

## **CHAPTER 1: THE FOUNDATIONS OF THE STUDY**

### **1.1 Introduction**

As an educational practitioner, it is desirable to reflect on one's own and colleagues' professional practices, and to interrogate the importance of one's day-to-day interactions with various individuals and groups of people. In so doing, one is likely to identify the human quest for the improvement of the quality of the life among members organised around various institutions of any dynamic culture. Quality of life is a perceived state of being, interpreted and achieved through learning and cumulative social interaction among people.

This study places significant importance on learning through action and reflection in practice as a stimulant for personal and organisational growth and human development in general, and for the sustained impact and relevance of higher education practice in particular. The study focuses on the educational practice of experiential learning of a particular category known as industry-based learning, a practice that typifies the growing concept of university-community partnership and collaboration in a developing country in the current globalisation drive. My role as the conceiver, researcher and author impels me firstly to explain my motivation and drive for carrying out the study. This is followed by the characterisation and exposition of the key theoretical and practical foundations on which the study was conceived, implemented and evaluated.

### **1.2 The Motivation for and Purpose of the Study**

I have been motivated to carry out this applied research activity partly spurred by a continuing interest in lifelong learning for myself, colleagues, students and interested others, to become 'students for life' for whom, according to Ramaley (2005), lifelong learning is an essential condition for sustaining a democratic way of life as well as for solving practical problems while contributing to our fund for knowledge and theory at the same time. I realise at this stage of my life that challenges and problems are inevitable and are to be regarded as our friends (Fullan, 1993). In the past few years of my career in teaching and learning in higher education, I have come to be part of a young and forward-looking university in a developing country experiencing a socio-political and economic transformation. The university is seeking growth in the face of numerous adversities which came unforeseen as it struggles to find and consolidate itself in its early years of

existence. Such adversities have come by way of socio-economic instability manifesting in student and staff dissatisfaction and unrest, macro- and micro-economic pressures, strained local communities, and a bewildered foreign community.

I am not alone in my quest for lifelong learning. Many of my colleagues are eager to learn rather than to succumb or quit in the current adverse conditions. The whole university itself is indeed a learning organisation or an 'organisation (or institution) that learns' (Dicks, 1993; Peddler, Burgoyne, & Boydell, 1997; Ramaley, 2005; among others). The learning university's challenges seem to force all those connected with it to adopt and employ innovative tactics for sustainability, and, in my view, the university's leadership and followership are keen (perhaps compelled) to live up to the task. For my part, I feel the university and its experiences are transforming me in a gradual but significant way, and I owe the institution some payback in any acceptable way, in recognition of what I have gained and continue to gain from it.

During my learning journey I have realised the importance of 'learning the right lessons' (Fullan, 1993). This necessitates engaging in one or more of the following: self-learning, self-understanding, and self-organisation, which in turn lead to critical self-reflection and self-renewal. In self-learning, I engage to explore myself: my strengths and weaknesses, my mistakes and triumphs, my successes and failures. The fruit of self-learning is self-understanding, which 'comes from engaging with others who are different' to me (Wang, 2009) and ties in with Howard Gardner's idea of interpersonal intelligence. Self-understanding refers to the awareness one has of one's self at a certain moment in time, and the on-going process of making sense of one's experiences and their impact on the self (Kelchtermans, 2007). As a mature adult learner, I realise and understand it when my learning capacity is not the same as it used to be during my more youthful years gone by. I now require more time to learn new technical information and skills, and often I have more reduced confidence than before in learning new complex information and skills. But I wish not to experience that decrease in *memory self-efficacy* that tends to stop many adults from pursuing further education (Dunlosky & Hertzog, 1998). On the positive side, I have gained some invaluable skills and attitudes, such as a sustained interest and self-determination, patience and endurance, which are necessary for goal achievement.

What do we reflect on? Reflection follows an action, and is primarily prompted by conditions common in the workplace such as a complex situation involving problems, ambiguity and uncertainty, and reflection enables us to correct distortions in our beliefs and errors in problem-solving (Hoyrup & Elkjaer, 2006). The basic is self-reflection which is an isolating act of solely personal benefit (Boud, Cressey & Docherty 2006). For the good of the workplace, reflection must go beyond the self and the individual perspective, to the group and organisational perspective. Say Hoyrup and Elkjaer (2006), we should develop a concept of reflection that can encompass both the individual and the social processes that are important for learning at the workplace. Self-renewal often follows a phase of challenge and depleted performance. Forward-looking organisations do not wait for challenges to be able to renew themselves. Re-branding is a continuous and integral process through which these organisations maintain their position in the highly competitive environments of today.

