP (2009:61) as "signposts of change along the path to development", the use of indicators is to simplify complex processes to make them measureable for required information to be obtained and communicated (Kosmas, Kairis, Karavitis *et al*, 2014:952). Because indicators are concerned with determining extent to which projected results have been achieved, they can be applied to all elements in the results chain: inputs, activities, outputs, outcomes and impacts. Ile *et al* (2012:119) suggest that at a minimum indicators should be established for the results side of the results chain (outputs, outcomes and impacts). On the other hand, Kusek and Rist (2004:65) recommend development of indicators for all aspects of the results-based M&E system in order to track progress and provide adequate feedback on performance and under-performance.

The South African National Treasury (National Treasury) (2007:7), in its Framework for Managing Programme Performance Information (FMPPI), uses the results chain to categorize indicators into four groups - economy indicators, efficiency indicators, effectiveness indicators and equity indicators. These are depicted in Figure 6.3. In Ile *et al* (2012:121) this grouping is referred to as 4E categorization because it is based on the type of measurement the indicator in the results chain is used for. Economy indicators are focused on the cost-effectiveness and timeliness of input or resource procurement and activities to be performed; Efficiency indicators focus on the efficient and productive use of inputs to get outputs. These indicators are typically measured using an input/output ratio or an output/input ratio; Effectiveness indicators are used to measure the extent to which the outputs have yielded the projected outcomes; Equity indicators measure the extent to which interventions have brought about comparative changes in the larger society in an impartial, fair and equitable manner (National Treasury, 2007:8-9).

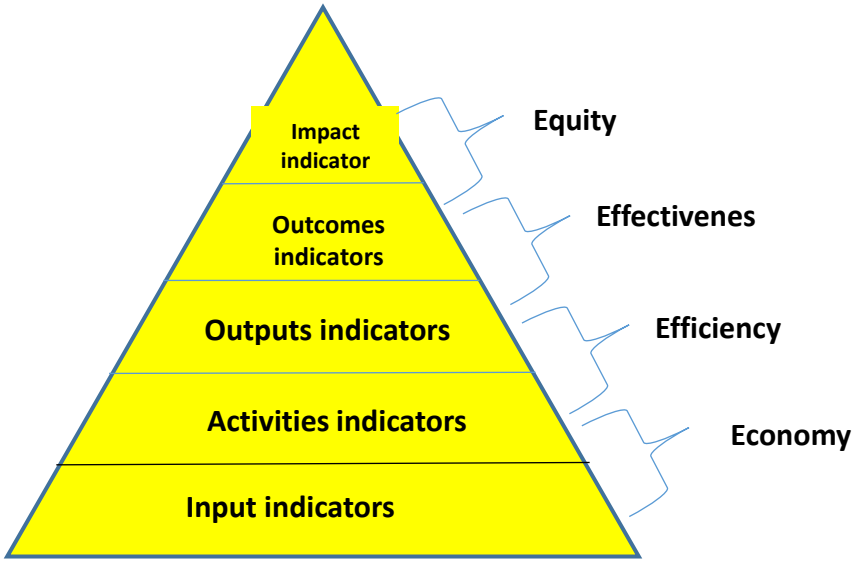

Figure 5.3. Results chain and indicators of economy, efficiency and effectiveness, equity

(Source: National Treasury, 2007:7)

Change can be either positive or negative where a situation is improving or deteriorating. Indicators in an M&E system should be able to indicate the direction of change. Indicators rely on and are initially measured against baseline data which provides a picture of the current level of performance before the intervention is implemented (Williams, 2016:11). The baseline is used as a reference point against which future performance is monitored and evaluated in order to quantify how much change has occurred over the period of a project (Kusek and Rist,

2004:81). More importantly, for indicators to be considered relevant and of adequate quality, they must be fit to provide measurement in two fundamental performance-related areas (Ile *et al*, 2012:120). The first area relates to progress where indicators are able to show whether the organization is moving towards the achievement of intended results. The second is success where indicators demonstrate if the organization has achieved the intended results. The value and effectiveness of an entire M&E system is determined by the reliability and validity of assessments generated by indicators. If indicators are not able to show the true extent of performance but are giving erroneous measurements, managers' decision making becomes flawed and compromised. To avoid this, Kusek and Rist (2004:68) and UNDP (2009:63) proposed the CREAM and SMART criteria respectively as standards that all indicators in M&E systems should meet. CREAM and SMART criteria are outlined in Table 5.3 to show what the criteria imply for indicators.

Table 5.3. CREAM and SMART criteria of indicators

CREAM Criteria	SMART Criteria
Clear, precise and easily comprehensible	**S**pecific enough to determine definite progress towards required outcomes
Relevant and valid to the intended result	**M**easurable to give reliable and clear assessment of results
Economical and available at a reasonable cost	**A**ttainable so that intended outcomes are deemed to be realistic
Adequate to provide a sufficient basis to evaluate performance related to a selected result	**R**elevant to the intended outputs and outcomes
Monitorable and amenable to independent validation	**T**ime-bound where data is available in timely fashion at reasonable cost and effort

5.3.3 Principles of Monitoring and Evaluation

The Presidency (2007:3) details key principles which public sector M&E in South Africa should imbibe. Although the principles are associated with the Government-Wide Monitoring and Evaluation System (GWMES), they are applicable to M&E systems in different contexts including higher education community engagement. The principles which underscore monitoring and evaluation are the following:

i. **Monitoring and evaluation should contribute to improved governance**

According to the Presidency (2007:3), this will be accomplished through improvement in transparency to ensure that all findings in M&E processes are made publicly available unless there are compelling circumstances which require that they should otherwise not be made publicly available. Also, improved accountability must be implemented in the use of resources thereby making it open to public scrutiny. Participation must be supported especially to give a voice to historically marginalized people of South Africa, as well as other traditionally excluded interest groups.

ii. **Monitoring and evaluation should be rights-based**

M&E processes should uphold human rights, and be guided by the Bill of Rights which is contained in the South African Constitution (The Presidency, 2007:3).

iii. **Monitoring and evaluation should be development-oriented**

The development orientation of M&E must be reflected at all levels of government and society - nationally, institutionally and locally (The Presidency, 2007:3). Adopting such a paradigm means that M&E must be geared towards high quality levels of service delivery and performance in public institutions and policies, the impact of which is expected to be improvement of lives of citizens. Furthermore, this principle emphasizes the need for public sector M&E agenda to have a pro-poor orientation by prioritizing welfare and needs of the poor. Also, a development orientation requires well-skilled human resources in M&E to ensure that essential knowledge is available, retained and nurtured through a culture of learning. According to Ile *et al* (2012:13), a learning culture in M&E facilitates duplication of successes and the ability to appropriately manage challenges.

iv. **Monitoring and evaluation should be undertaken ethically and with integrity**

Implementation of M&E processes should be done with consideration and sensitivity to ethical aspects of data gathering and reporting such as confidentiality, anonymity and respect for human dignity (The Presidency, 2007:3). Presentation of M&E findings should be done with fair and balanced reporting; acknowledgment and declaration of limitations; as well as necessary caution around handling sensitive information.

v. **Monitoring and evaluation should be utilization-oriented**

The results of M&E should meet knowledge and strategic needs, and more importantly, must be implemented (The Presidency, 2007:3). This means that one of the end goals of M&E processes should be about implementing the resultant recommendations in order to achieve project or programme effectiveness. Also, records of recommendations should be documented by means of an accessible central repository of M&E findings and reports. This creates institutional knowledge, facilitates integrations of lessons learnt and contributes to improved decision making.

vi. **Monitoring and evaluation should be methodologically sound**

It is important that M&E processes produce credible and valid findings that are based on systematic evidence and analysis. Sound and appropriate methods and tools must be applied in selection of indicators, data collection and analysis (The Presidency, 2007:3).

vii. **Monitoring and evaluation should be operationally effective**

The operational effectiveness of M&E should be established by ensuring that key aspects are in place (The Presidency, 2007:3). Firstly, M&E should be properly integrated and planned into public management as a routine and regularized practice at all levels of government. The scale and scope of M&E activities should be clearly defined and must indicate its purpose, level of risk and available resources. M&E systems should be designed to be cost-effective, resilient and with the ability for sustained on-time delivery of excellence.

5.4 MONITORING AND EVALUATION IN COMMUNITY ENGAGEMENT

The establishment of community engagement as a legitimate mission of higher education makes it important that information is available to support universities' strategic decision-making where community engagement is concerned, as well as to evaluate outcomes of programs or projects and their impact (Holton and Jettner, 2014:3). M&E provides support for managing community engagement through collection, analysis and reporting of information. As community engagement is a method of doing research and teaching and learning, it should be considered and recognized as a function that can be assessed or evaluated and rewarded within the ambit of academic effort (Holland, 2012:12). The assessment of community engagement can be done from both the perspective of the institution and community (Fitzgerald *et al*, 2012:22). Furthermore, ad hoc nature of results obtained from community engagement objectives despite the fact that many universities identify and outline clear strategic priorities where it is concerned makes a case for M&E especially in a tough economic environment which has led to tighter funding regimes for universities as well as calls from stakeholders for increased accountability (Scott and Jackson, 2005:162; Favish and Simpson, 2016:264).

M&E facilitates building accountability measures into CE practices. According to Hoy and Johnson (2013:275), HEIs will demonstrate qualitative and quantitative results when a system of accountability and assessment is incorporated where specific and measurable outcomes are enumerated and strategies for evaluation are outlined. The authors surmise this creates an institutional orientation towards community impact and supports the design of evidence-based initiatives. Universities that have committed to community engagement in their academic mission should create credible systems to assess relevant activities in community engagement as is obtainable for teaching and research.

M&E in community engagement experiences several challenges which continue to constrain its practice in universities. One of the main challenges is an inadequate focus on outcomes of engagement initiatives. It can be summarily assumed that this problem stems from the bigger issue of the inferior place of community engagement in many higher education institutions. Community engagement still has to contend with debates around its validity as a legitimate scholarly practice in academia which affects several aspects of its functioning. According to Favish and Simpson (2016:253) there are challenges with ascertaining actual levels of community engagement activity in HEIs in South Africa because it is not compulsory for universities to supply such information to any national database. Same cannot be said for

research or teaching and learning because there are no debates about the scholarliness of these two functions so universities are able to supply information required of them since there are systematic measures for outcomes. Inadequate focus on outcomes of community engagement indicates a lack of emphasis on how it creates value for students, academia, communities and the university. This results in challenges in creating systems that gauge results of community engagement undertakings.

Another challenge facing community engagement is its conceptualizations. According to the HEQC (2004:19), undertakings conceptualized as community engagement range from informal and unstructured activities to formal and structured academic projects. This characteristic nature of community engagement poses a challenge to monitoring and evaluation because of the difficulty of defining what to specifically monitor, assess or evaluate (Hall, 2010:36). Also, there is difficulty in determining the quality of community engagement work being done due to the absence of established conventions (Hart and Northmore, 2011:5). While there are established standard criteria to monitor and assess research and teaching and learning, it is not the same with community engagement due to lack of benchmarks or criteria that defines what must be measured, assessed or evaluated. The fact that universities practice community engagement in multiplicity of ways unique to them creates complexities as to what to monitor and evaluate, and it means there are no specific and agreed-upon indicators which are used to gauge engagement activities (Bartkowiak-Théron, 2015:85). This problem extends to how academics' performance in community engagement is evaluated as there is a level of inadequacy in defining parameters by which community engagement aspect of faculty's work is measured in real terms as there are customary benchmarks of research and teaching and learning (Wade and Demb, 2009:9).

Despite the ongoing challenges experienced in M&E of community engagement, some tools have been developed to facilitate assessment and evaluation in community engagement. They provide sets of indicators and benchmarking tools to be applied at institutional level for purposes which include basic recording and tracking of engagement initiatives within the university, benchmarking and information management, strategic planning for engagement at national and regional levels. One of such tools is the Inventory Tool for Higher Education Civic Engagement (Tufts University, 2021). In Hart and Northmore (2011:5) some other tools are identified as the Higher Education Funding Council for England benchmarking tool the Higher Education Business and Community Interaction survey; Higher Education Community Engagement Model.

The nature of university community engagement makes it transcend disciplines and facets of academic work. Therefore, its M&E should be designed to be contextual, in a variety of locations, and applicable to the disciplinary knowledge area. The argument for contextual M&E in community engagement is supported by Hart and Northmore (2011:54) who highlight the fact that differences in what is agreed upon as knowledge in academic disciplines may mean that M&E focus, methodologies and processes will not be the same for community engagement initiatives in those disciplinary departments. Bartkowiak-Théron (2015:82) is of the opinion that the contextual characteristic of community engagement need not be an obstacle to it M&E. Community engagement M&E should be flexible where different methods and approaches can be applied to achieve the purpose of assessing outputs, outcomes and change across set objectives and other deliverables. In reference to service learning, Bringle *et al* (2013:13) comment on the need for M&E to be meaningful, practical and systematic in gathering "information or evidence about the process and outcomes of service learning".

5.5 MONITORING AND EVALUATION MODELS

5.5.1 Logical Framework Approach

The logic model or logical framework approach (LFA) to M&E graphically maps the relationship between a program's resources, activities, and intended results (Kaplan and Garrett, 2005:167). The elements of the result chain create interrelated subsystems within the logical framework (Lamhauge *et al*, 2012:19; Govender, 2011:92). The progression in the results chain is what constitutes the program logic, and the LFA uses it to articulate program objectives because it identifies the causal links in the results chain. Table 5.4 outlines the components of the logical framework. The idea of logic in the LFA suggests that there should be a sequential and logical flow from inputs through the relative subcomponents, leading to desired impact or goal that can only be achieved by performing activities that have some relationship to do with the desired outputs and outcomes (Myrick, 2013:425). There must be a relationship and alignment among and between the subcomponents. As a management tool, the LFA can be useful in M&E when applied to review project design, project objectives, progress made and to take corrective action. However, if inflexibly applied, LFA can suppress creativity and resourcefulness of imagination. Managers should ensure the LFA is updated as required to reflect changing circumstances during project execution in order to have a dynamic and adaptive quality.

Table 5.4: Logical Framework Approach

Narrative summary	Objectively verifiable indicators	Means of verification	Assumptions
Goal – the overall aim to which the project is expected to contribute	Measures (direct or indirect) to show the project's contribution to the goal	Sources of information and methods used to show fulfilment of goal	Important events, conditions or decisions beyond the project's control necessary for maintaining the progress towards the goal
Outcomes (or objectives) – the new situation which the project is aiming to bring about	Measures (direct or indirect) to show progress towards the objectives	Sources of information and methods used to show progress against objectives	Important events, conditions or decisions beyond the project's control that are necessary if achieving the objective is going to contribute towards the overall goal
Outputs – the results that should be within the control of the project management	Measures (direct or indirect) to show if project outputs are being delivered	Sources of information and methods used to show delivery of outputs	Important events, conditions or decisions beyond the project's control that are necessary if producing the outputs is going to help achieve the objectives
Activities – the things that have to be done by the project to produce the outputs	Measures (direct or indirect) to show if project outputs are being delivered	Sources of information and methods used to show that activities have been completed	Important events, conditions or decisions beyond the project's control that are necessary if completing activities will produce the required outputs
Inputs	Resources – type and level of non-financial resources needed for the project Finance – overall budget Time – planned start and end date		

Source: Lamhauge *et al*, 2012:19

5.5.2 Participatory methods of Monitoring and Evaluation

The key distinguishing characteristic of the participatory approach to monitoring and evaluation or participatory monitoring and evaluation (PM&E) is its emphasis on the involvement of a broader scope of stakeholders in the M&E process (Estrella, 2000:10). Traditional monitoring and evaluation is focused on the interest of the implementers and funders without adequate consideration for the interests of the other stakeholders, in particular the beneficiaries of the programme being implemented (Govender, 2011:99). The principle undergirding PM&E is that monitoring and evaluation processes ought to accommodate perspectives of those who are beneficiaries or the most affected stakeholders in a development or project (Onyango, 2018:428). Involvement of such key stakeholders in all stages of monitoring and evaluation of programmes or projects engages them in decision-making which can ensure their full support and create a sense of ownership in the outcomes of M&E processes (Kaur and Kaur, 2019:458). The participatory approach sees monitoring and evaluation done with beneficiaries rather than done to them (Rossman, 2015 cited in Onyango, 2018:428) thereby strengthening and deepening their contribution to the project. Some commonly used

participatory tools in M&E include stakeholder analysis, beneficiary assessment and participatory monitoring and evaluation (The World Bank, 2004:17).

Participatory methods are valuable in knowing more about stakeholders' circumstances, points of view and concerns in order to design relevant and workable interventions. Also, the involvement of stakeholders is empowering through provision of knowledge and skills that empower (Tewolde, 2018:24). PM&E can be regarded as an element of a self-management system where stakeholders develop ability to perform needs analysis, determine their priorities, set objectives, and carry out action-oriented planning (Onyango, 2018:431). The involvement of different stakeholders has implications for M&E. Different stakeholders have varying priorities and needs which means that development of indicators to assess critical aspects of a project might be problematic because stakeholder groups are focused on aspects that are important to them which may not necessarily provide a sharp focus for monitoring and evaluation in the project. This is why stakeholders must have a consensus on what is to be monitored and evaluated in a projects.

5.5.3 Impact Evaluation

Impact evaluation approach to monitoring and evaluation is part of a broader shift in focus to outcomes and results for evidence-based decision making. The focus is concerned with determining and assessing changes, positive or negative, in welfare of community as a result of an intervention (Gertler *et al*, 2016:3-4; The World Bank, 2004:22). This approach to M&E looks for a causal relationship between an intervention (project or programme) and desirable outcomes. By drawing a distinction between the impact(s) of an intervention and the influence of other external factors or conditions, impact evaluation provides a deeper insight about what actions have an effect on communities and the extent of those effects. Therefore, the intent of impact evaluation is attribution of recorded change where observed changes can be attributed with particularity to a project or some other causes (Kusek and Rist, 2004:125). When impact of an intervention can be clearly determined, it informs decisions on whether an intervention should be expanded, modified or ended. In addition, evidence provided by impact evaluation assists to advance improved accountability and organizational learning, and more importantly to determine if a project has achieved its objectives (Gertler et al, 2016:4)

5.6 CHAPTER CONLCUSION

The chapter focus was the management tool of monitoring and evaluation and its place in the institutionalization of community engagement in higher education. The elements of a monitoring and evaluation system which form the results chain were discussed. The chapter examined the relationship between monitoring and evaluation and results-based management to substantiate its place in community engagement. Monitoring and evaluation in higher education community engagement was discussed and key approaches to monitoring and evaluation were discussed.

CHAPTER SIX

RESEARCH METHODOLOGY

6.1 INTRODUCTION

This chapter elaborates on the research methodology for the study. The first section of the chapter presents a detailed discussion of the philosophical perspective that shaped the study. An overview of the research design is described explaining the use of a multiple case study approach. Further in the chapter is a discussion of the choice of a qualitative research methodology for the study. Other aspects of the study's research methodology discussed include brief overviews of institutions that comprise the study sample, sampling method adopted to determine key informants or participants in the study and the reasons for their selection; data collection strategy with reference to interviews and gathering of documentary evidence.

In addition, the chapter describes how the study addressed issues of research validity and reliability using its qualitative equivalent, trustworthiness. Detailed description is given of how the four criteria of credibility, dependability, transferability and confirmability were achieved. Ethical considerations of the research are elaborated on. This has to do with obtaining requisite institutional approvals for the research study to commence and authorizations for data collection in the case studies. The chapter concludes by providing a brief discussion of the process of data analysis undertaken in the study.

6.2 RESEARCH PARADIGM

Guba and Lincoln (1998:195), Lincoln and Guba (2013:37), and Creswell and Poth (2018:50) describe research paradigms as belief systems or interpretive frameworks that fundamentally guide the researcher in their thinking and choice of ontology (what is the nature of reality?); epistemology (what counts as knowledge and what is the relationship between the researcher and what is to be known?); axiology (what is the role of values in research?); and methodology (what is the process the researcher engages to gain knowledge?). These philosophical assumptions - ontology, epistemology, axiology and methodology - construct a holistic view of a researcher's perspective of knowledge, how the researcher positions themselves in relation to knowledge, and the methodological strategies used to determine what knowledge there is.

The research study was guided by a constructivist paradigm. In constructivism the goal of understanding phenomena is to examine them from the point of view of those who are involved and have lived experiences in order to grasp their own meaning and definition of the phenomena (Schwandt, 1998:211). In this manner, constructivism is about the insider's perspective or emic point of view which is about the meaning of things to those who are involved (Beuving and De Vries, 2015:30; Johnson and Onwuegbuzie, 2004:20; Schwandt, 1998:233). This underpins the subjective epistemology of constructivism in which the way of knowing is derived from an individual or collective co-construction (alongside the researcher) of experiences and/or understanding of a phenomenon in its natural settings (Lincoln, Lynham and Guba, 2018:216; Denzin and Lincoln, 1998:27). There are assertions in constructivism that truth is relative as a result of being dependent on one's perspective. According to Miller and Crabtree (1999:10), the constructivist paradigm "recognizes the importance of the subjective human creation of meaning, but doesn't reject outright some notion of objectivity". Hence, constructivism is built around the premise that social construction of reality is relative to the individuals involved and to the particular context in which they find themselves (Lincoln and Guba, 2013:39).

Furthermore on epistemology in constructivism, according to Lincoln and Guba (2013:40), making sense and meaning out of knowledge occurs "by having research participants work together with inquirers as equals, sharing the nomination of issues deemed critical to both parties, and pursuing those topics together". Also, jointly constructed understandings of phenomena suggest that interactions between and among researcher and participants refine individual understanding of said phenomena (Guba and Lincoln, 1998:207). The implication for the research process is to adopt appropriate methodologies that involve interactive modes of data collection between the researcher and respondents to minimize any distance between the researcher and what is being researched (Cresswell and Poth, 2018:54). Crabtree and Miller (1999 cited in Baxter and Jack, 2008:545), concurring with Lincoln and Guba, state that the researcher and subjects working closely enables respondents to give rich accounts of their reality and experiences which assists the researcher to make sense and meaning as well as gain a better understanding of the subject matter (Lincoln and Guba, 2013:40). Therefore, the researcher is not indifferent and detached from the subject matter but involved. This characteristic of constructivism informed the use of semi-structured interviews and open-ended questions in this research study to obtain primary data from the participants.

The constructivist paradigm works on a relativist ontology underpinned by an assumption of the existence of multiple realities seen through many views (Denzin and Lincoln, 2018:57; Henry, 2015:25). These realities may be regarded to be conflicting because they are experience-based, situation-specific and local to the individuals constructing these views of reality (Guba and Lincoln, 1998:206). The aim of inquiry in constructivism is to understand phenomenon by interpreting meanings others have about their own experiences of reality (Antwi and Hamza, 2015:219). Knowledge is created by using interpretive understanding or hermeneutical/dialectical process to make informed and sophisticated constructions as different meanings of reality are combined (Guba and Lincoln, 1998:213). Furthermore, constructions are continuously revised as different viewpoints are taken into consideration and used to develop new or improved understanding around a phenomenon (Guba and Lincoln, 1998:212). This agrees with Beuving and De Vries' (2015:19) description of naturalistic inquiry, which qualitative research is, as an iterative process where a researcher revises and improves on knowledge around a phenomenon as more knowledge comes to light in the process of inquiry.

From this stance, constructivism was deemed suitable for the research study to examine community engagement as it is conceptualized, expressed and evaluated by the different universities of technology in the research sample. The study sought to understand the meanings that participating institutions constructed around the phenomenon of community engagement. Therefore, the adoption of a constructivist paradigm necessitated a qualitative methodology approach.

6.3 RESEARCH DESIGN

The research design for the study was a multiple case study design. In Compton-Lilly (2013:56) and Neuman (2014:42) a case study design is described as a systematic, in-depth, empirical investigation of the particularity and complexity of an individual, group, organizational, social, political or related phenomenon within its real-life context so as to understand its activity within important circumstances. Yin (2003:13) posits that a case study design is suitable "especially when the boundaries between the phenomenon and context are not clearly evident". Yin's justification for this assertion is that in real-life situations it is not always possible to make a clear distinction between a phenomenon and the context in which it occurs. As a result, other characteristics or important contextual conditions become pertinent to the phenomenon

under consideration. The contextual nature of community engagement in higher education institutions in South Africa makes the use of a case study research design appropriate for the study. Muller (2010:69) and De Lange (2012:95) highlight several factors that an institution's community engagement practices are dependent on. These factors include the university's strategic outlook – vision, mission, values and objectives; institutional capacity in terms of academic focus and programmes on offer, research capacity, quality of academics, as well as the degree of interest in community engagement demonstrated by faculty staff. Other peripheral factors identified by the authors are the level of development of the geographical area in which the university is located, as well as external stakeholder interests and perspectives.

