

Responsiveness and its Institutionalisation in Higher Education

François van Schalkwyk

A thesis submitted in full fulfilment of the requirements for the degree of Magister Educationis,
in the Department of Education, University of the Western Cape.

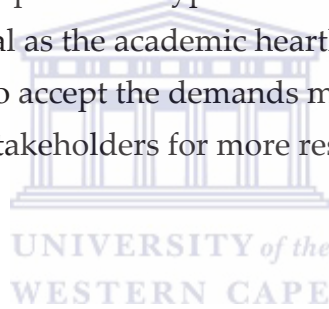
Supervised by Dr Nico Cloete

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Abstract

This thesis proposes a typology of responsiveness in order to reduce interpretive ambiguity and to provide a framework which makes possible an assessment of the extent to which responsiveness is likely to be institutionalised in higher education. The typology is tested at two universities. The findings indicate that the typology developed can be deployed to reveal insight into how responsiveness is manifesting at universities. The findings around institutionalisation of responsiveness are less conclusive but indicate that while there is evidence of the institutionalisation of a particular type of university responsiveness, the process is at best partial as the academic heartland of higher education systems remain slow to accept the demands made by the state, university leadership and other stakeholders for more responsive universities.



Keywords

responsiveness

engagement

third mission

institutionalisation

typology

development

higher education

South Africa

Mauritius



Declaration

I declare that *Responsiveness and its Institutionalisation in Higher Education* is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

François van Schalkwyk, October 2010



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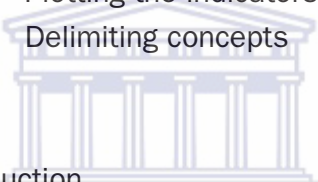
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Basic to the analysis of academic change ... is the simple principle that existing structures have response sets that shape what follows ... We need to shift analysis to the response side, to search for the institutional conditioning of action and reaction ... Those who would change a modern academic system need to know that desired changes will attenuate and fail unless they become a steady part of the structure of work, the web of belief, and the division of control.

— Burton Clark,
The Contradictions of Change in Academic Systems



Introduction

In Don DeLillo's *White Noise*, Jack Gladney is the chairman of the Department of Hitler Studies at an American college. Jack claims he created the programme in Hitler Studies because he anticipated the demand for such a programme. He received support and a few pointers from the college chancellor who was 'quick to see the possibilities'. Hitler Studies becomes hugely successful, drawing many students (and fee income) and earns the college an enviable international reputation. The chancellor dies in a ski-lift accident in Austria, and Jack Gladney puts on weight and dons glasses with thick, black frames to acquire greater austerity needed to become a more legitimate Hitler expert.

White Noise was published in 1984, long before the emergence of the keyword 'responsiveness' in the higher education studies literature. DeLillo's own post-modern social commentary aside, the story of Jack Gladney and the rise of Hitler Studies provides an interesting, if unexpected, springboard for some of the issues commonly raised in the debate on responsiveness in higher education. If we take it for granted that the rise of Hitler Studies is an example of a higher education institution being responsive, then one could raise several pertinent questions: Why the need to create a Department of Hitler Studies in the first place? Was it a selfish career move by a burgeoning academic or a loyal attempt to promote the reputation of the college? Perhaps it was an insightful attempt to develop specific or more detailed knowledge within the broader discipline? How would society benefit from the creation of a Department of Hitler Studies? Are there any such benefits? Or maybe the question could be asked whether there *should* be any direct, quantifiable benefits for society when students are paying 'the College on the Hill' in excess of ten thousand dollars a year for their education? Should the benefits that

accrue from their investment in education not be of a personal rather than a public nature? And should students as paying customers not be entitled to courses or programmes that they demand? In short, is a Department of Hitler Studies the kind of outcome policy-makers and other external stakeholders have in mind when they call for greater responsiveness in contemporary universities?

As noted earlier, *White Noise* predates the emergence of responsiveness as keyword in the literature. Perhaps this is telling in a less obvious way. The notion of change in universities in response to significant developments in the environments in which they operate (in DeLillo's case, changes in American society) is neither new nor is it specific to the recent emergence of the call for responsive universities by both the state and other stakeholders. The keyword 'responsiveness' could conceivably have emerged as a moniker for change. Why then has the term 'responsiveness' emerged in recent years? A possible explanation is that the call for responsive universities is an attempt to engineer enduring change within the university's ivory towers (both in its organisational form and function) in order to create what is perceived to be a more direct link between the university and its socio-political context thereby ensuring that universities make a greater contribution to the advancement or development of society. And that responsiveness, with its positive normative dimension due to its ostensibly noble intentions, is thought to be a more palatable notion for universities that are at worst resistant to change and at best slow to do so.

Key to this process of engineering change within the university is the observation that the drivers of change are now increasingly complex and predominantly external to the university (Amaral et al. 2002; Du Toit 2007; Jongbloed 2008; Neave et al. 2000) whereas in the case of the College on the Hill, the change was ostensibly driven from within. Sawyer (2004: 50), in coining the expression 'the immediacy of the external', adds to environmental change the dimension of a change in the degree of insulation traditionally enjoyed by universities from such external pressures. As the dependency of the university on

external funding increases (and it is forced to turn to the market for additional income) and as the state as the last bastion of bloc funding shifts its expectations in terms of the function of higher education, the university can no longer shut out these external demands (Mora & Vila 2003). Increasingly, constituencies external to the university are demanding change based on the belief that there is a correlation between investment in higher education and (economic) development, as well as on the ever-insidious notion of a non-negotiable positive return on the investment made in higher education by these external constituencies in the form of the state, donor agencies, students and the attentive public (Jongbloed et al. 2008).

The assumption made on the part of external stakeholders, particularly those who seek a positive return on their investments (be they monetary or non-monetary), is that responsiveness in higher education will result in a closer relationship between the university and society (including industry, the labour market and local communities) thereby ensuring that higher education makes a contribution to development. Based on this understanding of the function of the university, the institutionalisation of responsiveness is therefore seen as desirable; the responsiveness of universities must be permanently embedded in the accepted scripts and practices of universities rather than being incidental or confined to symbolic gestures. Current policies at both national and organisational levels are indicative of attempts at institutionalising responsiveness and reinforce the belief that responsiveness is indeed being institutionalised in higher education. It is this assumption which this thesis wishes to challenge: Is responsiveness becoming a steady part of the academic endeavour?

1.1 Statement of problem

Encapsulated in the question of whether responsiveness is being institutionalised in universities lies a seemingly innocuous problem:

how is the notion of responsiveness understood by these stakeholders and, more importantly by the universities themselves? In other words, while responsiveness is increasingly expected to become part of what academics do, university responsiveness is variously understood and applied, and there appears to be a lack of sensitivity to *how* responsiveness is being accepted and operationalised by universities (particularly their academic staff). Both of these conditions potentially hamper the presumed positive impact of responsiveness on development and may have negative, unintended consequences on the traditional functions and contribution of higher education.

There is therefore a need both to develop clarity around the notion of responsiveness at all levels of the higher education system and to assess the extent to which responsiveness is in fact becoming part of the daily, taken-for-granted activities of the university.

1.2 Research question

In order to address the above problem, this thesis sets out to provide clarity around the current understanding of responsiveness as well insights into how responsiveness is being as institutionalised in higher education. The primary research question that this poses, then, is: How is responsiveness being institutionalised in universities? In order to answer the primary research question, this thesis will examine how responsiveness manifests itself at three levels of the higher education system – the national, macro level; the university administration, meso level and at the micro level of the university where its core function are carried out. In an attempt to answer primary research question, this thesis will seek to answer the following sub-questions:

- How is responsiveness currently understood in both policy document and the higher education literature?
- At the national level, is university responsiveness entrenched in government policy?

- At the level of organisational bureaucracy, are university leaders and administrators implementing processes and/or structures to promote responsiveness in their universities?
- At the organisation level where the core academic endeavours of research and teaching are located, are academics responding to demands to be more responsive?
- At each of the above system levels, what are the ideological imperatives for being responsive, and are they in alignment?
- Are the responsive activities of academics more or less likely to strengthen the core teaching and research functions of the university?

The answers to these questions will inform the research objective of establishing whether the expectations for responsive universities is in fact engineering the kind of change within higher education in order to create a more direct link between the university and its socio-political context, thereby ensuring that universities make a greater contribution to the advancement or development of society.

If it is found that universities are indeed embracing responsiveness, some consideration will be given to whether such a manifestation is partial or ubiquitous. If it is found that universities are not embracing the calls for responsiveness or are only doing so to a limited extent, then consideration will be given to why this may be the case.

1.3 Rationale and significance of this study

Given that there is a greater likelihood of universities bridging the divide between themselves and society by becoming relevant if responsiveness is institutionalised, this enquiry proposes to make an initial contribution in assessing whether responsiveness is in fact being institutionalised in higher education. This will be done by developing a better understanding of the concept of responsiveness as well as the conditions that promote or stunt the institutionalisation

of responsiveness in higher education. In developing a typology of responsiveness and deploying the typology to assess whether responsiveness is being institutionalised in higher education, this study will fill an existing gap in the higher education literature. This, it is hoped, will provide valuable insight as to the conditions in which responsiveness is more likely to be institutionalised and, by implication, how the university may contribute to development in a sustainable manner. That is, if responsiveness can indeed 'become a steady part of work, the web of belief and the division of control' (Clark 1983b: 114) in the institution of higher education.

From a broader and more ambitious perspective, it is hoped that this enquiry will provide some insight into the unique characteristics of universities as organisations operating within an institutional context; and that by examining how universities are grappling with change, a more nuanced understanding of organisational adaptation will be developed which, in turn, will lead to more realistic efforts to steer the contemporary university system.

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1.4 Scope of this study

Institutions operate across multiple jurisdictions. This, according to Scott (2001), is a defining characteristic of an institution. Jongbloed et al. (1999) support this notion when they describe the university in particular as universal in its function and form. Meyer (2007: 193) writes as follows:

This is perhaps the single most important implication arising from institutional theory. If higher education structures [...] reflect common models in national or world environments, they should show unexpected similarities across diverse settings and change in similar ways over time. And by all accounts, the university is indeed a central historic global institution. [...] The empirical literature provides clear evidence on this issue.

This introduces an important point in terms of the context and scope of this study. The location of the universities selected – Mauritius and South Africa – from an institutional perspective, is largely irrelevant. Universities in Africa or in Sub-Saharan Africa or in the Southern African Development Community or in middle-income countries, are all part of the same multi-jurisdiction institution as universities elsewhere in the world. They respond to the same institutional pressures to conform. They are bound by the same fundamental, unquestioned sets of rules and beliefs of what a university is and of what academics do. They are also prone to the same environmental pressures often attributed to globalisation.

Vaira (2004) confirms the universality of form in what he terms ‘morphemes’. But he also acknowledges declensions from the universal – local variants of the unified form. Others also point to ‘local realities’ in the face of global pressures (Cloete 2006; Sawyer 2004; Swartz 2006). The danger, however, of overemphasising these local realities is a possible African apologist approach. This kind of approach is evident in Altbach and Balan’s (2007: vii) research on what they call ‘world-class’ universities in which they deliberately exclude African universities on the basis of the ‘special conditions’ that characterise the African higher education landscape. In other words, there is a risk that local conditions come to obscure the universal characteristics that shape the university as an institution.

This is not to say that local realities are irrelevant or unimportant in the study of higher education, but that from an institutional point of view, African universities are fundamentally no different from their international counterparts. And to historicise and over-contextualise this study as particularly African, is to run the risk of setting African universities apart as a special case or, in the context of this study, as a different kind of institution.

A practical example of this distinction can be found in the massification of higher education in 1960s and 1970s in the USA and

Europe. While massification or the principle of equal access became institutionalised in higher education during this period, the manner in which it happened was uneven across the European continent. In some systems, enrolments increased up to 50% of the university-age cohort attended university, while in others, enrolments remained as low as 10% despite the acceptance of massification (Clark 1983b). In other words, while the fundamental principle of massification became institutionalised in higher education, the manner in which it was operationalised was conditioned by deeply entrenched (national) belief systems, thereby introducing regional variance. More recent observations citing agreements such as the Bologna Process in Europe and the effects of globalisation, contend that national conditioning of organisational form are becoming less pervasive (Meyer et al. 2007).

This study does not set out to deliver a verdict on whether responsiveness is good or bad, or whether it should or should not become an inevitable part of what universities do. Rather, it seeks to examine the prevailing conditions in higher education in order to reveal the observable outcomes and consequences – intended or otherwise – of current pressures exerted on universities to be more responsive.

This study does not claim to provide conclusive evidence for the likely institutionalisation of all types of responsiveness. This is because, first, there are types of responsiveness which I would argue are inherent to university functioning and this kind of responsiveness has ensured its survival over the centuries in the face of many threats and upheavals. Second, the study is concerned with a particular type of responsiveness observable at a particular level of the higher education system – that is, that of the academic endeavours of research and teaching – and not with other types of responsiveness which operate at other levels of the system. In other words, while this study will examine different types of responsiveness, only one type of responsiveness is operationalised. (See Chapter 3 for a detailed analysis on types of responsiveness and the type of responsiveness focused on in this study.)

This study advances on the assumption that it is relevant because there is a positive relationship between higher education and development. It does not seek to prove or justify this relationship, nor does it pay a significant amount of attention to the possible types of development which are so positively impacted on by higher education. It does, however, seek to establish how responsiveness is understood and whether responsiveness is progressing towards institutionalisation in higher education. The nature of the relationship between higher education and development is influenced, it is contended, by how responsiveness is being institutionalised in higher education.

1.5 Synopsis of theories and concepts used in this study

This study faces a particular challenge in developing indicators for the institutionalisation of responsiveness. This is because in order to develop indicators, there must be a clear understanding of *what* it is that the indicator is indicating. This thesis therefore seeks to establish a more coherent and sensitive understanding of university responsiveness before advancing possible indicators.

Responsiveness, in the context of higher education and in broadest terms, can be described as the state in which universities supply the market (labour, industry, students, etc.) with knowledge-based products and services that *match* the demands of the market. In order to advance the understanding of responsiveness, a typology of responsiveness is proposed which allows for the categorisation of responsiveness activities along dual dimensions of function and ideological imperative. A distinction between direct and indirect responsiveness is proposed and this distinction is critical in operationalising the study of academic activities regarded as instances of responsiveness.

The research draws considerably on institutional theory and on the work of Burton Clark on change in higher education systems in order

to develop indicators on the institutionalisation of responsiveness using the proposed typology of responsiveness.

From an institutional theory perspective, for a new process to be institutionalised requires that it becomes part of the shared set of beliefs and norms of the institution in question (Hall & Taylor 1996; Olsen 2007a; Scott 2001). North (in Dill 2004: 1) defines an institution as 'rules, norms of behaviour, and their enforcement characteristics, which shape human interaction'. An institutional theory perspective would suggest that the actions (including the allocation of resources) of actors within an institutional setting are shaped by their shared values, beliefs and norms. Therefore, by gaining insight into the behaviour and discourses (scripted actions) of the institutional agents, insight should be gained as to whether a process such as responsiveness is being institutionalised. In addition, the existence of rules, procedures and structures that sanction responsive activity will provide further evidence of institutionalisation.

At the same time, keeping in mind an understanding of an institution as being extra-organisational, one would expect to find responsiveness embedded in the policies and dictates of the state apparatus if responsiveness is indeed being institutionalised. In addition to evidence of responsiveness at various levels of higher education, one might also be interested to ascertain whether the *same* ideological principles drive responsiveness. An overlap of ideological principles could indicate a greater likelihood of responsiveness being institutionalised as it indicates a pervasive cognitive script operating at all three levels. Conversely, there may be evidence of responsiveness at all three levels in the system but the principles that underpin the existence of responsiveness may differ and this could conceivably be an impediment to the institutionalisation of responsiveness.

At the level of academia, over and above the extent to which it is in ideological alignment with policy (both national and organisational), it will be informative to evaluate both the type of responsiveness

activities that academics are engaging in as well as the degree to which such responsive activities are strengthening or weakening the academic core. The types of responsiveness observed will provide insight into the distribution of responsiveness in relation to the university's core functions. The degree to which activities strengthen the academic core provide an additional indicator for the likelihood of responsiveness being institutionalised. Activities which strengthen the academic core (so-called bridging activities) and therefore bolster the core functions of teaching and research, are more likely to be associated with the institutionalisation of responsiveness because the activities do not conflict with traditionally accepted and internalised notions of what it is that academics do. Conversely, buffering activities, that is activities which don't strengthen the core, can be interpreted as symbolic acts of responsiveness that decrease the chances of responsiveness being institutionalised.

Drawing on institutional theory it is suggested that responsiveness is more likely to be institutionalised if:

1. There is evidence of rules, structures, sanctions and accreditation in relation to responsiveness at the organisational level;
2. There is evidence of accepting the imperative for responsiveness at policy level, at the level of university governance (leadership, management and administration) and at the level of the disciplines (academia), and there is ideological alignment between all three of these levels; *and*
3. There is evidence of instances of responsiveness among university academics bearing towards strengthening the core academic functions of the university (that is, research and teaching).

Should there be a lack of ideological alignment and/or should responsive activities in the under structure be predominantly located in the extended periphery, then, despite the pressures being exerted, responsiveness is less likely to be institutionalised. Consequently, the call for responsive universities is less likely to engineer meaningful

change within higher education of the kind which will create a more direct link between the university and its socio-political context in order to ensure that universities make a greater contribution to the development of society.

1.6 Structure of this thesis

Chapter 2 examines the literature in order to map current pressures for university responsiveness, predominant polemics around perceived problems associated with responsive universities vis-a-vis knowledge, teaching and service, and provides a preliminary overview of the different notions of responsiveness prevalent in the literature.

Chapter 3 delineates the theoretical and conceptual framework for this study. It also provides what are suggested as important conceptual and ideological distinctions for the slippery notion of responsiveness. In order to operationalise the primary research question, while at the same time taking cognizance of the ambiguities inherent in the notion of responsiveness, a typology of responsiveness is developed and presented in the second half of Chapter 3. The typology serves as a framework for plotting different types of responsiveness but also serves as a template for assessing the extent to which responsiveness appears to be institutionalised. Proposed indicators for the institutionalisation of responsiveness in higher education are set out in the closing parts of Chapter 3.

The research design and methodology for this study are set out in Chapter 4. Chapters 5 and 6 present the findings for the cases of the University of Mauritius and the Nelson Mandela Metropolitan University respectively, and briefly discuss the findings at each of the universities. Chapter 7 concludes this thesis by providing an integrated and more detailed analysis of the findings, and identifies areas for further enquiry.

Literature review

Within the context of a globalising world, rapidly developing information technologies, diminishing public funding and increased expectations in terms of contributions to social and economic development, universities worldwide are being 'forced' to develop strategies on how to respond to new and increasing environmental pressures. That higher education is undergoing a period of intense pressure to change is neither a contested nor a revelatory statement. What is contested is the *process* by which such pressure will result in change and the *extent* to which the pressures will transform universities as we know them. Among the constellation of environmental pressures is the 'growing requirement to pursue, warrant and improve quality, effectiveness, efficiency and *responsiveness* in all the strategic higher education activities (didactic, research, curricula innovation, staff and budgeting)' (Vaira 2004: 490; emphasis added). If responsiveness is indeed a new, formalised requirement of the contemporary university, then the extent and form of its incorporation into the university will inevitably require and depend on adaptive strategies at organisational level.

2.1 Responsiveness in context

Generally speaking, the appearance of the term 'responsiveness' in the higher education literature is used to suggest the university's closer relationship with the market and/or society (collectively, 'the environment') in order to meet the needs of the market. These 'needs' originate from changes in society and the concomitant pressures exerted by society for higher education to make a contribution to the well-being of society at large. The most commonly referred to environmental pressures as follows: globalisation, accountability,

massification and reduced public funding (Brennan 2008; Gornitzka 1999; Jansen 2007; Moja et al. 1996; Neave & Goedegebuure 2006; Maassen & Olsen 2007). Peterson (2007) identifies seven environmental dynamics as change drivers: diversity, telematics (or ICT), quality, new learning markets, economic productivity, globalisation and resource constraint. Tierney (2004) identifies four pressures that are a result of changes in the environment in which universities operate: limited resources (increasing costs associated with decreasing income); changes in the workplace (both on campus in the case of academics and university administrators, and off-campus in the case of graduating students); the rapid up-take of new technologies, particularly in terms of the impact this has had on communication; and the dilution of both academic culture and common purpose.

The pressures driving the process of change within the contemporary university can be analysed at three levels: global, national and local-organisational. And while the level of interpretation or translation may be local, the requirements (or pressures) for responsiveness are simultaneously global, national and local, and should therefore be considered in all three of these contexts.

2.1.1 Global(isation) pressures

Several authors make mention of the need for responsive universities in the face of what are said to be rapid and extraordinary social changes on a global scale (Brennan 2008; Jongbloed et al. 2008; Jongbloed et al. 1999; Marginson & Rhoades 2002; Swartz 2006; Tierney 2004; Vaira 2004), changes that are framed within the slippery concept of globalisation. Most notable of these changes due to globalisation is the ongoing transformation of the university to a 'service service enterprise embedded in competitive markets' (Olsen 2007b: 35) or to higher education as industry (Gumport 2000). This 'forced' change is premised on the argument that, in relative terms¹, state funding

¹ While funding has increased in absolute terms in some countries (for example, several of the Nordic countries), relatively speaking, funding has decreased due to the increase in costs associated mainly with the expansion (massification) of the relevant systems (Mora & Vila 2003).

for higher education is in decline due to the diminishing role of the state in a globalising world² and that universities need to turn to the market (and operate a service enterprises) in order to generate new income streams (Gumport 2007). *If* universities are indeed facing such a period of seismic transition, and if they will to an increasing degree depend on the market as a source of income, then their success will depend on the extent to which they are responsive to the needs of the market (and the customers that constitute this market).