There is a strong link between action learning and critical reflection. Although action learning takes many forms, many (authors) agree about the criticality of alternating cycles of action and reflection, driven by questions, to generate strategic insight (Marsick & Maltbia, 2009). Critical reflection refers to questioning the integrity of deeply held assumptions and beliefs based on prior experience, prompted in response to an awareness of conflicting thoughts, feelings, and actions. At times critical reflection can lead to a perspective transformation (Taylor, 2009). Learning to be critically creative is seen by some to rest on “mature cognitive development”. However, cognition alone would not reflect holistic development and aspects such as emotional intelligence (among other intelligences), skills or practical competences, attitudes, values and virtues should be included

My university’s senior management has demonstrated its leadership ideals of continuous improvement and self-renewal through taking action meant to yield identified results. They have systematically and periodically engaged in some or all of the following processes and activities that enhance professional learning:

- Strategic planning
- Learning in action (deliberate or unaware)

- Sustained use of participatory decision-making, through the management committee and consensus system, seeking participatory democracy for transparency
- Emphasis on core leadership development and support despite brain drain and depleted professorial support
- Periodic professional development of university administrators
- Using university-community partnerships, outreach and engagement – cultivating entrepreneurial academic mindsets
- Promoting research, innovation and knowledge management

Undoubtedly, while registering gains on the above, the university has met with some challenges in its quest to live up to its developmental ideals, among them the following:

- Consolidating the processes and practices of learning and teaching to approach world-class standards
- Enhancing the unique selling advantage – such as the industrial attachment programme
- Investing in building a sustainable culture of quality and academic excellence in teaching, research and extension
- Attracting and retaining key staff at academic and management levels

As I participate in voicing the assurances and concerns of my university community, I am not sure if I am not one of those action researchers of whom McNiff and Whitehead (2006:46-47) say, “begin their enquiries on the grounds that they want to improve certain aspects of their work or work situation, in order to live more fully in the direction of their social and educational values, ... they experience themselves as ‘living contradictions’ when their values are denied in their practice”.

The action, or the target for the institution, is prospective quality assurance and quality enhancement in processes and products that characterise a university’s mission in the prevailing scenario. The two processes of action learning and action research take the researcher and research participants towards addressing the action. Action learning is built around a significant problem, project, challenge, issue or task, the resolution of which is important to an individual, team or organisation (Marquardt, 2002). Action research entails

involvement by the researcher and partners in an unfolding situation which needs intervention, interpretation and reflection. More is said about action learning and action research later in this study report (Section 3.3.1). Suffice to add that through self-renewal, research contributes to organisations that learn, promoting the learning of all their members and consciously transforming themselves and their contexts (Peddler et al., 1997).

Another motivating factor for this study has had to do with *identity discovery* on my part. Over the years of my practice in facilitating learning for my adolescent and adult learners, I have held tentative and unproven views about quality practices and what drives university student learning. At times I have tried and implemented measures to address my desires for quality practice. At other times I have resorted to the usual ordinary practices that I knew were mediocre. In the middle of my reflection on my actions, I have often wondered what I stood for, and what my professional identity was. I have observed that there were at the very least quite a few of my colleagues in the same boat with me. And when I recognised that my personal uncertainties were shared with those of the other colleagues of mine, and that they were products of broad-ranging situations defining my work environments, my views have changed. I no longer have had to blame my own personal inconsistencies, and, in the words of Butin (2005), I could see possibilities in joining with others to take action, while also seeing possibilities for developing stable habits and personalised styles as an individual. To substantiate my on-going learnings and understandings of quality and effective practice in context, I describe the background features of the university in general, and the programme that is central to this study in the next section.

### **1.3 Background to the study**

In the current drive for globalisation, enterprising institutions and organisations strive for effectiveness, relevance, continuity and survival by engaging the concept of quality. In all phases of any undertaking in today's world, be it planning, processes, systems or products, quality is an indispensable component and a guide to competitiveness and goal achievement. Regrettably, although quality is widely desired and much sought after by many organisations and institutions, it is neither easy to achieve nor to sustain.

Universities in developing countries exist and function in the midst of a diversity of communities and in socio-economic contexts often characterised by problems. Ngara (1995) notes that the African continent experiences unique economic, social, cultural and political challenges, many of them a direct result of European imperialism, economic mismanagement by African leaders and a shortage of the requisite human resources. Ngara's (1995) view suggests there is a combination of factors that work against Africa's development, bordering around practices and world views held by those wielding the power to transform the continent from within. It calls to question whether the university, as one of the most stable and resilient national institutions, is well placed to influence development agendas in Africa's struggling nations.

### ***1.3.1 The Ideal University***

Many of today's leading African universities were inaugurated during the era of colonisation by foreign powers. They were thus positioned to serve colonialist interests benefiting privileged minorities, notably the business and industrial sectors, state and local government authorities, sectoral civic and civil society, and other non-inclusive institutions. In the post-colonial era, however, these prestigious institutions of higher learning have had to shift policy and allegiance gradually, being required to increase interaction with indigenous and local communities around them, and operating under the vigil of majority-ruled governments. The communities in question, however, have also slowly warmed up to the western culture in which the university was founded. The transition is not smooth and easygoing. Efforts at mutual understanding and searching for meaning have been initiated, necessitating the growth of engagements bringing the two cultures together.

By reason of its mission and positioning, the modern university in a developing country has maintained a number of partnerships and collaborations with sections of its communities. However, little is known about the nature and forms of these partnerships (Kruss, 2005) and the level of reciprocity within them (Feldman, Moss, Chin, Marie, Rai & Graham, 2006). Much less is known about the congruence between the internal university culture and that of the community surrounding it in a developing country context to enable the articulation of collaborative engagements that maximise shared benefits.