This exploratory study of community engagement and its monitoring and evaluation in each university of technology in South Africa is a multiple or collective case study where, depending on the contextual factors at play, each institution will differ in how they operationalize community engagement. A multiple or collective case study focuses on ways a definite subject is represented and experienced in more than one context. The use of multiple cases is justified in this study given Baxter and Jack's (2008:550) argument that multiple case study makes it possible to do a study of the phenomenon in diverse settings, within and across cases, to ensure that the subject of inquiry is examined in-depth, and that the essence of the phenomenon is revealed. The research study was able to gather multiple perspectives in both comparable and unique contexts from the various universities of technology that made up the study's sample or collection of cases (Lauckner, Paterson and Krupa, 2012:4). Also, a case study design is useful in this situation where the study is pursuing a holistic understanding of the subject matter (Kumar, 2011:127).

6.4 RESEARCH METHODOLOGY

The study used a qualitative, cross-sectional methodology as the strategy of inquiry. Qualitative research methodology studies phenomena in their own natural settings and applies an interpretive approach to understand the subject matter with regard to the meanings people bring to them (Klenke, Martin and Wallace, 2016:6, Denzin and Lincoln, 1998:3). In qualitative research is the ontological assumption of the existence of multiple realities where the understanding of reality is derived from each individual's own perspective (Erlingsson and Brysiewicz, 2013:94). Flick (2009:21) describes the orientation of qualitative methodology as one geared towards "analyzing concrete cases in their temporal and local particularity and

starting from people's expressions and activities in their local contexts". Therefore, qualitative research "is based on the subjective, and looks at human realities instead of the concrete realities of objects" (Erlingsson and Brysiewicz, 2013:94). This makes qualitative research useful for uncovering emic views - the meaning which people attribute to phenomena based on their experiences or involvement (Beuving and De Vries, 2015:30; Guba and Lincoln, 1998:198). Adopting a qualitative methodology for this research study was appropriate due to the purpose of examining community engagement in the individual context of each university of technology case study thereby bringing to the fore unique perspectives that were existent in the institutions.

The application of qualitative methodology in research is generally to "understand, explain, explore, discover and clarify phenomena; or the meanings, feelings, perceptions, attitudes, values, beliefs and experiences ascribed to phenomena by people" (Lune and Berg, 2017:12; Kumar, 2011:104). Creswell (2014:274,275) describes qualitative research as one in which data is typically obtained in the participants' settings, questions and procedures tend to be emergent and evolving in nature, and the researcher inductively interprets data by building from particularity to general themes. These characteristics, according to Kumar (2011:104), make qualitative methodology a flexible approach which can often be unstructured and non-sequential in its operationalization.

In Baxter and Jack (2008:545) as well as Lincoln and Guba (2013:40, reference is made to the philosophical underpinning of constructivism which recognizes individual interpretations or meanings of reality. A researcher's pursuit to better understand participants' construction of reality facilitates close collaboration between the researcher and participants. Hence, the researcher is a very involved part of the study and a key instrument in qualitative methodology (Creswell, 2014:274). The researcher undertakes data collection by themselves, and this can be done through observation of behaviour, interviews or examination of documents (Creswell, 2014:275). Finally, the use of triangulation (data, methodological, theoretical and investigator) in qualitative research is to achieve an in-depth understanding of the phenomenon under study (Flick, 2009:444). Also, the use of triangulation - combination of multiple methods, empirical data, theoretical perspectives and investigators in a single study - is a strategy to improve quality of a research inquiry (Denzin and Lincoln, 1998:4). This study employed data triangulation by collecting empirical data through interviews and documents.

6.5 RESEARCH SETTING

The research setting specifies the actual context of the study with reference to physical location, timing and the population involved in the execution of the research inquiry (Baloyi, 2015:101). The study was done in South Africa with the target population being universities of technology. A target population is the object of the study and is the total collection of units of analysis - individuals, groups, organizations, events, conditions or other phenomena - with specific characteristics a research study is interested in, and it is from this collection of elements that a sample is selected to obtain critical data required for research purposes (Welman, Kruger and Mitchell, 2005:52). The six universities of technology in the target population are Cape Peninsula University of Technology (CPUT), Central University of Technology (CUT), Durban University of Technology (DUT), Mangosuthu University of Technology (MUT), Vaal University of Technology (VUT), and Tshwane University of Technology (TUT). A brief overview of each institution is provided in the following sub-sections.

6.5.1 Cape Peninsula University of Technology (CPUT)

The Cape Peninsula University of Technology (CPUT) is situated in the Western Cape and was established in 2005 from the merger of the Cape Technikon and Peninsula Technikon (CHE, 2011:6). The institution has six faculties across five campuses: Applied Sciences, Business and Management Sciences, Education, Engineering, Informatics and Design, Health and Wellness Sciences (www.cput.ac.za). Community engagement is incorporated in CPUT's academic plan as one of the institution's six strategic directions (Lazarus *et al*, 2008:68). CPUT defines community engagement as "those activities and programs offered by the institution which involve collaborative interaction with individuals, groups, and organizations external to the university at local, regional, national and international levels" (www.cput.ac.za). To implement this definition, CPUT established the Centre for Community Engagement and Work Integrated Learning (CCEWIL) to coordinate community engagement strategies and actions which are oriented towards socio-economic objectives.

The CCEWIL comprises the Service Learning unit, Co-operative Education unit and Civic Engagement unit. The Service Learning unit is the main driver of integrating community service with teaching and research. The SL unit coordinates service learning projects and provides support to academics from all CPUT faculties and campuses in the planning, implementation, assessment, and evaluation of service learning projects (www.cput.ac.za).

Also, the SL unit seeks out mutually beneficial partnerships between CPUT and different stakeholders in the broad community for the purpose of sharing resources, skills and knowledge in a manner that ensures engaged scholarship is promoted. Service learning remains the main vehicle of operationalization of community engagement in CPUT and has been actively embraced at an institutional level. CPUT (2018a:66) reports that service learning projects have significantly increased in numbers, spread and complexity in all faculties. However, Pinfold and Moodley (2013:5) found that the pedagogical potential of service learning still needs to be fully employed across many departments. The Co-operative Education unit is responsible for establishing industry partnerships through which students undertake experiential learning in the workplace (CPUT, 2018a:66). The Civic Engagement unit works in collaboration with CPUT's Student Affairs department to coordinate volunteer and outreach programs. The Civic Engagement unit provides necessary support, guidance and resources to staff and students to ensure that volunteer projects are implemented in a scholarly and structured manner (CPUT, 2018a:66).

6.5.2 Central University of Technology (CUT)

The Central University of Technology (CUT) located in the Free State province was formed from a 2004 merger of the Technikon Free State which was established in 1981 and the former Vista University (Welkom campus) (CHE, 2005:3; Lues and Lategan, 2006:109). The institution has four faculties: Engineering & Information Technology, Health & Environmental Sciences, Management Sciences and Humanities spread between its two campuses in Bloemfontein and Welkom (CUT, 2019).

CUT's strategy for community engagement is driven and actioned through three key modes: academic curriculum at both undergraduate and post-graduate level as well as innovation and incubation programmes; service learning and work-integrated learning; and collaborations with quadruple helix partnerships and professional associations (CUT, 2015:6). Community engagement in the academic curriculum is being achieved through CUT's Strategic Transformation of Educational Programmes and Structures (STEPS) process (CUT, 2018a:23) which is concerned with ensuring instructional programmes offered are demand-driven and user-oriented. This means that curricula is designed to ensure content is cognizant of and responds to the challenges faced by CUT's communities at regional, national and global levels. CUT's quadruple helix partnerships constitute other HEIs, government, business and industry

and social communities. In specifying the use of the quadruple helix approach, CUT clearly clarifies that their community is much broader than just social communities who are end-users and direct beneficiaries of community engagement activities (CUT, 2015:7; 2014:3).

Consequently, CUT's defines community engagement as the "mainstreaming of the curriculum at both undergraduate and postgraduate levels for the development, advancement and application of knowledge through the university's quadruple helix partnerships and networks" (CUT, n.d). This definition aligns with the university's Vision 2020 Statement (CUT, 2018b) which highlights CUT's focus on technology-inspired and socially-relevant innovations, facilitating socio-economic development, job creation, and engagement with its broader communities. In order to achieve the aforementioned, the main focus of community engagement has been made an integral part of CUT's research and innovation portfolio with a designated community engagement office that oversees development of community engagement strategy, promotion of partnerships and monitoring and evaluation of implementation of the community engagement strategy.

Community engagement projects are implemented in all faculties at CUT and in the research and innovation structures of the university such as the Schools Advancement Academy, Product Development Technology Station, and Centre for Rapid Prototyping and Manufacturing. The CUT community engagement model concentrates on development and education, using research, teaching, skills development and training, and professional engagement to target poverty eradication, upholding human dignity and health, and sustainable development (CUT, 2014:4).

6.5.3 Durban University of Technology (DUT)

Durban University of Technology (DUT) is a multi-campus institution in the KwaZulu-Natal (KZN) Province. In 2002, a voluntary merger between ML Sultan Technikon and Technikon Natal created what became known as the Durban Institute of Technology (Tshamano, 2013:20). In 2006, the institution's nomenclature was changed to university of technology to align with the rest of the technology higher education sector (Du Pre, 2010:5). DUT has six faculties: Accounting & Informatics, Applied Sciences, Arts & Design, Engineering & Built Environment, Health Sciences and Management Sciences (www.dut.ac.za). The university has six campuses spread across Durban and the KZN Midlands.

DUT position on community engagement is outlined in its mission statement as to excel in "external engagement that promotes innovation and entrepreneurship through collaboration and partnership" (DUT, n.d). The university indicates that one of its strategic goals is promotion of knowledge transfer through partnerships and engagement which it intends to achieve by developing international partnerships and linkages; promoting external engagement as an academic activity, and promoting responsive community engagement where faculties and departments are enabled to provide collaborative and integrated response to the needs of local and regional communities.

Engagement is one of the DNA strands of the university embedded in its strategic plan, and the use of the broad term "engagement" is intentional because the institution regards engagement to be multi-dimensional and covers all forms of exchanges with different external stakeholders. Community engagement is an aspect of public engagement which itself is one of the three broad areas of engagement in the university, with student engagement and staff engagement being the other two (DUT, 2018:13). Different forms of community engagement are present in DUT but community engagement has just begun to be formally coordinated through its community engagement "cluster" which was only established in 2018, and serves as a central coordinating office.

6.5.4 Mangosuthu University of Technology

Mangosuthu University of Technology (MUT), formerly known as Magosuthu Technikon, is the second of universities of technology in KwaZulu-Natal, the other being the DUT. MUT has a single campus located in Umlazi Township. Umlazi is the largest township for Africans in the KZN province. MUT currently has three faculties, namely Natural Sciences, Management Sciences and Engineering. In 2015, student headcount was 11, 512 (MUT, 2015:3-4). These figures show that MUT is a smaller institution in comparison to the other universities of technology.

MUT's community engagement objective is pursued within the ambit of its Strategic Goal 6 (MUT, 2015:7) which is to "contribute to the socio-economic advancement of historically disadvantaged communities". MUT has a Community Engagement Policy and Framework. The framework is aligned to national strategic documents such as the White Paper on Post School Education and Training (Department of Higher Education & Training (DHET), 2013), the Department of Rural Development and Land Reform Strategic Plan 2011 – 2014 (2010),

the National Development Plan (2013) and the Nine Point Plan (Republic of South Africa, 2015). MUT's community engagement policy regards community engagement as an aligned scholarly activity that is on an equal footing with teaching and research. The policy is also clear about the status, principles, quality assurance, governance and funding model of community engagement at MUT.

At MUT, community engagement is coordinated through the office of the Institute for Rural Development and Community Engagement (IRDCE). Previously, community engagement at the university was disjointed, uncoordinated, duplicated and underreported. To resolve this, the IRDCE developed multi-stakeholder community engagement faculty flagships to streamline community engagement, increase coordination and reduce overlaps. All projects and initiatives must be aligned with the faculty flagships.

6.5.5 Tshwane University of Technology (TUT)

The Tshwane University of Technology (TUT) was formed in 2004 from the merger of Technikon Northern Gauteng, Technikon Pretoria and Technikon North West (CHE, 2008:06). Technikon North Gauteng and Technikon North-West were historically disadvantaged institutions with primarily African student population while Technikon Pretoria was a historically advantaged institution with a predominantly white student population (Tshamano, 2013:25). TUT is a large, multi-campus institution with both contact and distance learning components into seven faculties: Science, the Arts, Humanities, Economics and Finance, Engineering and the Built Environment, Information and Communication Technology, and Management Sciences (TUT, n.d(a)).

Community engagement in TUT is regarded as one of its "three pillars of empowerment, alongside academic excellence and research and innovation" (TUT, n.d.(b)). The aim of community engagement initiatives is framed around empowering communities and assisting TUT students. The Advancement and Partnership Office (APO) manages community engagement in TUT. Having a strong fund-raising focus, the APO collaborates with relevant stakeholders throughout the university to build relationships with external constituencies to secure financial support (philanthropic grants, donations and gifts.) towards strategic and flagship projects as well as various smaller projects initiated by faculties, departments, staff and students across the University (TUT, N.D.(c)). These projects cover areas such as bursaries and scholarships, early childhood development, environmental education, agriculture,

mathematics and science development, entrepreneurship, primary health care, information and communications technology. Though TUT's engagement initiatives have elements of collaboration and knowledge transfer, much of what is termed community engagement appears to be more of philanthropy and volunteerism.

6.5.6 Vaal University of Technology (VUT)

The Vaal University of Technology (VUT) is a multi-site institution with its main campus at Vanderbijlpark in southern Gauteng's industrialized area, and programme delivery sites at Daveyton and Sebokeng in Gauteng, Secunda in Mpumalanga, and Upington in the Northern Cape. VUT was not part of any merger process in the restructuring of the higher education sector. However, the institution had to absorb the Sebokeng campus of the former Vista University (CHE, 2007:08). VUT has four faculties: Applied and Computer Sciences, Engineering and Technology, Human Sciences, and Management Sciences (Tshamano, 2013:29). VUT has an average enrolment of about 18,900 students with many students from rural areas and socio-economically disadvantaged households and communities (CHE, 2017:5).

Community engagement at VUT is primarily steered by a philanthropic and outreach model (VUT, n.d.(b)). The institution has begun to weave a scholarship element into its benevolent approach to ensure reciprocal and mutual learning by establishing the faculty flagship programme. Faculties work in collaboration with the institution's Unit for Community Engagement (The Unit) which was established to focus on community engaged scholarship. The Unit also initiates programmes that attempt to embed the scholarship aspect within community engaged projects. On the premise that different scholarly variations, definitions and interpretations of community engagement continue to evolve, VUT allows for its faculties to have different approaches to how they implement community engagement and they are required to report through the institution's Unit for Community Engagement.

6.6 SAMPLING METHOD

The study was conducted in a specific typology of higher education institution in South Africa - universities of technology. Therefore, purposive sampling was applied to select six universities of technology to be the case studies for the research. Purposive or judgmental sampling is a non-probability sampling method where the researcher purposely selects subjects or units that are relevant and suitable to a study and recruits them to participate in the study (Singh and Masuku, 2014:3). The researcher's choice or selection of subjects is undergirded by the sole purpose of ensuring that those recruited into the study sample are those who can best provide the required information for the study to achieve its objectives (Kumar, 2011:207). Although purposive sampling has a serious limitation of lack of wide generalizability (Lune and Berg, 2017:39), the intentional selection of specific individuals, population groups, organizations or behaviours is to supply rich information that give the best knowledge and deep insight into the research topic (Devers and Franke, 2000:264). The purpose is to intentionally seek out and select participants who have a first-hand experience of the subject matter under investigation, and who are able to provide answers to the research question(s). Therefore, purposive sampling method was appropriate for this qualitative study because the researcher required participants who had the requisite information needed to gain a better understanding of the subject matter under study.

6.7 DATA COLLECTION

This section describes how data was obtained for the research inquiry. The research used two main methods to obtain data, and these are semi-structured interviews and document analysis.

6.7.1 Semi-structured Interviews

The study used interviews as one of its data collection methods. Interviews are suitable for collecting qualitative data as they allow respondents to express their opinions, perceptions, feelings, thoughts and experiences regarding the phenomenon under investigation. The use of interviews is justified in this study as the interviewees are key stakeholders in the field who were able to provide required information from their own perspective. Semi-structured interview was the option adopted for the research. A semi-structured interview lies between the completely structured interviews and completely unstructured interview. Though there is an interview guide to direct the line of questioning, a semi-structured interview format is

flexible because interview questions can be asked in any order the interviewer sees fit, and it gives room for the interviewee to speak more broadly on the topics in the questions (Denscombe 2007:176). Semi-structured interviews are flexible enough to give respondents freedom to express themselves, for the interviewer to ask additional questions to pursue lines of enquiry which open up during the interview; and the interviewer is allowed to adapt the questions to suit the background and educational level of respondents (Welman *et al*, 2005:167). Therefore, although the same questions will be put to all participants, the language and terms can be altered from one respondent to another. Semi-structured interview was deemed suitable for the study because of the need to obtain rich and detailed information.

In each university of technology, information was sought from the executive or senior official who oversees the institution's community engagement portfolio. The information provided by the respondent was at the broad strategic level of university community engagement in the institution. Secondly, the study sought information from two project managers or supervisors of community engagement projects or initiatives in the institution. The information provided by these respondents was at operational level specific to individual community engagement projects in the university. The focus of the interviews was to understand how each university of technology approached community engagement as well as to know the extent to which monitoring and evaluation formed part of the implementation of community engagement. The study used two interview schedules to guide the line of questioning during interviews with study participants. The interview schedule was designed by the researcher and informed by literature review.

Interview schedule A (see Appendix No.1) was used in interviews with interviewees who are university officials in charge of the institution's community engagement portfolio. Interview schedule A had 22 questions spread across seven sections. Interview schedule B (see Appendix No.2) was used in interviews with respondents who managed specific community engagement projects in the universities. Interview schedule B had 14 questions spread over three sections. The questions were mostly open-ended questions. Interviewees were sent emails requesting their participation in the study. On receipt of respondents' assent to participate in the study, a set date was agreed on for interviews to be conducted telephonically. A total of seven interviews were conducted.

6.7.2 Document Analysis

The use of documentary evidence was critical to this study because university documents supplemented data obtained from the semi-structured interviews. More importantly, the university documents became substitutes for interviews in the process of data collection in those institutions were there was no positive response to requests for participation in the study. In qualitative research, documents have come to be accepted as legitimate sources of data. According to Bowen (2009:27) "organizational and institutional documents have been a staple in qualitative research for many years. In recent years, there has been an increase in the number of research reports and journal articles that mention document analysis as part of the methodology". Documentary research method or document analysis is an unobtrusive, systematic method of reviewing and analyzing documents that contain information about the phenomenon under study (Ahmed, 2010:2, Bowen, 2009:27). It is described as unobtrusive because information in the documents have been recorded without the researcher's intervention. Document analysis is typically used as a complement to other data collection methods in triangulation (Cardno, 2018:626). Noor (2008:1604) attests to the significance of use of document analysis stating that it is "a method to cross-validate information gathered from interview…given that sometimes what people say may be different from what people do". However, document analysis can be used as the main method in a research study. There are studies that have used document analysis as the sole method of obtaining data. For example, Wild, McMahon, Darlington, Liu *et al* (2010) conducted a study using document analysis in which a diary study approach was adopted to research how engineers accessed and used different information and documents.

The use of document analysis is justified in this research inquiry due to the nature of the research problem. According to Bohnsack (2014:218) the fields of research based on the documentary research method are widespread but education is one of the main subject areas it is currently gaining ground. Cardno (2018:625) advocates for the use of policy documents in research in the field of education to understand the complex nature of problems therein. In this research study, an analysis of university documents was a justified method for examining the nature of higher education community engagement as reported in those documents in order to synthesize information around the research problem and provides answers to research questions. In addition and more importantly, documentary analysis can be used to supplement data from other sources such as interviews and observation (Bowen, 2009:30, Cardno, 2018:626). Document analysis was critical to this research inquiry given that it is a qualitative

case study research. Bowen (2009:29) and Mann and MacLeod (2015:57) affirm this method to be particularly applicable to qualitative case studies where the inquiry is pursuing an intensive, holistic understanding of the subject matter (Kumar, 2011:127). University documents that were accessed provided rich data on the context around the institutional case studies which was needed for the researcher to gain understanding and insight into community engagement and its monitoring and evaluation in the universities of technology.

This research resorted to the use of document analysis because it was the only feasible source of data and workable solution given that subject participation was not forthcoming from some of the universities of technology despite several requests. Bowen (2009:29) provides support for this decision by stating that sometimes document research method may the only viable method for a study. Documents accessed include university strategic policy documents, strategic plan documents, annual reports, research reports, community engagement reports, and other institutional reports, as well as university websites. For most of the universities, these were all available from the universities' websites. In the case of one institution, some documents were made available by a participant who had the authority to share them with the researcher. Table 6.1 is a breakdown of documents accessed from each university.

Table 6.1 Documents accessed from the universities of technology

Type of document	CPUT	CUT	DUT	MUT	TUT	VUT
University Annual report	√	√	√	√		√
University Research report	√	√			√	
University strategic plan			√		√	√
Community engagement strategy		√				
Community engagement policy		√		√		
Community engagement framework		√				
Community engagement annual report		√		√	√	√
Community engagement newsletter/bulletin		√	√			√
University website	√	√	√	√	√	√

6.8 DATA ANALYSIS

The goal of qualitative data analysis is to analyze qualitative data obtained from participants by finding themes, patterns, concepts, categories and understandings in the data which convey meaning that contribute to achieving the purpose of the research inquiry (Cleland, 2015:9). The purpose of this stage of the research study was to attempt to explore and answer the research questions with the data obtained. The first step taken to organize and prepare the empirical data collected through semi-structured interviews was to transcribe the audio recordings. Also, sourced university documents were sorted. The transcripts and documentary evidence data were read through. This initial step provided a general sense of the information and an opportunity to reflect on its overall meaning.

This study relied on content analysis to analyze the data. Qualitative content analysis is systematic method of classification and reduction of textual material to more relevant, fewer and manageable "meaning units" (Graneheim and Lundman, 2004:106) or categories of data in order to identify patterns of consistencies or themes and meanings within the data (Weber, 1990:12; Patton, 2002:791). Qualitative content analysis condenses volumes of data into smaller meaning units that hold recognizable or relevant information for the study. According to Graneheim and Lundman (2004:106) a meaning unit can be "words, sentences or paragraphs containing aspects related to each other through their content and context".

Content analysis was considered suitable for the study because it supports the exploratory nature of the study, and it is an extrapolative analysis method (Krippendorff, 2004:xvii). Furthermore, latent content analysis was adopted as an approach to discern the underlying, implicit meanings in the research data. Lune and Berg (2017:187) describe latent content as "deep structural meaning conveyed by the message" - what the visible content of data is talking about. Analysis of data was to making sense of the qualitative material to identify core consistencies from which interpretations and inferences were made.

6.8.1 Conceptualization of themes

Polit and Beck (2017:759) state that the integrity of the coding process determines the success of a content analysis. Coding involves careful observation of textual material to systematically translate it into significant meaning units (Neuman, 2014:374). The participants were asked open-ended questions, and responses recorded and transcribed. These transcripts, together with university documents which were accessed, provided the basis on which initial codes were identified. Using a process of open coding, the transcripts were broken down to identify significant meaning units directly from the participants' narration of their perspectives of the research subject matter (Sutton and Austin, 2015:228; Lockyer, 2004:138). Table 6.2 shows a list of initial codes from the data. The researcher ensured that the codes came from the actual words of participants.