Swartz (2006: 128) points to contradictory pressures of globalisation and democratisation in relation to responsiveness, and the path taken by universities when forced to accede to one of what he claims are mutually exclusive pressures:

[D]emocracy exerts pressure on universities to expand their horizons across ever-widening social spheres in promoting 'public good' and building social capital [... T]he dominant logics of globalisation place countervailing pressures on institutions to be more competitive, entrepreneurial and self-sustainable. Caught between these two contradictory pressures, institutions often tend to privilege revenue yielding (as opposed to socially rewarding) strategic partnerships, which bring some considerable short-term advantage, but which establish patterns of 'engagement' favouring corporate interests over social capital imperatives within communities.

This sentiment is echoed by Rhoades and Slaughter (1997: 13) who point to 'a dramatic inversion of not-for-profit universities' ideological underpinnings' as they become directly involved in the marketplace and therefore by necessity align themselves with market forces rather than the needs of society.

2 From a neo-liberal perspective, the role of the state should be reduced from a regulative and interventionist one to a mediating one; and one in which there is greater confidence in the market as an efficient regulative and allocative mechanism. However, with the recent collapse of financial institutions on a global scale in 2009 and the intervention of the state to rescue failing financial systems (market), it could be argued that the role of the state has been marginalised too easily. Others may argue that stronger state control would not have prevented the collapse, as the collapse of financial institutions and the consequent destabilisation of the system had more to do with the complexity of the financial instruments being traded than a lack of sufficient regulatory frameworks.

Other than the shift in the revenue models of higher education said to be a consequence of globalisation, two other drivers of change attributable to globalisation should be mentioned: (1) new management imperatives and (2) the knowledge society.

New management imperatives can be described as a shift towards the 'entrepreneurialisation' or 'managerialisation' of universities as organisations (Amaral et al. 2002; Bentley et al. 2006; Brennan 2008; Clark 1998; Neave et al. 2000; Reed et al. 2002; Shattock 2005). New approaches to how universities are governed, it is argued, approaches more akin to business management which prioritise the organisation's relationship with its market, are required. This shift is seen to be tightly coupled with the reduced role of the state in a globalised world (Vaira 2004). Key concepts in the new management imperative are innovation, flexibility, and alignment of supply (products and services) and demand (clients and consumers). In the case of universities, these have significant implications in terms of how they re-orientate themselves towards the market. Universities' 'products' in the form of knowledge, graduates and curricula need to match the demands of the market in the form of industry, the labour market and students respectively. This imperative, combined with flexible systems, processes and decision-making within the university structures, further highlights the need for universities to be responsive to their environments.

Vaira (2004: 488) identifies the following characteristics of the knowledge society: 'knowledge production for competitive purposes; the wider and faster flow of communications; the shift in the occupational structures from manual workers to highly educated and flexible knowledge workers'. This shift to the knowledge society places pressure on all educational institutions, including higher education, to produce graduates suited to the knowledge economy. In other words, the university needs to occupy a position in society where it not only forges links with industry for the financial benefit of the university (as per the drive to managerialism) but for the

benefit of the economy as universities produce the kind of knowledge and graduates (knowledge workers) that make economies more competitive and drive economic growth. Universities are therefore required to be responsive to the needs of the economy in order to produce the kind of knowledge and knowledge workers that will benefit the economy (Brennan 2008; Castells 2001, 2009; De Weert 1999; Kruss 2003).

2.1.2 National pressures

Government, industry and civil society organised at national level exert pressures on universities to be responsive to national needs so that universities will contribute to the development of the country, elevate the country's competitiveness and provide solutions to address national social ills (such as poverty). In this section, the case of South Africa is used to illustrate national pressures being exerted on universities. (It is perhaps worth making the point that national pressures are not always differentiable from global pressures, even though they may be easier to trace to national sources. In other words, what appear to be national pressures may in fact be iterations of global shifts from which the national context is not insulated.)

National pressures for universities to be responsive to the needs of society find expression in national legislation, policies and in national formulae for calculating state funding of higher education.

At policy level, the call for responsiveness in South African universities is unmistakable (even if it appears fraught with borrowed ambiguity). The 1997 White Paper is the policy framework intended to foster equity, democracy, efficiency and responsiveness in South African higher education. As the post-1994 'framework for change' (p.2) it proclaims that the 'present system of higher education is limited in its ability to meet the moral, political, social and economic demands of the new South Africa' (p.4) and that the 'higher education system must be transformed to redress past inequalities, to serve a new

social order, to meet pressing national needs and to respond to new realities and opportunities' (Department of Education 1997: 2). From the outset, then, the fate of South African higher education from a policy perspective is directly linked to its immediate (predominantly national) environment. South African universities must not transform in isolation, it was contended; they must transform in such a way so as to make a positive impact on national needs and a new social order. And, according to the White Paper, it can only do so by being responsive to its immediate environment. The requirement for responsive universities is set out in the White Paper as follows:

In summary, the transformation of the higher education system and its institutions requires: [...]

Responsiveness to societal interests and needs. Successful policy must restructure the higher education system and its institutions to meet the needs of an increasingly technologically-oriented economy. It must also deliver the requisite research, the highly trained people and the knowledge to equip a developing society with the capacity to address national needs and to participate in a rapidly changing and competitive global context. (p.10)

In addition to national 'policy pressures', South African universities are subject to institutional audits carried out by the Council on Higher Education, the agency mandated to advise the education ministry on higher education-related matters. The institutional audit framework contains 19 criteria. One of these criteria relates to the extent to which universities are seen to engage with communities; in other words, the extent to which they are responsive to the needs of communities.

Cloete (2006) argues that policy intended to foster responsiveness has not been successful in transforming South African universities' curricula nor their knowledge output and type to be in line with the objectives of policy. He concludes that 'the evidence reveals a very complex picture ... [S]ome progress has been made, but in all cases the gains have been more modest than anticipated by the policy-makers

... [I]n most cases change can be attributed to institutional responses and the impact of the market, and much less to government policy' (Cloete 2006: 286). Favish (2003) points to a disjuncture between policy on responsiveness in South African higher education and its implementation. Of particular concern to Favish (in accordance with Swartz [2006] and Rhoades and Slaughter [1997]) is the marginalisation of the social dimension of responsiveness, in other words, institutions, researchers and even policy-makers appear more likely to interpret responsiveness in terms of linkages with the labour market or industry than in terms of the contribution to the public good that responsiveness should, according to Favish, engender. Muller (2005) also questions the direct impact of policy on research and curriculum as the state's dominance recedes in a globalising world directive power is ceded to the market. But, he cautions, it would be erroneous to conclude that the market is the only directive power.

Market pressures at national level for more responsive South African universities typically assume two forms: (i) national labour market pressures for universities to supply relevant skills and qualifications that are in demand and/or in line with national, strategic human resource development objectives (Kruss 2003); and (ii) national industry pressures for universities to supply the kind of knowledge that is utility-based and which drives innovation (Muller 2003).

Additional national-level pressure for more responsive universities assumes the form of reduced state funding in absolute terms (a consequence of shifting budget allocations and policy-driven funding formulae) (Pillay 2008).

The new funding framework for higher education in South Africa is driven by the availability of public resources for higher education rather than by the costs of provision. In both real and student per capita terms, funding has declined. A recent analysis shows that between 2000 and 2004, government funding of higher education in South Africa declined by 3.1% in real terms (DoE 2007b in Pillay

2010). From 1995 to 1999, total state spending per university student increased annually by ZAR 352 in real terms (2000 rand) but declined annually by ZAR 515 between 2000 and 2004. This decreasing pattern continued in the period to 2009 and is unlikely to be reversed in the light of the government's budget projections to 2012. As a percentage of GDP, state funding of higher education has also declined from a high of 0.82% in 1996 to a low of 0.68% in 2008. As a percentage of the government budget, after peaking at 3.0% in 2000, it has consistently declined reaching 2.4% in 2008.

Duncan (2009 in Pillay 2010) has shown that the proportion of institutional revenue received from the state (the so-called first stream of income) has declined, on average, from 62% in 1986 to 41% in 2007. 'Second stream' income (tuition fees) increased from 15% to 32% and 'third stream' income (research, consultancies, investment income, etc.), increased from 23% to 27% during the same period. Bunting et al. (2010) has shown that the proportion of private income for the South African higher education system increased from 27% in 2000 to 32% in 2008. This data could be taken as a proxy for universities becoming more responsive as they seek to supplement government-income shortfalls.

Other national pressures (often isomorphic in nature) include increasing competition between local universities for students, for research contracts and for donor funding, and mimicry (CHE 2007a; Clark 1983b; Maassen & Olsen 2007; Olsen 2007b; Van Vught 2008).³

2.1.3 Local-organisational pressures

Responsiveness is increasingly becoming part of the discourse on and within universities. The term appears in university mission statements and senate proclamations as well as in official documents such as annual reports, on websites and in university marketing material.

³ The distinction between local and international pressures in the area of competition and mimicry is not clear cut. While these pressures certainly exist at the national level, they also exist at a global level as universities compete internationally for students and as world rankings increasingly dominate the strategic agendas of universities.

Technology transfer and patent registration offices are increasingly common at universities. They are set up to promote and facilitate engagement of university academics with industry and business enterprises. At some universities, other formal structures are being set up to promote and monitor responsiveness within the university. These assume the form of committees or working groups that report to university management on the responsiveness of academic staff. Responsiveness is even becoming a key performance indicator in the formal evaluation procedures for academic staff. These are some of the pressures for responsiveness that are being exerted on academics at the local-organisational level. All amount to instances of university management aligning itself with government policy or conceding to external pressures which demand a closer relationship between universities and their environments (industry/society).

The local-organisational level is the site at which the pressures for change are interpreted, and at which university governance structures may affect strategic choices based the extent to which external pressures are in alignment with the values, norms and beliefs of the organisation. As Muller (2003) cautions: it would be erroneous to conclude that the market is the only directive power; it is equally important to consider the contribution of the universities themselves (endogenous factors) to facilitate or resist external directive power (exogenous factors).

The claim that higher education – with its long history, and established values and norms – constitutes an institution identifies a critical organisational-level contextual dimension that determines how a university responds to external demands (Higgins 2007; Meyer et al. 2007; Muller 2003, 2005; Oliver 1991; Scott 2001). Most importantly, it is a reminder of the internal dynamics of the university as institution which may dictate the success of adaptive strategies across the university as organisation. In other words, if pressures for responsiveness are acceded to at management level within the organisation, there may nevertheless be resistance to the

acceptance and integration of responsiveness at other organisational levels if responsiveness is interpreted to be in conflict with the values, norms and beliefs of the university as part of the institution of higher education.

Olsen (2007b) differentiates between the university as an instrument and the university as an institution. From an instrumentalist point of view the university is engaged in a contractual relationship with its stakeholders. Stakeholders' demands do not, however, remain consistent. This, Olsen claims, causes the organisation to change as it shifts to respond to its contract with its stakeholders. From an institutional perspective, however, the university is regarded as a more enduring or robust organisational form with predetermined rules, norms and values that validate (or invalidate) the demands of both external and internal stakeholders. This reiterates the tension between the university as instrument (and as potentially responsive) and the university as institution (and predictably nonresponsive).

2.1.4 Communities and stakeholders

The pressures referred to above have the inherent danger of tending towards abstraction. They are not the kind of pressures that at the level of interpretation translate directly into action. One cannot, for example, imagine a vice-chancellor or dean explaining that they took a particular course of action due to globalisation. Social change is interpreted by various agents belonging to a diverse set of social groupings and these groups apply pressure for change. In the case of higher education, such pressures are exerted by relevant individuals or groups, most often referred to as 'stakeholders' or 'communities'. These relevant groups are engaged in a mutually beneficial exchange or transactional relationship with the higher education system as a whole or with a particular university. Stakeholders may be internal or external to the university, and with the advent of information technologies are no longer required to be in close proximity to the university. The power or influence of stakeholders is no longer spatially

bound. Stakeholders or communities may include students, staff (academic, administrative and management), alumni, professional bodies, labour unions, social movements, civil society organisations, donor agencies and government (including its agencies) (Jongbloed et al. 2008).

Implicit in the corporate origins of the term 'stakeholder' and key to understanding the pressures exerted by stakeholders, is the fact stakeholders 'participate in higher education institutions' decision-making as representatives of external society' (Jongbloed et al. 2008: 5). This forges an inexorable link between issues surrounding responsiveness and stakeholders, particularly in terms of how the university manages its relationship with an ever-increasing constituency of stakeholders (Brennan 2008), and which stakeholders are ultimately prioritised and engaged with (Singh in Kruss 2003). In other words, given that universities are unlikely to have either the capacity or the ability to manage the (often conflicting) demands of all stakeholders, which demands does it prioritise and, consequently, how is the breadth of responsive possibilities limited? From a responsiveness perspective, such a process of 'stakeholder management' will determine to what it is that universities choose and are able to be responsive to.

It is also important to keep in mind that the constant interpretation and management of stakeholder demands in a changing social context, must be understood within the enduring, steady state of rules, procedures, norms and beliefs that constitute the university. As Brennan (2008: 383) points out:

In pointing up some of the major social, economic and political changes which characterise the modern world, it is important not to make a priori assumptions about responsiveness and change within higher education. While these changes in higher education's global and local environments may be expected to almost certainly provoke changes ... its traditional autonomies

are not necessarily lost overnight and it remains an empirical question as to how far higher education does actually change.

2.1.5 Synthesising the global, the national and the local

The global, national and organisational contexts should not be seen as separate, with each geo-social context acting in isolation on the university. There is a complex interplay of direct and indirect pressures at all three levels which are brought to bear on the university. Pressures cross boundaries and are exerted simultaneously on all the structural levels that constitute the higher education system. Global pressures may drive isomorphism and similar response sets may emerge while local and national pressures drive idiosyncratic responses. However, local and national pressures are not immune to global trends and influences, while global pressures may emanate from successful local or national conditions. This leaves universities with a complex set of pressures to manage. Several authors have presented theoretical interpretations of the interaction between the notional differentiation of the global, the national and the organisational (Robertson 1995; Kellner 2000; Marginson & Rhoades 2002; Vaira 2004). Most recent of these is Vaira's (2004) 'Globalisation and Higher Education Organisational Change: A framework for analysis'.

Vaira (2004) contends that there are two opposing outcomes of organisational change in higher education in a globalised world: (1) convergence (or homogenisation) or (2) divergence (or plurality). He argues that universities tend neither toward homogeneity or isomorphism (as predicted by convergence theorists as a consequence of globalisation) nor towards complete heterogeneity (as predicted by divergence theorists who advocate the impact of local realities and responses to globalisation). He argues for an integrated understanding, one which he frames in the concept of 'organisational allomorphism' where universities are unique organisational iterations (or declensions) of a unified, recognisable form (morpheme). In institutional terms, this translates into organisations within a national

and social context exhibiting some unique organisational patterns but nevertheless sharing a common set of institutional patterns (institutional archetypes) derived from both global and national allomorphic structures.

2.2 Responsive capacity

Olsen (2007b: 28-33) proposes four 'visions' or models of university organisation and governance: (1) the university as a 'rule governed community of scholars'; (2) the university as an 'instruments for national political agendas'; (3) the university as a 'representative democracy'; and (4) the university as 'a service enterprise embedded in competitive markets'.

Olsen's model provides a useful organising framework for charting institutional responses to pressures for change and how the university may organise itself in the face of such change. In terms of the interests of this thesis, the 'service enterprise' is of particular interest as it positions the university in a 'system of market exchange' where the university is valued for (and its survival depends upon) the degree of responsiveness to stakeholder demands (particularly those stakeholders located in the market). Furthermore, it is useful to note that while Olsen argues that in a representative democracy (such as South Africa) the multiversity model may tend to dominate, the current hegemony of neo-liberal values in the global capitalist system has led to the increasing prominence of the 'service enterprise' orientation.

Castells (2001) also identifies four university functions: (1) the formation and diffusion of ideology; (2) a mechanism for the selection of the elite class; (3) knowledge generation and application; and (4) the training of a skilled labour force. Castells has extended his analysis to six university functions which further accentuates the complexity of managing multiple functions in the contemporary university (Castells

2009). Similar to both Clark (1983b) and Olsen (2007b), Castells (2001) identifies the challenge of multiple functions and the capacity of universities to manage and prioritise these contradictory functions.

Therefore, a responsive relationship between external stakeholders and the university – manifested in the form of *responsive capacity* – is becoming an increasingly important determinant of the university's ability to be responsive as the functional complexity of the university as an organisation in context increases.

Little evidence-based literature has been produced that assesses the capacity of universities to respond to environmental (and other resultant) pressures (Kezar & Eckel 2004). Kezar and Eckel (2004: 389) conclude that '[t]he evidence suggests that higher education is responsive to its environment, but that the time it takes to respond may be longer than some groups or individuals find acceptable' pointing to possible issues of capacity constraining responsiveness.

Cloete and Maassen (2002) argue for a differentiated South African higher education policy to account for differing institutional responses depending on the capacity of the higher education institution to be responsive to certain pressures or demands. Muller, Maassen and Cloete (2006) point to the value of both managerial and academic capacity as determining criteria of an institution's responsive capacity. Referring specifically to the public benefits of responsive South African universities, Favish (2003: 29) states that '[s]uccessful delivery of the contract between HE [higher education] and society ... requires social change agents ... who have the capacity to bolster a renaissance of HE.' The general argument here, and one that has gained momentum in recent years, is that a policy that promotes differentiation across the higher education system will enable universities to better manage multiple stakeholder demands (environmental pressures) because the number of competing functions will be reduced resulting in a clearer sense of purpose.

When considering both the multiple functions of universities (as proposed by Olsen 2007b and Castells 2001, 2009) it becomes clear that the increasing pressures and demands placed on universities have led to a 'deepening asymmetry' (Clark 1998) between environmental demands and responsive capacity. The operating environment requires of universities an 'enlarged capacity to respond that will enable the institution to bring demands under control while retaining essential social competence ... Pushed and pulled by enlarging, interacting streams of demand, universities are pressured to change their curricula, alter their faculties and modernise their increasingly expensive physical plant and equipment – and to do so more rapidly than ever' (Clark 1998).

2.3 Predominant polemics

The above sections outlined the context as well as some of the inherent complexities of higher education responsiveness. What it fails to provide is the contested terrain around the demands for and the claimed consequences of responsive universities. The most obvious division in opinion is between those that support responsiveness as an inevitable necessity (be it economic or social) and those who regard it as a threat to the traditional, tried-and-tested role of higher education. At a more detailed level of analysis, the predominant polemics revolve around the three increasingly taken-for-granted functions of universities (although these are not always neatly separable): teaching, research and service (or 'third mission'). Each of these contested areas requires in-depth analysis that is beyond the scope of this thesis. What is presented below is a brief overview of the predominant debates on responsiveness in each of the three areas.

Perhaps it is also worth making the obvious point that the mere existence of the debates around responsiveness in the higher education literature – most often propelled by academics operating within the system – points to both the reality of the pressures being exerted to

be responsive and the challenge of trying to engineer change in an institution such as higher education.

2.3.1 Responsiveness and teaching

The key arguments here revolve around whether universities should be adjusting their curricula and teaching methods to reflect more closely the demands of the labour market, thereby increasing the employability of their graduates, and/or whether they should do so to better solve the problems faced by local communities.

Proponents of responsive curricula argue that universities should be teaching in such a way – transferring the kinds of knowledge – in order to increase the probability of graduates being absorbed by the labour market and in-so-doing contribute to national development priorities (Moja 2004; Moore 2004). Kruss (2003: 59) maintains that South African employers expect universities ‘to prepare graduates who are directly employable and ready to enter the labour market as highly skilled employees’. But while evidence exists to support the continuing employability of graduates despite the surge in the number of graduates, it remains unclear whether employability is a function of the *relevance* of the knowledge and skills transferred in obtaining a higher education qualification (Brennan 2008).

The general counter to responsive curricula and teaching methods is therefore to question the value of an exclusively vocational approach to teaching and knowledge transfer in ensuring graduate employment. In particular, the value of higher education in developing ‘non-vocational’ cognitive and analytical skills are cited as making an equally valuable contribution to society (Naude 2003).

Insofar as the ‘pedagogy of problem-based learning ... anchored in community problems’ (N’gethe et al. 2003: 83) is concerned, the premise is one which presumes that a dynamic interaction between university and society cannot be realised through traditional curricula

structured along disciplinary lines (Naude 2003). Again, the concern is the crowding out of 'basic' cognitive skills and approaches by problem-orientated, applied programmes.

2.3.2 Responsiveness and knowledge

The predominant debate here is whether responsive universities will increasingly produce applied, user-driven knowledge at the expense of basic knowledge production (often described as the production of 'knowledge for its own sake'). The emergent compromise between basic research and applied research draws heavily on the work of Donald Stokes and his 'Pasteur's quadrant' (Stokes 1997) which creates a third quadrant along the continua of 'use' (applied) and 'understanding' (basic) for what he terms 'use-inspired basic research'. Cooper (n.d.) argues that we are witnessing a third industrial revolution in which the business sector favours use-inspired basic research (rooted in pure basic research) over pure applied research. If so, this *may* negate the claim that responsiveness and pure basic research are mutually exclusive.

There are those, however, who argue that some disciplines are more suited than others to a convergence of basic and applied research (Muller 2003) or that the kind of knowledge produced is a factor of the structural arrangements between the university and the environment (Pretorius 2003). A switch to external relevance (responsiveness) from internally propelled knowledge growth may well result in the demise of basic research in some disciplines and may even curtail basic research in those disciplines where convergence occurs more readily in cases where certain basic research areas find it more difficult to produce knowledge considered to be of relevance (Muller 2003).