Several decades after national sovereignty, universities in developing countries still largely remain shadows of institutions in industrialised countries. The historical tradition of universities being western has little if anything to do with the intellectual or educational traditions of the Third World (Altbach, 1998). Further, the university concept is not part of the culture in developing countries, and to date no Third World nation, regardless of political ideology or orientation, has altered, in a basic way, the western university model. Third World universities are mainly urban institutions commonly separated physically, culturally and intellectually from their immediate neighbourhoods, largely the rural majority populations, and European languages continue to occupy a key place in higher education. Consequently, because of the entrenched historical, knowledge and cultural incongruence, Third World universities have tended, on one hand, to associate more with the knowledge-rich, large-scale, formal and well-established local organisations for beneficial and reciprocal interaction, and on the other, to disadvantaged and marginalised sections of the community for charitable and philanthropic engagements. In the process, many of the more proximal, middle-of-the road and knowledge-starved sections of society, among them the small and medium-scale enterprise (SME) sector, have been left out of active and sustained partnerships with these institutions of higher learning and knowledge generation. Broadening the scope of collaboration to include this and other sectors impacts on the quality and depth of community engagement. And since quality and standards are pertinent issues in university business, the consideration of quality assurance and quality enhancement initiatives in the development of the broad quality agenda aids our understanding of the process of institutional change (Filippakou & Tapper, 2008). There is a need for academic-community interventions which inevitably interrupt routine processes so as to produce some sort of change for social betterment, change whose quality, quantity and purpose remains a central focus of scholarship (Cooks & Scharrer, 2006:44). Carriere (2006:14) advocates for ‘radical institutional change’ and the recruitment and support of ‘new champions’ in higher education to carry such change forward. This is an issue touching on university leadership, administrative functions and overall staff professional development.

Leadership revival, renewal and development, in my view, become the guiding principles of a university seeking world-class recognition. They are aimed at developing a new breed of institutional leaders capable of adapting to the fast-changing scenarios

manifesting in the need for engaging with the community in, and driving their institutions through hitherto uncharted waters in the quest for recognition among progressive peers. Staff development, for its part, identifies knowledge and skills necessary to move the university forward, and imparts these to willing and dedicated staff who link with the leadership in achieving agreed goals.

Active community engagement cannot succeed without institutionalisation (Shrader, Saunders & Marullo, 2008), and institutional change promotes integration of community engagement into the mission of the institution and into the teaching and learning processes (Carriere, 2006). Visible signs of community engagement include the creation of ‘living-learning communities’, the production of ‘service-focussed undergraduates’ and the development of ‘off-site institutions’. According to Wood (2007), the ultimate goal of community engagement is to produce graduates with critical and practical competences (as well as positive attitudes, values and virtues) who would be socially relevant throughout their lives in a rapidly changing world. However, much more can be achieved. Learners’ intellectual and other competences can be developed through other enabling means of learning such as metacognitive and holistic learning approaches (Du Toit, 2008).

There are challenges to successful community engagement. The traditional university faces practical and conceptual hurdles as engagement activities appear in competition with traditionally acknowledged roles of teaching, research and community service (Bloomgarden & O’Meara, 2007). The nature of engagement is also often contested as university-community partnerships look quite different and often bring out diverse and sometimes negative outcomes (Kecskes, 2006). If, for instance, students spend a considerable amount of time at the workplace, some people may question the difference of university education to apprenticeship and hands-on learning often thought suitable for learning of manual competences and experiential tasks. I consider this argument valid on the face of traditional conceptions of university education, where the student is expected to assimilate a large repertoire of knowledge, practical competences, attitudes, values and virtues from senior, knowledgeable and experienced mentors quickly, before going out to apply these resourcefully and innovatively in the community.

This study is situated in the context of learning practitioners in a higher education institution. It has utilised mixed methods enquiry to analyse an aspect of learning embedded in existing university-industry partnerships, the aspect of industry-based learning. The study also seeks to characterise and/or synthesise a model of sustainable and mutually beneficial engagement between a university in a contemporary developing country and ‘needy’ sections of its industry community, namely the large-scale and the small and medium-scale enterprises sector. The ‘responsive’ university and its academic posturing is questioned if it cannot transcend to meet the aspirations of an equally ‘needy’ community around it, which is searching for solutions to its own survival. To put in clearer perspective the subject of inquiry in this study, a closer description of the involved institution and its mission is necessary, together with the national milieus that created and nurtured the university under study.

### ***1.3.2 Historical Background***

Zimbabwe’s accelerated drive for advancement in general education started at the attainment of independence in 1980, following close after just under a decade of a protracted war of liberation and about two decades of political contestation between nationalists and the successive colonising British settler regimes. The early years of independence saw phenomenal increases in the provision of primary and secondary education in terms of increasing the number of schools and enrolments in existing ones. Although the quality of the education was initially negatively affected by the shortage of qualified teachers, learning materials, adequate and appropriate facilities, the outcome was a manifold increase in the number of literate and relatively knowledgeable young people within the first ten years of national independence. Driving this was a bold political stance and a buoyant agriculture and mineral-based economy responding to the overwhelming support of the free world towards a newly emancipated member. In a short time, Zimbabwe’s literacy rate was counted among the top five in Africa, and within the country, education was taken very seriously by individuals, families and organisations, all taking the cue from the government which featured the education budget persistently as the highest in its fiscal expenditure for successive years.