Table 6.2 List of initial codes

Model of community engagement	Attitude that community engagement is not doing enough
Focus of community engagement	Mode of delivery of community engagement
University's strategic plan	Auditing of community engagement projects
University's vision for community engagement	Rewards for community engagement
Type of community engagement project	Incentives for community engagement
Familiarity of staff with university community engagement strategy	Monitoring and evaluation of community engagement projects
Attitudes towards community engagement	Progress reports on community engagement projects
How is community engagement carried out	Inadequate staff in community engagement office
Difficulty translating disciplinary work into community project	University mission
Implementing scholarship in engagement	Community engagement is multi-disciplinary

What guides community engagement in the university	Territorial attitude from lecturers
Approach to community engagement	Framework for monitoring and evaluation of community engagement projects
Community engagement strategy	Social responsibility of universities
Measures in performance management for community engagement	Niche area of community engagement
Measures for what counts as community engagement	Meaning of engagement
Community engagement not regarded in the same way as teaching and research	Meaning of community engagement
Community engagement not a priority in universities	Definition of community engagement
Use of university skills and expertise to address community issues	Outlook of community engagement
Context of community engagement	Forms of community engagement
Lack of connection and coordination between academic clusters	Approach to community engagement
How to institutionalize community engagement	Different definitions of community engagement
Function of the community engagement office	Funding for community engagement projects
Staff involvement in community engagement	Weighting of community engagement
Community engagement policy	Staff attributes for a transformed university
Community engagement not receiving the same focus and attention as teaching and research	Monitoring and evaluation mechanisms for community engagement
Funders are not concerned about results	Criteria for in promotions for community engagement
Link of community engagement project to institutional priority	Link of community engagement project to academic curriculum
Link of community engagement to research	Impact of community engagement projects

Monitoring and evaluation instruments for community engagement projects	Lack of willingness to share information
Lack of interest in results	Sustainability of community engagement projects
Funding support for community engagement	Undervaluing of community engagement
Performance management	Consistency and standardization of monitoring and evaluation
Community engagement as a valid academic activity	Informal monitoring and evaluation in community engagement
Competing priorities for academics	Formalization of community engagement
Integration with teaching and research	Community engagement office
Focus of community engagement project	Lecturers are overloaded
Quarterly reports on community engagement project	No commitment of lecturers to community engagement
Monitoring and evaluation of community engagement project is not required by the university	Universities and development

The next stage in the content analysis process involved using the initial codes to create categories or groups of themes. Codes were grouped into categories of themes based on similarities or connections between them. The themes were grouped in a context of the responses given and other textual data from documents as a whole. The categories considered to be most relevant to providing answers to the research questions were selected to establish a number of substantive categories. From the second level of themes, main themes emerged which became the basis for analyzing responses provided by the research participants. Interpretations were made accordingly to depict the meaning of the data and to indicate the implications on the focus of the study with regards to providing answers to the research questions. Table 6.3 shows the themes derived from categorization of the initial codes.

Table 6.3 Categories of themes

Definition of community engagement	• University mission • Different definitions of community engagement • Outlook of community engagement
Philosophy	• What guides community engagement in the university
Context of community engagement	• Context of community engagement • Focus of community engagement • Niche area of community engagement • Model of community engagement
Institutional strategy	• University's strategic plan • University's vision for community engagement • Use of university skills and expertise to address community issues • Community engagement policy • How to institutionalize community engagement
Forms of community engagement	• Mode of delivery of community engagement • Type of community engagement project • How is community engagement carried out • Approach to community engagement • Community engagement strategy • Forms of community engagement • Focus of community engagement project
Community engagement infrastructure	• Community engagement office • Funding for community engagement projects • Sustainability of community engagement projects • Funding support for community engagement • Inadequate staff in community engagement office

Rewards	• Rewards for community engagement • Incentives for community engagement • Performance management • Measures in performance management for community engagement • Weighting of community engagement • Criteria for in promotions for community engagement
Staff involvement	• Familiarity of staff with university community engagement strategy • Territorial attitude from lecturers • Staff involvement in community engagement • Staff attributes for a transformed university • Competing priorities for academics • Lecturers are overloaded • No commitment of lecturers to community engagement
Attitude to community engagement	• Attitude that community engagement is not doing enough • Community engagement as a valid academic activity • Community engagement not regarded in the same way as teaching and research • Undervaluing of community engagement • Community engagement not a priority in universities
Integration with teaching and research	• Formalization of community engagement • Translating disciplinary work into community project • Implementing scholarship in engagement • Community engagement is multi-disciplinary • Lack of connection/coordination between academic clusters • Link of community engagement project to institutional priority • Link of community engagement project to academic curriculum

	• Link of community engagement to research
Monitoring and evaluation of community engagement projects	• Auditing of community engagement projects • Monitoring and evaluation of community engagement projects • Progress reports on community engagement projects • Impact of community engagement projects • Funders are not concerned about results • Monitoring and evaluation of community engagement project is not required by the university • Lack of willingness to share information • Lack of interest in results
Monitoring and evaluation mechanisms	• Framework for monitoring and evaluation of community engagement projects • Measures for what counts as community engagement • Monitoring and evaluation mechanisms for community engagement • Monitoring and evaluation instruments for community engagement projects • Consistency and standardization of monitoring and evaluation • Informal monitoring and evaluation in community engagement • Quarterly reports on community engagement project

The categories were further condensed into broad themes and sub-themes based on the similarities and relationships between them, and how they related to the research questions. Table 6.4 presents the broad themes and sub-themes.

Table 6.4 Broad themes and sub-themes

Broad themes	Sub themes
Definition of community engagement	• Mission statement • Philosophy • Definition of community engagement
Community engagement strategy	• Context and focus area • Forms of community engagement
Institutionalization of community engagement	• Institutional structure • Staff commitment • Integration with other academic functions • Challenges of institutionalization of community engagement
Monitoring and evaluation of community engagement	• Mechanisms of monitoring and evaluation • Focus of monitoring and evaluation • Challenges of monitoring and evaluation

6.9 RESEARCH TRUSTWORTHINESS

Establishing the quality of research findings has been a matter of substantial debate and conflict due to paradigmatic differences between the main research methodologies - qualitative and quantitative (Shenton, 2004:63; Lincoln and Guba, 1988:1). It is crucial that a research inquiry is able to demonstrate quality and integrity regardless of its methodological approach. A research study must be able to establish the appropriateness, quality and accuracy, or rigour of the procedures adopted to obtain answers to the research questions (Kumar, 2011:177). This study was guided by a naturalistic paradigm through the application of a qualitative methodology to understand the subject matter in context-specific settings.

Therefore, Lincoln and Guba's (1985 cited in Shenton, 2004:64) framework for trustworthiness was applied to ascertain research vigour, reliability and validity in the study. Lincoln and Guba (1988:5) suggested that the value of a research study is strengthened by its trustworthiness which involves establishing credibility, dependability, transferability and confirmability. When

these criteria are met, then the results of qualitative research inquiry are presumed to be trustworthy or rigorous. Lincoln and Guba's criteria are considered to be the qualitative equivalent of the conventional measures of research rigour in quantitative research known to be internal validity, external validity, reliability and objectivity (Chowdhury, 2015:143; Golafshani, 2003:601).

6.9.1 Credibility

Credibility is analogous to internal validity of quantitative research, and it refers to the value and believability of a qualitative study's findings (Houghton, Casey, Shaw *et al*, 2013:13). According to Guba and Lincoln (1982:246), credibility is concerned with the extent to which reported findings of a research inquiry concur with reality having considered the data provided by the participants as well as the context in which the research was undertaken. Therefore, credibility seeks to ensure that the study measures or tests what it actually intended in order to establish confidence in the findings and authenticate them as a true depiction of the phenomenon being studied (Shenton, 2004:64). Techniques engaged to enhance the study's credibility include implementation of appropriate and established research methods as shown in the sampling technique, thick description of the phenomenon under study, reflexivity, peer evaluation, debriefing sessions between the researcher and supervisor, and triangulation (Chowdhury, 2015:150; Amankwaa, 2016:122; Henry, 2015:26; Schwartz-Shea, 2006:101).

Other strategies implemented by this study to enhance credibility are mode of data collection and data analysis. This was supported by ample description of interactions between the researcher and participants as well as document analysis to show details of factors which informed the researcher's interpretation of interactions around community engagement in universities of technology. In addition, debriefing sessions between the researcher and the project supervisor ensured that the methods undertaken and instrument applied in the study are appropriate.

6.9.2 Transferability

Transferability in the qualitative context refers to the extent to which a study's findings can be projected to other scenarios (Elo, Kääriäinen, Kanste *et al*, 2014:2). It is concerned with the degree to which the findings of from one research study can be applied to other contexts or examples of the phenomenon (Noble and Smith, 2015:34; Guba and Lincoln, 1982:246). Transferability gauges the ability of outcomes of a research inquiry "to explain, or occur in, similar phenomena at a general or universal level rather than being something that is unique to the particular case(s) used for the research" (Denscombe, 2007:296). Therefore, transferability is the equivalent to external validity or generalizability in quantitative research. Shenton (20024:69) highlights the challenge of generalizability in qualitative inquiry where it is difficult to generalize a particular study's findings and conclusions to other contexts and populations due to the nature of findings in many qualitative studies being usually specific to relatively small number of cases.

The main strategies suggested to reinforce transferability are the use of thick description and audit trail (Henry, 2015:26; Amankwaa, 2016:122; Houghton *et al*, 2013:16; Lincoln and Guba, 1985:316). Thick description requires a researcher to provide detailed information about the phenomenon under examination and comprehensive account of the process of inquiry to enable others assess and determine the transferability of findings to other participants, settings and contexts (Denscombe, 2007:299-300). Thick description establishes context for a study and allow comparisons to be made against other scenarios (Chowdhury, 2015:150). An audit trail requires a detailed documentation of all aspects of the research process including providing justification for decisions in the course of carrying out the study to demonstrate how a researcher made certain conjectures (Hadi and Closs, 2015:642). In this research report, comprehensive background data on community engagement in higher education and universities of technology in South Africa has been provided. Furthermore, detailed description of steps taken from the start to end of the research process and justifications for them are provided to establish the particular context in which the study was undertaken.

6.9.3 Dependability

The dependability criterion refers to the consistency of research findings over time and under varied conditions (Elo *et al*, 2014:4). This has to do with the reliability of a research inquiry to determine the extent to which similar results would be consistently obtained if the research were repeated under similar or the same conditions with regard to participants, methods and context (Polit and Beck, 2017:787; Guba and Lincoln, 1982:246). In other words, dependability "is the idea of replicability, repeatability and stability of results or observation" (Cypress, 2017:256). However, Guba and Lincoln (1982:247) cautioned against attributing "discrepancies or deviations between two repetitions of the same study…to unreliability (error)". The authors argue that emergent changes in research design as a result of qualitative research's evolving nature during the research process as well as individual researchers' preferences prevent an exact replication of a research inquiry. Therefore, the concept of dependability should be defined "to mean stability after discounting such conscious and unpredictable (but rational and logical) changes" (Guba and Lincoln, 1982:247).

The major technique proposed to achieve dependability is a comprehensive description of the entire research process to allow the study to be repeated, and to allow an objective evaluation of the degree to which appropriate research practices have been followed (Cypress, 2017:256; Chowdhury, 2015:150; Shenton, 2004:71). This research report addresses dependability by providing an in-depth description of the processes undertaken within the study, so other researchers are able to repeat the methodologies employed. The research design, methodology and data collection strategies are outlined in detail to indicate that proper research practices have been followed. The justification for the research design, methodology and data collection strategies employed as well as the criteria used to select participants in the study are also clearly stated.

6.9.4 Confirmability

Confirmability refers to objectivity of the study's findings where the neutrality and accuracy of data can be established to show that the findings emerged from data obtained from participants and not subjective factors relating to bias, motivation or preferences of the researcher (Houghton *et al*, 2013:13; Erlingsson and Brysiewicz, 2013:98). The obligation of objectivity is placed on the data (Guba and Lincoln, 1982:247) which means that confirmability is about establishing that the research data is a true representation of information provided by

the study participants, and that there is no distortion as a result of researcher bias (Polit and Beck, 2017:788).

Confirmability is achieved by ensuring that findings are a factual reflection of participants' voices and the conditions of the inquiry (Polit and Beck, 2017:788). Shenton (2004:72) proposes the use of triangulation which broadly refers to the use of multiple methods to access and generate data in the same study (Schwartz-Shea, 2006:102). In addition, Amankwaa (2016:122) and Houghton *et al* (2013:14) recommend the use of an audit trail to detail the research process, and justifications for methodological choices and inferences made by the researcher. An audit trail will make it possible for an external auditor to study the processes of data collection, data analysis and inferences made (Lincoln and Guba, 1982:8). In order to reduce the effect of researcher bias, this research study applied triangulation of data to ensure that the findings of the research project are the result of using data obtained from interviewees, document analysis and literature. Also, data triangulation was used to create a stronger account of the research. Furthermore, reasons underpinning decisions made by the researcher regarding particular paradigms, methodologies and research instruments adopted in the study are explained in the research report.

6.10 ETHICAL CONSIDERATIONS

Prior to conducting the study, a proposal for the research was submitted to relevant research and ethics committees at the Durban University of Technology for ethics approval. The university's Institutional Research Ethics Committee (IREC) issued a full approval for the study to be conducted (see Appendix No.3 for details of IREC approval).

The researcher sought permission from the six universities of technology to collect data for the study to be conducted. Gatekeeper letters of permission were obtained from Cape Peninsula University of Technology, Central University of Technology, Durban University of Technology, Mangosuthu University of Technology, Tshwane University of Technology and Vaal University of Technology. The gatekeeper letters of permission can be found in Appendices Nos. 4 - 9.

A letter of information was issued to potential respondents providing a brief synopsis of the purpose, objectives and other relevant information about the research inquiry. This was to ensure that participants made informed decisions to participate in the research knowingly,

voluntarily and intelligently having been presented with adequate information about the research study. At the time of interviews, a letter of consent was given to respondents to append their signature as a formal indication of their informed consent and voluntary participation in the study. Refer to Appendix No.10 and Appendix No.11 for the study's letters of information and consent respectively.

The process of data collection and analysis ensured that anonymity and confidentiality of respondents were maintained. Interviewees' identities were not revealed and cannot be linked to specific responses to questions. Also, respect for participants' privacy was maintained wherein interviewees had the freedom to determine the extent of information they were willing to provide in the course of interviews.

6.11 CHAPTER CONCLUSION

The aim of this chapter was to outline in detail the research methodology and design of the study. A constructivist paradigm informed the research inquiry. Using a multiple case study design, a qualitative methodology was adopted to carry out the study in order to answer the research questions and achieve the research objectives. This chapter has reported on the sampling and data collection methods as well as research instruments engaged in the study and the justification for their use. Finally, the chapter reported on the study's approach to data analysis, achieving research trustworthiness and attending to issues of ethical consideration.

CHAPTER SEVEN

DATA PRESENTATION AND ANALYSIS

7.1 INTRODUCTION

The research inquiry set out to examine community engagement and its institutionalization in universities of technology in South Africa, as well as monitoring and evaluation mechanisms of community engagement initiatives. To this effect, the study sought to answer the following research questions:

- What is community engagement in universities of technology in South Africa?
- What is the extent to which community engagement is institutionalized in universities of technology in South Africa?
- What factors promote the institutionalization of community engagement in universities of technology in South Africa?
- What factors hinder the institutionalization of community engagement in universities of technology in South Africa?
- How is community engagement currently being monitored and evaluated in universities of technology in South Africa?
- What are the challenges confronting universities of technology regarding monitoring and evaluation of community engagement?

This chapter presents qualitative data obtained through semi-structured interviews with relevant participants in universities of technology. Data was also obtained by means of document analysis of relevant university documents and publications, and these are indicated where they are displayed. The study employed thematic content analysis for analyzing data collected. Thematic content analysis is discussed in Chapter 6 of the dissertation. The main themes from the research data are presented and discussed in this chapter. Data presentation is accompanied by comprehensive discussion supported with relevant references from literature which concur with or differ from what the data suggests.

7.2 PRESENTATION AND ANALYSIS OF THEMES

Four main themes emerged from the process of data analysis together with sub-themes collated for each main theme. Conceptualization of the themes are discussed in Section 6.8.1 in Chapter 6 of the dissertation. Table 7.1 below presents a summary of the main themes and their sub-themes.

Table 7.1 Emergent main themes from research data

	Main themes	Sub themes
1.	Definition of community engagement	• Mission statement • Philosophy • Definition of community engagement
2.	Community engagement strategy	• Context and focus area • Forms of community engagement
3.	Institutionalization of community engagement	• Institutional structure • Staff commitment • Integration with other academic functions • Challenges of institutionalization of community engagement
4.	Monitoring and evaluation of community engagement	• Mechanisms of monitoring and evaluation • Focus of monitoring and evaluation • Challenges of monitoring and evaluation

7.2.1 Theme 1: Definition of community engagement

Definition of community engagement as a main theme communicates the position of community engagement in the institution. Also, it examines the elements that undergird the university's commitment, identity and values where community engagement is concerned.

7.2.1.1 Sub-theme 1a: Mission statement

The mission statements of the UoTs provide a pointer into their inclination to engagement because this is the medium with which institutional priorities are publicly and clearly specified. More importantly, mission statements are contained in strategic plans which themselves are used to communicate organizational identity – who the organization is (Fumasoli *et al*, 2014:6). The sub-theme of the universities' mission statements was to see how they frame their institutional identity to show if community engagement forms part of who they are. In addition, evaluation of mission statements allowed the study to compare content relating to community engagement with actual operationalization. This is because Fitzgerald *et al* (2012:10) reports that higher education activities relating to addressing societal issues are not prioritized in many institutions despite having mission statements that declare a commitment to social responsibility. Therefore, an examination of community engagement in each of the universities of technology is to ascertain to what degree the institutions continue to attend to their stated missions. The mission statements of each university of technology was analyzed (see Appendices No.12-17 for attached mission statements), and they are stated below:

The mission of UoT1 comprises four aims stated as follows:

- *"We will build a university that is highly efficient, sustainable and environmentally conscious*
- *We will be known for the high quality of our teaching and learning and the relevance of our curriculum*
- *We will create a vibrant and well-resourced living and learning environment for our students*
- *We will enhance and develop the quality and effectiveness of our research and knowledge production*" (CPUT, n.d.(a))

In order to fulfil its vision, UoT2's mission is to:

- *Deliver high-quality, appropriate science, technology, engineering and mathematics (STEM) academic programmes, supported by applied research;*
- *Engage with the community for mutually beneficial development;*
- *Promote access with success by attracting potentially successful students, and supporting them to become employable graduates;*

- *Attract and retain expert staff, and supports their development and well-being; and*
- *Forge strategic partnerships* (CUT, 2018b)

According to UoT3, its mission is "to excel through a teaching and learning environment that values and supports the university community; promoting excellence in learning and teaching, technology transfer and applied research; external engagement that promotes innovation and entrepreneurship through collaboration and partnership" (DUT, 2018:i)

The mission of UoT4 is "to offer technological, career-directed educational programmes focusing on innovative problem-solving research and engage with government, business, industry and communities as end-users" (MUT, n.d)

UoT5 declares its mission to be to "advance social and economic transformation through relevant curricula, impactful research and engagement, quality learning experiences, dedicated staff and an enabling environment" (TUT, 2019:3)

The mission of UoT6 is "to produce employable and entrepreneurial graduates who can make an impact in society", and drivers for the achievement of the vision and the mission are:

- *"Adopting cutting-edge technology and teaching methods;*
- *Creating a scholarly environment conducive for knowledge creation, learning and innovation through basic and applied research that improves teaching and learning, where appropriate, leads to technology transfer; and*
- *Developing a programme qualification mix that meets the needs of South Africa, the African continent and beyond* " (VUT, n.d.(c))

Table 7.2 presents an analysis of the language used in the UoTs' mission statements which show some reference to interaction with external communities.

Table 7.2: Language of mission statement and community engagement

Language of mission statement	UoT1	UoT2	UoT3	UoT4	UoT5	UoT6
Mission statement makes actual mention of community engagement or engagement with communities		√		√		
Mission statement makes reference to relevance of curriculum	√				√	
Mission statement makes reference to external engagement or engagement			√		√	
Mission statement makes reference to external stakeholders or refers to collaborations and partnerships		√	√	√		
Mission statement refers to effectiveness of research and knowledge production	√					
Mission statement makes reference to impactful research, applied research or research geared towards problem solving		√	√	√	√	√
Mission statement makes reference to technology transfer			√			√

Only two of the universities of technology (Uot2, UoT4) expressly make mention of engaging with community in their mission statements while two universities use "engagement" (UoT5) and "external engagement" (UoT3). However, contained within all six mission statements are terms and phrases used to depict, qualify or make inferences to how HEIs engage with external communities. On one hand it can be reasoned that the situation in Table 7.2 arises on account of the fact that the practice of community engagement or the expression of engaged scholarship is carried out differently by universities, a fact acknowledged by Lazarus *et al* (2008:64) as well as Slamat (2010:109). On the other hand, it is noted that while all six universities of technology are very definite in stating the teaching and research functions of their mission, very few of them have applied same exactness of language where community engagement is concerned because most have resorted to use vague language. This representation is descriptive of the general marginalization of community engagement within the higher education sector. Also, it correlates with Shawa's (2020:115) assertion that many universities are still grappling with making community engagement have same level of prominence and attention as the traditional academic roles of teaching and research. The mission statements indicate clear intentions with teaching and research but with community engagement, it is not very well-defined.

7.2.1.2 Sub-theme 1b: Philosophy of community engagement

The sub-theme of the philosophy of community engagement was to consider and understand the guiding principles that frame each institution's practice of community engagement. Responses around this sub-theme are outlined below:

> *In UoT1, the university pursues an environment where community engagement is driven by social responsibility of the institution, application of knowledge and social responsiveness of students and graduates (*CPUT, n.d.(b))

> "*Our vision 2020 talks about an engaged university. With us, community engagement is curriculum-based where community engagement is carried out through the curriculum and we use a model for community engagement which we call a spin-in spin-out model. But more importantly, we approach community engagement from the perspective of socio-economic development, which I will say guides what we do as community engagement*" (Interview with Senior Manager, UoT2 Community Engagement Office, 2019)

> "*Mutual benefit is the philosophy. That whatever engagement it is, it should mutually benefit all stakeholders but ultimately the university has to be a beneficiary as well together with whoever it is engaging with which could be the donors, industry, students and the staff and the community. For me that would be the guiding thing that it should mutually benefit whoever it is that is involved either equally or to some degree of proportionality. That is the underlying basic approach that should guide the broader engagement. It can't be one-sided, it can't be one takes from the other, it can't be something forced on the other. It should be something that is collaborative, partnership-oriented and mutually beneficial*" (Interview with Community Engagement Practitioner, UoT3 Community Engagement Office, 2018).

> *In UoT4, community engagement activities are aligned with the South African government's National Development Plan and Medium Term Strategic Framework (MTSF). The envisioned principle of community engagement in the institution is that engaged scholarship (teaching, learning and research) must have a significant*

developmental impact on the communities involved. Therefore, community engagement initiatives must be developed with a mindset to realizing developmental agenda and key priorities. In light of this, the emphasis of community engagement is development of historically disadvantaged and rural communities (MUT, 2016a: 2,6)

In UoT5, outreach resonates in many of community engagement initiatives of the university. This is evident from information available in its publication, *Building communities through hope* (TUT, n.d.(d)) *which outlines some of the university's community engagement projects.*

Community engagement at UoT6 is noted to be predominantly a philanthropic and outreach model. However, the university states that its community engagement is guided by the following questions:

- *Who is the university's community?*
- *How does the institution engage with the community?*
- *How does the community benefit educationally, socially, economically and technologically?*
- *How does community engagement inform teaching, research and innovation, and the university's approach to engaging with students at all levels, in what is considered to be engaged scholarship?* (VUT, 2018:23)

The philosophy that guides a university's community engagement is about how and why faculty, students and other members within the university community should engage with communities beyond their campuses (Olson and Brennan, 2017:11). The guiding philosophy provides an indication of the kind of responsibility the institution believes it has in community engagement. In view of this, the data above shows that social awareness and social responsiveness are the guiding principles and values of community engagement in UoT1, UoT5 and UoT6. Socio-economic development is the significant principle driving the agenda for community development in UoT2 and UoT4, while mutual benefit is stated as the principle behind community engagement in UoT4.

7.2.1.3 Sub-theme 1c: Definition of community engagement

The sub-theme of definition examined the description or translation that each university of technology attaches to community engagement. The study examined definitions of community engagement from the universities' strategic documents as well as responses of relevant study participants.

> *In UoT1, community engagement is defined as comprising activities and programs offered by the institution which involve collaborative interaction with external stakeholders at the local, regional, national and international levels to achieve economic and social objectives. Such interactions involve using engaged teaching and learning initiatives, volunteerism, research and various forms of work-integrated learning, such as service learning and cooperative education* (CPUT, n.d.(b))

> *In UoT2, community engagement is defined as the mainstreaming of the undergraduate and postgraduate curriculum to advance the development and application of knowledge via quadruple helix partnerships and networks made up of government, business and industry and social communities* (CUT, n.d).

> *UoT4 defines its community engagement as all activities that the university and the community engage in for mutual benefit, and embarked on with the purpose of improving the socio-economic conditions of the targeted communities as well as advancing opportunities for the university to strengthen its teaching and learning, and research functions* (MUT, 2016b:3).

> *In UoT5 a formal institutional definition of community engagement could not be determined. However in its Annual Report, community engagement is stated to be "a key priority for the University in its thrust to empower surrounding communities through education, talent development and an array of opportunities aimed at fostering social inclusion" (*TUT, 2016:74*).*

> *In UoT6, community engagement refers to all those activities undertaken by the institution and the community which involve the community with mutually beneficial outcomes. This broad definition includes concepts such as community development, community engagement and community service learning* (VUT, n.d.(d))

According to Freeman (2015:35) and Perry, Farmer, Onder *et al* (2015:26) community engagement needs to be defined and understood, therefore each institution's definition showed their understanding and conceptualization of the term community engagement in their particular context, and the institution's subsequent approach to it. The data indicate that the definition of community engagement is not homogeneous in the universities of technology. Although differently worded, all definitions enunciated above appear to have a characteristic defining attribute of community engagement which Dempsey (2010:364) affirms as the intentional collaboration between the university and stakeholders in its external communities for mutual benefit. The incidence of different definitions as presented in the data substantiates Slamat's (2010:109) assertion that South African higher education institutions have different definitions for community engagement. Bhagwan (2017:174), Favish and Simpson (2016:242), and Kruss (2012:12) attribute this to several reasons which include various forms in which university-community engagement is undertaken, variety of models used to implement community engagement as well as different institutional contexts informing conceptual variations around the term community engagement.