Also contested is whether universities that are responsive to society's knowledge needs shift the locus of authority in (codified) knowledge creation. There are those who regard this shift as both positive, unavoidable and in line with a new, more open social order

exemplified by open source movements ‘knowledge communities’ (Holland 2009; Hall 2010); others see this as a threat to the process of knowledge creation based on the claim that expert systems (as exemplified by the academic process/endeavour) are required as the arbiter in the codification of knowledge (Meyer et al. 2007; Muller 2003). Hall (2010: 23) summarises as follows:

[I]t is clear that the expertise of highly qualified ‘inner communities’ within the university plays a key role in the construction of new ‘powerful knowledge’. But there is no reason to reserve for such ‘inner communities’ an exclusive authenticating role and, increasingly, the days of such authority have passed. This is because structured and codified knowledge, with its key properties of replicability, spill-over and combination, circulates within, and is developed by, sophisticated and widely-spread networks that constitute ‘knowledge communities’. The necessary boundaries of such communities are constituted through the specialisation and sophistication of their organising concepts and universities of expression and, again, not by the fences that enclose the university campus.

2.3.3 Responsiveness and the third mission

In simplest terms, the ‘third mission’ is an emergent function for the university to contribute to the development of society (Cooper n.d.). Jongbloed et al. (2008) point out that the ‘third mission’ incorporates everything besides traditional teaching and research, and, at the same time, entails an inevitable degree of mission overlap. More conceptual confusion! Much of the debate centres on untangling the ‘third mission’ crow’s nest; in reconciling the traditional role of universities with the new and increased expectations for the university to make a contribution to the development of society. This requires integrating in a non-threatening way the university’s core functions of teaching and research into making such contributions, and avoiding the ‘third mission’ becoming a residual function. Whether formalising

this 'third mission' is necessary or whether making contributions to society is something universities do naturally appear to be at the heart of the debate.

Meyer et al. (2007), however, point out that those demanding that universities should contribute to development by being responsive, miss a crucial point: to expect or to demand universities to be responsive is counter-institutional. Universities may be ineffective or inefficient at producing the kinds of skills and knowledge demanded by society in order to propel its development but this is not the primary role of the university. The university, as an institution, exists, will endure and prosper because it is 'ideally set up to celebrate the unity of knowledge and cultural authority' (Meyer et al. 2007: 204). Its central cultural role far outweighs its perceived economic and developmental potential.

Yet, in some higher education systems such as that of the United States, there is an undeniable acceptance of the third mission (or 'extension' as it is increasingly referred to) as part and parcel of what universities should do. Such acceptance may be more protracted at the traditional research universities in the United States (Gibson 2006) but the existence of initiatives such as Campus Compact and the Carnegie Community Engagement classification, clearly point to the increasing momentum of acceptance of the third mission as a core, non-peripheral university function.

From the perspective of this enquiry, the creation of more formalised, non-residual university structures and procedures to promote the relationship between the university and society inevitably presupposes that universities should be responsive to the requirements of a changing society. Whether this should be so is highly contested by the likes of Meyer.

2.4 The notion of responsiveness

Jongbloed et al. (2008: 4) point to the emergence of the call for responsive universities as far back as 1973 by the International Labour Organization and again in 1982 by the OECD:

Universities at the time were being called upon to ... make a contribution to the solution of major problems faced by the local community and by society at large, and participate directly in the process of social change.

More recently, the keyword 'responsiveness' in higher education emerged in the mid- to late-1990s when several authors make mention of the need for responsive universities in the face of what are said to be rapid and extraordinary social changes, particularly those that are a consequence of globalisation (Cloete & Muller 1998; Jongbloed et al. 1999; Marginson & Rhoades 2002; Tierney 2004).

From a review of the literature, responsiveness as keyword in higher education does, however, appear to be a predominantly South African concern. While international authors do use the term, they tend to regard responsiveness as a behavioural descriptor within the broader thesis of organisational change in response to shifts in the organisational environment. It is perhaps not surprising that responsiveness as keyword is peculiarly prevalent in South African higher education discourse given (1) the prominence of the concept in the country's post-1994 higher education policy documents and (2) the attention that calls for greater university responsiveness garner because of its inferred beneficial national impact on social and economic development in a developing, post-oppressive country.

The lack of conceptual clarity surrounding the concept of responsiveness is oft-bemoaned (CHE 2003; Favish 2003; Hall 2010). As the CHE (2003: 1) itself concedes: in order to advise the minister of education it 'was necessary to investigate the theoretical and

methodological approaches that underpin the issue of responsiveness ... An essential part of the project [Building Relationships between Higher Education and the Private and Public Sectors] was about defining higher education responsiveness'.⁴

But despite calls for greater conceptual clarity (CHE 2003; Cosser et al. 2003; Favish 2003; Kruss 2003; Moll 2004) a review of the literature has revealed that there have been no concerted attempts to resolve the conceptual confusion that surrounds the notion of responsiveness in higher education. At most, a limited amount of space is dedicated to defining the implied meaning of the term. Seldom do authors make explicit the constructs that underpin the concept of responsiveness, such as: Who is responding? What are they responding to? How are they responding? And, why are they responding? Some authors have, however, dealt to a limited degree with various aspects and implications of responsiveness in higher education.

Taking relevance as being synonymous with responsiveness, Unesco's 1998 *World Declaration on Higher Education for the Twenty-first Century* states that:

Relevance in higher education should be assessed in terms of the fit between what society expects of institutions and what they do. This requires ethical standards, political impartiality, critical capacities and, at the same time, a better articulation with the problems of society and the world of work, basing long-term orientations on societal aims and needs, including respect for cultures and environmental protection. ... Higher education should reinforce its role of service to society, especially its activities aimed at eliminating poverty, intolerance, violence, illiteracy, hunger, environmental degradation and disease.

The Association of Commonwealth Universities (in CHE 2004: 157)

⁴ Unfortunately, it appears that while the colloquium *Building Relationships between Higher Education and the Private and Public Sectors* provided useful insights into the nature of the relationships between South African higher education and the private and public sectors, it failed to develop any conceptual clarity around the notion of responsiveness.

defines responsiveness as 'a thoughtful, argumentative interaction by higher education with the world outside higher education in at least four spheres: setting the aims, purposes and priorities of higher education institutions; relating teaching and learning to the wider world; the back-and-forth dialogue between researchers and practitioners; and assuming wider responsibilities as neighbours and citizens'.

Moll (2004: 2) attempts to define responsiveness before embarking on a specific analysis of the responsiveness of the curriculum in South African universities to external demands:

[I]n prevailing higher education debates [...] the notion of 'responsiveness' still tends to be used largely in its everyday or descriptive sense. Universities must respond to the expectations and pressures placed upon them, but it often seems enough that university spokespersons, researchers or lecturers declare that, of course, they are trying to be responsive in the work they do. But this does not take us very far analytically. ... If someone or something is responsive, he, she or it is responsive *to* some state of affairs *by doing* something: X is responsive to Y by doing Z.

In an article on institutional responsiveness to student demand, Vossensteyn and Dobson (1999: 189) go some way to set out some of the basic principles of responsive behaviour:

Responsiveness to the needs of society implies that higher education institutions are affected by the demands from stakeholders such as the government, business, the academic community ... and students. In this chapter the key responsiveness is towards the student population. So, it is clear that institutions must respond to student demand. ... [The] increased diversity of the student body increases the pressure on the institutions to respond to the demands of the student clientele. ... [I]nstitutional resources are dependent on the number of students enrolled and on the students' achievements.

Vossensteyn and Dobson set out clearly at the beginning of their inquiry who is expected to respond (the institution); to what they are expected to respond (students); and why the institution needs to respond (the increasing power of students).

Cloete and Bunting (2000: 37) define responsiveness in relation to knowledge production; the implied – and fairly broad – meaning contained in the 1997 White Paper:

The White Paper sets a number of specific performance measures for the higher education system under this broad heading of responsiveness. These include the following:

- Basic research as well as applications-driven research must be developed and must grow, within the framework of a national research plan.
- The institutional base for research must be expanded. ...
- The graduates and other knowledge outputs ... must to an increasing extent match the needs of a modernising economy.

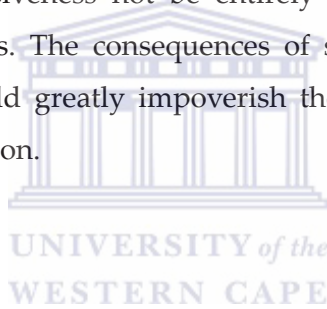
The responsiveness of the higher education system will be discussed ... in terms of these performance measures.

In a study on technical college responsiveness to labour market needs, Cosser et al. (2003) make considerable headway in providing an analytical framework for this particular sector but ultimately conclude that their research ‘points to the need for ongoing research in this field. In particular, there is a pressing need to develop the concept of responsiveness further’ (Cosser et al. 2003: 102).

A common pattern in the literature is for authors to acknowledge greater complexity in the notion of responsiveness but then to restrict the meaning – perhaps out of necessity – in order to progress their own agenda. And most often, it would appear that responsiveness is limited to ‘labour market responsiveness’ or what the CHE refers to as ‘economic responsiveness’. The CHE (2003: 158) warns of the

dangers of such a paring down of the notion of responsiveness:⁵

[I]t is necessary to signal concern within higher education about a disjuncture [...] between a broad or 'thick' notion of the social responsiveness of higher education, and a 'thinner' notion – which tends to be increasingly emphasised – that reduces the broader concept to mere market responsiveness. [...] The danger, of course, is that the concept of responsiveness could become emptied of most of its content except for those factors which advance individual, organisational or national economic competitiveness. Yet it is vital in a country like South Africa, where higher education transformation is part of a larger process of democratic reconstruction and development, that social responsiveness not be entirely subsumed to economic responsiveness. The consequences of such a one-dimensional approach could greatly impoverish the broader social role of higher education.



2.5 Conclusion

The literature on higher education responsiveness reveals that there are undoubtedly global, national and organisational pressures on universities to be more responsive to the needs of society. If universities are to receive state funding then they should be able to demonstrate relevance by addressing and resolving national social needs. And if such funding is declining, universities will increasingly need to turn to the market in order to generate income, and will need to be responsive in order to do so successfully.

The literature also reveals that there are those who doubt whether responsive universities are possible given current capacity constraints and a likely inability to manage ever-increasing, often conflicting,

⁵ Again the CHE disappoints by raising caution around narrow interpretations of responsiveness but then proceeds by limiting its entire analysis to labour market responsiveness.

multiple stakeholder demands. Capacity aside, there are those who question the effectiveness of a strategy which promotes the kind of teaching and research that is only relevant to the needs of society. And, cutting through all these concerns, is the lack of a clear, unambiguous understanding of what exactly constitutes responsiveness.

Within the context of these debates which (1) often appear to assume that the institutionalisation of responsiveness is an inevitable condition for the continued existence of the contemporary university and (2) those who question the likely impact of responsiveness, what the literature on higher education responsiveness does not seem to address is whether responsiveness is in fact being institutionalised in higher education. It is this gap which this thesis will attempt to fill.



Theory, concepts and a proposed typology of responsiveness

This chapter begins by providing a theoretical framework for understanding how universities as organisations come into existence, endure and change. The focus then shifts towards an analysis of responsiveness as concept, and a typology of responsiveness is proposed based on this analysis. Returning to organisational theory, the typology is further developed to include proposed indicators of the institutionalisation of responsiveness in higher education. The chapter concludes by providing a conceptual framework enabling the operationalisation of this research project.

3.1 Theoretical framework

The theoretical perspective which will be brought to bear in analysing whether responsiveness is being institutionalised in higher education is institutional theory.

Although Clark does not formally locate his approach within the tenets of institutional theory, he nevertheless implicitly echoes many of the fundamental principles of institutional theory. What Clark (1983a; 1983b) adds to institutional theory is a specific theory on the mechanics of change in higher education systems. In particular, Clark provides a framework in the form of his 'levels of authority' in universities and their respective opposing logics which enable the operationalisation of the research question in a manner which is sensitive to the unique arrangements and complexities of universities as organisations.

Institutional theory is often criticised for not being able to explain

variation or differentiation of organisational types within an institutional context (Zucker 1987; Scott 2001; Vaira 2004). This is because in institutional contexts, organisations are said to be pressured to be increasingly similar (isomorphic). Vaira's (2004) theory of organisational allomorphism provides an explanation for organisational variation within an institutional context. Vaira also provides an additional level of authority, one not identified by Clark – that of the 'supra structure' which he describes as highly legitimised, global agents that act as 'institutional carriers'. Importantly, they supersede the national systems of Clark's analysis to 'construct and structure a de-localised and global organisational field' (Vaira 2004: 488–489).

3.1.1 Institutional theory

Organisations do not exist in isolation or in a vacuum; they are required to interact with the environment in order to achieve their objectives. This approach is generally accepted by social scientists (Gornitzka 1999) and has a marked impact on educational and sociological understandings of how universities operate and change (Gumport 2007). And, in the case of responsiveness, an open systems approach is vital as the concept of responsiveness is premised on the very *interaction* between agents internal to the organisation and those agents external to the organisation. The interaction of agents within an organisation also results in a particular type of responsive behaviour and should not be discounted.

The institutional context of such agency is, however, often ignored by those concerned with the change effects of external demands on universities (Muller 2005). An institutional perspective with its emphasis on institutionalised beliefs and structures is therefore important in developing a *comprehensive* understanding of how the pressures for responsiveness are interpreted at organisational level. Specifically, 'sociological institutionalism' as opposed to 'rational choice institutionalism' or 'historical institutionalism' (as described by

Hall & Taylor 1996) will form the theoretical basis for understanding responsiveness in universities. Sociological institutionalism is taken to be an integrated conception of institutionalisation, incorporating the regulative, normative and cultural-cognitive systems that characterise institutions (Scott 2003).

A sociological institutional theory approach to understanding organisations such as universities assumes that, as open systems, they are affected by and typically will internalise valued dimensions from their external environments. According to Meyer et al. (2007: 190) 'institutional theory emphasises that local organisations arise in good measure independent of local circumstances – deriving from wider sociocultural environments that support and even require local structuration around exogenous models and meanings'. Conversely, organisations will be resistant to change should exogenous demands not be in alignment with the established institutional beliefs and norms (Muller 2003). Key to institutional theory is the idea that organisations tend towards conformity (or isomorphism). Organisations operate within an institutional context which places pressure on organisations identifying with the institution to conform to the rules and norms of the institution. In this sense, the institutional environment inhibits change. Deviations from the expectations of the institutional environment threaten the (social) legitimacy and, by implication, the very survival of the organisation.

The reflection of collective and cultural processes enables organisations to comply with expectations exerted by powerful actors (such as the state). The process of compliance and internalisation is described by Olsen (2007a) as the 'logic of appropriateness' and by Campbell (in Hall & Taylor 1996) as the 'logic of social appropriateness'. Olsen (2007a: 3) sets out his understanding of what constitutes an institution as follows:

An institution is an enduring collection of rules and organized practices, embedded in structures of meaning and resources that

are relatively invariant in the face of turnover of individuals and changing external circumstances. Constitutive rules and repertoires of standard operating procedures prescribe appropriate behavior for specific actors in specific situations. Structures of meaning, involving standardization, homogenization and authorization of common purposes, vocabularies, ways of reasoning and accounts, give direction to, explain, justify, and legitimate behavioral rules. Structures of resources create capabilities for acting. Resources are routinely tied to rules and worldviews, empowering and constraining actors differently and making them more or less capable of acting according to behavioral codes.

A critical element identified by Olsen in this extract is the concept of 'structures of meaning' that legitimate behaviour through rules and sanctioned procedures. Sociological institutionalism places strong emphasis not only on the normative dimension of other 'types' of institutionalism but also on the cognitive dimension. As Hall and Taylor (1996: 15) explain:

[social institutionalists] emphasize the way in which institutions influence behavior by providing the cognitive scripts, categories and models that are indispensable for action, not least because without them the world and the behavior of others cannot be interpreted. Institutions influence behavior not simply by specifying what one should do but also by specifying *what one can imagine oneself doing in a given context*. [emphasis added]

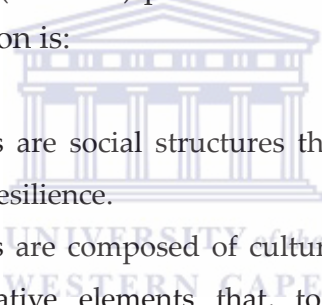
Sociological institutionalism therefore provides an important dimension for evaluating the extent to which a particular set of behavioural rules (such as responsive behaviour) has become institutionalised.

Latter versions of institutional theory also subscribe to the notion that organisations attempt to actively manage both their functional as well as their institutional environments (Scott 2001); this is an

important condition as it is in contradiction with the oft-assumed deterministic notion of organisations as passively responding to, or simply complying with, powerful external demands, pressures or signals. Oliver (1991) proposes several types of strategies deployed by organisations in response to institutional pressures.

Institutions

The English language uses the word 'institution' in two different and often confusing ways. The first possible usage of the word 'institution' is the broader of the two.⁶ In this broader meaning, 'institution' refers to an established set of rules, customs or practices. Examples include the institutions of marriage, the law, politics, the church and higher education. Scott (2001: 48) provides a useful 'omnibus definition' of what an institution is:

- 
- Institutions are social structures that have attained a high degree of resilience.
 - Institutions are composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life.
 - Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines, and artifacts [sic].
 - Institutions operate at multiple levels of jurisdiction, from world systems to localized interpersonal relationships.
 - Institutions by definition connote stability but are subject to change processes, both incremental and discontinuous.

However, the word institution may be also be used to denote a much narrower meaning. This second possible usage of the word 'institution' in the English language refers to a single structure or familiar object.

⁶ The categorisation of understandings of 'institutions' as narrow or broad is not done in a pejorative way; in the way that, for example, 'narrow' or 'open' minded may convey.

In higher education discourse, the narrower meaning of the word prevails – ‘institution’ is often synonymous with university. In other words, institution is limited to a single entity – a university is referred to as a ‘higher education institution’.

In this study, however, the broader understanding of what constitutes an institution is assumed. The university as an institution is a global, deeply historical social structure operating across multiple jurisdictions. Care will be taken not to confuse these two possible meanings of the institution. In order to do so, individual universities will be referred to as ‘universities’ or ‘organisations’ rather than ‘institutions’; and ‘higher education’ will be the term used to denote the institutional form.

Institutionalisation

Equally problematic can be the process of describing the process of institutionalisation, as the description will depend on whether the understanding of what constitutes an institution is narrow or broad. In other words, following from the above distinction between an institution as a single structure or familiar object and an institution as an established set of laws, beliefs, customs and practices, the process of institutionalisation may be equally broad or narrow. Lupele (2008) in his study on the ‘institutionalisation’ of environmental education in 12 post-secondary organisations in the SADC region, clearly understands the process of institutionalisation in the narrow sense when he describes it as being tantamount to the process of embedding environmental education courses within the 12 organisations studied. And many of those he interviewed in his study regarded the institutionalisation of environmental education as complete once an educational course had been incorporated into the organisational programme and led to some form of qualification. Similarly, Bailey et al. (2010: xii), in conceptualising their study in its initial phases, used a narrow of understanding of institutionalisation by assuming that institutionalisation of projects occurs when such projects undertaken

by academics are in alignment with existing organisational-level policies:

Institutionalisation refers to the extent to which externally-funded projects are organised and structured into the rules and regulations of the university so that they contribute to strengthening the academic core. Examples include where students are involved in external projects as part of their formal academic programme, and where project knowledge and experience feeds into teaching and curriculum design and is published in academic publications. Institutionalisation refers to the extent to which the project objectives articulate the priorities of the institution's strategic plan.

The focus is on internal *organisational-level* regulative alignment. And there is no reference to the broader institutional scripts or schemas which may be mediating the actions of academics in relation to the externally-funded projects studied.

For institutionalisation to occur in the broader sense of the word, two types of institutionalisation can be distinguished. The first type is one of institutional creation, followed by new organisational forms as organisations respond to pressures to conform to and adopt new structures or practices in alignment with the newly created institution – a change process limited to the organisational-level and typically described as 'convergent'. The emphasis is on institutional construction, diffusion and organisational convergence.

The second type of institutionalisation is one which proceeds with the deinstitutionalisation of existing forms and their replacement by new arrangements which, over time, become institutionalised (Scott 2001). The emphasis is on disruptive, divergent change. As Scott (2001: 50) contends: while institutions provide stability and order, they are not immune to change, and therefore any level of analysis of institutionalisation 'must include not only institutions as

a property or state of an existing social order, but also institutions as process, including the processes of institutionalisation and deinstitutionalisation’.

From a higher education institutional perspective responsiveness seems likely to challenge and potentially alter the existing scripts around teaching and research (‘what academics do’) in which case tracking a process of change (deinstitutionalisation followed by institutionalisation) becomes necessary. It will therefore be assumed that responsiveness is an instance of institutional change as per Scott’s definition, and that this enquiry will seek empirical evidence of responsiveness being institutionalised within the existing higher education regulative, normative and cultural-cognitive framework.