The inevitable outcome of the above was that the increasing number of secondary school graduates became suddenly unemployed, even when they had good passes. These then opted to apply to the then only university in the country, the University of Zimbabwe.

This university had by 1982 already started feeling the pressure of increased numbers of applicants, and in that year mooted the idea of a second university or campus (National University of Science and Technology, 2003). It was not until 1987 that serious moves were taken and by 1991, after submissions to government, a commission, a Foundation committee, the draft University Bill and the subsequent Act of parliament were in place. The National University of Science and Technology (NUST) was thus born in the second largest city of Zimbabwe, about four hundred and forty kilometres away from the University of Zimbabwe in Harare. One of its purposes was ‘the advancement of knowledge with a special bias towards the diffusion and extension of Science and Technology through teaching, pure research, applied research and the fostering of close ties with commerce and industry’. Furthermore the focus of the university academic pursuits was to combine sound theoretical training with a strong applied orientation (Williams, 1989).

One of the methods adopted to foster close ties with industry and commerce by NUST became the introduction of a unique model of industry-based learning. The regulations governing the industry-based learning used by the university are summarised in the yearbook (National University of Science and Technology, 2003). The university calls the programme ‘industrial attachment’ (IA). All students undertake a full year of work-related learning during their penultimate year of study in an organisation approved by their respective departments or faculties that evaluate the suitability of the organisation’s functions to the requirements of the curriculum. The regulations stipulate that, during the attachment period, students receive an allowance, insurance and medical aid from the university. The allowance is provided by a government-linked institution, the Zimbabwe Manpower Development Fund (ZIMDEF). However, the above-quoted regulations further state that, ‘If the company wishes to pay the student an extra allowance, the arrangement is only between the two parties, the student and the company involved.’ The result of this has been that these additional allowances have differed substantially from company to company. Over the years of the economic crisis, the ZIMDEF allowance gradually fell off or became erratic, so that students depend on the company allowance or have their parents or guardians meet their living expenses for the attachment year.

While the industry-based learning strategy originated at one university, the National University of Science and Technology (NUST), as a unique and innovative approach to

university education, over time and on realising the importance of the strategy, other like-minded universities coming on the scene were quick to adopt the same in the spirit of sharing good practice. Generally, the use of real workplaces for teaching, learning and professional grooming of university students is a feature of medical schools the world over, many of which have university teaching hospitals attached to them. At the college level polytechnics, technical and teachers' colleges have employed workplace-based 'practice' of varying formats and durations.

Of particular interest in Zimbabwe's educational history is a unique teacher education programme for primary school teachers that operated between the early '80s and mid-90s called the Zimbabwe Integrated Teacher Education Course (ZINTEC). This programme used the system of a sandwiched whole-year deployment of student teachers in schools where they filled in vacant teaching posts. The programme meant that students studied an array of pedagogical subjects through distance education, reinforcing this through vacation courses and weekend seminars, and practising teaching on a full-time basis with the same responsibilities as qualified teachers (Bassoppo-Moyo:undated). While on this deployment, the student teachers were under the close professional supervision and guidance of the head, deputy head or other experienced senior teachers in the school. College lecturers paid periodical supervision and assessment visits to the students in post, and they were given staggered practice-related written assessments throughout their year of 'teaching practice'. It is evident that the NUST industrial attachment model has borrowed from the ZINTEC approach the broad concept of on-the-job professional development and workplace learning. Whereas the typical ZINTEC student teacher spent more of his/her four-year teacher education programme in the workplace, that is, the school, the NUST student spends more time on campus, for good reason.

The period beginning in 2000 has seen the gradual (sometimes very rapid) and harsh economic decline in Zimbabwe, reaching the peak around 2008. This has affected the factories, shops, and organisations - the sites of workplace-based learning for the university. This study was conceived in 2008 and the fieldwork was carried out between 2010 and 2011. The effects of the reported economic upheavals on this study are quite significant, and they have been discussed in later sections where they apply. To cap it all, the brief snapshots above on how NUST runs its model of industry-based learning