A definition from UoT3 is not included in the data above because a clear institutional definition of community engagement was not obtained from any of the university documents accessed. UoT3 stands out as one institution which pointedly uses the broader term of "engagement". Its use of engagement is based on the perspective that there are many dimensions to engagement but which must always be predicated on the core functions of teaching, learning and research (DUT, 2014:5). UoT3's engagement encompasses all forms of interactions the institution does with various external stakeholders. According to its Annual Report (DUT, 2018:13), engagement in UoT3 is focused on three broad areas: student engagement, staff engagement and public engagement. Community engagement is just one of the aspects of public engagement, which may explain the scant attention it receives in the institution. Thus, the use of the term engagement can be deemed as a strategic way to cover the status quo in the institution which is more tilted towards engagement with industry.

The response from an interviewee in UoT3 regarding definition of community engagement is as follows:

> "*…And what is community engagement? People have tried to define the concept. I am not even going to try to define what community engagement is. We are not in a position as (UoT3) to say this is our definition of community engagement. The community engagement definitions that would guide us are whatever the definitions that are out there and then we would have an opportunity to sit and agree that this is what community engagement means for us...*" (Interview with Community Engagement Practitioner, UoT3 Community Engagement Office, 2018)

Defining community engagement remains a key point for many higher education institutions (Driscoll, 2008:40), and the challenge still persists for some universities where setting clear definition of community engagement is concerned (Kruss, 2012:6). In literature there are different definitions of community engagement which shows that there different interpretations of what the concept is as a result of community engagement being subject to individual contexts of universities. Acknowledging that different universities define community engagement in different ways, Slamat (2010:109,111-112) argues for a consensus around common or universal elements in practice which qualify for an initiative to be regarded as community engagement. This means that key characteristics that make community engagement what it is – a scholarly activity - must be present however it is defined or practiced in any institution.

7.2.2 Theme 2: Community engagement strategy

The theme of community engagement strategy depicts how universities of technology interface with their external communities to achieve their engagement goals. This is the pattern of activities implemented by the institutions in pursuing collaborative interactions in a way that ensures the mutual goals of community engagement are achieved (Bowen, Newenham-Kahindi and Herremans, 2010:297).

7.2.2.1 Sub-theme 2a: Context and focus area

The sub-theme of context examines factors that determine the setting for community engagement in each university of technology in order to gain an understanding of the nature of community engagement in the institution. In addition, the sub-theme of focus area identified the focus areas in which community engagement activities in universities of technology may be domiciled. The following responses indicated what the context and focus of community engagement in the institutions is:

> *"One of our niche areas is technology and innovation because I'm not sure if you're aware (UoT2) is ISO-registered in whatever we do…We're very big in technology… Sometimes our lecturers are hired out as private consultants but they are sometimes hired out by companies like Woolworths... The university focuses a lot on engagement space and specifically looking at the innovation space. The innovation and the entrepreneurship space, we're trying to push entrepreneurship and integration."* (Interview with Senior Manager, UoT2 Community Engagement Office, 2019)

> *"I would say even from my observation I would say it has always been technically focused though I won't say that is the niche or focus area."* (Interview with Community Engagement Practitioner, UoT3 Community Engagement Office, 2018)

> *Community engagement at UoT4 is aligned with the university's mission of social redress. Therefore, the practice of community engagement focuses on giving expression to one of the institution's strategic goals, which is to contribute to the socio-economic development of historically disadvantaged communities* (MUT, 2017:4)

> *In UoT6, community engagement is positioned as an area of focus in the conceptual framework for the establishment of the university's Science and Technology Park which is one of its flagship projects. The location of community engagement within the science and technology space is to further enhance the university's community engagement work as a university of technology* (VUT, 2018:50)

In terms of UoT1 and UoT 5, there was no data to specify a specific focus in their community engagement. However, information from websites show close engagement with industry. The differences in the UoTs' community engagement contexts and focus is revealed in differences in how the institutions project their involvement with the wider community. For several of the UoTs, their history as technikons still plays a major influence in the nature of their community engagement. The origins of universities of technology in South Africa as technikons meant that their engagement has traditionally had an industry-focus. Through different forms of engagement, there has always been close alignment to industry and business demands. Engagement with these sectors of the community is often through development of technology, innovation, entrepreneurship as is observed with UoT1, UoT2, UoT3, UoT5, UoT6. However, environmental factors such as social factors, politico-legal factors and transformation of the institutions themselves could be an explanation for extending their community engagement into different sections of society. UoT4 community engagement context and focus is different from the rest as it has to do with rural development, a major influence from the institution's history and geographical location.

The research data supports literature in that community engagement in higher education is highly contextual as there are factors that influence, define and shape universities' representation of community engagement (Van Schalkwyk, 2015:211). Benneworth *et al* (2013:100) comment that university-community engagement often happens in a broader context where there are multiple rationalities underpinning the activities being undertaken. The context in which community engagement is practiced in a university is key as indicated in the responses above. Also, it is relevant because the histories, goals and missions, among others, of universities influence the individual character, culture and context that each institution possesses.

7.2.2.2 Sub-theme 2b: Forms of community engagement

The sub-theme identified the manner in which community engagement is practiced in universities of technology. The results obtained from strategic documents and websites of the institutions indicate that all universities of technology engage in different forms of community engagement through various projects. Table 7.3 outlines forms of community engagement available in the institutions under study.

Table 7.3 Forms of community engagement

	UoT1	UoT2	UoT3	UoT4	UoT5	UoT6
Service learning (SL)	√	√	√		√	√
Work Integrated Learning (WIL)	√	√	√		√	√
Community-based research	√	√	√	√	√	√
Cooperative education	√	√	√		√	√
Community outreach	√	√	√	√	√	√
Volunteerism	√	√	√	√	√	√
Community development				√		
Technology transfer	√	√	√		√	√

Table 7.3 shows that there is a conceptual continuum of the forms of community engagement available in the universities of technology. It concurs with Van Schalkwyk (2015:205) and Favish and Simpson (2016:265) who have the opinion that different higher education institutions and their stakeholders interpret community engagement in diverse ways. Service learning remains the main method of operationalizing community engagement in universities of technology in South Africa. This is reasonable because, as Lazarus *et al* (2008:64) and O'Brien (2009:32) point out, many higher education institutions focused on using service learning as a starting point for the implementation of community engagement in response to its incorporation in higher education policy by the Department of Education. Considering the fundamental place of teaching and learning in all higher education institutions in South Africa, service learning, a practice-based experiential learning process in community contexts (Preece, 2013b:273; De Lange, 2012:97), provided an accessible route to establish community engagement.

In addition to identifying the forms of community engagement practiced by the universities of technology, this study did an overview of some of the various projects undertaken in the institutions for the purpose stated as community engagement. The projects are described in different categories presented as follows: projects providing primary health care services to the community (see Table 7.4), projects for tuition and education support to schools and youth development (see Table 7.5), projects in skills training, development and empowerment (see

Table 7.6), projects in technology and innovation (see Table 7.7), projects promoting entrepreneurship and business incubation (see Table 7.8), projects in tourism, environmental sustainability and nature conservation (see Table 7.9), projects in agriculture and food security (see Table 7.10), and projects for community upliftment and outreach (see Table 7.11). **The tables are attached in Appendix No.18**.

The projects identified fall under the different forms of community engagement discussed in Chapter 4 of this dissertation. This study noted that in practice some of the projects are linked to others, cutting across more than one category. However, the researcher has attempted to categorize the projects as accurately as possible. It is important to state that the tabulated lists of projects are by no means exhaustive of all community engagement projects undertaken in the universities of technology. The study worked with data that was obtainable. The projects identified were obtained from documents (community engagement bulletins, research reports, annual reports, community engagement reports and newsletters) and websites of the institutions. An observation of many of the projects indicates a uni-directional approach - from the universities to the communities. A closer examination of projects showed that, on the basis of scholarly character and content, the projects can be broadly categorized using De Lange's (2012:96) four categorizations: outreach-oriented engagement or community interaction; discipline-focused engagement for provision of professional services; engagement through teaching and learning; and engagement through research.

The projects this research study considered to be outreach-oriented have no academic assessment or significance to them because student learning is not the objective of such projects. One of the implications of this conceptualization of community engagement is that it is a service to the community. The projects were initiated by academic disciplines/departments or the community engagement office of the university of technology to offer different services in under-served and disadvantaged communities to uplift the quality of life of the community members. Therefore, communities are just recipients from this type of uni-directional engagement with the university as the projects predominantly serve as an avenue for the institution to demonstrate social responsibility and interact with the social communities. Examples include Plant-Back community development project (UoT3 – Table 7.5), JICA Employment Improvement programme (UoT1 – Table 7.6). **The tables are attached in Appendix No.18).**

This study observed that there are some projects where discipline-specific expertise of the university of technology are engaged in a professional capacity to address specific problems or attend to particular issues in the society. The objective being to leverage the specialist knowledge domiciled in academic departments to develop solutions for practical applications in different spheres of society. This study found that such projects involved collaboration and partnerships with broad range of members of the external community such as government departments and agencies at different levels, public and private enterprises in industry, other higher education institutions, non-governmental organizations and members of the public. These projects are mutually beneficial collaborations, and involve technology development and transfer, innovation, entrepreneurship, consultancy services, training and development, among others. Some examples are EnergyDRIVE project (UoT3 – Table 7.7), Umhlabeni informal settlement greywater reuse and recycling (UoT4 – Table 7.9), AGILE42 software development and training programme (UoT5 – Table 7.6) (**see tables in Appendix No.18**).

Some of the community engagement projects are incorporated into the curriculum so that teaching and learning takes place in and with the community. Examples include Strongbow project (UoT2 – Table 7.6), Jonathan North West Cooperative Farming project (UoT5 – Table 7.10), Homeopathic community engagement integrated service and learning (UoT3 – Table 7.4) (**see** t**ables in Appendix No.18**). Some projects are non-credit bearing (skills training and development, empowerment workshops), while some others are credit-bearing and used for purposes which include service learning, work-integrated-learning, cooperative education, and clinical practicals. Bender (2008b:1154) notes how some universities have merely renamed practices like these which are already in place as community engagement. This research inquiry did not seek out to determine if the projects were already in existence or were initiated to serve a community engagement purpose. The credit-bearing projects are linked to subjects or courses which afford students and academic staff the space to engage in curriculum-related teaching and learning where the characteristics of community engagement are present.

These characteristics are stated by Fitzgerald *et al* (2012:13) as scholarliness; integration of engagement with teaching and research; social justice; and mutuality and reciprocity in bi-directional flow of knowledge and resources. In addition to enriching the teaching and learning experience, this category of engagement projects develop collaborative, creative and civic skills in students which contribute to their to social awareness, responsibility, and ability to engage with diverse communities (Fitzgerald *et al*, 2017:40). The projects facilitate university-

community links as the community benefits through service provided to address identified needs (D'Arlach, Sanchez and Feuer, 2009:5).

Finally, some projects are used to further scholarship through research. The projects are used to pursue different means of knowledge production that are embedded within communities. An example is the energy-saving manual household soy food-processing equipment (UoT6 – Table 7.7) (**see Appendix No.18**). Therefore, these research projects are usually not located within the physical bounds of the universities of technology but in settings outside and in the location where knowledge is being sought. Academics and students work collaboratively alongside the community as well as other external stakeholders who may be involved. Because these projects are concerned with interrogating specific issues or problems in the community, the emanating research is of an applied nature where participatory epistemology translates students and community members from being "knowledge consumers and research subjects to knowledge producers and collaborators in knowledge production and problem solving (Saltmarsh, 2017:5). There is a mutually beneficial exchange of knowledge and resources between university and community, where reciprocity is built into the partnership or collaboration.

In developing countries, the trend is to ensure greater community engagement working towards an "engaged university". A number of approaches have been used, including service training, volunteering, skills development and transfer with local entrepreneurs, and approaching local communities to jointly assess their daily challenges and propose pragmatic solutions. However, there is limited evidence of outcomes and impact evaluations to ascertain the benefits of the interventions to the beneficiaries.

7.2.3 Theme 3: Institutionalization of community engagement

The theme of institutionalization of community engagement looked at how community engagement is embedded in the structures of the universities of technology, and embraced as an organized practice in their primary activities by all internal stakeholders. The theme considered the extent to which community engagement is an institutional behaviour in the way each university has embraced and opted to operationalize it. Holland (2009:86) notes that determining the level of institutionalization is difficult partly "because the nature of community engagement itself challenges some of the traditional values and indicators of academic prestige and performance". Therefore, the sub-themes that emerged in this section are the different lenses through which institutionalization of community engagement was viewed.

7.2.3.1 Sub-theme 3a: Institutional structures

This sub-theme considered structures put in place in each university of technology to create the strategic support required for community engagement implementation and embedding in the fabric of the institution. Table 7.12 presents components which this study considered to be fundamental in providing strategic structure for community engagement in the institutions. The table is used to depict the presence or absence of the components in the universities of technology. Strategic visioning as an institutionalization factor is addressed in the items referring to "community engagement stated in institutional mission", "university has a stated community engagement goal", "university has a community engagement policy", and "university has community engagement framework". Although all UoTs do not have all 4 items, the availability of some of them reflects in the institutions' stance on community engagement. UoT1, UoT2 and UoT4 have in place. UoT3's community engagement policy and framework is in the drafting process while it remains unclear for UoT5 and UoT6.

Table 7.12 Strategic institutional structures for community engagement

	UoT1	UoT2	UoT3	UoT4	UoT5	UoT6
Community engagement stated in institutional mission		√	√	√	√	
University has a stated community engagement goal						
University has a community engagement policy	√	√	√	√	**	**
University has community engagement framework	-	√	-	√	**	**
University has an executive overseeing community engagement portfolio	√	√	√	√	√	√
University has an institutional coordinating office for community engagement with a head for the office	√	√	√	√	√	√
Staff are employed at the university's coordinating office for community engagement	√	√	√	√	**	√
Articulated plan for community engagement at faculty and/or departmental levels	**	√	**	√	√	√
There are faculty-based or departmental structures for operationalizing community engagement	**	√	**	√	√	√

** Could not be determined from obtained data

The presence of these factors of strategic visioning enable the universities of technology conceptualize the place of community engagement first in the institution, and then how it is embedded in teaching and learning processes and research activities (Bernardo *et al*, 2014:113). The guiding principles for operationalizing community engagement emanate from these strategic elements to ensure the institution is not left to its own devices or the mercy of external stakeholders. Where they are absent, community engagement is sporadic and may not be as institutionalized as it should be.

Data shows that five of the institutions have a dedicated office or unit with staff employed to coordinate the university's community engagement function and activities. UoT5 does not have a dedicated unit but its community engagement is managed by its Advancement and Partnership Office. This study found that community engagement offices in all UoTs do not take the lead in originating community engagement ideas or projects. Rather, they provide guidelines to the university community on what the institution's principles of community engagement are and how they must reflect in the projects and activities conducted by staff and students. Other roles the office plays includes managing registration and functioning of projects; sourcing funding for community engagement work, and identifying strategic partnerships with stakeholders where the university's expertise can be utilized to achieve community engagement goals. Some respondents in the study alluded to the community engagement offices being understaffed but this is discussed more in the relevant sub-themes later in this chapter.

The leadership component is addressed in the items referring to "university has an executive overseeing community engagement portfolio", and "university has an institutional coordinating office for community engagement with a head for the office". In the universities of technology, community engagement is accommodated under the office of the Deputy Vice-Chancellor, Teaching and Learning (UoT1); Deputy Vice-Chancellor, Research, Innovation and Engagement (UoT2, UoT3, UoT4, UoT5); Deputy Vice-Chancellor, Research, Innovation, Commercialisation and Internationalisation (UoT6). In addition, the community engagement offices are headed by a senior manager or director. UoT1 stands out as the only university where the community engagement function is housed under the teaching and learning portfolio, which explains the evidently strong focus the institution has on using service learning, work-integrated learning and cooperative education as its main platforms for operationalizing community engagement (CPUT, 2018a:63).

The study found that the leadership of the portfolio under which community engagement exists drives the institutional agenda of community engagement. Furthermore, the establishment of coordinating structures creates opportunities for leadership to be dispersed across activity levels to advance community engagement (Sandmann and Plater, 2009:14). Leadership structures confer a sense of permanence on community engagement, and although leadership changes occur, there is a reduced risk of negative impact of such transition if coordinating structures are in place (Holland, 2009:89).

The items "articulated plan for community engagement at faculty and/or departmental levels", and "there are faculty-based or departmental structures for operationalizing community engagement" speak to the operational approach, that is, how the university's community engagement vision and mandate is decanted to faculty and departmental levels. To achieve this universities of technology such as UoT4, U0T6 and to some extent UoT5 adopted a flagship approach. In MUT (2017:5), UoT4 explains the adoption of the flagship approach as having been developed to streamline community engagement, increase coordination and reduce overlap because all community engagement projects must be aligned with the faculty flagships. UoT6 states that community engagement in the institution has been adopted as a faculty flagship project (VUT, n.d.(b)), while in UoT5, some of its departments have taken a flagship approach to community engagement projects (TUT, n.d.(e)).

The adoption of a flagship method in UoT4, UoT6 and UoT5 firstly ensures that community engagement activities are aligned to the university's strategic priorities. This streamlines activities to achieve operational focus, and proper coordination so there is no fragmentation, duplication or overlap in efforts. A faculty flagship (or departmental flagship in the case of UoT5) approach to community engagement is to identify projects that provide the opportunity for staff and students to use inherent skills, knowledge and expertise within a faculty or department to best convey the tenets of engaged scholarship in a mutual learning project between the university and the community. The flagship approach fits into a "coordinated model" of community engagement which is described in Nampita and Preece (2012:107-108) as one that truly reflects the engagement ethos because it enables team work and inter-disciplinary collaboration of staff and students on projects. The coordinated model differs from the dispersed model where academics work individually on self-initiated projects following a community service approach. A flagship project enables multi-disciplinary engagement, teaching and learning and community-based research in and with the community in a manner that ensures two-way flow in knowledge development.

Flagships projects are deemed to contribute to sustainable community engagement because they create space for continued engagement with particular communities over extended period of time (Preece, 2013b:279); and have the likelihood and capacity to realize change and wider societal impact as a result of resources channeled in to them (Benneworth, 2013b:337). There is no indication from data that UoT1, UoT2 or UoT3 have adopted flagship methodology to operationalizing community engagement at faculty or departmental levels. Asides modules that have a service learning or work integrated learning component to them, community engagement activities are initiated by academic staff with interest and want to work with communities either from a teaching and learning perspective or research perspective.

7.2.3.2 Sub-theme 3b: Staff involvement

The sub-theme was to gauge the extent to which academics were involved in community engagement. Most of the responses suggest that lecturer interest and involvement in community engagement projects is low. Below are responses to a question about involvement of academics which was posed to some coordinators of community engagement projects in UoT2, UoT3 and UoT4:

> *"It's just me who works on the project in the department. I drive the project. It forms part of my teaching hours. As part of my teaching load I need to facilitate community engagement project. In the 1st year of the project, there was a lot of excitement and promise that there would be assistance here and there from other academics, but majorly this is driven just by me. I wouldn't say my colleagues have really shown interest in it. I can't speak for my colleagues on why they are not involved"* (Interview with UoT3 Lecturer A, 2018)

> *"Yes in the department there's no interest in community engagement on this level. I think you are inherently a community person or you are not. There are really people that have said to me, "I am not interested. Leave me, I'll lecture here, I'll do the practicals. I am not interested in getting involved". You have either got the passion for development of communities or you don't"* (Interview with UoT3 Lecturer B, 2018)

> *There are two other lecturers involved in the project with me, and there are no other community engagement projects in the faculty now. So, no, there is no interest in community engagement projects. There are many reasons why this is the situation. People have their own things to do. Some of my colleagues are not interested*. (Interview with UoT4 Lecturer, 2019).

In the one response that confirmed lecturer involvement, it was only because there was remuneration attached to their participation in the project.

> *So, how we implement our projects is that we get our lecturers. For instance, in the case of this specific unit, the lecturers from the Faculty of Humanities particularly Department of Teacher Education would be involved in training the teachers. Some of them get involved in giving workshops to the school learners because that is their forte. So, we do get our academics to get involved. They, academics, don't offer their services for free* (Interview with Project Coordinator in UoT2 Community Engagement Office, 2019)

A further look at the number of academics involved in projects listed in Tables 7.4 to 8.11 (see Appendix No.18) reflect the sentiments shared in the interview responses. Where the number of academics involved in a project is reportedly high, it is because they have been drawn from different disciplines. The findings correlate with assertions of scholars such as Malm *et al* (2013:25) and Fitzgerald (2012:101) that academic staff involvement in university-community engagement is still relatively low despite the fact that this higher education role cannot be achieved without the buy-in of academic staff (Furco, 2010:379). Research has found reasons for low participation figures among faculty (some of which are discussed in other sub-themes). Prominent among them is many still regard community engagement as a voluntary exercise and perhaps even an add-on to the university's functions (Jaeger, Jameson and Clayton, 2012:160). Singleton, Hirsch and Burack (1997:12) highlight the capacity of faculty to make connections between community engagement and their teaching and research roles as a contributing factor to making community engagement less of a marginal practice in higher education.

The study observes that the universities of technology are striving to move community engagement from being an individual's work to an institutional endeavour. The practical

realization of this requires transformation in how academic staff view and conduct their work which will create an expanded definition of scholarship that in itself influences their involvement in community engagement.

7.2.3.3 Sub-theme 3c: Integration with other academic functions

This sub-theme looked at how community engagement is integrated with teaching and learning, and research. The study found that in most of the universities of technology, teaching and learning, research, and community engagement are not equally prioritized nor do they each receive the same emphasis. To achieve this and for community engagement to succeed, it is widely agreed that this is dependent on integrating community engagement in the other two core academic activities which will strengthen them and at the same time elevate community engagement to the level of teaching and research (Benneworth *et al*, 2013:90; Pinheiro *et al*, 2015:229; Lazarus *et al*, 2008:69).

The responses below indicate how some of the community engagement projects are used to incorporate the engagement factor into the other academic roles.

> *"With us community engagement is curriculum-based…and we use a model for community engagement which we call a spin-in spin-out model. And, we got two focus areas that we work through which is education and development and we work through teaching. The spin-in is either through teaching, training. Teaching could be for instance your service learning, your WIL. And, then we have training which could be like short courses. Then, we have a skills development which again can be tantamount to short courses or it could be a specific skill. And, then we have research which we've said and we have certain activities which we expect the projects to tie in or ties up with the NDP and the SDG as well as the university's vision"* (Interview with Senior Manager in UoT2 Community Engagement Office, 2019).

> *The project is partly part of service learning and it is also a research project as this is my area of interest, and I do like doing this type of work. In terms of service learning at undergraduate level in our department, 1st and 2nd year students are required to do at least 2hrs of community engagement. At 1st year level, the project works more like a volunteer model where students are just giving of themselves. But at 2nd year level it*

is taken a notch higher where students interact with the community stakeholders in the project (Interview with UoT3 Lecturer A, 2018)

"The project is unique in the way that it is community engagement activity and it is integrated into a curriculum programme in our course. It is integrated into the Extended Curriculum Programme in their 2nd year and the activities that the students embark on is assessed and is monitored by the community engagement coordinator from the department. Apart from its integration with the academic curriculum, the project is linked to a departmental objective in terms of developing social responsibility within students, facilitating and fostering critical thinking as a citizen, we do this in a social justice paradigm. That is closely linked to the curriculum. Also, it is linked to theoretical curriculum that they do in the course on food and nutrition principles content of the course" (Interview with UoT3 Lecturer B, 2018)

"In terms of academic curriculum, students are required to do practicals in some of their modules. So this project is used as a practicals site for some of those modules, for example aspects such land use planning, planting and determination of yield, nutrition education are some of the aspects of these practicals. Students are assessed on this practicals with marks awarded. The project gives students the platform to integrate what they are learning in class with practical scenarios and they are able to disseminate knowledge to the community" (Interview with UoT4Lecturer, 2019)

Furthermore, in Tables 7.4 to 7.11(**see Appendix No. 18**) there are community engagement projects used to achieve engaged teaching and engaged research. This study's inference is that within the contexts of each university of technology there is integration of the engagement mission with teaching and learning. This study did not go to the length of determining the extent to which such integration has been taken because of inadequate data to make such determination. As institutions with an established mission of teaching and learning albeit directed towards supplying industry and the labour market with required skills, there is an expectation that much progress would have been made with incorporating community engagement into the teaching and learning mission. However, not all programmes in universities of technology have a community engagement component as one respondent states:

"There are programmes in this institution that do not include service learning hours in their WIL (Work-Integrated-Learning). So they only send students to an industry. Again, it's only skills development and professional development. That is where it stops" (Interview with UoT3 Lecturer B, 2018)

The response above subtly hints at the struggles of higher education institutions with agility and nimbleness, and the difficulty it seems they are having with fitting community engagement in their already-established teaching and learning structures. However, in terms of the research mission, applied research is synonymous with universities of technology (Du Pre, 2010:7,21; Van Staden, 2010:180). This applied research focus is seen in the community engagement research projects where the focus is on problem solving.