3.1.2 Clark’s levels of authority

The implicit interaction between institution and organisation, however, requires a consideration of the inter-relationship between structural properties of organisations if one is to consider how change will manifest across the organisation. In his chapter on change in higher education in *The Higher Education System: Academic Organisation in Cross-National Perspective* (1983), Burton Clark identifies three structural levels of authority in academic systems, each with different predispositions to change: the under structure (or the academic disciplines); the middle structure (university governance structures); and the super structure (the state). Clark’s three levels of authority will be understood as the structural sites of embedded meaning and resources. Two of these levels – the middle and under structures – combine in the organisational form of the university. The third level – the super structure – assumes its structural properties in the form of the state and its apparatuses, and remains a critical component of the institution of higher education.⁷

⁷ One could argue for a fourth level, the ‘supra structure’ where extra-institutional levels of authority reside. Examples could include donor agencies, philanthropies, world bodies (such as the UN and its agencies) and others.

According to Clark (1983b) the under structure consists of the operational units of higher education institutions concerned with the functional preoccupations of universities, that is, teaching and research. These units typically assume the form of faculties, schools, departments or research units. The super structure is 'composed of all the system links that relate one enterprise to another' (Clark 1983b: 206) and typically assumes the form of the administrative structures of the state and its agencies. These may include departments of education or state-sponsored councils and commissions. Located between the super and under structures is the middle structure – the governance and administrative apparatuses of the university.

Clark (1983b) suggests that a tension exists between the super and under structures along opposing dimensions of order (super structure) and disorder (under structure). This tension is mediated by the middle structure.

Each sub-unit of the under structure is loyal to its discipline and change must be understood within the logic of the discipline. Change therefore flows within disciplines in an organisation or, if between organisations, then within the same disciplinary field. The direction of change is towards loosely coupled, autonomous units and, in effect, anarchy (or disorder). Change is driven by professional influence typically in the form of high-status units within a disciplinary field.

The super structure, in contrast, tends toward order and formal systemisation. According to Clark (1983b: 207) '[it] is possessed primarily by a logic of explicit coherence, essentially that of the administration. The primary rationale is to impose order that will link together the otherwise fragmentary disciplines, enterprises, and sectors.' Change is driven by political and bureaucratic coordination. And, Clark argues, demands for change from society at large are increasingly channelled through the super structure as it becomes larger and more complex, and as its linkages (with society) become more dense.

As the tension between the logic of the discipline and the logic of coherence is mediated by the middle structure, it assumes a mix of beliefs from both the super and under structures. This mix will vary in its leaning either upwards or downwards, and the middle structure's natural direction of change will depend on the extent and direction of the middle structure's beliefs towards the super or under structure.

An institution such as higher education is not composed of a single, homogenous entity but of component parts, parts that Clark (1983b) identifies as the under structure, the middle structure and the super structure. Following Clark's approach that change needs to be understood in terms of the different logics inherent in the super and under structures, and that in 'bottom-heavy' structures such as universities change cannot be forced from the top (state) onto the bottom (the academics), it will be necessary to observe the extent to which responsiveness is being institutionalised at all three levels.

This is in accordance with institutional theory which identifies four broad types of institutional influences: (1) the nation-state; (2) the professions; (3) international organisations and bodies; and (4) cultural frameworks. Two of these influences or pressures correspond with Clark's model which differentiates between two polar levels of authority in the form of the super structure (the state) and the under structure (the academic profession). As DiMaggio and Powell (1983 in Scott 2001: 126) observe: the nation-state and the professions 'have become the great rationalisers of the second half of the twentieth century'. From an institutional theory perspective, Scott (2001: 203) accounts for change as follows:

The seeds of change are lodged both within and outside of institutions. Internal tensions are created as general rules are applied to specific situations; rules must be adapted and amended so that, over time, rules evolve and erode. Tensions arise within frameworks are regulative, normative and cultural-cognitive elements move out of alignment. Various collections

of actors with the jurisdiction of a given institution can interpret rules in conflicting ways. External tensions are produced when multiple institutions overlap, providing diverse schemas and recipes for action. Wider environmental conditions – political, economic, technological – can shift, rendering current institutions vulnerable to precipitous change.

Change processes are best examined by designs that incorporate multiple levels of analysis. [...] Although every study cannot attend all levels, analysts should be aware of them and craft designs to include critical actors and structures engaged in maintaining and transforming institutions.

The super structure comprises various government departments and agencies – all of which in some way exert, or attempt to exert, pressure on universities. The super structure will be taken to include the relevant ministry directly responsible for higher education as well as constituted bodies responsible for advising the ministry on higher education matters.

This study will regard leaders and leadership bodies external to faculty, schools or centres as constituting the middle structure – the level at which the pressures from the super structure are interpreted. Leadership and leadership structures include the vice-chancellor(s), rectors, executive directors, senate, university council, etc. The middle structure will also be understood to include university administration as the bureaucratic processes and systems in their care are regarded as the apparatus deployed by leadership to steer the university.

Clark (1983b) refers to disciplines and professional fields organised as faculties or colleges constituting the under structure. Other contemporary university structures located within the under structure include institutes and research centres. This thesis will focus primarily on faculties, departments and schools, regarded as the academic or disciplinary heartland, as the dominant organisational unit within the under structure.

3.1.3 Vaira's organisational allomorphism

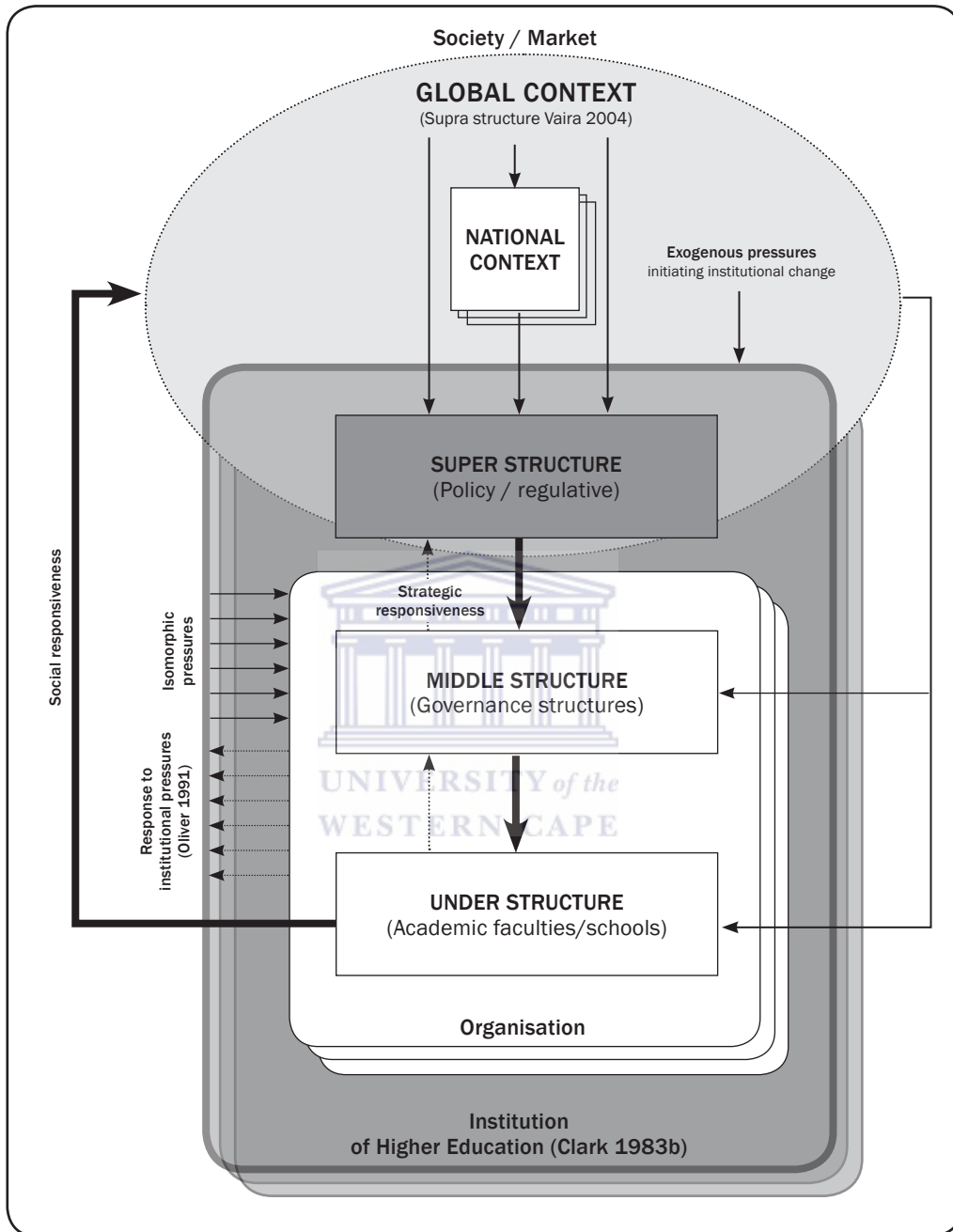
Higher education functions within both national and global contexts. The interaction between the organisation and the local and global environments is described by Vaira (2004). He argues for an integrated understanding of the interaction between organisations and their multiple contexts; an understanding which he frames in the concept of 'organisational allomorphism'.

Organisational allomorphism describes universities as unique organisational iterations (or declensions) of a unified, recognisable form (morpheme). In institutional terms, this translates into organisations within a national and social context exhibiting some unique organisational patterns but nevertheless sharing a common set of institutional patterns (institutional archetypes) derived from both global and national allomorphic structures.

Vaira's acknowledgement of what he terms the 'supra structure' – highly legitimised, global agents such as the World Bank, the IMF, the OECD and others that act as 'institutional carriers' – adds a critical dimension of change pressures in an increasingly globalised world. It also introduces into the analysis an explanation for the existence of de-localised and global organisational fields which exert universal pressures on organisations traditionally located in their respective national systems (Vaira 2004: 488–489).

Institutional theory then provides the explanation of how universities as organisations form, function and change. Vaira provides the macro global context in which universities as organisations change, while Clark provides the micro-level analytical framework for how universities change. Vaira's national context and Clark's supra structure combine to provide the meso-level analytical framework. An additional distinction is made at the organisation level, specifically in relation to the activities of the under structure, that is, the distinction between core and peripheral academic activities.

Figure 3.1: Diagrammatic representation of pressures and responses in higher education



Key:
 Pressure →
 Response ←

3.1.4 Core versus peripheral academic activities

Both in developing indicators of the institutionalisation of responsiveness and in attempting to unravel the slippery concept of responsiveness, it is suggested that sensitivity to the unique and socially accepted functions of the university (both internally and externally) will ensure a more nuanced analytical result. In particular, if we are to be concerned with the acceptance of responsiveness in the under structure (as Clark [1983b] suggests we should given the allocation of power in universities), then we should take cognizance of the functions already accepted and unquestioned as being part and parcel of academic life. The notions of core and peripheral activities in academic life speak to such sensitivity.

The academic core of universities refers to the dual core functions of (1) teaching via academic degree programmes and (2) research activities. Both activities are related to specialist activities unique to the university in society. Universities are not the only places where teaching occurs, but they are the only place where formal and socially valued degrees up to the level of the doctorate degree are awarded. Similarly, research may be conducted at loci outside of the university but the university remains the accepted arbiter of knowledge produced, regardless of where knowledge is constructed (Muller 2010). Only the university has the social legitimacy to carry out these two functions and they are therefore regarded as the core functions of the university.

However, universities also exhibit what is often referred to as a 'third mission'. The 'third mission' typically includes all activities which contribute to socio-economic development and bridge the gap between academia and the external environment. The concept of 'extended periphery' is used to characterise all those activities that are situated outside the academic core of universities, and that are usually associated with their third mission. The following activities in universities can be regarded as being located in the extended

periphery: business incubators, technology parks, start-up companies, applied research centres, life-long learning, projects funded by third parties (industry, international donors, etc.), support for enterprises, museums and cultural houses, and a range of consultancy activities. The concept of 'extended periphery' is used to characterise all those activities that are situated outside the core academic activities of universities.

The notion of the extended periphery is not uncontested. In some national higher education systems (such as the United States) it is argued by some that third mission or peripheral activities are, in fact, core academic activities. However, not all universities in the United States system have equally accepted the third mission as being core (Gibson 2006) nor is there any conclusive evidence of third mission activities having become institutionalised.⁸ It will be argued that the extent to which responsiveness is accepted as being connected to the core academic functions of teaching and research or whether it remains peripheral, serves as an indicator of the likelihood of responsiveness being institutionalised in higher education.

3.1.5 Conclusion

A sociological institutional theory approach to understanding organisations such as universities assumes that, as open systems, they are affected by and typically will internalise valued dimensions from their external environments. In attempting to establish whether responsiveness is likely to be institutionalised, it is therefore important to establish whether extra-institutional calls for responsiveness will be internalised (valued) across the organisational field or whether universities are likely to adopt strategies to prevent such internalisation. Unless responsiveness is valued, institutional theory predicts that universities as organisations will not internalise responsiveness.

⁸ See Barbara Holland's 'Will It Last? Evidence of Institutionalisation at Carnegie Classified Community Engagement Institutions' for a more detailed discussion of the perceived degree of 'third mission' or 'engagement' institutionalisation in American higher education.

Clark's (1983a; 1983b) theory of change in higher education systems predicts that such internalisation will fail unless it becomes part of the taken-for-granted activities of what he calls the under structure – the level of academic activity in the university. It is not sufficient, Clark would contend, to observe the internalisation of responsiveness at the super and middle structures only. Clark also provides a useful multi-level institutional framework for locating responsiveness in higher education organisations. It provides a comprehensive pathway – from society to the academic heartland – for tracking the change process initiated by calls for more responsive universities and for anticipating likely outcomes as the super structure (and, by definition, the middle structure in certain instances) attempts to embed responsiveness in universities with typically resistant postures based on entrenched normative and cultural-cognitive schema.

Vaira's (2004) organisational allomorphism accounts for organisational variation within the institutional context and identifies the supra-structure as an important institutional carrier of legitimacy. It predicts that variation may be observed in how different organisations interpret and internalise responsiveness without necessarily compromising the general tenets of institutional theory.

3.2 Untangling responsiveness

In order to develop a typology of responsiveness, an extended literature review was conducted. This approach enabled the reinterpretation of concepts and constructs around responsiveness as expounded in the higher education literature as well as the re-organisation and synthesis of existing attempts at developing typologies of responsiveness. The creation of the typology is intended to provide a clearer and more useful framework for mapping responsiveness by plotting responsive activities along two axes – one axis representing the ideological imperatives driving such activities and the other axis providing a set of types of responsiveness based on the three generally accepted

functions of the university.

The reinterpretation of responsiveness and the suggestion of a new typology create a framework within which to locate the indicators of the likely institutionalisation of responsiveness in higher education.

3.2.1 Types of responsiveness

Direct and indirect responsiveness

The use of responsiveness in the literature suggests responsiveness at two levels. The expectation is not only for the university to be responsive to the source of the pressure exerted on it but, more importantly, to be responsive to the perceived sources of relief from such pressures. For example, the pressure of reduced funding from the state, means seeking relief from new sources of income (such as the market).⁹

Universities do, however, also respond directly to pressures exerted on them and may adopt any of several strategic responses. For example, the political pressure to create more racially equitable universities in South Africa results in universities adapting their enrolment policies, thereby attempting to relieve at source the political pressure applied. Universities as organisations also respond directly to institutional pressures to conform.

One could conceivably therefore differentiate between 'direct' responsiveness – responding directly to the source – and 'indirect' responsiveness – responding to non-originating sources of relief. Using this distinction, one could argue that universities have always been responsive in the direct sense of the term. In the face of external pressures, universities have historically been adaptive and in so doing ensured their survival as one of the oldest institutions. This type of

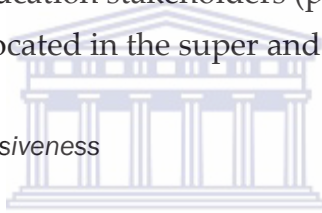
⁹ While industry (as a constituent of the market) may be one of the stakeholders asserting pressure in the form of demands for certain relevant skills or technologies, it is likely that these pressures are channelled through the state (see Clark 1983).

direct responsiveness is set to endure but it will do so alongside pressures for indirect forms of responsiveness.

To conclude this section on the distinction between direct and indirect responsiveness, the following definitions are suggested:

- *indirect responsiveness* is the degree to which the under structure responds to the needs of higher education stakeholders in order to relieve pressure being exerted by and channelled through the super and middle structures.
- *direct responsiveness* is the degree to which the organisation (university) or the system (higher education) responds to isomorphic institutional pressures or to pressures exerted by higher education stakeholders (predominantly but not exclusively located in the super and supra structures).

Descriptive types of responsiveness



The term responsiveness can be understood in various ways depending on the qualifier used. From a survey of the use of the term 'responsiveness' in the higher education literature, three predominant qualifying descriptors emerge:

1. 'To what' responsiveness: Those descriptors that qualify to what it is that the university should ideally respond (e.g. the 'social' in social responsiveness describes the university responding to society; 'labour market' and 'market' responsiveness describes the university responding to the needs of the labour and other markets; and 'student responsiveness' describes the university responding to the needs and demands of students and their representative bodies).
2. 'What institutional level' responsiveness: Those descriptors that qualify which system-level responds to external demands (e.g. 'strategic responsiveness' [Oliver 1991], 'systemic responsiveness' [Tierney 2004] or 'technical college

responsiveness' [Cosser 2003]). The responsive relationship between the university leadership and state structures, competitor universities, and other research and teaching organisations as well as the university's responsiveness to institutional pressures.

3. 'Which university functions' responsiveness: Those descriptors that qualify which functions are being responsive. Universities are typically described as having three core functions – teaching, research and services. Terms used to describe the responsive relationships between these functions and external stakeholders include 'curriculum responsiveness' (teaching), 'innovation' (research), 'university–industry linkages' (research and teaching) and 'third mission' (services).

These descriptors, while ostensibly being applied to avoid confusion, appear to do little to create a comprehensive and unambiguous classification of responsiveness. None of the qualifiers (with the possible exception of 'social' responsiveness) are ubiquitous; they have not been absorbed in the higher education studies discourse as types. Responsiveness is simply appropriated in order to provide clarity given the particular project context. And the more common descriptors, such as 'social' responsiveness, are too broad, adding room for more conceptual confusion rather than reducing it. What makes up 'the society' or 'the market' to which universities should be responsive? Social responsiveness could be described as the responsive relationship between the under structure and society (where society represents both social and economic interests). But whose interests in the economy and in society? And what about the responsive relationship between non-under structure organisational components of the university?

Typologies of responsiveness

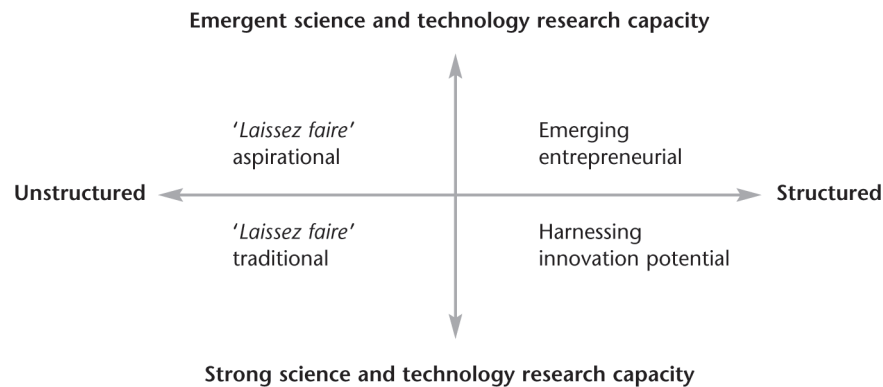
Typologies of responsiveness have been proposed by Oliver (1991), Pretorius (2003), Kruss (2004), and McMillen and Pollack (2009).

Oliver (1991) identifies predictors of organisational-level strategic responses to institutional pressures for change. Oliver's analysis makes no distinction between the structural components of the organisation. Her response-sets are organisation-wide and most likely driven by the organisational leadership structures. The responses described are therefore strategic in nature. The potential weakness here is the supposition that the strategic organisational responses are representative of the entire organisation, particularly in the case of universities where much of the power can be located in the lower structures (the 'academic heartland') rather than in the top structures of the university as organisation. The cohesiveness of the university as organisation is highly questionable. The strategic responses, even if deployed, are not necessarily representative of the entire organisation; nor is it entirely clear whether secondary-level responsiveness would mimic primary-level responsiveness. This is not addressed in Oliver's typology.

Kruss (2005), similarly, in a study on university–industry partnerships in high-technology disciplines in South African universities, the under and middle structures are conflated in order to derive a typology which describes the organisation's propensity to respond to partnerships with external clients. Two key dimensions were found to influence the type of organisational response: (1) the existence of co-ordinated internal structures, policies and processes to promote partnerships, and (2) the extent to which the organisation had research capacity in the high-technology disciplines that formed part of the study. Kruss's (2005: 102) typology of responsiveness is presented in Figure 3.2.

Kruss contends that it is only those universities that can be described as 'harnessing innovation' that are in a position to be responsive in such a manner so as to create and develop the knowledge networks so critical for innovation and, by implication, development. And there appears to be an implicit assumption that innovation will be harnessed more optimally when the alignment between the middle and under structure is at its strongest.

Figure 3.2: Kruss's typology of responsiveness



Pretorius (2003: 16) maps five structural arrangements between the university and society which, he argues, 'produce differences in approach to academic practice and knowledge creation'. The five types are: (1) internal self-determination; (2) external determination; (3) limited or pseudo engagement; (4) promiscuous engagement; and (5) the corporate university. In other words, structural factors condition the extent to which universities are responsive as well as the kinds of knowledge produced and the mechanisms deployed for the codification of knowledge.

Implicit in Pretorius's typology is a sensitivity to the relative strengths or power relations between the academic heartland (under structure), the university bureaucracy (middle structure) and external constituencies in the production of knowledge as a function of the type of engagement. However, in its representation, the typology still conflates the middle and under structures to present a unified internal response to external demands being made on the university, and this denudes the typology of representing the complex tensions and dynamics internal to the university.