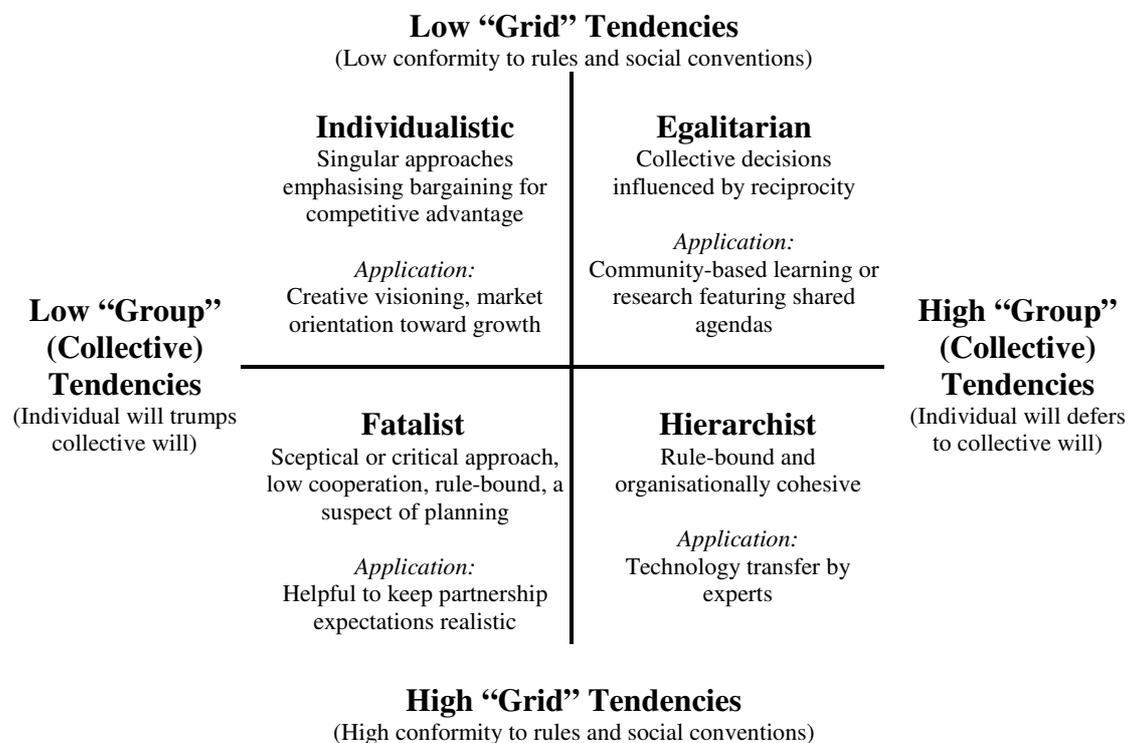
describe the background that forms the basis of all the discussions in this study. Further descriptions are provided where applicable in the report.

### 1.4 Research Scope and Focus

To situate this study within the broad conceptual themes it is important to discuss the issues that inform the study and thereby provide a guide to its scope and conceptual boundaries. Also, relating to the mission and the goals of the university discussed above, this section links the nature of industry-based learning practised at the university to what is happening elsewhere in the world.

#### 1.4.1 Styles of university-community partnerships

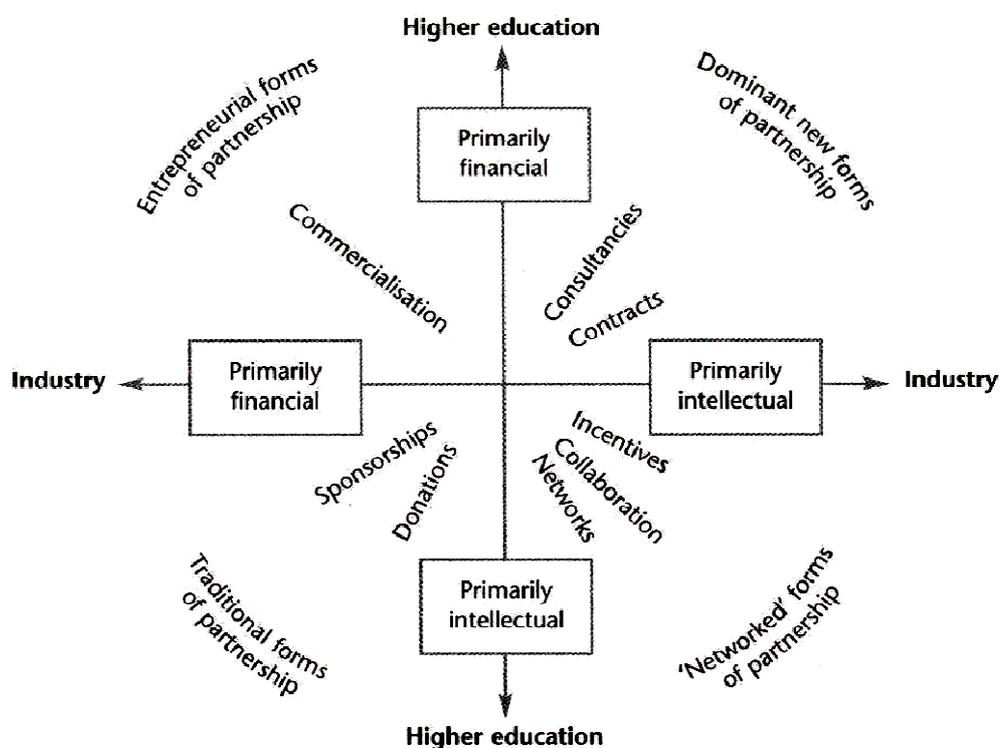
Having investigated the nature of university-community engagement in American universities, Kecskes (2006:6) provides a model (Figure 1.1) depicting four styles of university-community partnerships. The four styles, *individualistic*, *egalitarian*, *fatalistic* and *hierarchist* are presented in a four-quadrant format. The first, the *individualistic* style, depicts a situation in which one or both partners seek to gain competitive advantage through the engagement. The partner embarks on creative visioning, and orientates itself towards growth in its market. This style is weak on group or collective will, as well as low on conformity to rules and social tendencies.