7.2.3.4 Sub-theme 3d: Challenges to institutionalization of community engagement

This sub-theme examined factors that were considered as barriers to institutionalizing community engagement.

i. Funding

The sub-theme of funding emerged out of the question regarding the nature of support that individual community engagement projects received from the universities. Though the question was broad in reference to support, responses received identified a lack of funding as a major challenge experienced on their projects, and this is expressed as follows:

*"There are financial challenges associated with costs of transport to get the students to the project site and back since students don't have their own transport. Nothing from the university. Absolutely nothing. No financial support. No administrative support because I'm the sole coordinator. The money that is used to get the students to the site comes from the Extended Curriculum Programme funding which is a DHET funding, it is not a university funding" (*Interview with UoT3 Lecturer B, 2018)

"There isn't any financial support particularly but the fact that community stakeholders are allowed to step into the university space, they are able to access a

*formal design environment, so in that sense the university provides some level of support for the project" (*Interview with UoT3 Lecturer A, 2018)

"When funding runs out we are not able to continue with projects, even if those projects are successful...I have to rely on our academics to implement, and when there is no funding you can't really get them to implement the project because they want to cost their services to the project. So if there is no funding, we really don't have anyone implementing the project. So it goes back to the issue of funding" (Interview with Project Coordinator in UoT2 Community Engagement Office, 2019)

*"Those that really do community engagement are those who get some funding support to carry out their projects. Doing any kind of project requires the finances for it and lecturers cannot be expected to pay for a project out of their own pockets... Funding issues affect the project because of the dire needs of the centre. Therefore the project doesn't have the resources to address the needs of the centre" (*Interview with UoT4 Lecturer, 2019)

Community engagement struggles to attract funding to the same degree as research and teaching due to the overarching issue that HEIs do not currently have an emphasis on community engagement (Erwin, Mosavel and Marks, 2015:218). Internal institutional funding for community engagement is quite minimal (that is, funding provided by the universities of technology). In some of the UoTs, financial support is in the form of monies attached to awards (Vice Chancellor's Awards), and in this sense, it does not cut across every community engagement project but the one that actually wins the award. Regular funding is essential to successful community engagement initiatives. The long term viability of community engagement relies on dedicated funding to support university-community engagement initiatives (Bender, 2008a:92).

ii. Staff attitudes towards community engagement

This sub-theme has to do with attitudes amongst academic staff which contribute to the challenges of embedding community engagement in the institutional fabric. Some of the interview responses identified attitudes that suggested that some academic staff have

misconceptions of community engagement as a lesser role in higher education, as a respondent indicates:

> *"Then with staff, you have some staff that are very clued up on the strategy and we have some who are not. We'll say even though you've been doing presentations to faculties and so forth, and people just have this attitude that community engagement is an add on. If the understanding of community engagement as a pillar, as a very important pillar, first and foremost it's not an add-on"* (Interview with Senior Manager in UoT2 Community Engagement Office, 2019)

> *"Because sometimes it's just an attitude from other members of staff that community engagement is not doing something great enough, I'm not the one that's bringing in all the millions, I'm not the one that's bringing in all the patents that I can brag about, this partnership and that partnership. These are some of the challenges we have"* (Interview with Senior Manager in UoT2 Community Engagement Office, 2019)

Another interview response attests to the attitude held by some academic staff that community engagement is not worthwhile:

> *"In addition, there is the challenge that because community engagement is seen as this foster child of UoTs, the challenge is to convince one's colleagues, other academics that this is a worthwhile project, you know. In my faculty for example, it is frowned upon that you work with the community. They regard it as "it's not proper research that you do", you know that kind of thing" (*Interview with UoT3 Lecturer B, 2018)

The attitudes indicated in the responses above depict persisting mind sets amongst lecturers about the nature of community engagement. Favish and Simpson (2016:264) reiterate the difficulty of changing such perspectives.

In some other cases, the attitudes of academic staff are reluctance, disinterest or lack of understanding of how community engagement fits into their current work, as some of the respondents puts it:

Quite often the technology space is not really much working with community engagement office. Sometimes, and I'm going use this very deliberately, engineers cannot see how to translate the technology into a community project because they have this idea that community engagement is "collecting school shoes". (Interview with Senior Manager in UoT2 Community Engagement Office, 2019)

I am concerned that there are academics who say they are not interested in community engagement. Academia is about creating knowledge that helps or advances society, and society is made up of people. You need to know that ultimately what you are doing is for the good of the society. For example, in creating a light bulb the inventor's drive is to create light not only for himself but for the whole world. If you are driven as an academic, community engagement has to be important to you (Interview with Community Engagement Practitioner in UoT3 Community Engagement Office, 2018)

According to O'Meara (2008:28) the kinds of attitudes above towards community engagement is attributable to a lack of creativity among academics. The author points to academics' lack of imaginative capacity in connecting disciplinary scholarship to community purposes, and how to integrate their teaching and research activities with community engagement in an applied, problem-solving context. When an academic is able to merge community engagement into what they are already doing, there will be no need to look for separate time for community engagement because it is already interwoven into existing academic work, be it teaching or research. A lack of creativity and innovation means an inability of academics to make the transformation from traditional scholars to engaged scholars.

In connection to this, a respondent raises debate around the type of academics a university of technology needs in light of changes in the role of universities in a developmental state such as South Africa. The respondent states:

"I think this has to do with transformation as well which is the broader issue that universities need to look at. What kind of staff or academics does a transformed university need to have? Part of transforming universities is to make sure the right kind of staff, of academics who are passionate meaning maybe conscious about how their academic work impacts the society and people. All academics must have

a consciousness of community engagement" (Interview with Community Engagement Practitioner in UoT3 Community Engagement Office, 2018)

O'Meara (2008:28) further suggests that the type of academics required in universities where community engagement will thrive and become entrenched in their structures are committed professionals who possess the dispositions, orientations, investment, and socialization toward community engagement. Embeddedness requires having adequate members of the institution who consider community engagement a valid university mission (Benneworth *et al,* 2013: 92). A major factor affecting staff attitudes towards community engagement is competing priorities impacting academic workloads (Favish and Simpson, 2016:264) as some responses reflect that there is a struggle to accommodate community engagement into an already-packed workload:

*I get a sense that people always complain about being overworked, you have to teach, you have to read and follow policies, there are meetings you have to attend, there are all these responsibilities you have to attend to, so would you want to add community engagement to the mix especially when it has no bearing on promotion and performance. I will be honest, there are moments when I've felt it was too much now and if I could let anything go it would be my community engagement responsibilities. But it is part of my teaching load so there is nothing I can do about it and more than that I enjoy what I'm doing with community engagement (*Interview with UoT3 Lecturer A, 2018)

*In terms of challenges, time is an issue for me, time for me to continuously work on this partnership. The second thing is very often academics are so snowed under with academic administrative work so there is no extra time to dedicate to a community engagement project (*Interview with UoT3 Lecturer B, 2018)

People have their own things to do. Some of my colleagues are not interested. All of us are overloaded with our teaching and the admin work related to it. Some of us are doing research such as PhD studies and other kinds of research to do with publishing articles and the like. So, the community engagement is extra work that they can't add to their schedule. Yes, as a lecturer, it is expected that you do

*community engagement. But it is not a compulsory thing (*Interview with UoT4 Lecturer, 2019)

The study's results also confirm that the rigid separation of academic disciplines tends to make academics not to look beyond their knowledge domains thereby creating inward-looking silos. Thus, another kind of attitude posing a challenge to broad institutionalization of community engagement in universities is territorialism and isolating tendencies that continue to perpetuate silo-thinking within departmental sub-units. One respondent states:

"One of the things I will say again about barriers to community engagement is that people are very territorial" (Interview with Senior Manager in UoT2 Community Engagement Office, 2019)

The prevailing research paradigm as we know it prescribes that the principal objective of undertaking research is the advancement of knowledge within disciplines (Strand *et al*, 2003a:14). Furthermore, the archetype to develop academic professionals in higher education is characteristically individualized in nature (Clifford and Petrescu, 2012:87)). Krajewski, Wiencek, Clifford *et al* (2003:104) argue that this model advances development of specialized knowledge because it "rewards research far more than teaching or service to the detriment of multidisciplinary 'sense making'". The disconnect between many academic disciplines does not do much towards facilitating sufficient inter-, multi- and trans-disciplinary collaborations across teaching and research which community engaged scholarship can benefit from (Pinheiro and Stensaker, 2014:501). If universities will make impact on the world outside their walls, academics will have to break out of the mold of departmental silos. Because the challenges in human society are very complex with no simple, one-sided solutions, universities have to adjust their institutional thinking about how knowledge is generated to take full advantage of possibilities in community engagement to develop practical solutions that effect change in society.

iii. Promotion criteria and reward systems for community engagement

The sub-theme emerged in response to how academic staff's community engagement work is acknowledged and valued. Though there is some recognition of community engagement in form of awards in some institutions, most of responses indicated that community engagement

efforts are not rewarded in promotions in the same way as research outputs as the following respondents have expressed:

> *"In terms of performance management, you don't get promotion for doing community engagement. You get a promotion for your research output, when you get your doctorate, when you publish and so on. So, how do you think a lecturer will do community engagement?" (*Interview with UoT4 Lecturer, 2019)

> *"Also, the fact that there is very little recognition for the work being done in this project and this is because community engagement is not formalized in the university" (*Interview with UoT3 Lecturer B, 2018)

> *"Then again we also have lecturers who say I would rather write an article because I'd get so much of money coming in and the university gives so much of money. The university also pushes a lot of article writing…We also have a Vice Chancellor's award, an excellence award for community engagement. I think faculties also have their own community engagement awards"* (Interview with Senior Manager in UoT2 Community Engagement Office, 2019)

> *"At the end of 2016 the university began staff awards for different tracks of performance, one of which is engagement. We were able to present how the project we had done for the year contributes to the engagement track...But in terms of community engagement being a criteria in performance management and for promotion, not that I know of. And it is sad because it reflects an undervaluing of lessons that can be learned through community engagement"* (Interview with UoT3 Lecturer A, 2018)

Rewards for community engagement in the responses reflect what is obtainable in literature about community engagement not enjoying the same status as research and teaching and learning. Despite being regarded as a core pillar of higher education, the understanding and implementation of community engagement say differently. Reward structures are not adequately responsive to community engagement outputs as it carries little weight where traditional standards for promotion and merit evaluations are concerned (Strand *et al*, 2003a:217,218). Research performance is evaluated in terms of number of scholarly

publications while student evaluations are used to qualify teaching performance. Aligning engagement in a way that helps faculty earn promotion and tenure is an issue that must be resolved (Sandmann, 2006:46), as a respondent states:

> *As far as we monitor and evaluate academics on their research and teaching functions, same must be done for their community engagement activities. In my opinion, community engagement must carry the same weight as the other two. If we are serious about transformation we must support what we want to happen in higher education. We cannot say academics need to do community engagement and not properly recognize and reward the work that they do. There is a need to attach the same level of importance to community engagement as is done to teaching and research* (Interview with Community Engagement Practitioner in UoT3 Community Engagement Office, 2018)

Singleton, Hirsch and Burack (1997:12) noted that faculty staff will only commit to community engagement if it has academic value and contributes to their work and career. They ascribe this attitude to limited resources which do not afford academics the luxury of engaging in endeavours that do not translate to tangible rewards. If rewards for community engagement outputs are not distinct or not on equal footing with research and teaching, if clearly articulated incentives are lacking, it will remain a challenge to embed an institutional orientation of community engagement (Saltmarsh, 2017:8). Therefore, there must be clear definition of how community engagement work is recognized and rewarded.

7.2.4 Theme 4: Monitoring and evaluation of community engagement

This theme examined the task of monitoring and evaluation in the management of community engagement in universities of technology. The theme considered the monitoring and evaluation from two aspects. One was monitoring and evaluation of community engagement involvement by academic staff, and the second is mechanisms engaged by the universities in monitoring and evaluating community engagement projects.

7.2.4.1 Sub-theme 4a: Mechanisms of monitoring and evaluation

All respondents were in agreement that there is the need for monitoring and evaluation to be a key component in the management of community engagement. Monitoring and evaluation places a focus on goals and progress made towards their realization in the course of activities in the projects (Singh, Chandurkar and Dutt, 2017:27, 28) as a respondent in UoT3 stated:

> *We still need to convince the university community that this is valid and that there are valuable learning opportunities in it for students. In our process of convincing others, we need to produce comprehensive evidence of results that these are our objectives and this is what we are delivering with our community engagement activities (*Interview with UoT3 Lecturer A, 2018)

When asked if there is a formalized process for monitoring and evaluation of community engagement projects in the universities, only one response was in the affirmative. The respondent explained that monitoring and evaluation of projects is mandatory in the institution:

> *"Yes, the community engagement department does require that we do monitoring and evaluation. I do perform monitoring and evaluation. Quarterly we should have reports. Preparation of quarterly reports involve having follow up meetings to review what has happened in the project for the period" (*Interview with UoT4 Lecturer, 2019)

The respondent further confirmed that UoT4 has a monitoring and evaluation tool in place which is used to assess projects' performance:

> *"Yes, they do* provide *support for you so that the monitoring and evaluation can be done. They have the monitoring tools which we have to apply on our project to give them the information they need from us. We need to implement the tool for our project" (*Interview with UoT4 Lecturer, 2019)

For respondents who answered in the negative, indicating that their institutions did not mandate them to conduct monitoring and evaluation on the community engagement projects, they stated that where monitoring and evaluation was being done, it is a self-initiated activity to keep abreast of progress made on the project in achieving its objectives.

*"No, there is no formal directive from either the department or faculty that you have to carry out monitoring and evaluation on the project. However I do give feedback at Advisory Boards which will require some monitoring and evaluation but that's about it. We don't perform it as a set-in-stone, "written-in-policy" thing. It has organically developed as we were doing the project. Monitoring is along the way, we have meetings with our partners for quick report-backs" (*Interview with UoT3 Lecturer B, 2018)

*"No, the university, faculty or department does not require that I do monitoring and evaluation on this project, not that I know of. However, we do need to have an evidence file of all activities that are happening in the department. So the HOD advised me that I do need to report on community engagement activities that were happening in the year and that needs to go into the evidence file. I do monitoring and evaluation on the project but it is yet to be formalized" (*Interview with UoT3 Lecturer A, 2018)

"No. I would say no. Except if it is a servicing learning, they do the rubric, they monitor that way. There is no formal framework in place for monitoring and evaluation of community engagement at the university. And then our template has also got a monitoring and evaluation part to it. Our template when you register your project. And we expect them to report the quarterly progress at the Faculty board meeting and community engagement should be tabled there properly. But the templates have not been used effectively. A lot of lecturers misunderstand that aspect. We will like to have something more formal that can be implemented that is user-friendly for monitoring and evaluation" (Interview with Senior Manager in UoT2 Community Engagement Office, 2019).

The above responses align with assertions by Hart and Northmore (2011:36) that institutional focus on monitoring and evaluation is largely missing in university–community engagement. There seems to be no interest in knowing what is being achieved through community engagement initiatives. A lack of attention to results can suggest that the activity itself may not be considered important or necessary. Hoy and Johnson (2013:275) make a case for monitoring and evaluation stating that it creates an institutional orientation towards outcomes and impact, and supports the design of evidence-based initiatives which can assist in developing a model

for best practices. In addition, the responses obtained in the study indicate the use of monitoring and evaluation tools, most of which are informally devised by project leaders to serve the purpose on those specific projects. In the university where there is a formal monitoring and evaluation with the use of standardized instruments such as questionnaires and rubrics (in the case of projects that are service learning programmes), it has been devised by the institution through its community engagement office.

The inference reached by this study is that monitoring and evaluation of community engagement projects is ongoing in universities of technology although most of it is informally done with improvised instruments and methods which differ from institution to institution. Also, there is a variety of methods used to do monitoring and evaluation of projects due to different contexts in which the projects take place. This does not take away from the evaluation efforts. Bartkowiak-Théron (2015:95) uses the example of ethnographic studies to justify why differences in the settings in which university-community engagement occurs should not be a problem for its evaluation.

7.2.4.2 Sub-theme 4b: Focus of monitoring and evaluation

The sub-theme considered what the focus of monitoring and evaluation practices were in the projects. A number of responses indicated that monitoring and evaluation did not only put emphasis on the implementation process of the project but also on outputs, and effects those outputs have on stakeholders or participants in the projects. Some of the responses in this regard state as follows:

> *"A part from recipes and menus, we also monitor for example, the interaction of the students with the partners, how did that go, were they professional, were their actions acceptable. We also monitor the knowledge that has been developed throughout the process. So students must do a pre- and post- test of this is what we planned to do, this is the nutrition knowledge prior to the intervention, that's the nutrition knowledge after the intervention. So if we do menus, we do menu evaluations. If we do recipes, we recipe evaluations. Some of these evaluations, the tests, are quite formal where others happen in discussions" (*Interview with UoT3 Lecturer B, 2018)

*"At the end of a session I usually try to measure the experiences of community engagement for my students as well as get input from them about the outputs of the project that is the product that would have been designed at that time. I use interviews, group discussions and this happens immediately at the end of a project. From a community stakeholder point of view, I also conducted interviews with ladies who were part of the project to be able to assess the impact. This involved home visits and discussions to see where they were at" (*Interview with UoT3 Lecturer A, 2018)

"I will offer information on two ways that we conduct our monitoring and evaluation. The first is in terms of results, learner performance. We get them to write a pre-assessment to see and gauge the level of performance in certain areas of the curriculum, and a post-assessment to track the progress that was achieved by the project at that time. The other way is that we have a committee that is primarily mandated to conduct monitoring and evaluation. So they have come up with a monitoring and evaluation instrument based on the project that is involved at that time, and they will use that instrument to measure the impact of the project" (Interview with Project Coordinator in UoT2 Community Engagement Office, 2019)

The responses show that the focus of monitoring and evaluation in the projects include specific outputs (products, experiments, recipes, menus, student participation, participation by community members, learner participation), and specific outcomes (improved learner performance, improved skills in community participants, improved knowledge and skills of students). Except for one project it was not evident from the respondents if long term impact was an intent of monitoring and evaluation that was done. A respondent was upfront and spoke about monitoring and evaluation being focused more on the university's aspect of involvement while change in the experiences of the population being engaged with has not been fully included as can be noted in the response below:

"I evaluate the actual production outputs from what was planted. We use the project to conduct experiments such as intercropping, so we review the outcomes of those experiments. We use assessments to evaluate students' performance on the project, assessing their knowledge and skill. We also evaluate their engagement with community participants in the project. We look at the outcomes of the project

on the elderly and staff of the centre. But I must be honest and say we don't look at this aspect very regularly. The focus of our reviews is more from our side that is the university side, students, project implementation. We haven't done a lot on the actual population, we still have a lot to do on this project" (Interview with UoT4 Lecturer, 2019)

The absence of feedback from the community involved reveals an exclusion of participatory element which can make monitoring and evaluation more robust. It indicates that project participants from the community or beneficiaries are usually involved in data collection but are least likely to participate in evaluating. This is one of the main criticisms of traditional monitoring and evaluation where community stakeholders or participants who are project beneficiaries are often excluded from the process (Tewolde, 2018:24).

This study raises the issue of monitoring and evaluation protocols being focused on impact assessment because the university-community engagement is about bringing about change that makes societal impact. Using some of the examples from the projects analysed in this study, long term impact would include among others food security, improved nutrition in children and youths leading to better growth and development, improved matriculation results among learners, improved livelihoods from earning an income from skills acquired.

Hence, it is unclear if monitoring and engagement is geared towards assessing if impact has been made. Saltmarsh (2017:7) explains that monitoring and evaluations must involve assessing the impact of community engagement on relevant stakeholders; identifying and assessing student learning outcomes in curricular engagement; and providing ongoing feedback mechanisms with external stakeholders.

7.2.4.3 Sub-theme 4c: Challenges associated with monitoring and evaluation

This study deduces from responses obtained that there are a number of factors that pose challenges to monitoring and evaluation in university-community engagement.

i. Assessment criteria for community engagement

Some respondents made a critical observation that asides the fact that community engagement is not rewarded on the same scale as research and teaching, the metrics for its evaluation is also

not clear where academic staff performance is concerned. Specifically, what this means is that it is not clear how staff who engage in community engagement are assessed in performance management. According to the two respondents from UoT2 and UoT3, they state that:

> *"Our performance agreement for an academic hasn't got measurements in place for community engagement. I can get a convenient score as an academic, which is 3, by collecting one pair of school shoes. My HOD or whatever doesn't even have to know about it. All I have to do is to mention it, it can even be a relative that I'm giving a pair of shoes to and have a group of children take a photograph and I show it and that I can get a pass mark if I can use the word. A pass score. Our score card for academics is not geared enough… There's no measurement again in place in terms of "I should've done this kind of project or whatever"* (Interview with Senior Manager in UoT2 Community Engagement Office, 2019)

> *"It is simply because community engagement has not received the kind of focus and attention received by teaching and research where there are time-tested and established monitoring and evaluation mechanisms. Not much work has been put into developing a way of evaluating community engagement, and this is evident in performance management systems used to assess academics' performance"* (Interview with Community Engagement Practitioner in UoT3 Community Engagement Office, 2018)

Given the experiences of these respondents in their institutions, in contrast to teaching and research, there are no codes, indicators or measures with which to assess the quality of community engagement or gauge outcomes. It is a problem that is widely acknowledged in literature. Bartkowiak-Théron (2015:85) notes that whereas student evaluations and number of publications gauge academics' teaching and research performance respectively, there are no specific indicators with which to assess engagement activities. This is attributable to what Hall (2010:36) considers as difficulty of determining what is to be measured in community engagement. However, this study is of the stance that a starting point is determining if an academic's community engagement activities is linked to teaching and learning or research, then further criteria can be developed. Saltmarsh (2017:8) advocates for setting relevant criteria that defines and evaluates what is acceptable to be scholarly community engagement methodologies and outputs.

ii. Resources to perform monitoring and evaluation

The responses around this factor had to do with skills, in terms of technical know-how, to carry out monitoring and evaluation. According to one respondent, academics running projects need technical assistance on performing monitoring and evaluation:

> *"The personnel from the community engagement department must also assist with monitoring and evaluation. I say this because the academic running the project may not have the skills to do proper monitoring and evaluation. Competent staff from the community engagement department should be available to cooperate with project leaders to do the monitoring and evaluation. This helps to ensure that the process is not too much for the academic to handle and that it is done on time and properly" (*Interview with UoT4 Lecturer, 2019)

Resources also have to do with staff numbers in the community engagement office to manage the process of monitoring and evaluation in the university. There were respondents who commented on understaffing issues in the university community engagement office which affect its capacity to conduct monitoring and evaluation functions for projects in the institution:

> *"I think the other thing is that we don't have enough staff to be running around doing all those kind of things for monitoring and evaluation. We do have an electronic database which I set up many years ago but they haven't been using it. You know, change of managers, merging with different units. We are revising that. The challenges is that it is tough, may be time constraints. But I understand the need to have monitoring and evaluation, to have proper projects in place" (Interview with Senior Manager in UoT2 Community Engagement Office, 2019)*

Kusek and Rist (2004:21,22) explain that institutional capacity to develop and maintain an efficient monitoring and evaluation system requires personnel with experience, skill and technical abilities to produce reliable, timely, and relevant information on project performance. Presence of said capacity will assist to equip academics who are project leaders with competencies to carry out monitoring and evaluation on their projects. If universities of technology in South Africa lack such capacity then monitoring and evaluation of community engagement projects will continue to take the back seat.