Drawing on data from the University of Cape Town's Social

Responsiveness Working Group, MacMillan and Pollack (2009) have constructed a taxonomy of responsiveness. Their taxonomy concurs with the two commonly referred to functions of universities: (1) Teaching and learning-orientated forms of responsiveness; and (2) Research-orientated forms of responsiveness. They add a third category which they term 'direct engagement' which accounts for student volunteerism. Where this typology differs from the others, is that it is mainly centred on the core activities of the university and, therefore, describes only the responsive behaviour observed in the university's under structure. Therefore, unlike the typologies developed by Kruss, Oliver and Pretorius which are typologies of direct responsiveness, the types of responsiveness in the MacMillan and Pollack typology are typically, although not exclusively, indirect forms of responsiveness.

The typology provided is also useful in that it does away with the less than useful descriptors, and groups types of responsiveness in simple categories based on three commonly accepted functions of the university – activities familiar to all those within the organisation and the system.

In deriving a typology of responsiveness, I would recommend keeping the focus on the functions of the under structure but would formulate a narrower third category concomitant with a reconceptualisation of what is included in the research category. Although it is tempting to call the third category the 'third mission' because of the amount of attention currently bestowed in the literature on this 'new' university function, it is believed that this would be a move side-ways rather than forward. The 'third mission' is itself a dumping ground for all the 'non-traditional' things that universities do and which resist classification. As Jongbloed et al. (2008) point out: 'third mission activity often covers everything besides traditional teaching and traditional research, this does little to help frame it as a task that can be shaped'. It is recommended that the third type of responsiveness be given much tighter classification criteria without dislocating it from

the core activities of the under structure. 'Service' is suggested as that type of responsiveness which is executed as a service to the community due to the value of the knowledge and expertise possessed by the university, and the university's willingness to impart or exchange such knowledge for the benefit of the community. Community is understood in its broadest sense to include not only doorstep communities but also CSOs, parastatals, government and businesses. Service types of responsiveness do not necessarily have any direct impact on the teaching and research function of the university.

This definition has particular implications for how to classify certain types of research output. Contracted or consultancy research that remains the property of the client and/or where the research parameters are set by the client is regarded as a service rendered by the university and therefore is regarded as a service type of responsiveness. Research not released into the public domain or contracted research that is poorly disseminated has significantly less, if any, chance of contributing to the knowledge base. Which is not to say that knowledge benefits from consultancy research cannot or do not accrue, but that the direct and primary beneficiaries of the knowledge produced are external to the university in particular and to the academic community in general. And such consultancy research is therefore unlikely to impact directly on the core research function of the university. Moreover, consultancy research is often initiated because of the existing, inherent knowledge that exists, and the brief is to apply that knowledge (to a particular problem) rather than specifically to generate new knowledge.

It is important to point out that the three functions identified are not necessarily equivalent to the core functions of the university. As argued earlier, the awarding of degree qualifications and research as a means of generating and codifying new knowledge are core in the sense that they represent activities peculiar to universities. And they are universally accepted as constituting what it is that universities do. Service is increasingly being claimed as the third function of the

university but it is not regarded as a core function simply because it can just as easily be rendered by other organisations.

From the analysis above, a summary of indirect responsiveness is presented in Table 3.1.

Table 3.1: Summary of indirect responsiveness

Function	Teaching and learning	Research	Service
Responsiveness as ...	Link between graduate output (employability) and labour market needs in terms of skills	The production of the types of knowledge required for socio-economic development	Exchange between the university and its community
Moniker	Labour market responsiveness Curriculum responsiveness	Innovation Academic capitalism University–industry linkages/ partnerships	Community engagement Service learning Outreach Consultancy Third mission Extension

3.2.2 Responsiveness and engagement

Tracking the use of the term ‘responsiveness’, it appears that the usage of responsiveness as a concept is fading, only to be replaced by a related term: ‘engagement’. Whether engagement is synonymous with responsiveness is not entirely clear. Some seem to use the concepts interchangeably, others regard engagement as something that happens more at community level (i.e. those communities in which the universities are located) whereas they regard responsiveness as implying broader, sometimes more nebulous, linkages between universities and society. After all, one hardly ever hears of or reads of ‘social engagement’ or ‘community responsiveness’; rather, the accepted forms are ‘community engagement’ and ‘social responsiveness’. Lis Lange, Executive Director of the CHE’s Higher Education Quality Committee (HEQC), regards responsiveness and engagement as two distinctive concepts:

An engaged university is not necessarily the same as a socially responsive university that is attuned to meeting particular skills

needs. The conceptual continuum may exist on the surface, but there are more dissonances than one would imagine in the understanding of community engagement. (Lange in Hall 2010: 6)

Lange seems to be reducing social responsiveness to the university's ability to generate apposite skills for the labour market – a view reinforced in other CHE publications. This is in contrast to Favish's calls for a broader understanding of social responsiveness, deriding the increasingly narrow interpretation of social responsiveness (Favish 2003).

A possible explanation for the increasing emergence of 'engagement' rather than 'responsiveness' in the higher education discourse, is that in the context of calls to action (for example, the NPHE and the new minister for higher education and training's demands for contracts between the ministry and universities) and increased accountability (for example, the CHE's institutional audits), engagement is tantamount to the summation of responsiveness and accountability (Jongbloed et al. 2008).

Whereas 'social responsiveness' is more conceptual and normative – driven by a new ideological vision for the university – 'engagement' is more execution-orientated and seems to place emphasis on mutually beneficial exchange in an equal relationship between the university and the community with which it is engaging. And, as such, engagement implies both relevance and accountability as measurable indicators of universities' contribution to society. Engagement can therefore be regarded as the preferred term – but conceptually and ideologically still linked to responsiveness – given the current context.

It is interesting to observe that whereas there are few attempts to define responsiveness, the same cannot be said for engagement. The Joint Engagement Research Project (JERP) defines engagement as: 'a systemic relationship between HE and its environment characterised by mutually beneficial interaction which enriches learning, teaching

and/or research while addressing societal problems, issues and challenges' (JERP 2003: 10). Fourie (2006 cited in CHE 2009: 81–82) defines engagement as 'continuously negotiated collaborations and partnerships between the university and the constituency that it serves aimed at building and exchanging the knowledge, skills, expertise and resources required to develop and sustain society'. Jongbloed et al. (2008) define engagement as 'involv[ing] a set of activities through which the university can demonstrate its relevance to the wider society and be held accountable.' Where responsiveness is defined, it lacks the clarity and simplicity of the definitions of engagement. The University of Cape Town's (UCT) Social Responsiveness Working Group's attempt is a good example: 'Social responsiveness is defined as the production and dissemination of knowledge for public benefit and demonstrates engagement with external constituencies; shows evidence of externally applied scholarly activities' (UCT 2006: 10). In fact, UCT insists on as broad a definition of responsiveness as possible.

Two observations present themselves given the above definitions. The first is that there appears to be little fundamental difference between the two concepts of engagement and responsiveness (other than the difference of accountability). One could just as easily say that responsiveness is 'a systemic relationship between higher education and its environment characterised by mutually beneficial interaction which enriches learning, teaching and/or research while addressing societal problems, issues and challenges'.

The second observation is that despite the preponderance of definitions of engagement, there remain calls for the concept to be clarified (CHE 2009; Hall 2010; Cosser et al. 2004; Muller 2010). Why would this be the case if there are already such seemingly clear definitions in circulation? A possible answer lies in the fact that despite these definitions, engagement continues to mean different things to different groupings within the university system. And in order to understand why this may be the case, it is necessary to explore the ideological underpinnings of engagement.

3.2.3 Responsiveness in context

While identifying types of responsiveness may go some way in resolving some of the conceptual confusion that surrounds the notion of responsiveness, Muller (2010) reminds us of the importance of taking cognizance of the historical context in which different notions of responsiveness have predominated: “community engagement” is an irreducibly contextual activity, depending variously on the mission and strengths of the university, the state of regional development of the area in which it is sited, and the ingenuity of the academics concerned, not to mention the diversity of views and interests of the local “communities” (2009: 1). Kruss (2004) similarly reminds us of the influence of an organisation’s historical legacy as well as their position in a shifting South African higher education landscape (both contextual factors) on its ability to be responsive.

I would argue that all types or forms of engagement regardless of their historical context have a common imperative – that is, that interaction between the university and its community will be to the benefit of society. In other words, that positive social change is a consequence of engagement between universities and their communities.

Muller (2010) maps four stages of engagement in South African higher education: (1) Struggle engagement; (2) Service learning engagement; (3) Mode 2 engagement; and (4) Engagement as development. Muller (2010: 69) argues that ‘highly contextual spaces like “community engagement” are weakly bounded sites of practice and highly susceptible to rhetorical fashion. By their nature, they will be hard to pin down within a single frame without distorting their historically adaptive character.’ The extent to which the concept of responsiveness has been prostituted and cloaked in various guises, gives credence to Muller’s claim. It is therefore proposed that while a typology may prove useful, it should not be devoid of a contextual dimension which makes clear the ideological imperatives underpinning a particular type of responsiveness or engagement. Such an ideological dimension

is, furthermore, a potentially valuable indicator of the convergence or divergence between the ideologies driving engagement at the three institutional levels identified by Clark. It is therefore proposed that Muller's stages be used (with modifications) to add a necessary contextual dimension to the typology of responsiveness.

The first stage in Muller's four stages of engagement is what he terms 'struggle engagement' which saw South African academics in the 1980s attempting to connect their academic endeavours with the broader socio-political project of resistance in a context of apartheid policies vehemently opposed to such engagement.¹⁰

The second stage which took root in post-apartheid South Africa in the mid-1990s, was that of community engagement or service learning which is described as an attempt at transferring skills and knowledge, primarily by students, to those local communities. This phase was strongly influenced by American conceptions of community service, imported to South Africa in part through philanthropies such as the Ford Foundation. This tradition remains strong in the United States where universities are being encouraged to engage with their local, doorstep communities (Center for Studies in Higher Education 2005). Because of the preponderance of terms such as 'community engagement', 'service learning' and 'outreach', it is proposed that a singular term be used which encompasses all these terms. The term 'civic engagement' is suggested to describe engagement activities which attempt to leverage the intellectual assets of universities to solve social problems in collaboration with doorstep communities. Both service learning and outreach are examples of such attempts.

In the late 1990s, engagement with a different kind of community took centre stage. With the de-politicisation and democratisation of knowledge within the globally networked communities in which

¹⁰ Some may feel the 'struggle engagement' category is unique to the South African socio-political context and therefore of little use in plotting the responsiveness of universities elsewhere on the continent or on the globe. However, I would argue that the concept of 'struggle engagement' as a form of engagement in which academics attempt to connect the academic project to that of social and/or political change, is not limited to the South African context. It is equally conceivable that academics in other socio-political contexts beyond the borders of South Africa may seek to engage with those activists located outside of the university in order to advance social change.

South African academics could increasingly gain access to, what Muller terms 'Mode 2' engagement predominates. Communities are now broader and more global – no longer only located on the university's doorstep. And the community is more heavily populated with other academics as a means of bolstering the knowledge project while at the same time seeking validation from within a community of scholars (rather than from a community imbued with lay or tacit knowledge). A key concept and prime driver is both the creation of new knowledge (predominantly 'applied' or 'use-inspired') as well as the innovation of new technologies.

Mode 2 knowledge, coined by Gibbons, is however a slippery term and one likely to trigger unwanted associations and non-relevant debates. It is therefore suggested that Muller's 'Mode 2' stage of engagement be renamed 'scientific engagement'.

The fourth and final stage is what Muller terms 'engagement as development'. The overarching imperative during this stage is the attempt to increase the number of linkages between government and industry on the one hand, and universities on the other, in order to drive development. This development is national and is primarily economic with the assumption that social development will follow. The qualifier 'economic' is added to development engagement in order to differentiate this specific form of engagement from the overarching engagement imperative of social development.

3.3 Plotting responsiveness – towards a typology

Given the types of responsiveness identified above, as well as the contextual dimensions outlined by Muller (2010), it is possible to venture an initial typology of responsiveness. In addition to the proposed name changes to Muller's stages of engagement, a further distinction is proposed. This distinction revolves around an interrogation of the 'mode 2 engagement' stage (renamed 'scientific

engagement'). Muller explains as follows: 'Key to the concept, however, is that 'all partners bring something that can be exchanged or negotiated and, second, that they also have the resources (scientific as well as material) to be able to take something from other participants' (Gibbons 2006 in Muller 2010: 77). Further on, he makes the point that 'what the mode 2 account did have going for it was a focus on the knowledge project, and an incipient if not explicit social or explanatory theory [...] that brought it back to the political and economic realms, and began to suggest a way of re-connecting the knowledge project with the social project' (Muller 2010: 79). This re-connect with the knowledge project, I would argue, suggests two related but ideologically separate categorisations within the mode 2 phase, both of which nevertheless sit comfortably within Gibbons's 'transaction spaces'. The first, as Muller points out, is the reconnect to the knowledge project but, I would argue, in a manner which is not predicated on any material form of exchange. Knowledge is transacted for knowledge within a global network ('community') for the purpose of advancing knowledge as well as the status of the 'knowledge traders' within the network. And the imperative beyond personal, elevated academic status, may be as noble as to make a contribution to the social development *through* research and knowledge exchange.

The second type of knowledge transaction has a very different imperative. It is predicated on the potential financial reward of knowledge exchange within a network. I would argue that this is more akin to the academic entrepreneurialism of Clark (1999) or the academic capitalism of Rhoades and Slaughter (1997). And the community in question here – and the most likely to reap the rewards of such engagement – is the academic communities that populate universities. This form of engagement ensures the survival of their own academic communities in the face of dwindling budgets, while ostensibly simultaneously transferring knowledge from within the hallowed walls of these academic communities (regarded as isolated from society) to the non-academic world. As such, it is suggested

that an additional categorisation – ‘entrepreneurial engagement’ – be added to those set out by Muller (2010).

In terms of using Muller’s adjusted categories for the typology, it is clear that each category (or phase) is underpinned by an ideological imperative. This focus on the ideological imperatives splits the entrepreneurial category (with a financial imperative) from the scientific category (with its knowledge creation imperative). The struggle engagement category is underpinned by a political imperative – to ensure social transformation through political change. Civic service engagement has social responsibility as its imperative – developing social awareness among university students and academics while at the same time transferring knowledge to the community as part of a greater social project in which the university must play its part. The economic development category has as its ideological imperative the development of the national economy in globally connected trading zones, and it is assumed that such economic development will drive social development and change.

Based on the above analysis, a prototype typology is presented in Figure 3.3.

Responsiveness activities in the under structure are plotted on one axis according to type (their relationship with one of the three functions of universities) and, on the other axis, according to the ideological imperative motivating the responsive activity. The three possible types of responsiveness relating to function are: (1) teaching and learning; (2) research; and (3) service. The types relating to ideological imperative for engaging are: (1) struggle engagement; (2) civic engagement; (3) entrepreneurial engagement; (4) scientific engagement; and (5) development engagement.

Figure 3.3: Typology of Responsiveness

TYPE OF RESPONSIVENESS						
Direct						
Indirect	Service					
	Research					
	Teaching and Learning					
ENGAGEMENT IDEOLOGY	Struggle engagement	Civic engagement	Entrepreneurial engagement	Scientific engagement	Development engagement	
ENGAGEMENT IMPERATIVE	Political change	Social conscience	Financial sustainability	Knowledge/status/innovation	Economic growth	



3.4 Indicators of the institutionalisation of responsiveness

While the above typology is useful in placing types of responsiveness on a plane to locate its functional link with the university as well as its contextual dimension, the typology can be developed further to provide additional insight into the extent to which responsiveness is likely to be institutionalised. This can be achieved by adding to the typology three additional dimensions which serve as broad indicators of the likelihood of responsiveness being institutionalised.

The proposed dimensions are: (1) rules, structures, sanctions and accreditation; (2) alignment; and (3) bearing.

Olsen (2007a) identifies enduring rules and organised practices, embedded in structures of meaning and resources as indicators of institutionalisation. Structures of meaning involve standardisation, homogenisation and authorisation of common purposes. Ragsdale

and Theis (1997) suggest that autonomy, adaptability, complexity and coherence serve as indicators of institutionalisation in their study on the institutionalisation of the American presidency. Similar in categorisation to Scott's (2001) indicators, Colbeck (1999) developed eight indicators premised on regulative, normative and cognitive processes to assess the degree of institutionalisation of curricular reforms in higher education. Cummings and Worley (2008) identify five indicators, the presence or absence of which indicate the extent of a new intervention's institutionalisation: (1) knowledge – the extent to which actors have knowledge of behaviours associated with the intervention; (2) performance – the degree to which the behaviour is executed; (3) preferences – the degree to which actors privately accept the changes brought about by the intervention; (4) normative consensus – agreement around the appropriateness of the intervention; and (5) value consensus – social pejorative consensus about the changes brought about by the intervention.

Scott (2001: 52) identifies the characteristic of an institution and which includes indicators of institutionalisation (see Table 3.2). His arrangement serves a useful synthesis of the indicators described in the empirical studies listed above:

Table 3.2: Scott's summation of what constitutes an institution (including indicators)

	THREE PILLARS OF INSTITUTIONS		
	<i>Regulative</i>	<i>Normative</i>	<i>Cultural-cognitive</i>
<i>Basis of compliance</i>	Expedience	Social obligation	Taken-for-grantedness Shared understanding
<i>Basis of order</i>	Regulative rules	Binding expectations	Constitutive schema
<i>Mechanisms</i>	Coercive	Normative	Mimetic
Indicators	Rules Laws Sanctions	Certification Accreditation	Common beliefs Shared logics of action
<i>Basis of legitimacy</i>	Legally sanctioned	Morally governed	Comprehensible Recognisable Culturally supported

Common to the indicators used in the empirical studies on institutionalisation, is the acknowledgement of the three pillars of

institutions identified by Scott (2001): regulative, normative and cognitive. The indicators developed for this study fit broadly into each of these categories. The indicators are all located at the organisational level, providing insight as to whether there is evidence of the university as organisation internalising responsiveness.

Importantly, though, the first set of indicators is located at the middle-structure level while the second and third indicators (alignment and bearing) are located at the under-structure level thereby providing critical insight into the institutionalisation of responsiveness in higher education organisations with their unique power compositions and competing logics (Clark 1983b). Critical also because while structures may become institutionalised, it does not necessarily follow that practices become equally institutionalised (Colyvas & Jonsson 2009). In support of this observation, North's (in Neave et al. 2000) definition of what constitutes an institution includes both formal rules (such as proclamations, laws and contracts drafted and enforced by formal structures) *and* informal constraints (in the form of taken-for-granted norms and conventions).

It is suggested, therefore, that the indicators developed be considered in conjunction with one another; that no one indicator may prove sufficient as a conclusive indicator of the likely institutionalisation of responsiveness in higher education.

3.4.1 Rules, structures, sanctions and accreditation

The first proposed indicator of institutionalisation comprises a cluster of four indicators located in the middle structure (see Table 3.3). Indicator 1a uses the relative mix of university income streams as a proxy for the institutionalisation of responsiveness. Mora and Vila (2003: 127) contend that a 'better balance' – that is, an increase in the proportion of private financing in relation to public financing of higher education – is a consequence of the expectation that competition for funds will increase responsiveness to economic and social needs.

It assumed in this study that as a public university becomes more responsive, its proportion of income from government will decrease and its proportion of income from non-traditional sources will increase. This is empirically based on the case-study research of Clark (2004) on the sustainability of academic entrepreneurialism at several US and European universities.

Three additional indicators of the institutionalisation of responsiveness at the middle-structure level have largely been drawn from the work of both Furco (2002) and Mitchell et al. (2005). Furco developed indicators to assess the institutionalisation of service learning at American universities and colleges. Mitchell et al. used Furco's indicators to assess service learning at the University of KwaZulu-Natal. Indicators 1b to 1d are those indicators developed by Furco (2002) and replicated by Mitchell et al. to establish whether there is evidence of the institutionalisation of responsiveness in the middle structure of the universities studied.

Table 3.3: Indicators of the institutionalisation of responsiveness in the middle structure

Level	Indicators of responsiveness	Theoretical reference	Empirical reference
Middle structure	1a Shape/mix of revenue streams 1b Philosophy and mission incorporates responsiveness 1c Existence of formal structures or programmes to monitor, support and promote responsiveness 1d Existence of formal mechanisms to reward responsive faculties/departments/academics	Logics of action Common beliefs Rules / procedures / structures Sanctions / accreditation	Clark (2004) CHET (2010) Furco (2002) Scott (2001)

3.4.2 Alignment

Alignment refers to the degree of overlap between the super, middle and under structures in terms of both the purpose and the perceived benefits of responsiveness. In cases where such alignment is shown, it is proposed that the chances for institutionalisation increase because actors at all three levels enter into a shared understanding or pact about the purpose and benefits of being responsive. In other words, responsiveness – as a change in the taken-for-granted notion shared

by academics and other institutional actors of what it is that academics do – is more likely to become a ‘steady part of the structure of work, the web of belief, and the division of control’ (Clark 1983b: 114) if such a shared understanding exists.

The proposition is derived from sociological institutional theory and its approach to understanding organisations such as universities. It assumes that, as open systems, universities are affected by and typically will internalise valued dimensions from their external environments. Conversely, organisations will be resistant to change if exogenous demands are not be in alignment with the established institutional beliefs and norms (Muller 2003).