**Figure 1.1: Four styles of university-community partnerships: An application of cultural theory** (Source: Kecskes, 2006:6)

In the *egalitarian* style collective decisions are highly influenced by reciprocity, still low on conformity to rules and social conventions, but there is a substantial incidence of shared agendas. The *hierarchist* style depicts high conformity to rules and conventions, is formal and rule-bound, as well as having high group tendencies. The fourth style, the *fatalist*, is an individualistic and critical approach, with emphasis on rules and conventions, keeping partnership expectations realistic.

The model of the four styles of university-community partnerships by Kecskes (2006) gives a lens with which to view existing and envisaged university-industry partnerships. I view my university and others around currently featuring more on the individualistic and fatalistic quadrants, needing to increase emphasis on the group and collective strategies of engagement with surrounding communities.



**Figure 1.2 Forms of higher education industry partnerships in South Africa** (Source: Kruss, 2005:75)

In another four-quadrant matrix representation, Kruss (2005:75) has analysed the forms of higher education-industry partnerships found in South Africa (Figure 1.2). The nature of partnerships, according to Kruss (2005:75), is ‘defined by either a primarily financial or a primarily intellectual imperative.’ In the whole analysis, the four forms of partnerships that emerge are *traditional*, *entrepreneurial*, *dominant new*, and *networked*. Each of these forms has a characteristic set of activities that identify closely with it. For example, the traditional form of partnership is primarily an intellectual exercise for the university and primarily financial for industry, and is characterised by industry sponsorships and donations to the university.

Universities that exist now but are looking into the future will go beyond the traditional form of partnership. They will seek not just the intellectual benefits of their actions, since these mean that they are perpetual beggars and eager recipients of fiscal handouts, donor aid and corporate benevolence. Outward-looking universities will want to forge a respectable self-made identity and semi-independence based on their own creativeness. Thus they will include newer financially-driven forms of partnerships that engage entrepreneurship and networking. Workplace organisations for their part will find that they cannot naturally continue on a pure financial path if they are to maintain competitive advantage. Knowledge and its use are burgeoning, practices are changing, and people are becoming more pliable and liberal. Organisations that do not enter the learning culture, be they industry or institutions, to become ‘learning organisations’, face the possibility of fast extinction. Both university and industry seem geared to pursue both intellectual and financial goals at the same time in appropriate proportions.

#### ***1.4.2 Focus of the Study***

The above two and other models in the literature have provided the conceptual basis for this study, which addresses community engagement between the National University of Science and Technology (NUST) and its partners in industry. Since its origin in 1991, the university has pursued a number of community outreach and engagement programmes and the industrial attachment programme for undergraduate students is the prime one. While the focus is on the programme at NUST, a comparison of similar activities in other universities in Zimbabwe is made.

This research draws from my interest in the broad area of partnerships and engagements between higher education institutions and their various communities. In 2006 I carried out a small fact-finding study on university-community collaborations and their contribution to enhancing quality to move our university towards world-class status. I presented the results and analysis of that study at an in-house seminar for senior administrators at NUST in early 2007. From the encouraging response I got from the seminar I decided on an extended and formal research study, culminating in this effort. This study, therefore, which seeks to characterise and analyse the benefits of industry-based learning in an existing partnership programme, also proposes to develop a model of university-industry collaboration that would be considered by universities that seek to use industry-based learning or its other versions, as well as for an industry that seeks to grow together with its local citizens. The proposed model (Appendix XII) comprises three levels, Level 1 being the most basic, and level 3 the most comprehensive. In the next section the objectives of the study, the research question and sub-questions are presented formally, and after that, the conceptual framework underpinning the study is unveiled.

### **1.5 Objectives of the Study**

This study aims to achieve the following:

- To obtain and consolidate views of participating students, university and industry staff on the nature and quality of academic practices (processes, outcomes and outputs) achieved through the NUST industry-based learning programme.
- To analyse critically the respondents' views and interpretations on the need for country-relevant and responsive university education as a driver for sustainable human development in a developing Zimbabwe.
- To develop a model indicating levels of engagement between universities and industry in a variety of mutually-beneficial activities.
- To highlight and interpret views from the respondents and from the literature on possible ways of strengthening the current industry-based learning format to be aligned with the changing vision, conditions and needs of a modern university.

### **1.6 Research Questions**

**Key question:**

***How does integrated industry-based learning enhance quality academic practices and relevance to national needs of Zimbabwe?***

The key question is broken down into three main questions below, each of which is broken further into sub-questions under them:

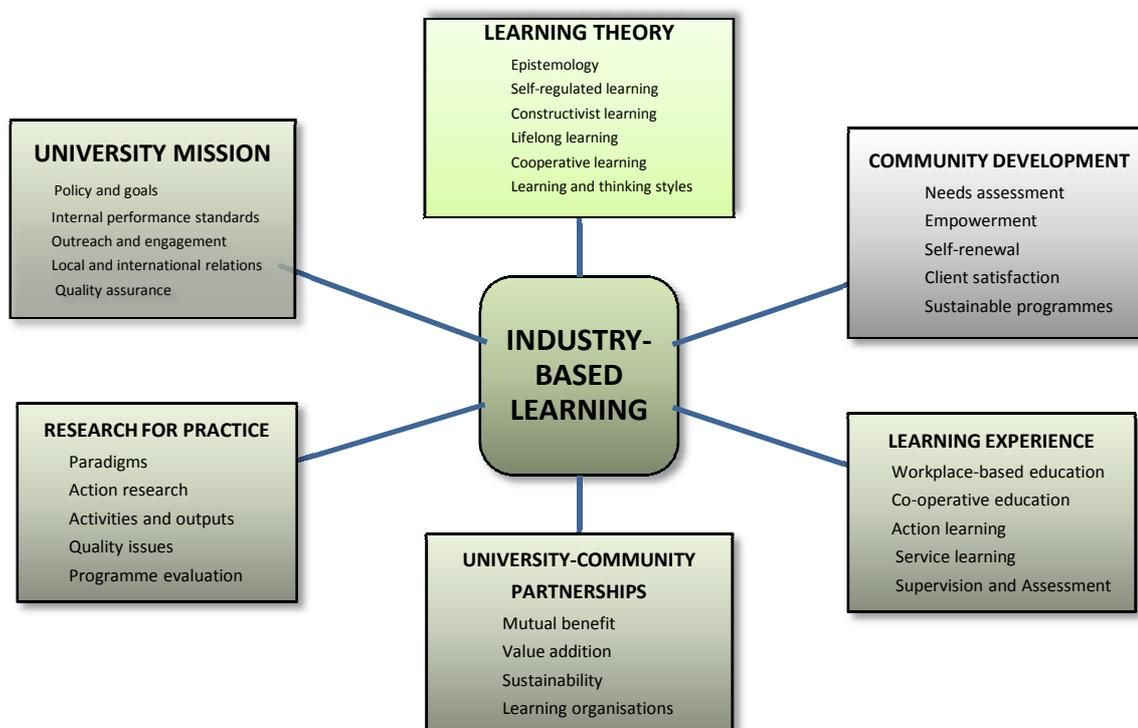
- a) What understanding do participating students, lecturers and industry supervisors wield on the nature and quality of academic practices realised through industry-based learning at NUST?***
- i. To what extent has the NUST brand of industry-based learning been jointly perceived as significant in enhancing quality academic practices in university teaching and learning by participating students, lecturers and industry supervisors?*
  - ii. How do the participants' views on the potential for, and the achievement of research-driven learning and learning-focussed research and development (R&D) in the current industry-based learning format indicate concern for an effective university service?*
  - iii. How is the proposed and developed model for university-industry engagement conceived by lectures as a contributor to sustainable transformative learning and mutual benefit to both partners?*
- b) How do the views of participants inform analysis of the local relevance and impact of value-added university education on national socio-economic development?***
- i. How does the perceived value added by industry-based learning indicate an improvement on the traditional and prevailing modes of university teaching and learning that affect graduate performance in the workplace and beyond?*
  - ii. What contributions are perceived to be attributable to industry-based learning in knowledge growth and holistic economic development of the country?*
- c) How do sentiments shared between NUST and other Zimbabwean universities engaged in industry-based learning indicate their awareness of quality practices and the importance of needs-based and responsive higher education?***
- i. What motivations have popularised the NUST brand of industry-based learning among sister universities and why?*
  - ii. What quality academic practices are expressed by participating universities and how do they signify goal-directed and needs-based university education?*

iii. *How is integrated industry-based learning perceived to respond to local needs of Zimbabwean society?*

### 1.7 Conceptual Framework

The culture of openness and endurance, the perceived neutral and apolitical orientation of the university in a changing society, and the drive for creativity, promote free knowledge generation, development, advocacy and change, for society's and the university's own survival. Describing them as the 'conscience of society', Jarvis (2001) states that universities cannot afford to remain ivory towers alien to their immediate neighbourhoods and ignore meaningful engagement with a variety of communities, big, small, rich or poor, to become 'sites of the production of multiple and contending perspectives'.

Waghid (2002:19) avers that university research has to be relevant and socially accountable, primarily by supporting the economy of a country and promoting the quality of life of its typical citizens. It will not be enough to nurture researchers and educators who have had little capacity to work in their local communities but who could move to any industrialised country, and serve any privileged community around the globe with comparative ease (Crossman, 2004).



**Figure 1.3 Conceptualising university-community partnerships**

A conceptual framework for approaching the proposed research study on university-community partnerships is presented diagrammatically in Figure 1.3. The framework is built on the image of what Daniels and Adonis in the Higher Education Quality Committee (2006:142) call ‘an infused approach to institutionalisation of service learning based on the higher education institution policies’. The university has its mission and goals, expectations and mandates, which will impact heavily on what sort of engagements it can enter into with the communities around it. The nature of partnership activities, according to Martin (2000:4), includes student placement schemes, staff exchanges, consultancy services, continuing professional development, joint research and development (R&D), small enterprises development and creation of spin-off enterprises for the joint commercialisation of R&D products.