Furthermore, successful monitoring and evaluation systems depend on supply of quality, reliable and appropriate information (Mackay, 2012:26), which in itself contributes to improving transparency and accountability. Unavailability of required information impedes monitoring and evaluation as one respondent noted that there are instances where there is unwillingness to share information about projects:

> *"With project leaders even though sometimes it is within our control to monitor and evaluate our projects, project leaders are not always necessarily willing to share information about the progress of their projects. So they look at monitoring and evaluation as a burden so there isn't much willingness to provide information in terms of the monitoring" (*Interview with Project Coordinator in UoT2 Community Engagement Office, 2019)

iii. Lack of focus on outcomes of community engagement projects

A respondent stated that apart from the university not making monitoring and evaluation compulsory, some external stakeholders such as funders and participants did not make it obligatory for monitoring and evaluation be carried out on community engagement projects. In the respondent's words:

> *"I also feel like donors don't really enforce monitoring and evaluation. When they give funding even though on their contracts they will say "we want results" and so on, but when those results are not forthcoming they don't really enforce that requirement of monitoring and evaluation on project leaders...You would think that because why else would you continue funding a project when you are not getting results or seeing the impacts. It seems to me as though it's just a matter of they disburse the money and they don't care what happens to it" (*Interview with Project Coordinator in UoT2 Community Engagement Office, 2019)

This situation could be because monitoring and evaluation strategies are yet to fully be incorporated into most community engagement activities in the universities of technology. External stakeholders wield some level of influence in engagement collaborations and should be able to hold drivers of projects to a level of accountability which monitoring and evaluation facilitates. Where this is not available, it suggests a lack of interest or indifference towards outcomes in community engagement projects. Also, monitoring and evaluation contributes to

organizational learning as it provides a picture of the effectiveness of engagement efforts, and assists to identify areas that can be improved on. Given the fact that most of the monitoring and evaluation described in this study are self-initiated and self-reported by project leaders with little or no request for performance information from the university. The scant level of interest demonstrated towards monitoring and evaluation in community engagement is a reason to raise inquiries about the effectiveness of engagement in higher education. The level of attention paid to higher order outcomes associated with community engagement raises the question of whether community engagement is more symbolic in universities of technology rather than substantive.

7.3 CHAPTER CONCLUSION

The purpose of this chapter was to present the research data obtained through semi-structured interviews and documentary analysis. The key themes identified in the data by a process of thematic content analysis were delineation of community engagement; community engagement strategy; institutionalization of community engagement; and monitoring and evaluation of community engagement. Several sub-themes under each of the main themes were analyzed and discussed accordingly. The next chapter is the concluding chapter of the dissertation.

CHAPTER EIGHT

CONCLUSIONS AND RECOMMENDATIONS OF THE RESEARCH STUDY

8.1 INTRODUCTION

The focus of the study was community engagement in higher education institutions in South Africa with the specific aim of exploring community engagement in universities of technology, and more importantly to examine monitoring and evaluation mechanisms of community engagement initiatives in this category of higher education institutions. In addition to the aforementioned, the study set out to gauge the extent to which community engagement is institutionally embedded in universities of technology wherein it is integrated into the other roles of teaching and research. The study conducted a literature review of higher education and the place of universities of technology in that sector in South Africa. Further review of literature was done with regard to community engagement in higher education and monitoring and evaluation as a management tool applicable in university-community engagement to provide a portfolio of evidence of what is being achieved.

Guided by a constructivist paradigm, the study used a qualitative approach to conduct an exploratory, cross-sectional case study inquiry of six universities of technology in South Africa. Using semi-structured interviews, data was obtained from a purposive sample of university officials who manage the institution's community engagement portfolio or office, and project managers of community engagement projects or programs. The sample provided information at the broad strategic level of institutional community engagement, as well as at operational level specific to individual community engagement projects. Also, the study sourced data from relevant documents such as university annual reports, strategy statements, institutional reports and newsletters, as well as websites. The data was analyzed using thematic content analysis. This involved defining codes through a process of reading and reflecting on transcribed text of interviews conducted. A core category of themes was developed from the list of thematic ideas that emerged from the initial coding process. The main themes were analyzed and discussed. In concluding the study, this chapter provides a summary of the research inquiry starting with a review discussion of how the research objectives have been achieved. The main findings of the research inquiry are discussed through a review of the research objectives. Several recommendations by the study are presented. Also included are contributions of the research findings to knowledge, limitations of the study, implications of findings to theory and practice, and suggestions for areas for further research.

8.2 REALIZATION OF RESEARCH OBJECTIVES

The purpose of this section is to establish the extent to which the objectives of the research study were achieved. This is deemed necessary on the premise that presenting how the inquiry has measured or tested what it intended establishes confidence in the findings outlined in chapter 7. Also, it lends to authentication of the findings as a factual depiction of the phenomenon being studied and has informed the conclusions reached and recommendations proposed.

i. Research objective 1: To examine the nature of community engagement in universities of technology in South Africa

The intention of the study in this objective was to analyze how community engagement was practiced in each institution, and how it exists as an academic function alongside teaching and research. This study found that there is context to the practice of community engagement in universities of technology in South Africa. The study found that for several of the universities of technology in the study, their historical origins as technikons still has a strong influence on how they practice community engagement owing to the fact that industry-focus and alignment to business demands is being maintained. The study noted that in five of the institutions, engagement with industry through development of technology, innovation and entrepreneurship still dominates their context of community engagement. While community engagement efforts are not limited to the industry sector, the universities of technology extend engagement into other sections of society, something this study attributes to compelling environmental factors such as socio-economic factors and transformation of the institutions themselves. The study noted the particular case of one university of technology where rural development set the dictates of its community engagement. Arising from that institution's history and geographical location, community engagement is conceived as a socio-economic response for the advancement of historically disadvantaged communities. This context and focus sets it apart from other universities of technology.

Furthermore, the study found that service learning and work integrated learning are significant methods of operationalizing community engagement in universities of technology in South Africa. Whilst a credible research culture is gradually gaining ground in the universities of technology, these institutions have always had a strong teaching and learning orientation. Therefore, it makes sense that service learning and work integrated learning which have an

experiential learning component in community contexts will be an accessible route to establish community engagement. Also, the study observed that many of the projects are still conducted using a uni-directional approach from the universities to the communities. Overall, this study concludes that the nature of community engagement in universities of technology in South Africa is highly contextual. The practice of community engagement in each university of technology is determined by varying influences such as institutional history, geographical location, institutional definition of community and community engagement, focus area, institutional vision and mission, academic mission, amongst others. This finding correlates with assertions by De Lange (2012:94) that engagement is a contextual activity which is dependent on many variables which contribute to each institution's unique positioning therefore there is "more than one legitimate kind of engagement which changes as contexts change" (pg.95). Therefore, the study achieved this objective.

ii. Research objective 2: To examine the extent to which community engagement is institutionalized in universities of technology in South Africa

The objective was to determine the level to which community engagement is fully incorporated into the core of the universities of technology and their academic functions. The study achieved this objective by using several dimensions derived from the data obtained to assess the institutions. In Chapter 7 of this dissertation (see Section 7.2.3), the following dimensions were used to examine institutionalization of community engagement: strategic visioning, leadership and coordinating offices, operational approach, staff involvement, integration with academic functions. These dimensions are established to some degree in the institutions as discussed in the analysis of data. This study infers that the organizational structure for the institutionalization of community engagement is in place. However, the actual practice of community engagement in terms of staff involvement, operational approach where the principles of community engagement are evident in activities and initiatives undertaken (be it in research or teaching) needs room for improved performance.

Additionally, this study draws attention to many diagrammatic illustrations in literature of the interaction between the three pillars of teaching and learning, research and community engagement. These diagrams often present the three academic roles as the same in size (see De Lange, 2012:100; Bringle and Hatcher, 2007:80; Bender, 2008b:1162; Lazarus *et al*, 2008:63). This study acknowledges that such representation may be convenient for the arguments

researchers are making. However, on the basis of findings of this research inquiry regarding extent of institutionalization of community engagement, such diagrammatic illustrations of equality of size is incorrect because the inaccurate assumptions that can be drawn is that teaching and learning, research and community engagement have the same weighting and receive the same level of priority in higher education institutions. This study finds that community engagement does not receive the same level of emphasis as teaching and learning and research in universities of technology in South Africa. Although the importance of community engagement and its place alongside research and teaching is often quoted in documents and other university communications, the reality in practice is different. In the universities of technology that were case studies for this inquiry, the actual emphasis or priority accorded to community engagement is less than that given to research and teaching.

iii. Research objective 3: To explore factors that impede institutionalization of community engagement in universities of technology in South Africa

The motivation for research objective 3 was to identify factors that still persist to inhibit or contribute to community engagement not becoming embedded in core structures and primary activities within the institutions (despite the presence of elements that contribute to the institutionalization of community engagement as indicated in research objective 2). The study achieved this objective, observing that the main factors impeding embeddedness of community engagement can be categorized as structural and behavioural factors. The study deems structural factors to be features within some of the universities' systems and processes which counter community engagement's institutionalization. Such structural factors include inadequate funding for community engagement; many community engagement projects are not mainstreamed into the curriculum; unequal weighting for community engagement for promotion and reward in performance management systems, competing priorities impacting academics' workload, and rigidity of academic disciplines which prevents cross- and interdisciplinary collaborations.

The factors considered to be behavioural pertain to the universities' organizational behaviour. These factors emanate from attitudes of key stakeholders within the university - academic staff. Attitudes such as disinterest and reluctance to be involved in community engagement, lack of appreciation for community engagement as a worthwhile and valid academic mission, inability to creatively connect academic work to community engagement, and unwillingness to traverse

departmental/disciplinary divides to engage in inter-, multi- or trans-disciplinary collaborations. Academic staff are vital in the institutionalization of community engagement, and demonstration of such attitudes negatively affect how community engagement develops into an institutionalized mainstream practice.

iv. Research objective 4: To examine how community engagement is monitored and evaluated in universities of technology in South Africa

The objective was to evaluate how monitoring and evaluation mechanisms are applied to community engagement initiatives. The study achieved this objective. The study found in only one university of technology that monitoring and evaluation is a requisite aspect of managing community engagement projects. The university in question has developed an instrument with which monitoring and evaluation is performed periodically on projects to assess performance and progress. In the other five universities of technology, community engagement projects are not presented for official monitoring and evaluation processes. What is obtainable in these scenarios are informal, self-initiated evaluations performed by project leaders to keep abreast of developments and progress made in achieving set objectives in the projects. Formally developed evaluation tools are not applied in conducting such informal assessments. In addition, in the institutions where community engagement is framed in a service learning mode, monitoring and evaluation takes place in line with assessments and evaluation done on such teaching programmes. From the data obtained, the study is not able to deduce the approach adopted towards monitoring and evaluation. However, the study found that there is hardly community participation in monitoring and evaluation of projects in both formally and informally conducted monitoring and evaluation. In the one university of technology where monitoring and evaluation is obligatory, the participatory aspect involving the community, though indicated on the tool, is not performed.

Summarily, this study found that monitoring and evaluation of community engagement projects occurs in universities of technology albeit informally in most of them with improvised approaches and methodologies which differ among projects and from institution to institution. Hence, monitoring and evaluation can be said to be an inconsistent practice in community engagement projects in universities of technology in South Africa. The consistency seen in measuring performance in research and teaching and learning is not applied to community engagement. Such inconsistency is evident in non-enforcement of monitoring and evaluation

as a practice in management of community engagement projects, lack of standardized monitoring and evaluation tools in majority of the institutions, and unequal weightings for community engagement in staff performance management. Therefore, it can be said that monitoring and evaluation of community engagement lacks depth in universities of technology in South Africa.

v. Research objective 5: To identify challenges of monitoring and evaluation of community engagement in universities of technology in South Africa;

The objective was to identify challenges associated with implementation of monitoring and evaluation systems for community engagement initiatives. The objective was achieved. The challenges include a lack of established evaluation criteria with which to assess community engagement as a scholarly activity amongst academic staff. Data obtained indicate that in the universities of technology, there are no defined parameters that can indicate to academics what constitutes community-engaged scholarship. The further effect of lack of evaluation criteria reflects in the weighting of community engagement in performance and promotions guidelines.

Other challenges around monitoring and evaluation are a lack of focus on outcomes of community engagement initiatives because if such a focus were in existence, then monitoring and evaluation systems will be in place. A university must take ownership of monitoring and evaluating its community engagement practice. If critical personnel in the institution do not envision a need for a monitoring and evaluation system, the challenge remains as to its implementation and embeddedness.

The study also found that a lack of resources in terms of technical skills set to perform monitoring and evaluation as well as understaffing issues in the community engagement office negatively affecting the process of monitoring and evaluation. The success of a useful monitoring and evaluation system requires necessary human and financial resources. A lack of competent skills and financial resources to manage and maintain the monitoring and evaluation system will render such a system ineffective even if it is in place.

8.3 RECOMMENDATIONS OF THE RESEARCH STUDY

The study makes the following propositions for the practice of community engagement and monitoring and evaluation of community engagement initiatives on the bases of findings which emerged from the research process, and summary conclusions reached.

8.3.1 Recommendation for the practice of community engagement in a university of technology

The conclusion with respect to the practice of community engagement in universities of technology in South Africa is that it is highly contextual and determined by various influences contributing to each institution's unique positioning on the phenomenon. Referencing principles from systems thinking, the study's recommendation for the practice of community engagement is a model for community engagement in a university of technology. Systems thinking examines the interactions between systems and subsystems and among the components of systems to show how such complex dynamism sustain the problem (McNall *et al*, 2015:3). Figure 8.1 shows how elements within the system of a university of technology as an engaged institution, are connected and interacting with one another, and with factors in the wider environment influencing the university of technology.

The model's proposition is that a UoT should mainstream community engagement such that engaged teaching and learning and engaged research form the core of the university's activities. Engaged scholarship should influence actions of participants within the UoT as well as other activities where its academic mandate is concerned. Systems thinking proposes that to realize considerable changes in the system as a whole, changes must be introduced within the interconnections between system elements (McNall et al, 2015:4). Therefore, this model suggests that a UoT should address relationships (or interactions) which different elements within the institution have with the concept of engaged scholarship. The UoT should define the value of community engagement to each component, that is, to show how community engagement matters to some level so as to improve interaction with the concept in a way that produces changed outcomes than what is currently experienced.

Institutional identity in the model is relevant as a construct of how a UoT perceives and describes itself. This is pertinent in view of identity ambiguities around what South African UoTs really are. The institutional identity of a UoT needs to reinforce the essence that distinguishes it from other academic institutions. Instead of blending into the homogeneity that threatens to characterize HEIs in South Africa, UoTs should be supported to upgrade what they

did best as technikons so they become centres of excellence in vocational training and development. This means that research and teaching and learning should be about applying knowledge and technology through an engaged, multi-disciplinary, practice-oriented mode with a focus on addressing real issues in society. In delineating institutional identity, the UoT's conceptualizations of community engagement should be clearly defined so academic disciplines are guided on how their engagement should transpire.

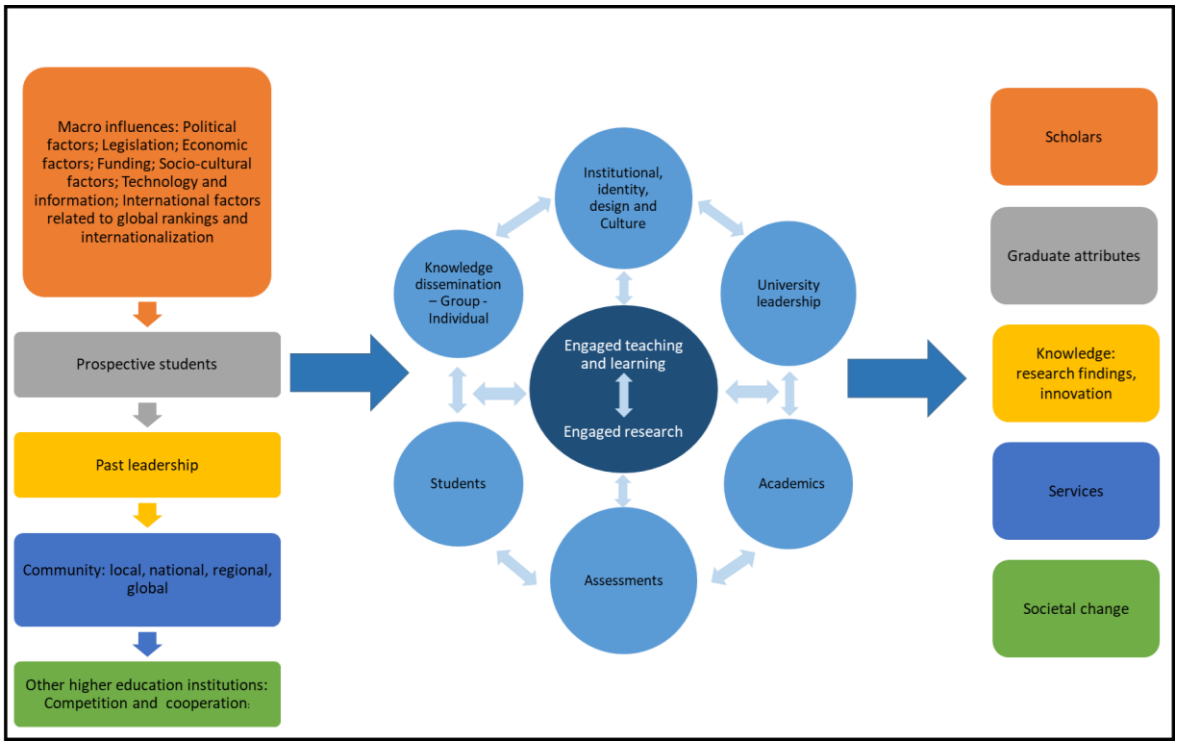

Figure 8.1 Proposed systems model for community engagement in a university of technology

(Author/researcher, 2020)

The critical role of academics in advancing the scholarly agenda of community engagement has been discussed in the dissertation. In order to sustain continuous and meaningful relationship of faculty with community engagement, it is recommended that community engagement be ingrained into the curriculum across disciplines. Engaged teaching and learning will be enhanced when curriculum design and development integrates community engagement with clear indications on how community engagement is captured through content, pedagogies, assessments and learning outcomes. With respect to engaged research, community engagement must be made a stringent criteria for approval of any research conducted in the UoT. This responsibility lies with research and ethics committees within the institution who must stipulate

how engagement will be evaluated as an integral and required part of any research proposal in the institution. Research undertakings must be able to categorically demonstrate a meaningful engagement element in terms of being a two –way, mutually beneficial, intellectual undertaking to address a real world issue. Engaged research also implies that dissemination of knowledge must reflect the input of community stakeholders who are involved in the process of knowledge development.

The leadership component of the model underscores how university leadership should use their position to steer community engagement. Leadership at institutional, faculty and departmental levels should use their positions to channel resources towards making the engagement mission a reality and use their networks to advance partnerships and collaborations with external community members at all levels.

8.3.2 Recommendation for form of community engagement in a university of technology

The diagrammatic representation in Figure 8.2 is the study's proposed form of community engagement for a UoT. The model depicts how community engagement should be used to serve the institution's academic mission where research and teaching and learning are interacting activities that are continually "speaking to each other". This ensures that research and teaching are not siloed activities. The synergy between research and teaching with the overarching influence of community engagement mainstreams engagement, and can be used to facilitate interdisciplinary work. The model emphasizes continuing engagement and reciprocity between the university of technology and community, however the UoT defines its community (or communities), and at the level where the community exists (local, national, regional, global). This facilitates real-world relevance in focus and content of the academic activities.

Furthermore, the study recommends that UoTs adopt having concise plans that delineate how community engagement will be done at faculty and departmental levels. The recommendation of engagement plans is primarily for the purpose of creating better focus, better coordination of activities, and improved outcomes for efforts. For example, community engagement plans for a faculty should detail the focus area of their community engagement (what strategic areas or niches affecting human life); how CE focus area responds to local needs, national priorities, regional goals or global agenda; how interdisciplinary scholarship will be achieved; how the faculty plan will cascade into specific departmental projects. Having community engagement plans is a way of guarding against departments working in silos in terms of their engagement

programmes by creating platforms for interdisciplinary cooperation and coordination. These plans create a vision of possibility and achievability to motivate academics and students to be involved by simplifying the engagement agenda to stakeholders, showing where their competencies and interests fit in. Also, the plans can be used to build a sense of collective responsibility in faculties and departments.

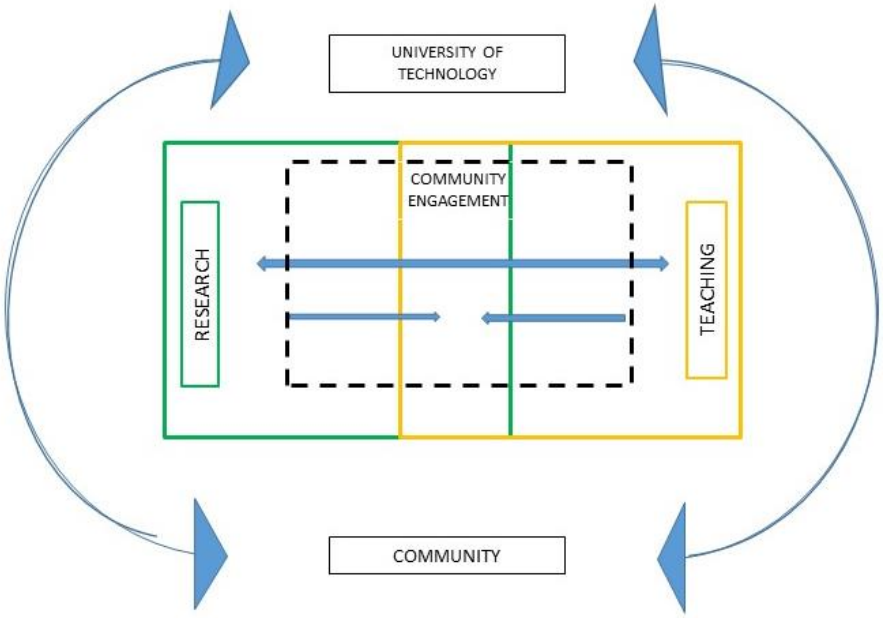

Figure 8.2 Proposed form of community engagement in a university of technology

(Source: Author/Researcher, 2020)

8.3.3 Recommendation for monitoring and evaluation of community engagement initiatives

The conclusion of this study regarding monitoring and evaluation of community engagement initiatives in universities of technology in South Africa is that it is informally carried out in most of them with improvised approaches and methodologies which differ among projects and from institution to institution. Therefore, monitoring and evaluation is an inconsistent practice in community engagement. The study proposes a model for monitoring and evaluation of community engagement initiatives in universities of technology (see Figure 8.3). The model emphasizes integration of community engagement projects into the academic curriculum at every point either through teaching and learning or research. The study recognizes the challenges associated with developing a standard model of monitoring and evaluation for

community engagement because of the deep contextual nature of the practice of community engagement.

The proposed model recognizes that individual universities regardless of typology, have their unique institutional contexts shaped by different variables which include, among others, history of the institution, academic mission, institutional culture, geographical location, programme mix, and student profile. Universities would express community engagement based on their own individual contexts. The study places institutional context of the university as the platform from and on which the monitoring and evaluation framework functions, and uses curriculum integration as the grounding for institutionalization of community engagement in the core of university activities. So, in addition to providing feedback on project performance, the proposed framework is focused on emphasizing engaged scholarship in indicators at each level of the model. This is useful in providing direction on how to put community engagement projects together in a manner that promotes meaningful and practical scholarship.

The proposed model depicts that at every stage of the logic chain - inputs, activities, outputs, outcomes and impact - monitoring and evaluation can be performed on a community engagement initiative from both the perspective of the institution and community. The objective of M& E of inputs is to identify inputs involved in the community engagement project from all project participants. M&E of activities documents the relevant activities involved in the execution of the community engagement project, and how they are connected to teaching and learning and research. This will ensure that project initiators put significant consideration into how projects are mainstreamed in the curriculum. M&E of outputs in the framework is to assess immediate effect of activities implemented through tangible and intangible outputs those activities directly delivered.

Since the practice of community engagement should maintain the fundamental character of the university – scholarship – the proposed model shows how outputs must reflect elements of engaged scholarship. Outputs of community engagement must indicate how scholarliness has been achieved. M&E of outcomes will assess results achieved from outputs. In the proposed framework, outcomes are weighed against the project's objectives which allows the M& E process to determine the value and performance of those community engagement initiatives set against the deliverables stipulated in the project objectives. Finally, M&E of impact is to determine the comparable changes made in the community as well as the university due to the

project. Realization of impact is also assessed against set objectives to determine success of the project.