According the Meyer et al. (2007: 190) ‘institutional theory emphasises that local organisations arise in good measure independent of local circumstances – deriving from wider sociocultural environments that support and even require local structuration around exogenous models and meanings.’ And local structuration will, in turn, depend on an alignment within the local environment, that is, between the three structures identified by Clark (1983). Clark’s approach provides a critical framework for establishing whether institutionalisation is occurring or not; for if a process is said to be institutionalised, then it should be internalised at *all three levels* within higher education.

3.4.3 Bearing

Drawing on the conceptual distinction between the extended periphery and the academic core, it can be assumed that should projects which are regarded as being instances of indirect responsiveness be located in the extended periphery, then responsiveness will be less likely to be institutionalised as the projects will not be integrated into the core functions of the university, that is, they will not be integrated into the ‘cognitive scripts’ of the actors in the under structure (i.e. academics). A strongly developed extended periphery, is an effective ‘buffering mechanism’ and can therefore be extrapolated as an indicator

of a reduced likelihood of the institutionalisation of responsive behaviour in the under structure. Conversely, projects which exhibit characteristics which strengthen the academic core by impacting on the core technologies of the university are indicative of bridging endeavours, that is, an acceptance of responsiveness as exemplified by academics in the under structure connecting their responsive activities with the core functions of the university.

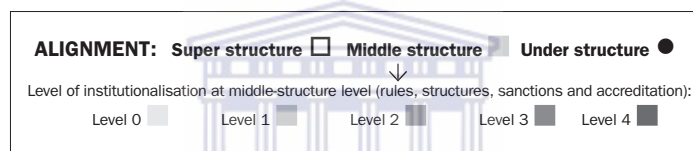
It is true that not all pressures for increased university responsiveness require the involvement of the academic core. Responsiveness to equity, efficiency or financial pressures, for example, are not the domain of academic staff in their everyday academic endeavours of teaching and research. Such pressures may well require the activities of management or other non-academic staff to be regarded as responsive. These are instances of direct responsiveness which this study has chosen to exclude. It is indirect responsiveness – the responsiveness of the under structure, the academic heartland – that is being studied, as is its institutionalisation. Responsiveness in its indirect form, must be connected to or integrated into the core academic activities of teaching and research if this form of responsiveness is to be institutionalised. As Colyvas and Jonsson (2009: 30; emphasis added) point out: ‘An institutionalised practice or structure requires integration into *existing* modes of reproduction.’

As explained in greater detail at the beginning of this chapter, a distinction can be made between direct and indirect responsiveness. This thesis is more concerned with the institutionalisation of indirect responsiveness as a new type of response set imposed on a pre-existing set of institutional norms, beliefs and reinforcing practices.

Taking the above indicators of the institutionalisation of responsiveness into account in conjunction with the focus on indirect responsiveness, the typology of responsiveness can be adapted as presented in Figure 3.4:

Figure 3.4: Typology of responsiveness including the indicators of institutionalisation

		Core ← BEARING → Periphery			
TYPE OF RESPONSIVENESS	Direct				
	Indirect				
	Service				
	Research				
	Teaching and Learning				
ENGAGEMENT IDEOLOGY	Struggle engagement	Civic engagement	Entrepreneurial engagement	Scientific engagement	Development engagement
ENGAGEMENT IMPERATIVE	Political change	Social conscience	Financial sustainability	Knowledge/status/innovation	Economic growth



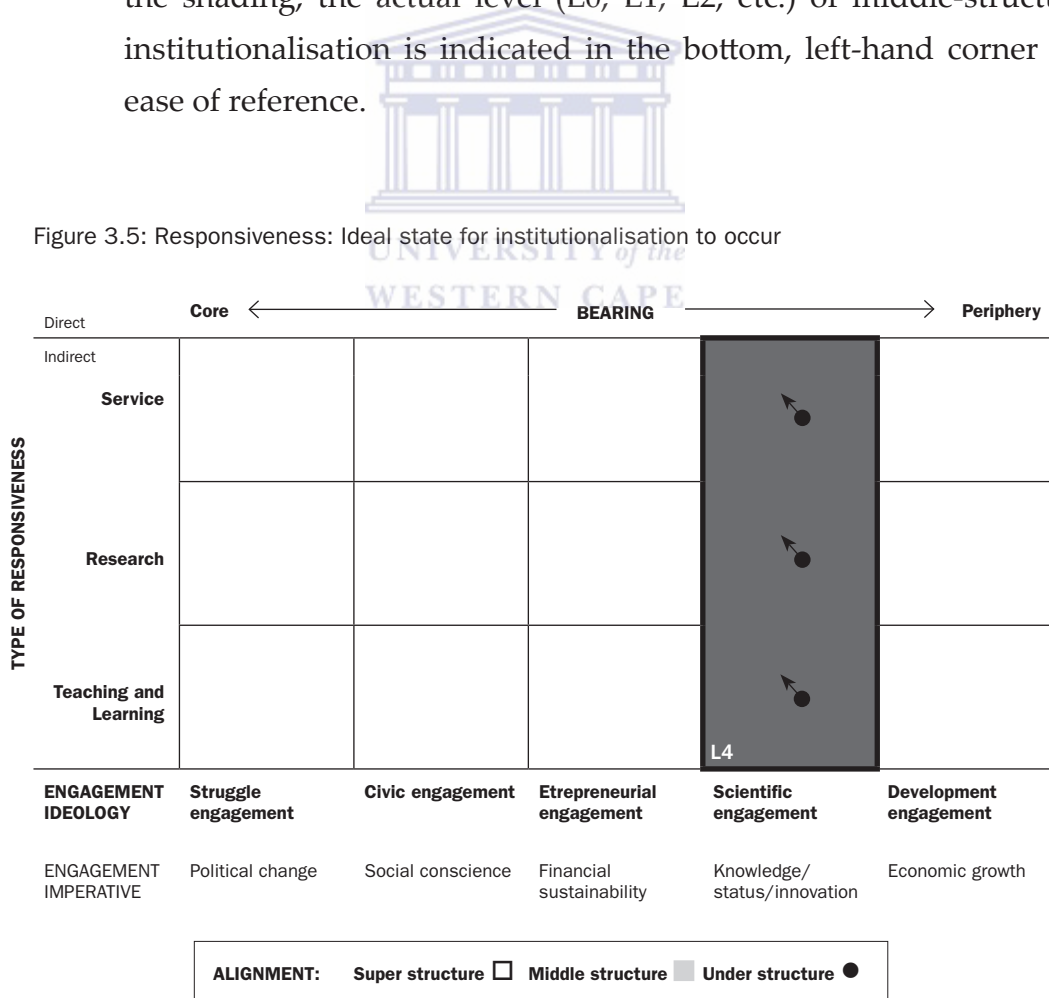
3.4.4 Plotting the indicators on the typology

The ‘ideal state’ in terms of a configuration that represents a high likelihood of responsiveness being institutionalised is presented in Figure 3.5.

The solid black circles with arrows in Figures 3.5 and 3.6 represent the responsiveness activities of academics in the under structure. In an ideal scenario, that is, where responsiveness is most likely to be institutionalised, the arrows would all bear towards the ‘Core’ on the Bearing Continuum indicating that the responsive activities are in some way incorporated into or connected with the core academic functions of teaching and research. It is unlikely that all activities (projects) will have the same bearing. However, plotting activities in this manner should indicate a general bearing towards the core functions for the likelihood of institutionalisation to increase.

In Figure 3.5 there is perfect alignment between the ideological imperative under-pinning responsiveness in the super structure (state), middle structure (institutional leadership and management) and the under structure (academics). In the example presented, it is the ideological imperative of scientific engagement which is shared across all three levels of authority.

Using indicators 1a to 1e described above, the degree of institutionalisation in the middle structure is indicated by five shades of grey, with each darker shade indicating an increased degree of institutionalisation. The 'ideal state' in Figure 3.5 shows the darkest possible shade of grey in which all four of these indicators of a high likelihood of institutionalisation are confirmed. In addition to the shading, the actual level (L0, L1, L2, etc.) of middle-structure institutionalisation is indicated in the bottom, left-hand corner for ease of reference.



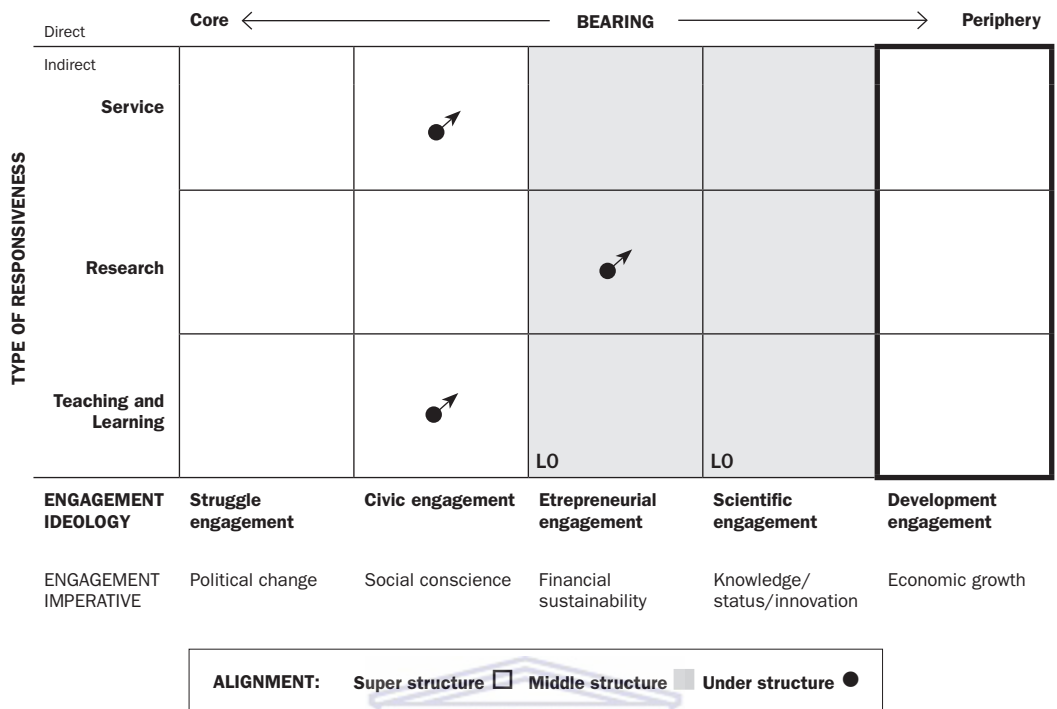
It is not necessary nor is it likely that all three structural levels (under, middle and super) can be pinned down to a single ideological imperative. In particular, at an organisational level (both within the middle and under structures) it is likely that multiple discourses may be observed simultaneously spanning two or three categories. This is represented in Figure 3.6 which shows the university leadership espousing both entrepreneurial and scientific imperatives, while the state is committed to engagement for the purposes of economic development. Figure 3.6 therefore describes a situation in which multiple ideological imperatives prevail at organisation level, and which imperatives are not in alignment with the imperatives of the state.

The reality of multiple imperatives is not surprising and is supported by the theories of multiple functions of universities by Castells (2009) and Olsen (2007b). In fact, it may even be possible to draw parallels between the imperatives identified for this typology and the Castells and Olsen functions.

It is also conceivable that multiple imperatives may exist at some or all levels and that these may overlap. This could be indicative of either an increasing convergence or divergence in the imperatives underpinning responsive activities.

Figure 3.6 also illustrates the lightest possible shade of grey (L1) which indicates the lowest level of evidence of rules, structures, sanctions and accreditation at middle-structure level (indicators 1a to 1e). All projects bear towards the periphery in the example in Figure 3.6 and are not in alignment with the imperatives of the middle or super structures. This combination of factors, represents conditions most likely to prevent the possibly institutionalisation of responsiveness.

Figure 3.6: Conditions unlikely to promote the institutionalisation of responsiveness



3.5 Delimiting concepts

In order to operationalise the research question posed, this study has limited and redefined certain concepts.

The complex constellation of pressures for responsiveness have been set out in Chapter 2. This study proceeds on the assumption that pressures are mediated through the super and middle structures. While it is therefore acknowledged that the middle and under structures in higher education are subject to pressures emanating from the broader global and national contexts in which they operate, this study will follow Clark’s (1983b: 107) suggestion that:

As super structures become larger, more complex, and more dense in linkage, many external trends and demands become operational in the system as a whole to the extent that they become ‘state demands’. What consumers ‘want’ and what industry, the professions, and the civil service are ‘demanding’

is interpreted by political and administrative personnel and has to be processed through their offices.

This study will therefore limit its investigation to the pressures exerted by the super structure based on the assumption that the super structure becomes a conduit for broader national and global pressures.

Types of responsiveness have been discussed earlier in this chapter. Possible forms of responsiveness between system components as well as between the system and stakeholders located in the broader social context (local and global) are numerous. This study, however, is not directly concerned with how national policy or strategic frameworks (as expressions of the super structure) respond nor how the policies and strategies of universities (as expressions of the middle structure) are responding to pressures exerted by society. Rather, the focus of this thesis is on how the under structure is responding *within the context* of existing policy and strategic frameworks to opportunities in the market.

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Given the multitude and complexity of pressures on and responses by universities, and the fact that this thesis will limit its investigation to specific pressures and responses, is not to suggest that certain pressures or responses are more relevant than others; rather the imposed limitations enable the operationalisation of the study of responsiveness in context.

The combination of these limits on the pressures and the type of responsiveness included in the operationalisation of this study with the typology of responsiveness developed and the three superimposed indicator clusters for the likelihood of institutionalisation to occur, serve as the conceptual framework for this study.

Methodology

4.1 Introduction

Given the current expectations seemingly prevalent in both discourse and policy for higher education to contribute to development, the primary purpose of this study is to establish whether responsiveness is in fact being institutionalised in higher education. Responsiveness – a closer relationship between universities and their external environments – is the oft-assumed mechanism through which such a contribution to development will operate. Three indicator clusters have been developed to assess whether responsiveness is being embedded in the structures and practices at both governmental and organisational levels of higher education. An examination of formal structures, relevant documents and other materials will also provide an indication of the ideological imperatives underpinning the policies and plans studied.

Given the range of meanings assigned to and the number of interpretations extracted from the construct ‘responsiveness’ some clarity around the notion is required. Therefore, in order to operationalise the primary research question, a typology of responsiveness has been developed. The typology not only serves as an operational framework but also contributes to a clearer and more constructive understanding of responsiveness. The typology provides the framework within which the indicators of the institutionalisation of responsiveness may be mapped. These indicators developed for assessing the institutionalisation of responsiveness in higher education will provide insight as to whether responsiveness is in fact likely to be institutionalised and will, it is hoped, reveal the possible reasons for the occurrence or nonoccurrence of institutionalisation.

Outlined below is the research design adopted for this study, the methodology and the limitations of the study.

4.2 Research design

In order to apply the typology and to assess the likelihood of responsiveness being institutionalised in higher education, a case study approach using both primary and secondary data was followed. Case studies were drawn from a project of the Centre for Higher Education and Transformation (CHET) – a not-for-profit organisation based in Cape Town, South Africa – known as the HERANA (Higher Education Research and Advocacy Network in Africa) Project. One of HERANA’s sub-projects is the Higher Education and Economic Development Project. The data was deemed to be particularly useful and appropriate for this study as data was collected from *all three* levels of the higher education systems studied – the super structure (government); the middle structure (university leadership and management); and the under structure (academics).

The HERANA project seeks to examine the linkages between higher education (particularly universities) and development in eight African countries. In particular, the HERANA study is concerned with the nature of the ‘pact’ between the universities, political authorities and society at large; the nature, size and continuity of the academic core; the nature, management, size and other properties of externally-funded projects.

The HERANA project’s objectives are twofold: (1) at the national level, the objective is to explore the relationship between economic policy and development on the one hand, and higher education system development on the other; (2) at the institutional (project) level, to understand the ways selected universities in Africa are responding to calls for stronger engagement with the socio-economic development of their country and surrounding regions.

There is therefore significant overlap between the HERANA study and this one. However, this study is more focused on the institutionalisation of responsiveness per se, and places greater emphasis on the inclusion of the under structure in the institutionalisation process as part of a broader conceptualisation of what constitutes institutionalisation. The development of the typology of responsiveness and its use to determine the likely institutionalisation of responsiveness, is also unique to this study.

In each of the collaborating countries the HERANA project selected the national public university, except in South Africa where the Nelson Mandela Metropolitan University was selected (see Table 4.1 for a list of countries and universities included in the HERANA project). Participating university vice-chancellors were asked, together with the relevant institutional leadership, to identify five to ten flagship projects that related to either economic development or poverty reduction. In addition to the site visit and interviews, a range of national and institutional documents were consulted. Semi-structured interviews were conducted with a wide range of individuals in each country, including: selected ministries; commissions/councils for higher education and other stakeholders at the national level; institutional leadership; heads of externally-funded 'flagship' projects and centres; academic staff; and administrative staff.¹¹

Table 4.1: Countries and universities included in the HERANA study

Country	University
Botswana	University of Botswana
Ghana	University of Ghana
Kenya	University of Nairobi
Mauritius	University of Mauritius
Mozambique	Eduardo Mondlane University
South Africa	Nelson Mandela Metropolitan University
Tanzania	University of Dar es Salaam
Uganda	Makerere University

¹¹ For more detail on CHET's HERANA sub-project on Higher Education and Development, see www.chet.org.za

Given the fact that countries and universities were selected on the basis of the CHET HERANA project's own research objectives, the study could not assume that responsiveness would necessarily be part of the selected countries' policy. It was therefore deemed necessary to verify the presence of a commitment to university responsiveness at national level before analysing the data in relation to the indicators for the institutionalisation of responsiveness. University policy documents, websites and the HERANA interview transcripts were scrutinised for data relating to the indicators of institutionalisation in the middle structure. In the case of the projects selected, it was assumed that they were de facto instances of responsiveness, and were plotted according to the relevant ideological imperative as well as their bearing in terms of strengthening or weakening the academic core (the second indicator of the possible institutionalisation of responsiveness).

The case study approach is motivated by the relevance of behavioural detail in a natural context and the cumulative benefits of case study research in social enquiry. This approach is endorsed by Flyvbjerg (2002) and Clark (2004: 6):

To find out how ... beliefs become rooted in complex universities, we need to engage in case-study research that balances descriptions of institutionally unique complexities with inductive conceptualisation of elements across common cases. The twin tasks are to gain some useful partial truths without simplifying too much. When successful, we forge an ethnographic compromise between warranted generalisations and institutional specificities ... We assert common elements without straying far from the working knowledge of practitioners... The wonderful virtue of case studies, then, is that we can weave accounts of institutional complexities in which we get much closer to on-the-spot crucial interactions than is possible through remote statistical analysis or purported hypothesis-testing around a few abstracted variables.

Two organisational-level case studies were selected to examine the acceptance of responsiveness at the two organisational levels identified by Clark (2003b). A second study is included to broaden the range of settings in which the typology is tested and, consequently, increase the didactic value of this study.

A final note on the case study approach. Given that this study is concerned with the institutional context in which organisations (universities) operate, it is argued that this study is concerned with the fundamental characteristics of universities which are common across all universities. In terms of Vaira's (2004) approach, this study is concerned with the morpheme rather than the regional declensions which would make inductive generalisations more problematic.

The fact that this study draws on secondary data collected in the field by the HERANA team for the analysis of the likely institutionalisation of responsiveness, has both advantages and disadvantages.

The obvious potential disadvantage is relevance of the data. The data on flagship development projects at each university were collected by means of unstructured interviews, and questions were not always as pointed as they could have been had the questions been asked with the specific purpose of gathering data based on the indicators of institutionalisation developed by this study. This meant that the analysis of the HERANA data on development projects relied on extracting the relevant data from the interview transcripts in order to categorise each project according to its underpinning ideological imperative and bearing in relation to the academic core. In some cases, this meant that some interviews had to be excluded altogether as they yielded insufficient relevant data. Where data was sufficient, the extraction of data depended to some degree on interpretation and deduction. And while the HERANA team went back to those interviewed for clarification in terms of their own needs, this study did not have the opportunity to do so given its own research

imperatives. This being said, the instruments developed remain applicable and future studies replicating the approach of this study could make use of structured interviews or questionnaires in order to yield more robust and relevant data thereby reducing the level of interpretation or deduction required in order to generate sufficient data. Moreover, the HERANA project will release the findings of their eight-country study at the end of 2010, and this will provide an independent reference point against which to cross-check the finding of this study.

A conceivable advantage to using secondary data analysis is the limit placed on interviewer bias and a reduced likelihood of 'candy-coated' or overly positive interviewee responses. This is regarded as particularly relevant given the fact that the notion of responsiveness is a highly normative concept.



4.3 Method

4.3.1 Selection of universities and projects

Two universities were selected from a group of eight African universities preselected by the CHET HERANA project. The basis of the HERANA selection was three-fold: (1) countries were limited to the Sub-Saharan Africa region and were selected within the region to ensure regional representivity; (2) to select those countries and universities where relationships existed and which relationships would ensure access to both government and universities in order to collect sufficient data; (3) on the basis of World Economic Forum ratings with regards to participation in the knowledge economy in Africa. In each of the collaborating countries the HERANA project selected the national university, except in South Africa where the Nelson Mandela Metropolitan University was selected.

The selection of the two universities in this study from the eight HERANA countries was based on likelihood of the two universities constituting characteristics that would (i) adequately test the typology developed and (ii) be the most likely to reveal the greatest degree of insight as to why responsiveness is or is not being institutionalised given the indicators developed. In particular, the two universities were identified as the two which would yield sufficient data for the indicators developed at both the middle and super structure levels. In the case of some of the HERANA universities there was, in some cases, a paucity of data at either the super structure level (lack of formal policies relating to higher education) or the middle structure level (lack of university policies or strategic frameworks).