Common reasons for universities to seek community collaboration are to carry out routine administrative business, to solicit support for academic programmes and processes, to maintain curriculum relevance, and to contribute to various areas of national economic activity. The communities themselves are motivated by the pursuit of development efforts, and they look to themselves and acceptable capable others for ideas on development. A key element in this intricate setup is ‘learning’, not just for university students, but for all involved in the collaborations. This makes lifelong learning a key strategy in the human development matrix, particularly the development of careers in an advancing technological world. Theory helps practitioners to locate their activities and outputs within an existing thesis of conceptualised ideas arrived at by others over a long period of time. This affects the research processes and the programme evaluation methods and purposes. Learning theory is particularly useful to bring together world-views and strategies that maximise the effort of passing on constructed meaning and tradition to younger generations.

The theoretical or conceptual framework (Figure 1.3) presented above is a mere guide to the understanding of identified dimensions of industry-based learning that are visited in this study. In typical constructivist style, the motivation of an inquiry or investigation such as this is the construction of new theory based on experience and existing knowledge rather than the articulation of previously established and documented theory in the literature. Thus my experiences and the experiences of colleague lecturers and

supervisors serve in this study to point to the construction of new meaning, and subsequently to the development of new theory.

### **1.8 Limitations and Constraints**

This research is a case study in which one university is the principal source of information. However, some limited data was obtained from other universities within the country that have adopted the same pedagogical approach. Universities are unique and autonomous, and there is no one model of university. Although this research negotiates its arguments from the platform of a developing country university, it does not claim to be representative of all the universities found in the group of developing countries. The research took place at a definitive moment in Zimbabwe's history, the height of unprecedented socio-economic turbulence, and it is possible that the outcomes of the study would have been different if not for the current situation. The notable constraints were that the moods and preoccupations of participants were not the usual, and the experiences around the living and working spaces of the respondents were far from being normal. In this light, too, caution is exercised as the implications of the research are discussed, since no attempt is made to quantify the effects of the aforementioned economic unrest.

### **1.9 Organisation of the Study**

This thesis is divided into six chapters. So far in this first chapter I have laid the foundations for the study by first outlining the motivation for and the background behind my choice of the study theme, and then providing the scope, purposes and the conceptual grounding for the study. In the next chapter I explore the key themes in the research literature that inform and shape my conceptual ideas, methods, analysis of results and conclusions reached in the study. In Chapter 3 I report on the choice and utilisation of methods and techniques to gather and analyse all original data required to answer the questions and sub-questions of the research. Chapter 4 presents the results and findings, while Chapter 5 provides the discussion and interpretation of the results in view of the questions and in light of the literature. In the final chapter I present my conclusions and recommendations.

In the early stage of the research project, I developed a working time schedule or activity plan meant to guide me as I went about carrying out the different requisite activities that would eventually see me reach my goal. The simplified Gantt chart in Appendix I shows

both planned and actual activities. The purpose of the chart, first developed by Henry Lawrence Gantt in 1925, is to be “an insightful graphic presentation of the activities that have to be carried out in a plan” (Mulders, 2010:159).

### **1.10 Conclusion**

I have engaged in self-reflection and personal professional challenges so far encountered in my career as educator in a university environment to conceive this study that centres on workplace-based learning. The desire to see improvement in my own and my colleagues’ academic practices in addressing students’ learning is the impetus for this study. As the concept of quality drives all competitive and progress-seeking organisations and institutions, my study takes a deliberate slant towards issues that define and portray quality assurance and quality enhancement as ultimate goals for academic practice.

A key underlying assumption of this study is that a university operates within a defined community or group of communities to which it is answerable for the bulk of its activities and influences. It is thus expedient that the university engages in a manner to add appropriate value to all the communities it is connected and committed to, be they proximate or remote. The key focus of this study addresses the mutuality of benefits in a partnership such as that between a university and its industry partners. In adopting a mixed methods approach of inquiry, I am attempting to reach out to multiple sources of information and to stimulate alternative dimensions of these sources. In other words, the use of a variety of methods is expected to bring out more perspectives from the same respondents as well as capturing views from more respondents.

With the main goal of advancement of human well-being in mind, this study partially seeks to promote wider involvement and continuity of the processes of enquiry, practice and reflection on a shared activity in a developing university that is in the process of building a culture and seeking a niche in the well-subscribed space of competitive institutions. The university under study has to be accountable to the adjacent communities from which it derives many of its resources.

In exploring multiple dimensions of the research topic through the key research question: *How does integrated industry-based learning enhance quality academic practices and relevance to national needs of Zimbabwe?*, I attempted to involve a selection of

participants in the industry-based learning activity to provide views of their experience so as to build a case around this activity of interest. The research sub-questions also provided a basis for further analysis and breakdown of information to bring out a unified argument that adds to existing knowledge.

Theoretical underpinnings of this study rest on the institution's mission and goals, influenced by learning theory affecting young adults, concern for communities served and the nature of relations, actual learning experiences, and the role of research and practice, all ensconced in the realm of quality assurance and quality enhancement. Like any other undertaking that seeks to lay claim to new or re-constituted knowledge, this research study has its own inherent limitations and constraints that invariably undermine the production of an infallible scientific effort. In the next chapter, I explore some of the concepts and ideas encountered so far in greater depth with reference to the accessed existing literature. Other related and pertinent concepts are also brought into focus in as far as they shed further light to the study. The literature helps to position the study in relation to similar studies and to existing knowledge shared and published on the concepts around the study topic.