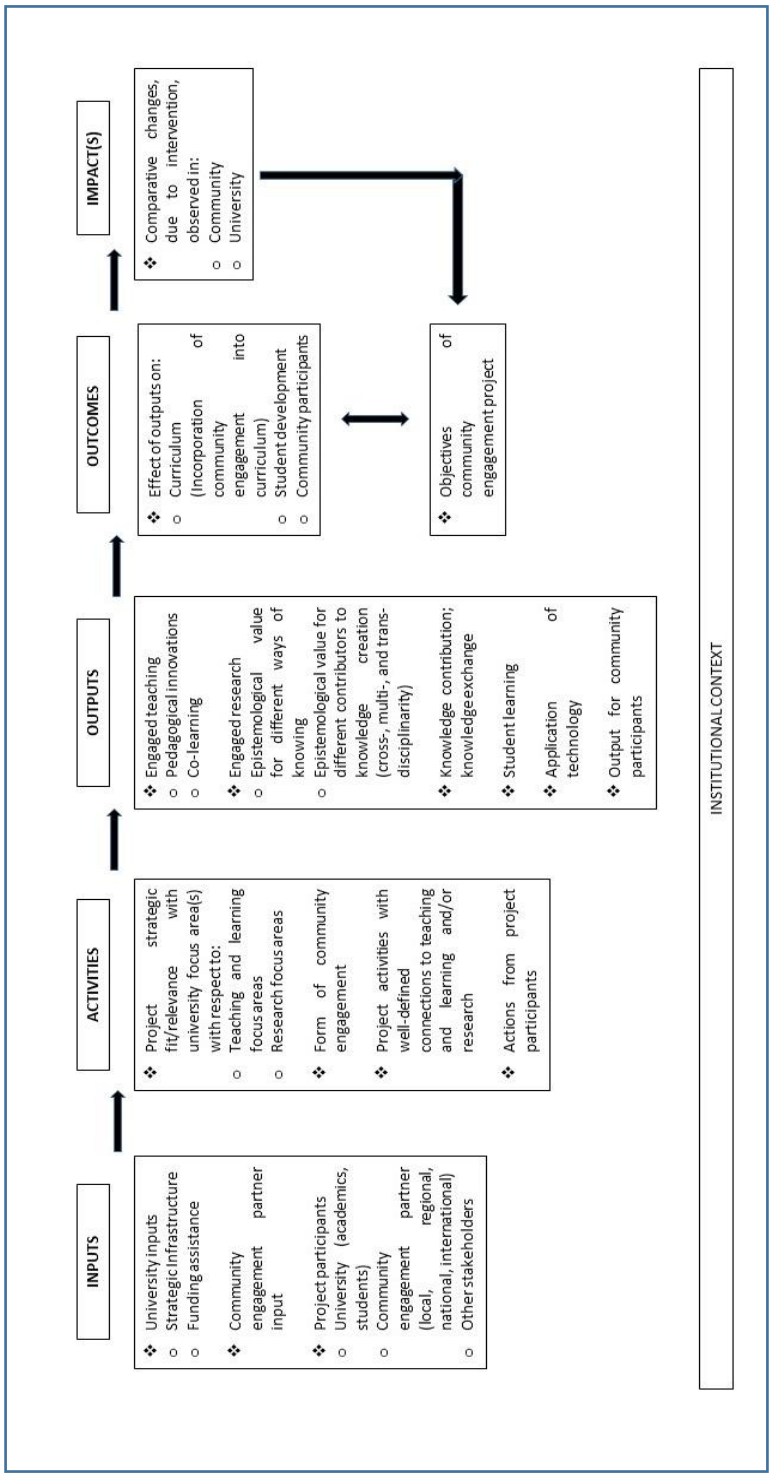

Figure 8.3 Proposed model of monitoring and evaluation for community engagement initiatives in a university of technology

(Source: Author/researcher, 2020)

8.3.4 Recommendations for sustainable funding

The study concluded that community engagement in universities of technology continues to face insufficient funding, therefore the recommendation is made that leadership and management of universities of technology secure improved budget and stable funding streams for community engagement activities. Budget and funding issues are key institutional dimensions which contribute to achieving the sustainable practice of community engagement. Irregular funding over the long term is one of the factors responsible for the sporadic occurrence of community engagement activities in some universities, and this inhibits its sustained development in such institutions. To complement funding received from the National Research Foundation, Department of Higher Education & Training and other higher education–related state agencies, UoTs should pursue targeted grants from institutional community members from different sectors of the society through partnership relationships around development-oriented issues. UoTs should be able to set aside own institutional funding (not for awards) for community engagement. In order to ensure the validity of projects as community engagement, funding criteria must require projects to demonstrate the connection to either engaged teaching or engaged research with key characteristics of community engagement being evident.

8.3.5 Recommendations for rewards and promotions

The study established that involvement of faculty remains inadequate despite being essential to actualization of community engagement. The recommendation of the study is for UoTs' leadership and management to address how community engagement is rewarded in academic reward structures. Incentives that serve to motivate faculty members' participation and commitment should be developed to be equivalent with research and teaching where promotion and rewards are concerned. If community engagement has been accepted as a scholarly activity, then there should be no disparity in rewards attached to it when compared against research and teaching. Promotion criteria for community engagement should be well-defined and carry equal weighting in performance management systems.

8.4 CONTRIBUTION OF THE STUDY

The contribution of the research study to higher education research in South Africa has been to use monitoring and evaluation of community engagement to explore the academic missions of universities of technology in South Africa. This allowed for examination of community engagement within the mainstream of higher education. This study contributes to scholarly deliberations around community engagement in higher education in South Africa as it proposes several models to guide the practice and form of community engagement in universities of technology, as well as the monitoring and evaluation of community engagement initiatives. Using the logical framework approach as its underlying structure, the proposed model for monitoring and evaluation provides direction on criteria or indicators that can be used to assess the scholarliness of community engagement efforts in teaching and research, and achieve integration of community engagement in these academic roles. The proposed models are useful for internal stakeholders in the university to be able to identify their roles in the institutionalization of community engagement within the institution. The study contributes to knowledge by providing insight into the nature of community engagement in a specific typology of higher education institutions in South Africa - universities of technology. The study is relevant because its singular focus on a group of universities of technology fills a knowledge gap as to documented research relating to how this category of higher education institution has operationalized its community engagement mandate and the monitoring and evaluation of same.

8.5 LIMITATIONS OF THE STUDY

There are some limitations to this research study, and are discussed in terms of methodology used and sample size. The study adopted a qualitative methodology of inquiry and a non-probability purposive sample which limits the extent to which findings are generalizable and applicable to other settings. The findings that have been made and conclusions reached in the study are from a context of universities of technology in South Africa. Although the environmental pressures and factors influencing higher education to adopt community engagement as a core mandate also affect other typologies of higher education institutions in South Africa, the assumption cannot be made that the response in these other types of institutions will be similar to what has been observed in universities of technology. Neither can it be assumed that what has been observed regarding monitoring and evaluation of community

engagement in universities of technology will be similar to what is obtainable in other types of institutions. Therefore, this study's findings are limited to its specific case studies and cannot be generalized to other institutional types.

Another factor impacting on the generalizability of the study is the small sample size used which had to be supplemented with documentary data because of a low participation rate. The adequacy of a study sample in qualitative research refers to the appropriateness of the sample composition and size (Vasileiou, Barnett, Thorpe *et al,* 2018:149). Qualitative research samples are usually purposive and small in order to provide information-richness and in-depth analysis of the subject matter. The study sample, though small, provided highly informative and meaningful data to deepen understanding of monitoring and evaluation of community engagement initiatives in universities of technology in South Africa. Nonetheless, the study acknowledges the limitations imposed on the study findings and its generalizability.

8.6 IMPLICATION OF RESEARCH FOR PRACTICE

It is established in literature and in this study's findings that community engagement is contextual in nature. There are multiple layers of meaning to community engagement. It is impractical to advocate for or recommend a one-size-fits-all approach for all types of universities. Institutions must do what suits their context which itself is determined by diverse variables. Therefore, universities should approach and articulate community engagement from the consideration that it fulfils institutional objectives and serves the unique purposes of the university.

To ensure institutional consciousness of community engagement where it is cemented in the mindset of the university such that it ceases to be neglected or consigned to a peripheral activity, community engagement has to be made an integral part of teaching and research. Community engagement exists in a system as do teaching and learning and research. The same manner in which the other two academic roles are managed within the complex system of the university must be extended to community engagement. Marginalization of community engagement cannot be effectively confronted unless it becomes an integral aspect of scholarship as teaching and research are. Community engagement expressed and practiced as engaged scholarship must be integrated into the existent system with well-developed strategic and operational plans at university and faculty/departmental levels.

As university-community engagement is deemed important in higher education, defining its value will be impossible without necessary and effective monitoring and evaluation to provide evidence as to its contributions and impact. In addition, given that community engagement is contextual in higher education, its monitoring and evaluation component must be context-sensitive or context-based taking into account the viewpoint in which it is being carried out. Monitoring and evaluation does not occur in isolation but must be established within a system so it is integrated within existing operational processes.

8.7 AREAS FOR FUTURE RESEARCH

Future research efforts can be directed towards testing the applicability of the proposed framework for monitoring and evaluation of community engagement initiatives to verify its practicality. Also, since this study focused specifically on universities of technology, future research can consider comparative studies of the practice of community engagement in other typologies of higher education institutions in South Africa such as comprehensive universities.

In this study, one university of technology focuses its community engagement activities on socio-economic development and upliftment of previously disadvantaged communities. This focus could be attributed to the location of the institution, a township from which it draws most of its students. Therefore, future research can consider if the geographical location of universities of technology or any other typology of university influences to any degree their community engagement. A research inquiry of such focus can provide insight into differences or similarities in how physical location can drive community engagement agenda of HEIs.

8.8 CHAPTER CONCLUSION

In this final chapter of the dissertation, the objective was to bring together the knowledge that has emerged in the course of the research inquiry. This was achieved using an approach that reviewed the realization of each objective of the research study. A review of the study's objectives was used to present the main findings of the research inquiry. Summary key conclusions were made and on these bases, several recommendations were proposed for community engagement in universities of technology in South Africa. The recommendations pertained to the practice of community engagement, form of community engagement, monitoring and evaluation of community engagement initiatives, as well as funding and reward

policies. In addition, this concluding chapter provided an indication of the study's practical value by stating its contribution to knowledge and implications for practice. The limitations affecting the study were clearly outlined. Finally, the study being exploratory in nature opened up aspects where further research can be conducted. The areas for further research were identified to advance knowledge of the subject matter in higher education in South Africa.

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APPENDIX 1

INTERVIEW SCHEDULE A

[EXECUTIVE IN CHARGE OF COMMUNITY ENGAGEMENT PORTFOLIO IN UNIVERSITES OF TECHNOLOGY IN SOUTH AFRICA]

Section 1: Biographical Information

1.1 Name of institution: CODE:

1.2 Date of Interview:

Section 2: Research Objective 1 (To examine community engagement in universities of technology in South Africa)

2.1 How does the institution define community engagement?

2.2 What philosophies are guiding community engagement in the institution?

2.4 How does the institution's vision/mission/organizational structure/leadership/culture shape or influence its community engagement?

Section 3: Research Objective 2 (To examine the extent of institutionalization of community engagement in universities of technology in South Africa)

3.1 What established forms of community engagement are present in the institution?

3.2 What field/sector/area/discipline are the institution's community engagement activities majorly domiciled in?

3.3 Does the institution have a unique engagement niche?

3.4 What are the key indicators or defining characteristics of engagement in the institution?

Section 4: Research Objective 3 (To identify factors that promote or hinder institutionalization of community engagement in universities of technology in South Africa)

4.1 What factors promote (enablers) the implementation of community engagement in the institution?

4.2 What factors hinder (barriers) the implementation of community engagement in the institution?

Section 5: Research Objective 4 (To understand how community engagement is currently being monitored and evaluated in universities of technology in South Africa)

5.1 How is community engagement currently being monitored and evaluated in the institution?

5.2 Are there monitoring and evaluation mechanisms or frameworks currently in place for community engagement in the institution?

Section 6: Research Objective 5 (To identify and analyze challenges that exist with respect to monitoring and evaluation of community engagement in universities of technology in South Africa)

6.1 What are the challenges of monitoring and evaluation of community engagement in the institution?

Section 7: Research Objective 6 (To propose a monitoring and evaluation framework for community engagement in universities of technology)

7.1 How do you envisage the progress of community engagement in higher education institutions in the future?

Section 8: In the table below, tick the factors that apply to your institution

	UoT
Community engagement stated in institutional mission	
University has a stated community engagement goal	
University has a community engagement policy	
University has community engagement framework	
University has an executive overseeing community engagement portfolio	
University has an institutional coordinating office for community engagement with a head for the office	
Staff are employed at the university's coordinating office for community engagement	
Articulated plan for community engagement at faculty and/or departmental levels	
There are faculty-based or departmental structures for operationalizing community engagement	

APPENDIX 2

INTERVIEW SCHEDULE B

[PROJECT MANAGERS / COORDINATORS OF COMMUNITY ENGAGEMENT PROJECTS IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA]

Section 1: Biographical Information

1.1 Name of institution: CODE:

1.2 Name of Community Engagement project

1.3 Faculty in which Community Engagement project is domiciled

1.4 Date of Interview:

Section 2: To examine the purpose and place of the community engagement project in the broader scope of the university's community engagement function

2.1 What are the objectives of the community engagement project?

2.2 Is the community engagement project aligned to any of the following?

a. Department – Module requirement in the curriculum, Service-Learning, Work-Integrated Learning, Research project

b. Faculty – Faculty flagship community engagement programme

c. University – Institutional strategic focus area

2.3 What kind of support, if any, does the community engagement project receive from the university?

a. Administration

b. Financial

c. Human resource / Staffing

d. Coordination / Facilitation of cooperation and partnership of external stakeholders

e. Other. Please specify

2.4 What are the high points / successes of the community engagement project?

2.5 What are the challenges the community engagement project has experienced or is currently experiencing?

Section 3: To examine monitoring and evaluation mechanisms in community engagement projects in universities of technology in South Africa

3.1 Do you perform Monitoring & Evaluation on the community engagement project?

i.) If YES, proceed to #3.2 ii.) If NO, Why? Then go to #3.5

3.2 What aspects of the community engagement project do you monitor and evaluate?

3.3 What are the challenges, if any, associated with monitoring and evaluation of the community engagement project?

3.4 Is there a specific monitoring and evaluation framework or tool in place which is used to monitor and evaluate the community engagement project?

3.5 Does the university, faculty or department require that monitoring and evaluation is carried out on the community engagement project?

3.6 As Coordinator/ Manager, do you see a need for monitoring and evaluation systems in the community engagement project?

3.7 How do you see the progress of community engagement in higher education institutions in the future?

APPENDIX 3

FULL APPROVAL (DUT INSTITUTIONALRESEARCH ETHICS COMMITTEE)

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lenihad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

10 October 2018

IREC Reference Number: **REC 173/17**

Mrs O F Ogunsanya
7 Furnwood Duplexes
40 Tighard Avenue
Glenwood
Durban
4001

Dear Mrs Ogunsanya

MONITORING AND EVALUATION MECHANISMS OF COMMUNITY ENGAGEMENT INITIATIVES IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA

The Institutional Research Ethics Committee acknowledges receipt of your gatekeeper permission letters from Cape Peninsula University of Technology, Durban University of Technology and Vaal University of Technology.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection from Cape Peninsula University of Technology, Durban University of Technology and Vaal University of Technology **ONLY**. Permission to conduct research at the Mangosuthu University of Technology, Tshwane University of Technology and Central University of Technology will only be issued once the relevant gatekeeper permissions have been submitted to IREC.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC Standard Operating Procedures (SOP's).

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely,

Professor J K Adam
Chairperson: IREC

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

13 November 2018

IREC Reference Number: **REC 173/17**

Mrs O F Ogunsanya
7 Furnwood Duplexes
40 Tighard Avenue
Glenwood
Durban
4001

Dear Mrs Ogunsanya

MONITORING AND EVALUATION MECHANISMS OF COMMUNITY ENGAGEMENT INITIATIVES IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA

The Institutional Research Ethics Committee acknowledges receipt of your gatekeeper permission letter from Central University of Technology.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection from Central University of Technology. Permission to conduct research at the Mangosuthu University of Technology and Tshwane University of Technology will only be issued once the relevant gatekeeper permissions have been submitted to IREC.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC Standard Operating Procedures (SOP's).

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely,

Professor J K Adam
Chairperson: IREC

DUT DURBAN UNIVERSITY OF TECHNOLOGY
2018 -11- 13
INSITUTUTIONAL RESEARCH ETHICS COMMITTEE
P O BOX 1334 DURBAN 4000 SOUTH AFRICA

Institutional Research Ethics Committee
Research and Postgraduate Support Directorate
2nd Floor, Berwyn Court
Gate 1, Steve Biko Campus
Durban University of Technology

P O Box 1334, Durban, South Africa, 4001

Tel: 031 373 2375
Email: lavishad@dut.ac.za
http://www.dut.ac.za/research/institutional_research_ethics

www.dut.ac.za

24 October 2019

Mrs O F Ogunsanya
7 Furnwood Duplexes
40 Tighard Avenue
Glenwood
Durban
4001

Dear Mrs Ogunsanya

MONITORING AND EVALUATION MECHANISMS OF COMMUNITY ENGAGEMENT INITIATIVES IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA
Ethical Clearance number IREC 036/18

The Institutional Research Ethics Committee acknowledges receipt of your gatekeeper permission letter from Tshwane University of Technology and Mangosuthu University of Technology.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection from Tshwane University of Technology and Mangosuthu University of Technology.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC Standard Operating Procedures (SOP's).

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely,

Professor J K Adam
Chairperson: IREC

APPENDIX 4

G

P.O. Box 1906 • Bellville 7535 South Africa •Tel: +27 21 4603291 • Email: fbmsethics@cput.ac.za
Symphony Road Bellville 7535

Office of the Chairperson Research Ethics Committee	Faculty: BUSINESS AND MANAGEMENT SCIENCES

At a meeting of the Faculty's Research Ethics Committee on **19 June 2018**, Ethics Approval was granted to **Olajumoke Ogunsanya** for research activities at the University of the Cape Peninsula University of Technology.

Title of dissertation/thesis/project:	MONITORING AND EVELUATION MECHANISMSOF COMMUNITY ENGAGEMENT INITIATIVES IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA Lead Researcher/Supervisor: Dr I. G. Govender

Comments:

Decision: APPROVED

	25 June 2018
Signed: Chairperson: Research Ethics Committee	Date

Clearance Certificate No | 2018FBREC546

APPENDIX 5

GATEKEEPER LETTER (CENTRAL UNIVERSITY OF TECHNOLOGY)

INSTITUTIONAL PLANNING AND QUALITY ENHANCEMENT

MRS OLAJUMOKE OGUNSANYA

7 FURNWOOD DUPLEXES

40 TIGHARD AVENUE

OFF MAZISI KUNENE

GLENWOOD

DURBAN

4001

jumokesanya@yahoo.com

PERMISSION FOR MRS OLAJUMOKE OGUNSANYA TO CONDUCT INTERVIEWS AT CUT FOR HER PHD STUDY ENTITLED "MONITORING AND EVALUATION MECHANISMS OF COMMUNITY ENGAGEMENT INITIATIVES IN UNIVERSITIES OF TECHNOLOGY IN SOUTH AFRICA"

Dear Mrs Olajumoke Ogunsanya

This is to confirm that you have been granted permission to conduct interviews at The Central University of Technology for your PHD study entitled "Monitoring and Evaluation Mechanisms of Community Engagement Initiatives in Universities of Technology in South Africa."

The conditions of the conditional permission are:

- The survey will not interrupt any of the official activities at the CUT;
- You will supply us with the copy of your report;
- The cost of all related activities will be covered by yourself;
- Recruitment of participants is the sole responsibility of yourself;
- Voluntary nature of the potential participant's decision to consent to participate should be strictly observed;
- You should not disclose a potential participant's decision to participate or otherwise to any other party;
- Permission does not compel, in any sense, participation of staff members or students in your survey.

ACTING DIRECTOR: INSTITUTIONAL PLANNING AND QUALITY ENHANCEMENT
PROF. A SZUBARGA

APPENDIX 6

GATEKEEPER LETTER (DURBAN UNIVERSITY OF TECHNOLOGY)

Directorate for Research and Postgraduate Support
Durban University of Technology
Treasso Annexe, Steve Biko Campus
P.O. Box 1334, Durban 4000
Tel.: 031-3732575/7
Fax: 031-3732948

14th May 2018

Mrs Ogunsanya Olajumoke Folusho
c/o Department of Public Management and Economics
Faculty of Management Sciences
Durban University of Technology

Dear Mrs Folusho

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted permission for you to conduct your research "Monitoring and evaluation mechanisms of community engagement initiatives in Universities of Technology in South Africa" at the Durban University of Technology.

We would be grateful if a summary of your key research findings can be submitted to the IRIC on completion of your studies.

Kindest regards
Yours sincerely

PROF CARIN NAPIER
DIRECTOR (ACTING): RESEARCH AND POSTGRADUATE SUPPORT DIRECORATE

APPENDIX 7

GATEKEEPER LETTER (MANGOSUTHU UNIVERSITY OF TECHNOLOGY)

Mangosuthu
University of Technology

UMLAZI - KWAZULU NATAL

P.O. Box 12363 Jacobs 4026 Durban Tel: 031 907 7111 Fax: 031 907 2892

14 October 2019

Dear Mrs O.F Ogunsanya

It is my pleasure to inform you that permission to conduct project titled: "Monitoring and evaluation mechanisms of community engagement initiatives in universities of technology in South Africa." has been granted.

Permission to conduct the project is granted on the condition that any changes to the project must be brought to the attention of the MUT Research Ethics Committee as soon as possible.

Good luck with your research.

Yours faithfully,

Dr A Mienie

Director: Research

APPENDIX 8

GATEKEEPER LETTER (TSHWANE UNIVERSITY OF TECHNOLOGY)

Tshwane University of Technology
We empower people

Office of the Chief Information Officer &
Executive Director: Institutional Effectiveness and Technology

Memo

To: Mrs Olajumoke Ogunsanya

Date: 18 July 2019

Dear Mrs Ogunsanya

Re: **Permission to use TUT Institutional Data**

Thank you for requesting to use TUT institutional data for your research and publication thereof.

Your request has been reviewed and I am pleased to inform you that you may use TUT data subject to the conditions stipulated in the TUT Ethics Committee provisional approval letter (REC 2019/05/04).

Please note that the university will not provide access to its mailing list or active directory email addresses of your prospective research participants to ensure compliance with the Protection of Personal Information Act (2013).

Kind Regards

X _____

Dr D Naidoo
CIO and Executive Director

APPENDIX 9

GATEKEEPER LETTER (VAAL UNIVERSITY OF TECHNOLOGY)

Vaal University of Technology

Your world to a better future

VUT

Memorandum

RESEARCH DIRECTORATE
Tel: +27(0)16 950 9573
Fax: +27(0)16 950 9898

To: Mr OF Ogunsanya
CC: Director Research: Dr SM Nelana
From: The Registrar: Dr TD Mokoena
Date: 24 August 2018
Subject: **Research Ethical Permission Approval**

Dear Mr Ogunsanya

Thank you for your recent application wishing to conduct research within our institution.
It is with great pleasure that we would like to inform you that your request to conduct research in the Vaal University of Technology has been approved subject to your assurance that any information obtained will not be divulged or identifiable in any published results.

You are therefore required to sign a confidential letter of acknowledgement.

Sincerely,

Dr TD Mokoena
Registrar

APPENDIX 10

LETTER OF INFORMATION

LETTER OF INFORMATION

Title of the Research Study: Monitoring and evaluation mechanisms of community engagement initiatives in universities of technology in South Africa.

Principal Investigator/s/researcher: Olajumoke F. Ogunsanya, M.Comm (Management)

Co-Investigator/s/Supervisor/s: Dr Ivan G. Govender, D.Admin

Brief introduction and purpose of the study: The purpose of the study is to understand what community engagement is in universities of technology in South Africa, and to examine how community engagement initiatives are monitored and evaluated in these institutions.

Outline of the procedures: Kindly be informed that your participation in the study is voluntary. You will be interviewed and asked questions from an interview schedule. The interview is expected to take place in your office on a date and time agreed to by yourself and me, the researcher. The interview duration will be 45minutes.

Also, be informed that respective interviews with participants will be audio-recorded. The Consent form provides you with opportunity to indicate approval or non-approval for your interview to be audio-recorded.

Risks or discomforts to the Participant: There are no risks or discomforts to you for taking part in the study.

Benefits: You will be sharing information that is expected to contribute to developing constructive knowledge where community engagement in universities of technology is concerned, and such knowledge may be potentially useful for you. For the researcher, potential benefits of the study are academic publications such as journal articles and conference papers.

Reason/s why the Participant may be withdrawn from the study: Be informed that you may withdraw from the study for reasons you may choose to or not disclose. There will be no adverse consequences to you should you choose to withdraw your participation.

Remuneration: Kindly note that you will not receive any monetary or other types of remuneration.

Costs of the Study: You will not be expected to cover any costs towards the study.

Confidentiality: Your anonymity and confidentiality will be maintained. Your personal details such as name, gender, position, and academic institution will not be disclosed. Any data you provide will be presented in the study in a manner that ensures you are not directly traceable or identifiable to the data.

Research-related Injury: Kindly note that you are at no risk of research-related injury or adverse reaction.