As indicated earlier, two case studies were selected in order to broaden the range of settings in which the typology would be tested and, consequently, to increase the didactic value of the study. The intention was not to conduct comparative research – each case study was selected because sufficient data was available *and* because it could be extrapolated from initial indications that they would reveal different results. Each case study on its own was therefore expected to reveal different but useful insights into the likely institutionalisation of responsiveness.

The University of Mauritius met these criteria because of initial indications of alignment and the fact that the University of Mauritius is a major beneficiary of government and research council contract research. This made it seem likely that the university would provide a useful case study in terms of the extent to which such contract research is strengthening the academic core of the university, and the extent to which alignment is a conclusive indicator of institutionalisation. In other words, strong alignment would bring the effects of responsiveness projects' bearing into sharper relief.

Nelson Mandela Metropolitan University (NMMU) was selected by the HERANA programme because it was felt that it would be one of the 23 South African universities most comparable to the seven African universities. From the point of view of this study, NMMU presents several characteristics which made it suitable to test the typology of responsiveness. First, it is, in South African terms, a 'comprehensive' university. This means that it is a university that is the product of merger between a university of technology ('technikon') and a traditional university. Technikons were typically regarded as being more suited to being responsive because of their focus on practical skills training and closer ties to industry, whereas universities were regarded as being more removed from the realities of industry and of their surrounding communities. In terms of types of responsiveness, one would therefore expect a balanced mix of both research responsiveness and teaching and learning responsiveness, or a preponderance of teaching and learning responsiveness as a result of the technikon influence and weak university responsiveness. Second, the merged institution would contain a mix of institutional cultures (i.e. university and technikon). This would potentially provide differing and even competing ideological imperatives for engaging with external communities. Third, NMMU is located in one of South Africa's poorest regions and one would therefore expect there to be significant pressure (from government and from the community, and conceivably in the form of high levels of social responsibility from within the university) for the university to make a contribution to the development of the region.

4.3.2 Data and data collection

Policy documents (both national and organisational) were collected independently by means of a web search and by checking the reference lists of publications and journal articles related to African higher education policy. The list of documents collected was then cross-checked against the list of documents drafted independently

by the CHET HERANA team. Policy documents were supplemented by strategic plans, annual reports and websites.

In the South African context, it could be argued that the super structure comprises various government departments and agencies – all of which in some way exert, or attempt to exert, pressure on South African universities. Departments include the Department of Higher Education and Training (DoHET), the Department of Trade and Industry (dti), National Treasury, and the Department of Science and Technology. Agencies include the National Research Foundation (NRF) and advisory government councils such as the Council on Higher Education (CHE) and the Human Sciences Research Council (HSRC), to name but a few. As the department directly responsible for higher education – responsible for both policy and the allocation of state funds – this study limited itself to the relationship between South African universities and the Department of Education. It did, however, also include the CHE as it is the agency that acts as the advisor to the minister of education on matters of higher education. In particular, the CHE's Higher Education Quality Committee (HEQC) was included because of its mandate to ensure quality at South African universities. The process of ensuring quality incorporates the creation of a quality assurance framework backed up by institutional audits conducted by the HEQC. Responsiveness forms part of the quality assurance criteria formulated by the HEQC and therefore constitutes a direct pressure on South African universities. The main policy documents therefore included the National Council on Higher Education's 'A Framework for Transformation' (1995), the Education White Paper (1997) and the National Plan for Higher Education (2001). Funding statements released by the Department of Education were also consulted. The following CHE documents were consulted: A Framework for Institutional Audits (2004) and the HEQC Institutional Audits Manual (2007).

Policy documents of NMMU – NMMU Vision 2020 and the NMMU Research, Technology and Innovation Strategy – were supplement

by annual reports, information published on the university website and interviews conducted by the HERANA team with the vice-chancellors.

In the case of Mauritius, the super structure was also taken to include the relevant ministry responsible for higher education as well as constituted bodies responsible for advising the ministry on higher education matters. The ministry directly responsible for higher education in Mauritius is currently the Ministry of Tertiary Education, Science, Research & Technology. Previous and other relevant ministries and agencies include the Ministry for Education, Culture and Human Resources; the Ministry of Business, Enterprise and Cooperatives and the Tertiary Education Commission. Super structure policy documents consulted included: the Draft Education and Human Resources Development Strategy Plan 2008–2020; the Ministry of Education and Scientific Research's Developing Mauritius into a Knowledge Hub and a Centre of Higher Learning; the Ministry of Business, Enterprise and Cooperatives' Industrial and SME Strategic Plan 2010–2013; and the Tertiary Education Commission's Strategic Plan 2007–2011.

The key policy document of the University of Mauritius – Strategic Directions 2006–2015 – was supplemented by annual reports, information published on the university website and interviews conducted by the HERANA team with the vice-chancellors.

The secondary data was collected by CHET HERANA as part of its research on establishing the links between higher education and development. The secondary data used from the CHET HERANA project consisted of transcripts of unstructured interviews conducted with vice-chancellors, deputy-vice-chancellors and heads of other strategic units.

In the case of project data collected, the CHET HERANA team did not specifically set out to collect data on responsiveness; their approach

was to investigate ten flagship development projects, as identified by the university's vice-chancellor, which would illustrate the university's contribution to development. These projects therefore nevertheless represent instances of responsiveness, with the added advantage that the data collected was not influenced by possible bias that may have been introduced due to the strong normative dimension of the concept of responsiveness. Of the projects identified at both universities, seven projects at each university yielded sufficient data to be included in the analysis. Transcripts of interviews and reports on the categorisation of projects were sent to project leaders for comment and approval by the HERANA team.

Data on the shape and mix of university income for both universities were drawn from the Centre for Higher Education Transformation's performance indicator data on South African and African higher education from 2000 to 2008 (Bunting et al. 2010). This data represents the only source of data extracted directly from the HEMIS database in the case of South Africa and from the universities themselves in the case of the other African universities.

4.3.3 Data analysis

(a) *Evidence of responsiveness*

The first step in the data analysis process was to find evidence of responsiveness at the three system levels. In the case of the super structure, two indicators were devised (See Table 4.2). In the case of the middle structure, the indicators for the institutionalisation of responsiveness presuppose the existence of responsiveness in the formal rules and structures of the university. Similarly, no indicators for responsiveness were devised at the under-structure level. This is because responsiveness activities were drawn from the secondary data originally collected by the CHET HERANA study. The HERANA study relied on university leaders to select flagship

development projects and, as such, these projects assumed a de facto responsiveness status.

Indicator A seeks to establish whether responsiveness is a goal and/or requirement in the regulative framework (policies and laws) steering higher education in the relevant country. Indicator B seeks to establish whether any mechanisms exist to enforce or reward any of the policy goals around responsiveness. In particular, the mechanism of university funding from government being contingent on universities exhibiting responsiveness is used as a proxy for indicating the extent to which the super structure is attempting to entrench responsiveness in the higher education system.

Table 4.2: Evidence of responsiveness in the super structure

Level	Indicators of responsiveness	Theoretical reference	Empirical reference
Super structure	A Policy goals stipulating responsiveness as a requirement in higher education B Evidence of state funding of higher education being contingent on responsiveness	Rules / laws Sanctions / resource allocation	

(b) *Types of responsiveness*

Based on a review of the literature as well as similar attempts by other authors to create typologies of responsiveness, three types of indirect responsiveness were identified:

1. Service
2. Research
3. Teaching and learning

Each activity (project/programme/unit/etc.) was evaluated in order to assess which of the three categories the responsiveness activity (project) should be allocated to. The following line of reasoning was used in this determination/categorisation: Where the pressure being applied is indirectly resulting in engagement in order to relieve the pressure, on which of the three core activities of the university is the

response to the pressure having the greatest impact? IF the response impacts on research/knowledge production more than it impacts on the other functions, THEN it is an instance of research responsiveness. IF the response impacts on teaching/curriculum more than it impacts on the other functions, THEN it is an instance of teaching and learning responsiveness. IF the response does not impact on either research or teaching, *and* the primary reason for engaging is to offer a service to a client (which could assume the form of government, research councils, industry or the community, including the business community, local community, community of students, etc.), THEN it is an instance of service responsiveness.

(c) *Indicators of institutionalisation*

(i) **Rules, structures, sanctions and accreditation**

The first proposed indicator of institutionalisation comprises a cluster of four indicators located in the middle structure (see Table 4.3). Indicator 1a uses the shape and mix of income as a proxy for the institutionalisation of responsiveness. It assumes that as a public university becomes more responsive, its proportion of income from government will decrease and its proportion of income from non-traditional sources will increase. This is based on the case-study research of Clark (2004) at several US and European universities.

Three additional indicators of the institutionalisation of responsiveness at the middle-structure level have largely been drawn from the work of both Furco (2002) and Mitchell et al. (2005).

Using indicators 1a to 1e, the degree of responsiveness institutionalisation in the middle structure is indicated on the typology by five shades of grey, with each darker shade indicating an increased degree of institutionalisation. If there are no indications of the institutionalisation of responsiveness in the middle structure, the base colour of grey (10% of black) is indicated. If one indicator is verified, the next shade of grey (25% of black) is indicated. With every

additional indicator verified, the next darkest shade in the range of five shades is indicated with the darkest shade of grey being 70% of black.

Table 4.3: Indicators of the institutionalisation of responsiveness in the middle structure

Level	Indicators of responsiveness	Theoretical reference	Empirical reference
Middle structure	1a Shape/mix of revenue streams 1b Philosophy and mission incorporates responsiveness 1c Existence of formal structures or programmes to monitor, support and promote responsiveness 1d Existence of formal mechanisms to reward responsive faculties/departments/academics	Logics of action Common beliefs Rules / procedures / structures Sanctions / accreditation	Clark (2004) CHET (2010) Furco (2002) Scott (2001)

(ii) Alignment of ideological imperatives

Based on a paper by Muller (2010), five ideologies underpinning engagement activities (responsiveness) were identified. The types were created using descriptors of the ideological principles underpinning engagement as a result of pressures to be responsive. In addition, the ideological imperatives driving each of the five types of engagement were specified.

Based on these ideological imperatives, five questions were devised in order to classify a particular responsive activity (project) in the under structure, sets of policies in the super structure and the ideological imperatives driving the creation of organisational-level structures and sanctions in the middle structure (see Table 4.4). An affirmative answer to the relevant question indicates the appropriate classification according to the type of engagement.

It is possible that in some instances more than one question could be answered in the affirmative, and it is conceivable that more than one imperative could be driving a particular action. In classifying the ideological imperative underpinning responsiveness in the super and middle structures, multiple imperatives were accommodated. In the case of activities in the under structure – that is, those responsive activities engaged in by academics – the activity was reduced to being driven by a single ideological imperative. In most cases, it was clear

that while some activities in the under structure appeared to have multiple imperatives, on closer inspection it was more often than not possible to reduce the action as being driven by a single, primary ideological imperative.

Table 4.4: Alignment: types of, ideological imperatives and questions asked in order to categorise projects according to type of engagement

TYPE OF ENGAGEMENT	IDEOLOGICAL IMPERATIVE FOR ENGAGING	CONFIRMING QUESTION
Struggle engagement	Political	Is the imperative to link up with and advise political agents with the intention of bringing about political stability or change?
Civic engagement	Social responsibility	Is the imperative to impart useful knowledge to doorstep communities while simultaneously gaining learning experience and/or accessing tacit knowledge embedded in the community?
Entrepreneurial engagement	Financial	Is the single most important imperative to generate additional income in order to support an academic structure (faculty, institute, faculty, etc.)?
Scientific engagement	Knowledge creation	Is the single most important engagement imperative to create new knowledge or to establish an academic discipline within an existing structure?
Economic development engagement	Economic growth	Is the reason for engaging based on the belief that the engagement activity will contribute directly to the development of the community, and that universities are a fundamental part of the development apparatus in society?

(iii) Bearing

Activities in the under structure were assessed to ascertain whether they potentially strengthened or weakened the academic core of the university. In order to establish the bearing of an activity, a set of indicators was devised which would serve as a proxy for whether the activity was likely to strengthen the academic core. Given the core university functions of teaching and research, the indicators are based on outputs which relate directly to these core functions.

Indicators of responsive activities strengthening the academic core rather than reinforcing the extended periphery include:

1. Activities feed into teaching (the curriculum).
2. Students are included in the activities i.e. learning is impacted.
3. Activities have a research impact and result in publications.

The following matrix was used when assessing responsiveness activities and whether they strengthened the academic core:

Strengthening the academic core						
Students involved?		Feeds into teaching?		Research / knowledge output = publication or other form of formal dissemination		
Yes	No	Yes	No	Report	Published book / chapter / article	Conference / seminar

If two of the three categories were confirmed, then it was assumed that the responsive activities were likely to strengthen the academic core. If only one category was confirmed, then an activity was regarded as 'neutral' – neither strengthening nor weakening the core. In both cases, only one of the three Research output fields had to be confirmed. The only exception to this was when all three Research output fields were confirmed. In such a case, even if the Students and Teaching fields were not confirmed, it was assumed that the responsive activity would be likely to strengthen the academic core. If none of the fields was confirmed, then it was assumed that the responsive activity would be located in the extended periphery, that is, weakening the academic core.

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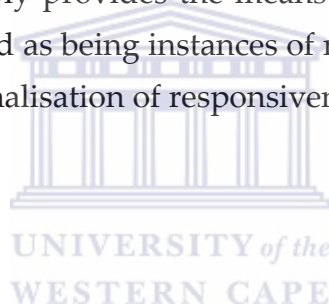
4.4 Limitations

Muller (2003) cautions that the propensity to be responsive may well be a function of a particular discipline's knowledge creation cycle, in particular the period and possibility of making the transition from basic to applied knowledge. This study made no differentiation between disciplines within the under structure and their respective propensities to be responsive. Moreover, following Clark's (1983b) conception of the independence of the disciplines from one another for their survival, it is conceivable that responsiveness may prevail and thrive within one discipline without any impact on another discipline. The typology as it is currently conceived would not reveal intra-disciplinary variations.

The typology could possibly be adapted to record and indicate to which disciplinary field a project belongs by, for example, colour-coding the project markers by discipline. However, this study would caution against reducing the study of responsiveness to purely numerical comparisons in assessing the types and institutionalisation of responsiveness. This study is not concerned with the 'extent of responsiveness'. In other words, it does not take the approach that there exists a certain percentage or benchmark that must be achieved before the claim can be made that responsiveness is being institutionalised. Rather, it is the existence of rules, structures, sanctions and accreditation in combination with the degree of alignment between the three structural levels within higher education and whether a project strengthens the academic core (bearing) that indicate whether responsiveness is being institutionalised.

The fact that projects are plotted on the typology presupposes that they are instances of responsiveness. While these projects may be classified as instances of responsiveness, it is conceivable that research projects may have come into being as an essential part of academic life and not necessarily due to external pressures. It is also conceded that other changes and manifestations in the functioning of the under structure could be indicative of responsiveness. These could include changes to the curriculum (not directly as a result of project experiences but due to the proactive efforts of academics); or self-initiated research endeavours that could find expression in publications or the supervision of PhD candidates rather than in formalised projects; or ad hoc, co-ordinated responsiveness by academics to sudden social or environmental crises; etc. However, projects nevertheless constitute one dimension of responsive activity in the under structure and in terms of the objectives of this study, provide critical insight as to whether this form of responsiveness tends towards integrating with the core academic activities of the under structure or towards the extended periphery thereby effectively buffering the under structure and protecting its core from external interference.

A final note on the limitations of using projects and the dangers of using the typology to quantify responsiveness. Following the logic of this study, even if a university were to record 100 instances of responsiveness out of notional capacity of 100 projects, then responsiveness may still not be institutionalised if the indicators reveal inconsistencies or contradictions. However, it is conceded that if only one project is recorded as an instance of responsiveness, and it is seen to be ideologically aligned and strengthening the academic core, then it is a leap too far to conclude that responsiveness is being institutionalised. Universities and university systems will need to decide for themselves what they take to be 'acceptable' levels of responsiveness not just across universities or systems but perhaps within differentiated system components and/or within disciplines. This study simply provides the means for assessing whether those projects recorded as being instances of responsiveness are indicative of the institutionalisation of responsiveness.



University of Mauritius

5.1 Super structure¹²

5.1.1 Policy and regulative framework

Provision of education in Mauritius is governed by the Education Act of 1957. Government provides the bulk of primary and secondary education, and part of tertiary education (Mohadeb 2010). There is currently no formally accepted plan for higher education in Mauritius. There is, however, a de facto policy document in the form of the Draft Education and Human Resources Development Strategy Plan 2008–2020 (EHRSP). The fact that human resources development and higher education are included in the same strategy plan is indicative of the policy position which regards higher education as the solution to providing Mauritius with the required skills to drive economic development. The EHRSP clearly states that the higher education sector must ensure relevance in such a way that it becomes responsive to the needs of the labour market (Ministry of Education, Culture and Human Resources 2008: 15).

On its website,¹³ the 2010 mission statement of the Ministry for Tertiary Education, Science, Research and Technology reads: 'Expand the Tertiary Education sector to further increase access and through the development of a research culture and the setting up of Science Parks improve linkages between Universities and the world of work.' And in terms of the skills sets to be produced by the sector, there is an unambiguous drive towards producing skills that will ensure that

12 Note: The ministry directly responsible for higher education in Mauritius appears to have changed over the past four years from the Ministry of Education and Scientific Research to the Ministry of Education, Culture and Human Resources and then, most recently, to the Ministry for Tertiary Education, Science, Research and Technology.

13 <http://www.gov.mu/portal/site/tertiary/menuitem.84499a51eb67c6ba1eb9d510a0208a0c/>

Mauritius becomes a knowledge hub.

The Tertiary Education Commission (TEC) in its Strategic Plan 2007–2011, echoes the drive towards producing knowledge workers:

[A] new economic trajectory is unfolding in Mauritius, whereby the economy is shifting from one based on [...] low skills to one which is knowledge and service-related intensive. [...] In this new economic configuration, postsecondary education has to assume a pivotal role, in producing a competitive, dynamic, innovative and highly skilled workforce. (TEC 2007: 1)

Amongst other things, the TEC Act was amended in 2005 and again in 2007 to promote and enhance quality assurance in all higher education institutions, public and private. According to the HERANA project, the TEC is a major player in the tertiary education sector playing both policy formulation and regulatory roles.

The Ministry of Education and Scientific Research in 'Developing Mauritius into a Knowledge Hub and a Centre of Higher Learning' reinforces the critical role of higher education in creating a Mauritian knowledge hub in order to produce high-level skills and drive economic development. It defines the 'knowledge hub' as follows:

A feature of globally competitive knowledge-based economies is that governments, institutions of higher learning and industries work together in those economies to create knowledge hubs. A knowledge hub is concerned with the process of building up a country's capacity to better integrate it with the world's increasing knowledge based economy, whilst simultaneously exploring policy options that have the potential to enhance economic growth. [...] [A] well-functioning knowledge hub requires a strong university sector to complement these investments, by transferring the knowledge to students. It is these types of complementary functions that create a highly-skilled

environment for transferring knowledge between the university sector and business. In short, a knowledge hub is defined as one where knowledge is created, acquired, transmitted and used more effectively by enterprises, organisations, individuals and communities for fostering economic and social development. (Ministry of Education and Scientific Research 2006: 3)

One of the important dimensions that emerges from this definition is the realisation and commitment at policy-level for co-ordination between the higher education sector, industry and government. And there is evidence of co-ordination at government level. The Ministry of Business, Enterprise and Cooperatives' Industrial and SME Strategic Plan 2010–2013, for example, states that '[t]he direction and destination provided by the vision for the industry sector is to build up a strong, diversified and globally competitive industrial sector supported by Knowledge, Science, Technology and Innovation. The direction was also discussed at a consultative workshop which emphasised the need for Mauritius to develop a competitive industrial sector producing high value added products and services and to position itself as a hub for knowledge, logistics/distribution, finance/business and service oriented activities' (Ministry of Business, Enterprise and Cooperatives 2010: ix). The SME plan sees development being driven through the creation of an innovative and technologically strong SME base, particularly in the form of the higher education sector training entrepreneurs. Limiting the role of universities to entrepreneurial training may be a fairly narrow and market-orientated view in terms of the university's overall contribution to the knowledge economy, but there is at least an acknowledgement of the role of higher education.

5.1.2 Funding of higher education in Mauritius

Higher education in Mauritius is funded by two sources: the government and students/parents. Students enrolled in public higher educational institutions are funded to a large extent by the government (Mohadeb 2010).

As reflected in Table 5.1, expenditure on higher education in Mauritius by the government increased from MUR 504.5 million in 2000 to MUR 700.0 million in 2006. However, the percentage of expenditure on tertiary education in relation to total expenditure on education represents a decrease from 12.9% to 11.2%. In terms of GDP, the share of government expenditure on higher education also decreased from 0.42% in 2000 to 0.34% in 2006 (Mohadeb 2010).

Table 5.1: Government expenditure on higher education, 2000–2006 (Mauritian Rupee)

	2000	2001	2002	2003	2004	2005	2006
Expenditure on higher education	504.5	656.2	674.7	622.0	796.7	684.7	700.0
% of expenditure on HE on GDP	0.42%	0.50%	0.47%	0.40%	0.45%	0.37%	0.34%
% of expenditure on HE on expenditure on education	12.91%	15.35%	13.82%	11.88%	13.64%	11.23%	11.17%

Source: Mohadeb 2010

While at policy level there appears to be a requirement for increasing university responsiveness in Mauritius, the funding mechanism does not promote or encourage responsiveness in the sense that there are no direct financial incentives for universities to seek additional non-government income from external sources. This is because the government commits to a notional expenditure total and *deducts* from this total any additional income raised by the university. As an institutional leader at the University of Mauritius explains:

For every Rupee or Pound or Franc that you raise at the tertiary education level, the commercial level, they withhold that quantum. So if we generate R 1 million then they'll withhold that R 1 million from whatever grant they were supposed to give you initially. So when you apply for R 400 million, they say, okay, but in the course of the year you generate say 100 million and then they only give you 300. (Institutional leader, HERANA interview transcript¹⁴)

In effect, there is therefore no incentive to raise any additional income

¹⁴ The HERANA interview transcripts are unpublished and were not made available publicly. The names of those interviewed have been withheld from this study in order to protect the identities of those interviewed.

or, in other terms, to be responsive to the demands of those making research or consultancy funding available.