Persons to contact in the event of any problems or queries:
Please contact the researcher (073 705 4927, jumokesanya@yahoo.com), my supervisor (031 373 5694) or the Institutional Research Ethics administrator on 031 377 2375. Complaints can be reported to the Acting Director, Research and Postgraduate Support: Professor CE Napier, 031 373 3577, carinn@dut.ac.za

APPENDIX 11

LETTER OF CONSENT

CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, _____ (name of researcher), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance Number: _____,
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis 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.
- I am aware that my participation in the study involves an interview which will be audio-recorded. I hereby,

  Give permission to be audio-recorded ----------

  Do not give permission to be audio-recorded ----------
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

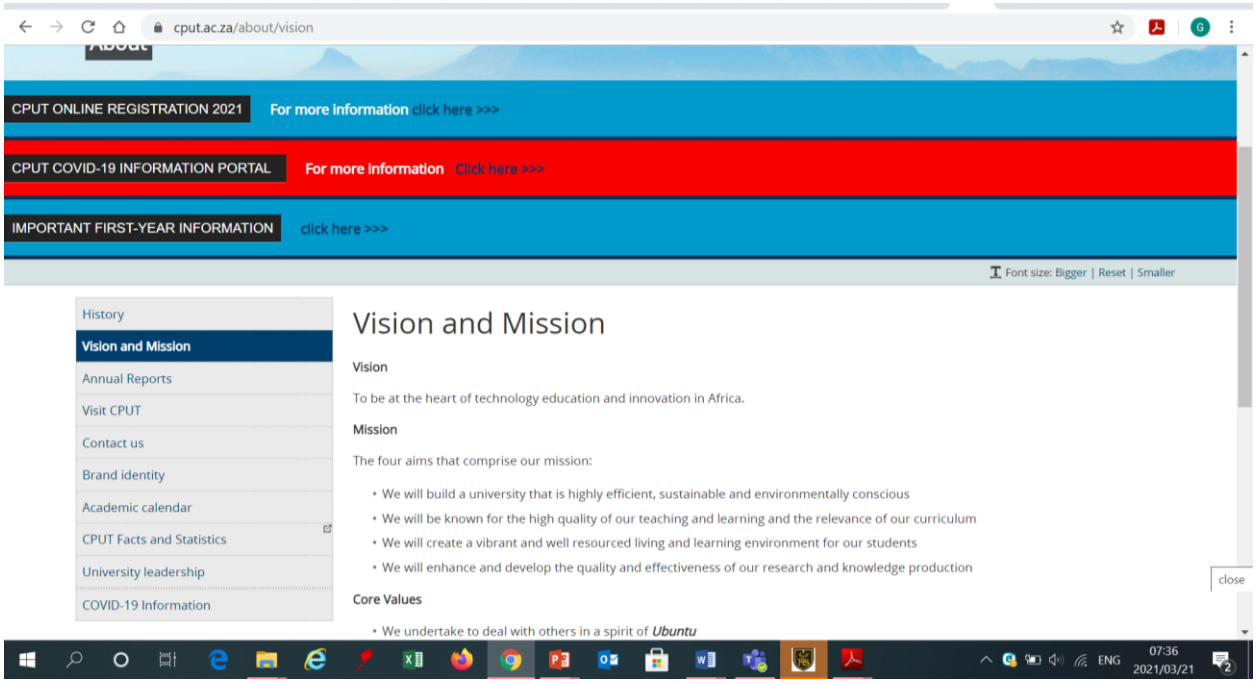
_____	_____	_____	_____
Full Name of Participant	**Date**	**Time**	**Signature / Right Thumbprint**

I, _____ (name of researcher) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

_____	_____	_____
Full Name of Researcher	**Date**	**Signature**
_____	_____	_____
Full Name of Witness (If applicable)	**Date**	**Signature**
_____	_____	_____
Full Name of Legal Guardian (If applicable)	**Date**	**Signature**

APPENDIX 12

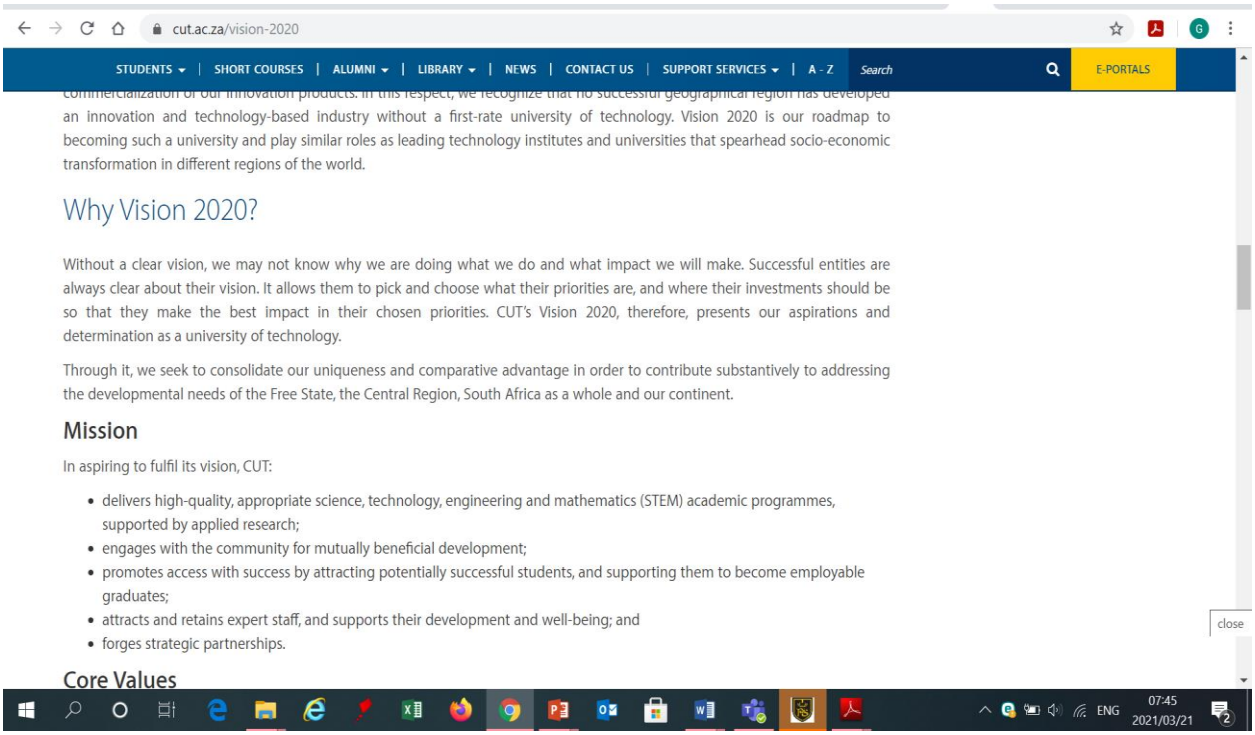
MISSION STATEMENT (CAPE PENINSULA UNIVERSITY OF TECHNOLOGY)



(Source: www.cput.ac.za/about.vision)

APPENDIX 13

MISSION STATEMENT (CENTRAL UNIVERSITY OF TECHNOLOGY)



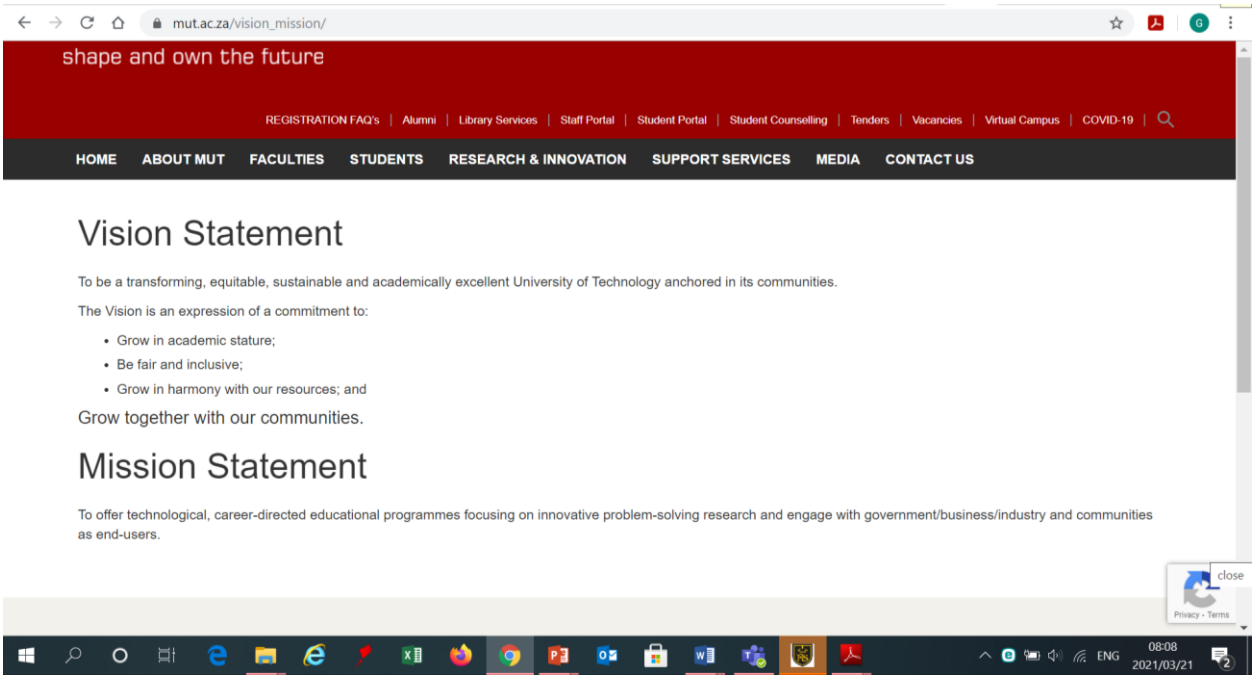
(Source: www.cut.ac.za/vision-2020)

APPENDIX 14

MISSION STATEMENT (DURBAN UNIVERSITY OF TECHNOLOGY)

APPENDIX 15

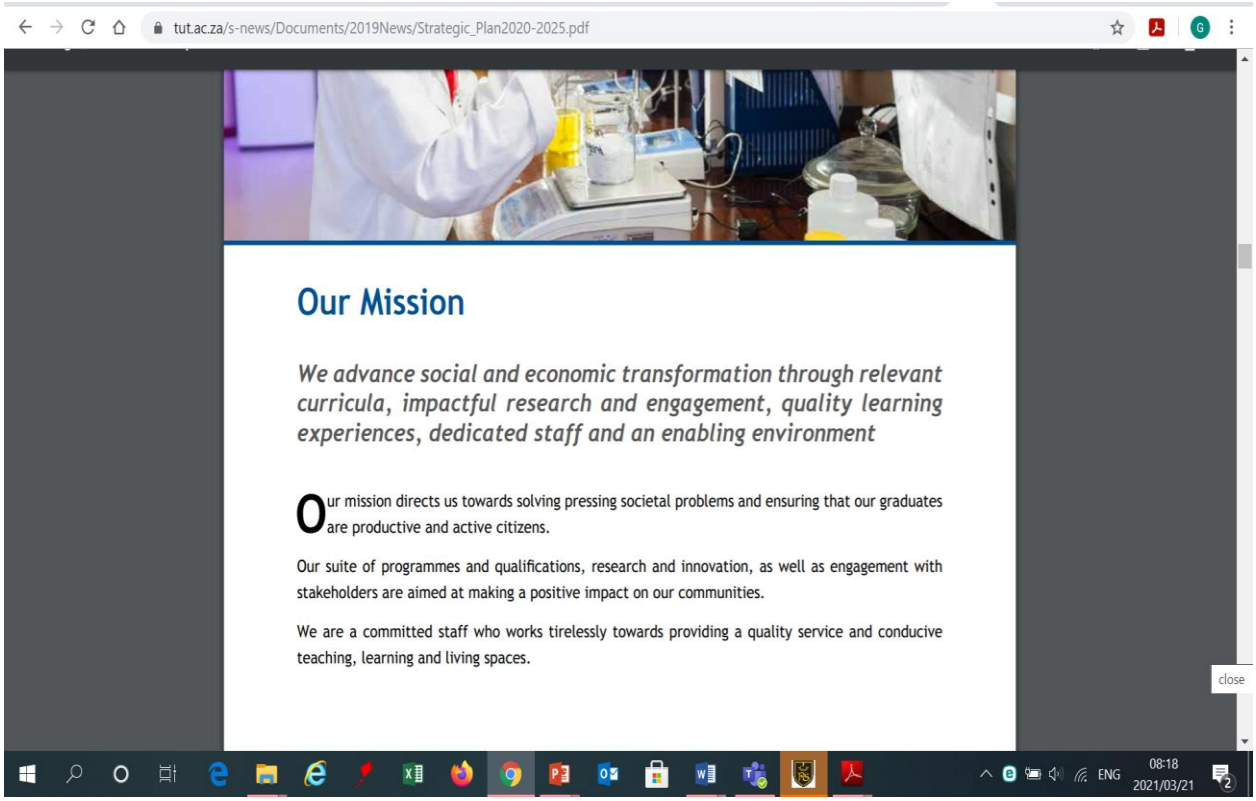
MISSION STATEMENT (MANGOSUTHU UNIVERSITY OF TECHNOLOGY)



(Source: www.mut.ac.za/vision_mission/)

APPENDIX 16

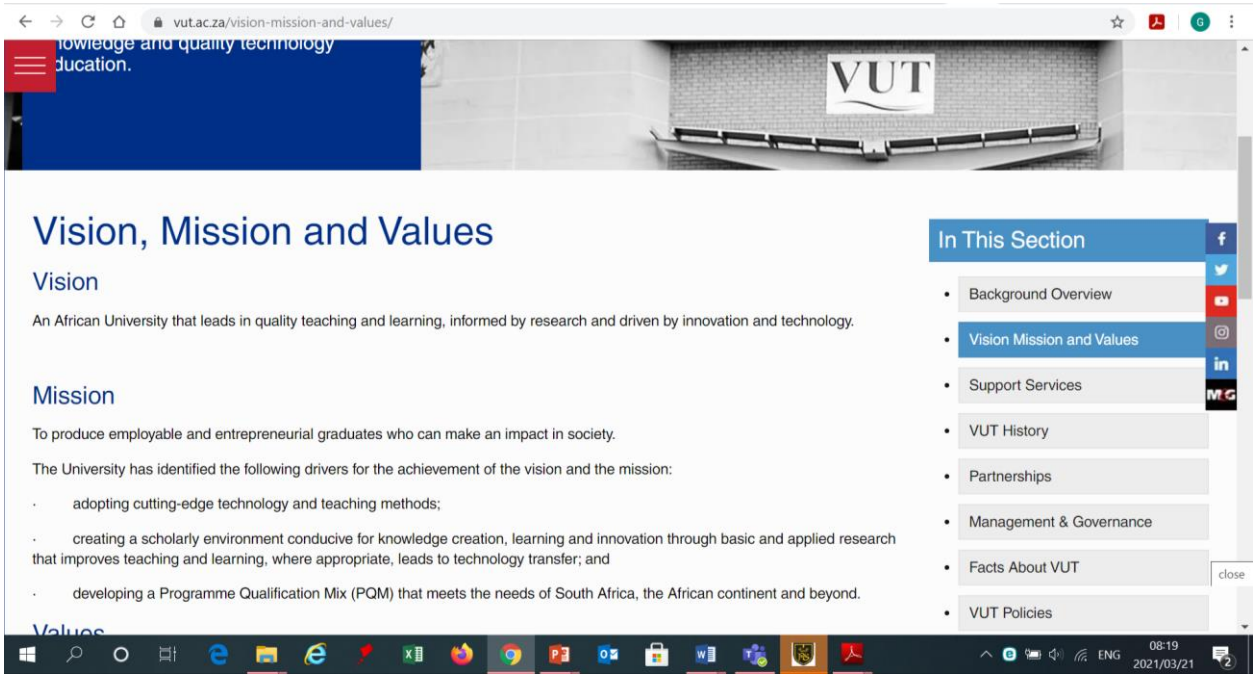
MISSION STATEMENT (TSHWANE UNIVERSITY OF TECHNOLOGY)



(Source: www.tut.ac.za/s-news/Documents/2019News/Strategic_Plan2020-2025.pdf)

APPENDIX 17

MISSION STATEMENT (VAAL UNIVERSITY OF TECHNOLOGY)



(Source: www.vut.ac.za/vision-mission-and-values/)

APPENDIX 18

COMMUNITY ENGAGEMENT PROJECTS

Table 7.4 Projects providing primary healthcare services to the community

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT2	Dental Assisting programme oral health project	Ongoing	Teaching	1
	Emergency Service communication schools project	Ongoing	Teaching	1
	Radiography department schools project	Ongoing	Teaching	1
	Biomedical Technology programme awareness project	Ongoing	Teaching	
	Somatology department salon project		Teaching	2
	Wheels of Hope outreach project		Research	1
UoT3	Kenneth Gardens homeopathic community health project	Ongoing	Teaching	4
	Kwamkhizwana village community health project	Ongoing	Teaching Research	2
	Homeopathic community engagement integrated service and learning	Ongoing	Teaching	5
	Ukuba Nesibindi homeopathic community health project	Ongoing	Teaching	7
	Chiropractic department community engagement project	Ongoing	Teaching	3
	Isolempilo health clinic	Ongoing	Teaching	
UoT5	Mobile health monitoring system of patients with chronic communicable diseases	Ongoing	Teaching	
	School of Nursing primary healthcare community-based clinic	Ongoing	Teaching	1
UoT6	Nutrition education programmes			

Table 7.5 Projects for tuition and education support to schools and youth development

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT1	Chemistry Department schools' outreach		-	
	Emergency Medical Sciences Department-Wynberg High School revision programme	Completed	-	1
	2nd Chance Matric Rewrite project		-	
UoT2	Annual Career School Project	Ongoing	-	Several
	Computer building project	Ongoing	Teaching	1
	Design and Studio Art department (Extended Curriculum Programme) project	Ongoing	Teaching	1
	Saturday School projects	Ongoing	-	Several
	Educator Mentorship Development programme	Completed	-	2
	Annual Winter and Spring School	Ongoing	-	4
UoT3	ICON School engagement project		-	1
	Plant-Back community development project		-	1
	Dreaming workshops		-	
UoT4	Education support for science teachers			6
	Free Dynamic Mathematics Software Geogebra		Research	2
	E-learning for rural schools' learners programme			4
	African Initiative of Special Education		Research	1
UoT5	Mathematics and Science development programme	Ongoing	-	Several
	Top Juniors Leadership programme	Ongoing	-	1
	Dlala Majaivane Championship	Ongoing	-	-
	Career guidance and Schools outreach programme	-	-	1
UoT6	Schools Intervention Programme (Mathematics and Physics)		-	

Table 7.6 Projects in skills training, development and empowerment

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT1	JICA Employment Improvement programme	Ongoing		
UoT2	CISCO training project	Ongoing	-	1
	Dutch Reformed Church Klipkerk computer literacy programme		-	5
	Vodacom developers programme		Teaching	1
	Sewing technology and crafts		Teaching	1
	National School of Government Executive Development programme	Ongoing	-	2
	The STRONGBOW project	Ongoing	Research Teaching	1
	Maccauvlei Learning Academy partnership		Teaching	1
	CENTLEC project management programme		-	1
	Accounting technicians (certificate and FET advanced) skills training		-	1
	Basic accounting, computer training and secretarial skills training project		-	2
UoT3	Varsitygenie project	Ongoing	Teaching	2
	Sewing for Africa	Ongoing	Teaching	1
	Code like a Girl	Ongoing	Teaching	
	Sisonke Siyaphambili early childhood development nutrition programme	Ongoing	Teaching	1
	Roots of Ubuntu project	Ongoing	Teaching	1
	Corkwood Academy	Ongoing	-	1
	Technology and social media for NGOs programme	Ongoing	-	1
UoT4	Basic computer literacy project for small and medium enterprises			1
	Umzinto community development initiative			4
UoT5	Informatics community engagement project	Ongoing		
	AGILE42 software development and training programme	Ongoing	Research	
	Low bandwidth and offline open source e-learning programme	Ongoing	Research	
	Daycare Mothers community project	Ongoing	Teaching	
	People Upliftment Project (POPUP)	Ongoing	Research	13

Table 7.7 Projects in technology and innovation

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT1	Amaya Space	Ongoing	Research	Several
	Bambara technology portfolio	Ongoing	Research	Several
	Thirst			
	Centre for Substation Automation & Energy Management Systems	Ongoing	Research	Several
	Adaptronics & Advanced Manufacturing Technology Laboratory	Ongoing	Research	Several
UoT2	Product development technology station	Ongoing	Research	Several
	National medical device innovation platform	Ongoing	Research	Several
UoT3	EnergyDRIVE project	ongoing	Research	Several
	Solar photovoltaic project	Ongoing	Research	Several
	Food Bio-Innovations	Ongoing	Research	Several
	Solar lighting projects	Ongoing	Research	Several
	Reinforced & Molded Plastics	Ongoing		4
UoT5	Township Robotics	Ongoing	Research/ Teaching	1
UoT6	Energy-saving manual household soy food-processing equipment		Research	
	Solar-hydrogen-fuel cell power plant project		Research	

Table 7.8 Projects promoting entrepreneurship and business incubation

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT1	Waste-to-Wealth program			
	Tabeisa project			
UoT2	IT-based Systems project		Teaching	1
	Contractor Development Programme		-	Several
	Contractor Incubator Programme		-	Several
	Business incubation	Ongoing	-	1
UoT3	Enactus Vinso Art	Ongoing	Teaching	1
UoT4	Antidote for xenophobia – business skills training	-		1
UoT5	Project and Development training programme		Research	13
UoT6	Enactus Indali-Communal Property Association project	Ongoing	Research	1
	Enactus Clorganic alternative energy project	Ongoing	Research	1

Table 7.9 Projects in tourism, environmental sustainability and nature conservation

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT1	Believing in Change environmental initiative			
UoT2	Life Sciences Students Organization environmental outreach		-	1
	ENACTUS recycling project	Ongoing	-	1
	South African College for Tourism project	Completed	Teaching	1
	Restaurant Service service-learning project	Ongoing	Teaching	1
UoT3	Imagining a city without walls		Research	
	Blue Skies Narrative		Research	
	Clean-Up campaign	Ongoing	-	
UoT4	Waste management ambassadors			4
	Umhlabeni informal settlement greywater reuse and recycling		Research	2
	Ecosystems rehabilitation and restoration			
	Automated solar irrigation system at Empangisweni Trust commercial farm		Research	1
UoT5	Ndumo Community Project	Ongoing	-	1
	Education for Conservation	Ongoing		
UoT6	Project Bright Green	Ongoing		
	Tree planting	Ongoing	-	
	Enactus Clorganic alternative energy project	Ongoing		

Table 7.10 Projects in agriculture and food security

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT1	Food Security Project - Agrifood gardens			
UoT2	Service learning in agriculture	Ongoing	Teaching	1
	Dorper International Farming project	Ongoing	Teaching	1
	Lentoro Farm and Trading service learning project	Ongoing	Teaching	2
	Mangaung municipality commonage farmers mentorship programme	Ongoing	Teaching, Research	3
	Luckhoff Farmer mentorship progamme			
	Leratong small farm project		Teaching	
	Sustainable agricultural development programme	Ongoing	Teaching	1
	Solar greenhouse system for local food production		Research	1
	Small-scale farming implements project		Research	1
UoT4	KZN South Coast agricultural cooperatives total quality management system and market access project			5
	Nonoti bananas for food security project	Ongoing		1
	Agricultural subsidy for small scale farmers			1
	Ekhanana food security initiative project	Ongoing		1
UoT5	Winterveldt Citrus project	Ongoing	Teaching	
	Jonathan North West Cooperative Farming project	Ongoing	Teaching	
	Dennilton Farmers' Cooperative	Ongoing		
	Food security workshops	Ongoing	Teaching	1
UoT6	Sustainable household vegetable and soy gardening programme			
	Enactus Intsika Agricultural Project	Ongoing		

Table 7.11 Projects for community outreach and upliftment

UoT	Project	Ongoing or completed	Research/ Teaching	Academics involved
UoT1	Theewaterskloof international community development project	Completed	Teaching	1
	Flamingo Crescent community engagement and service learning project	Completed	Teaching	1
	Sports management service learning recreational programme	Ongoing	Teaching	
	Gender-based violence community based research project	Ongoing	Research	1
	Masiphumelele initiative			
UoT3	Africa Centre for Hope drug use programme	Ongoing	Research	1
	Durban Leadership Project	Ongoing	Teaching	1
	Library Community Outreach project	Ongoing	-	
	Undetectable=Untransmittable HIV Awareness programme	Ongoing	Teaching Research	1
UoT4	Phumelela resource centre			1
	Partnership with Dexter and Matu Zama Agricultural Academy		Research Teaching	11
UoT5	Winter Shoes Project	Ongoing	-	-
	Mogodu Children's Home	Ongoing	-	1
	Feeding the Multitudes scheme	Ongoing	-	9
	Hospital outreaches	Ongoing	-	-
UoT6	Sharpeville integrated nutrition programme		Research	
	Donations outreaches	Ongoing	-	
	Matwala Children's Home	Completed	-	
	Nutritional intervention programmes in Orange farms, Evaton and Hammanskraal		Research	