5.1.3 Conclusion

It is clear from the above that government views higher education as playing an instrumental role in driving development. As such, engagement between universities and their communities are to be founded on activities/projects that drive *economic* growth. What is less clear is whether the state regards engagement as also taking the form of universities engaging with the wider, global knowledge networks. There is certainly mention of innovation and research being important but this often seems to be in the context of contributing to the status-enhancing/branding project which the state sees as critical in the successful internationalisation of Mauritian higher education. Knowledge networks therefore seem to be a means of achieving internationalisation rather than having any intrinsic value.

Equally, it is not clear whether the state regards entrepreneurial engagement as valuable in its knowledge-hub vision. Partnerships, collaboration and co-ordination are clearly important and are stated as such in transforming the Mauritian economy, and there is a sense that funding for higher education will increasingly have to come from the private sector, but there is not a strong sense that the state views universities as becoming entrepreneurial. The predominant vision remains one where universities produce the kind of skills required to drive a new kind of economic model – the knowledge economy.

5.2 Middle structure

The University of Mauritius (UoM) receives a substantial amount of funding from the state in the form of subsidised student fees but is nevertheless under pressure to generate its own income in a climate of reducing higher education funding at state level and uncertainty

about fees as political intervention in the past has resulted in tampering with the student fee formula (Mohadeb 2010).

It is perhaps slightly surprising then that aspirations for self-sufficiency do not emerge more forcefully within the university's strategic plan, entitled Strategic Directions 2006–2015. The plan lists six strategic directions, none of which address funding directly. Under strategic direction three, 'Investing in Resources' emerges as the only funding-related goal of the entire strategic plan. It is listed as goal number six: 'Explore sources of funding'. The rationale for strategic direction three, goal number six, reads as follows: 'In the light of ever-increasing financial constraints, the university has to explore, identify and evaluate new avenues for funding and to increase income generation from a variety of sources to provide support for its range of activities and innovative projects.' (University of Mauritius 2006: 29). The plan lists nine strategies to ensure such income generation.

The UoM has set up a trust as an autonomous vehicle for generating funds and which allows the university to draw on investment income (Institutional leader, HERANA interview transcript). The UoM Trust was set up by the Council of the UoM in 2006. The UoM Trust shares an organic link with UoM as the Chairman of the UoM Council is de facto the Chairman of the Board of Trustees of the UoM Trust. Moreover, members of the UoM Council serve on the Managing Committee of the UoM Trust.

The UoM has set up an Office of the Pro Vice-Chancellor for Research, Consultancy and Innovation. The Consultancy & Contract Research Centre (CCRC), founded in 1993, falls within the remit of this Office and is described as fulfilling three functions: (1) consultancies and contract research projects; (2) intellectual property rights; and (3) incubators, university companies, spin-off companies, start-up companies.

The UoM website lists in excess of 280 projects undertaken by the CCRC (UoM website, March 2010). It seems clear from the existence

and activities of the CCRC that the UoM is intent on generating sufficient income to reduce its dependency on the state.

From Table 5.2 it can be seen that, in relative terms, income from research contract income has increased by up to two-fold in the period 2000/2001 to 2005/2006:¹⁵

Table 5.2: Income from research contract income, 2000/2001–2005/2006

	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
Research contracts as % of total income	2.44%	2.32%	4.37%	4.02%	4.59%	3.78%

Source: CHET (2010)

This finding is reinforced by the HERANA project in an interview with an institutional leader at the University of Mauritius:

In terms of consultancy, in the last two years we've doubled and tripled the income we derived from consultancy. Now we receive about MURs 23 million from consultancy and it used to be Rs 5 million or MURs 6 million. (Institutional leader, HERANA interview transcript)

From the above, it would seem obvious to classify the UoM as an entrepreneurial university. However, such classification would miss the more instrumentalist role of the UoM in both the country's economic growth and social development. Alongside many of the obvious entrepreneurial activities undertaken by the university, is a constant refrain about the university's role in contributing to the development of Mauritius. So, for example, while some of the CCRC's functions are clearly intended to generate income, they simultaneously are believed to contribute to the economic growth of the country through the creation of new (applied) technologies and job creation. Moreover, the CCRC sits within an office equally charged with advancing the university's research and innovation agenda.

¹⁵ Absolute financial data would have been preferable in assessing the contribution of research income to total income over time. Unfortunately, such data was not published by the CHET (2010) study on performance indicators.

There is therefore a seemingly tight knit between the reality of sourcing funding and generating income, and the objective of development through research and innovation. This is reinforced by the UoM's mission statement: 'The core mission of the University is the creation and dissemination of knowledge and understanding *for the citizens of Mauritius*' (emphasis added). As stated by an institutional leader at the UoM: 'The vision statement of the university when it started was supposed to be a developmental university. I think we have played our role fully although it is not recognised as such. We don't look for credit; this is what we work for.' (Institutional leader, HERANA interview transcript). And in its 2009–2015 Strategic Research and Innovation Framework the UoM sets as an objective in its operational plan 'to foster research to sustain economic development and growth' (UoM 2009: 33).

Therefore, in addition to the entrepreneurialism of the UoM – that is, engagement for the purpose of income generation – engagement for the sake of development is also prevalent at the UoM.

Table 5.2: Mauritius super and middle structures: summary of responsiveness indicators

Level	Indicator(s)	Responsiveness present as a criterion?	Empirical evidence
Super structure	Policy goals stipulating responsiveness as a requirement in higher education	YES	EHRSP TEC
	Evidence of state funding of higher education being contingent on responsiveness	NO	Additional funding raised from external sources does not result in a gain in total funding
IDEOLOGICAL IMPERATIVE: ECONOMIC DEVELOPMENT			
Middle structure	Mix of revenue streams	YES	At least a two-fold increase in proportion of contract revenue
	Philosophy and mission incorporates responsiveness	YES	2009–18 Strategic Framework 'development university' Knowledge for the citizens of Mauritius
	Existence of formal structures or programmes to support and promote responsiveness	YES	Office of the Pro Vice-Chancellor for Research, Consultancy and Innovation CCRC
	Existence of formal mechanisms to reward responsive faculties/departments/academics	NO	
IDEOLOGICAL IMPERATIVE 1: DEVELOPMENT IDEOLOGICAL IMPERATIVE 2: FINANCIAL LEVEL OF INSTITUTIONALISATION: 3			

5.3 Under structure

The following seven projects were evaluated at the University of Mauritius:

1. Audit of Manufacturing Companies for Productivity Enhancement (MCPE)
2. Polymer Research Group (PG)
3. Review of Strategies for Poverty Alleviation Project (PA)
4. Roselle Project (RP)
5. Socio-economic Analysis of the Fishing Community in Mauritius and Rodrigues
6. ICT Business Pre-Incubator (IBP)
7. Packaging of Food in the Agri-Industry (PFA)

5.3.1 Audit of Manufacturing Companies for Productivity Enhancement (MCPE) – November 2008 to March 2009



The objective of the MCPE project was to conduct an assessment of the export potential of companies operating in the manufacturing sector in Mauritius. It also addressed issues pertaining to the type of support that should be put in place to enable the companies to develop competitive advantages for their products and services and to support enterprises which show internal weaknesses. The project was initiated in response to the need to make Mauritian companies more competitive in the export market. The project was located in the Department of Mechanical and Production Engineering in the Faculty of Engineering. No students were involved in the research conducted nor will the project impact the current curriculum in any way. A report was written and presented to the client, Enterprise Mauritius. There were no external links beyond that established with the client. The project generated once-off income for the university.

Type of responsiveness: Service.

Imperative: Development.

5.3.2 Polymer Research Group (PG) - Date of inception: 1995; ongoing

The purpose of the PG is to build capacity and expertise in polymer science at the university, and to focus research efforts on innovation and development issues. The research group was established in response to the need to develop a knowledge base in polymer science with the intention of applying accumulated knowledge to development problems facing the country.

The research group is located in the Department of Chemistry in the Faculty of Science. Students at all levels (from undergraduate to post-doc students) have been included in research group activities. Research group activities have also been incorporated into doctoral research programmes and four PhD candidates have submitted theses in the area of polymer science. The research group has seen the introduction of Bachelors and Masters-level qualifications in polymer science as well the introduction of three courses. Members of the research group have produced in excess of 25 publications in international peer-reviewed journals and have attended over 15 conferences. The research group has established an extensive network of links to researchers at other universities as well as with non-university knowledge centres such as UNESCO and the International Union of Pure and Applied Chemistry.

Funding mainly in the form of grants from the university as well as project-specific funds from the Mauritian Research Council and the National Research Fund (South Africa) has been secured. However, funding has been relatively modest in relation to the scale of the research group's activities and the kind of equipment required to conduct research.

Type of responsiveness: Research.

Imperative: Scientific.

5.3.3 Review of Strategies for Poverty Alleviation Project (PA) - February to October 2009

The aim of the PA project was to deliver an 'opinion report' providing an overview of poverty alleviation strategies being deployed at grassroots and at institutional levels in Mauritius. The project is a response both to the government's on-going campaign to combat poverty and the fact that no poverty alleviation action plan is in place for Mauritius. The project was located in the Department of Social Studies in the Faculty of Social Studies and Humanities. No students were involved in the project and no publications resulted as a result of the project being undertaken by the university. However, the research report findings were used to review curricula contents in courses/modules covering issues related to poverty and poverty alleviation. Once-off funding was from the National Economic and Social Council (Mauritius). No external links were established in conducting the research or producing the report.

Type of responsiveness: Service.
Imperative: Development.

5.3.4 Roselle Project (RP) - Date of inception: 2005; ongoing

Through research into the Roselle plant (*Hibiscus sabdariffa* L. *Malvaceae*), the purpose of the RP project is to support the Mauritian government's programmes to encourage entrepreneurship and to reduce poverty. The project is a response to create viable and sustainable alternative non-sugar agricultural products to boost the Mauritian economy. The project is located in the Department of Agricultural Economics and Management in the Faculty of Agriculture. Undergraduate students have been involved in researching various aspects of the plant and there are expectations that a doctoral student will be doing research on the Roselle plant in the near future. The plant has been incorporated as a new crop in the faculty's teaching programmes. One publication has emerged as a result of the project with others

in the pipeline. External links have been forged with government agencies and CSOs based in Mauritius. Limited funding was secured internally from the University of Mauritius and funding remains a challenge for the project.

Type of responsiveness: Research.

Imperative: Development.

5.3.5 Socio-economic Analysis of the Fishing Community in Mauritius and Rodrigues (FSH) - Duration: 2007

The FSH consultancy project set out to analyse the socio-economic problems facing fishers in Mauritius and Rodrigues for the Ministry of Agro-Industry and Fisheries. The project was initiated in response to the need to gain a better understanding of the problems facing the Mauritian fishing community as well as an awareness for improved environmental management of the Mauritian fishing resource. The project was located in the Faculty for Social Science and Humanities. No students were involved in the research conducted nor will the project impact the current curriculum in any way. A report was written and presented to the Ministry of Agro-Industry and Fisheries. There were no external links beyond those established with the Ministry and the funder, the FAO. The project generated once-off income for the university.

Type of responsiveness: Service.

Imperative: Development.

5.3.6 ICT Business Pre-Incubator (IBP) - Established in 2006; ongoing

The long-term objective of the IBP project is to have students doing industry-based projects under the aegis of the IBP. The plan is for these students to set up their own companies when they leave the university and to create jobs in the process. The IBP is a response to the government's policy to make ICT a fifth pillar of the Mauritian

economy and to promote entrepreneurship development in order to grow the Mauritian economy. The project is located in the Department of Computer Science and Engineering in the Faculty of Engineering. BSc Honours students are eligible to participate in the programme and short courses are also offered to the public. Students are involved as participants in the project rather than in any research capacity. However, students are required to prepare a business plan and this may take the form of a dissertation (depending on faculty requirements). The project is a joint venture with the National Computer Board (Mauritius) and no links extend beyond this partnership. Income generated from this partnership is not known although there are expectations of future income from start-up companies.

Type of responsiveness: Teaching and Learning.

Imperative: Development.

5.3.7 Packaging of Food in the Agri-Industry (PFA) -

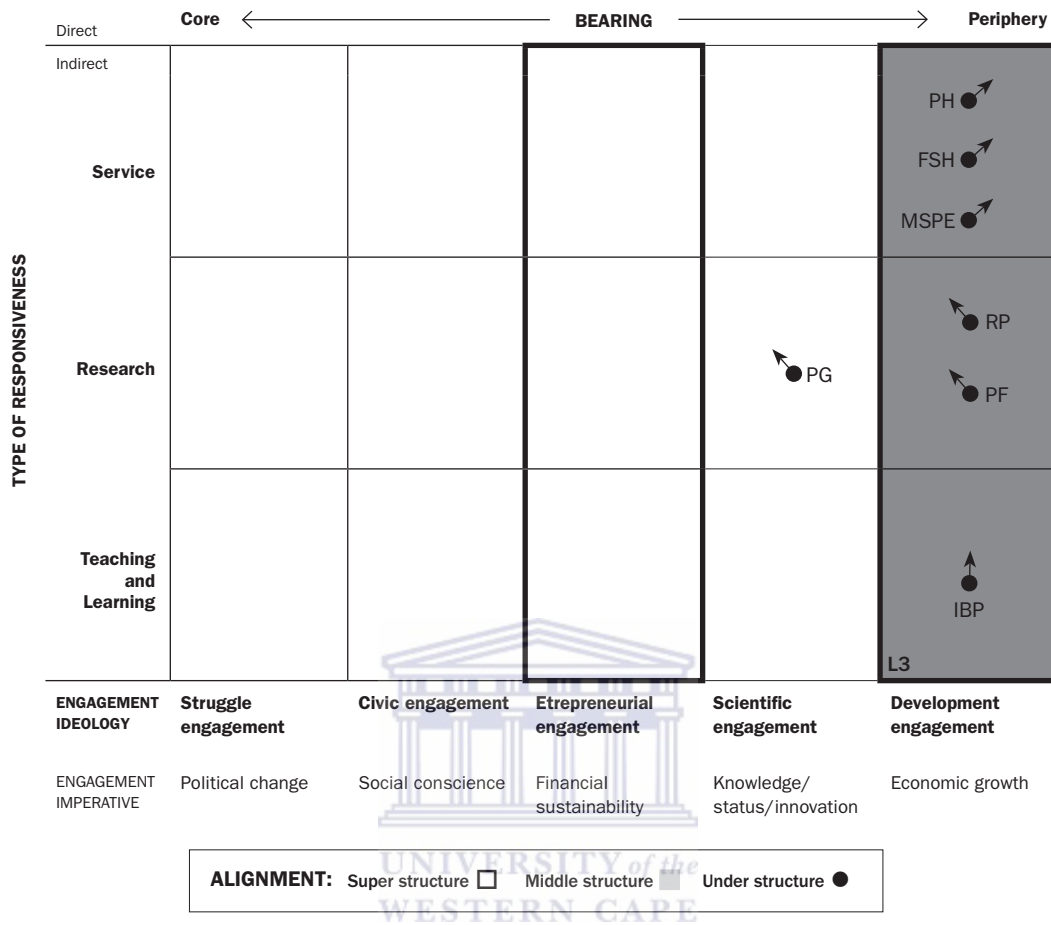
Date of inception: 1996; ongoing

The PFA project sets out to create a scientific framework to work on natural products and, ultimately, to develop natural products for commercialisation. The project is a response to poor knowledge base in Mauritius on natural plants and products and, consequently, limited or no commercialisation of indigenous plants and remedies with potential health benefits. The project is located in the Department of Biosciences in the Faculty of Science. Students are involved, eight PhD students have been produced and publications are frequent. External links exist with other universities in terms of sharing expertise. The project has generated significant funds for the university.

Type of responsiveness: Research.

Imperative: Development.

Figure 5.1: Responsiveness at the University of Mauritius



KEY:

- FSH Socio-economic Analysis of the Fishing Community in Mauritius and Rodrigues
- IBP ICT Business Pre-Incubator
- MCPE Audit of Manufacturing Companies for Productivity Enhancement
- PFA Packaging of Food in the Agri-Industry
- PA Review of Strategies for Poverty Alleviation Project
- PG Polymer Research Group
- RP Roselle Project

5.4 Discussion

On paper, the typology of responsiveness for the University of Mauritius reveals that national policy and university policy are – with the exception of an additional preoccupation by the university on entrepreneurial engagement – in perfect alignment; and that the under structure acts, by and large, in accordance with the policies that are in place at both the organisational and national levels. The bearing of the projects plotted is, however, less uniform; as is the clustering of projects around types of responsiveness. And this is possibly telling in the case of the University of Mauritius.

A possible explanation is that while there is strong alignment and a consistent discourse around the developmental role of the university as reflected in the typology, action at the project level is inconsistent in terms of the bearings of the seven projects. A belief in the knowledge economy, globalisation and the role of the university cuts across all levels and yet there is somehow still a lack of consistent direction in the bearings of the projects studied. The academics, while not suspicious of the state in a subversive sense, are nevertheless prone to acting in ways that do not necessarily exhibit a common plan of action or common understanding of how projects relate (or should relate) to the core functions of the university. In other words, the pact that exists appears to be more explicit than implicit in the case of the University of Mauritius.

Hence, the bearing of exemplar projects tends to vary considerably, with only half of the projects considered likely to strengthen the academic core of the university. Moreover, the clustering of five out of seven projects around the research and service types of responsiveness, with only one project classified in the teaching and learning responsiveness category, could indicate a lessened concern with producing apposite skills and a greater concern with participating in projects that are status enhancing, career advancing or income generating. And this

is counter to the expectations for higher education espoused in the relevant policy and strategic documents in terms of skills provision for the knowledge-based Mauritian economy.

This situation is exacerbated by the fact that the middle structure appears to be culpable of buying into the rhetoric of the knowledge of economy and its benefits (as evidenced in the university's strategy documents and policies) while at the same time being much closer to the under structure than to the super structure in its sympathies and activities (as evidenced in the interviews conducted by the CHET HERANA team). And in such activities, personal and disciplinary motivations prevail.

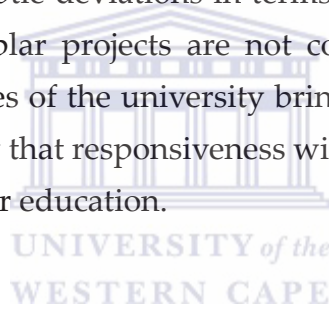
A further observation is the creation of the CCRC as well as a preponderance of projects in the service type of responsiveness category, located in the economic development category *and* pointing towards the extended periphery. This seems to reinforce the apparent contradiction in the explicit commitment to participating in projects that contribute to economic development and simultaneous activities which do little to ensure that such a contribution is made. In other words, there is the perception that producing consultancy reports for government and its research agencies is a sufficient gesture in ensuring higher education's contribution to the economic development of Mauritius.

Further limiting the likely institutionalisation of responsiveness and the potential contribution of the higher education sector to development in Mauritius is the number of projects (3 out of 7) observed in relation to the number of programmes. At the University of Mauritius there are many short-term, service-type projects contributing little in terms of either knowledge production or skills production, while those projects which fall within the research-type of responsiveness category are more programmatic. The projectisation of responsiveness (i.e. instances of engagement between academics and external stakeholders), often driven by funders and funding,

and the consequent short-termism, limits the sustained impact or contribution of these activities.

The typology further reveals that all activities regarded as projects tend to fall within the service responsiveness category while those activities regarded as programmes fall within the more traditionally accepted functions of teaching and research. In other words, at an observational level, there is a correlation between projects and service types of responsiveness just as there is a strong correlation between programmes and core function types of responsiveness.

According to the typology, some of the proposed requirements for the institutionalisation of responsiveness are in place. However, what appear to be subtle deviations in terms of clustering and the extent to which exemplar projects are not contributing to strengthening the core activities of the university bring into question the extent to which it is likely that responsiveness will become institutionalised in Mauritian higher education.



Nelson Mandela Metropolitan University

6.1 Super structure

6.1.1 National Policy

The 'requirement' for responsive South African universities is made explicit in higher education policy. The process for creating a transformed post-apartheid higher education system in South Africa was initiated by the establishment of the National Council on Higher Education (NCHE) in 1995. In November 1996, the NCHE published their recommendations in a report entitled 'A Framework for Transformation'. This was followed by the release of the Green Paper on Higher Education (December 1996), the Draft White Paper on Higher Education (April 1997) and Education White Paper 3: A Programme for Higher Education Transformation (August 1997). The Higher Education Act (Act 101 of 1997) was promulgated to give regulative effect to the policy objectives of the 1997 White Paper. In 2001 the Department of Education (DoE) published the National Plan on Higher Education (NPHE) in order to provide an implementation framework for the White Paper of 1997.

National Council on Higher Education (NCHE)

One of the three 'pillars' of the NCHE report was a recommendation for greater university responsiveness to societal needs and interests. In order to address properly the challenges of its social environment, the report argued, higher education needed to move away from a traditional, disciplinary conception of and approach to knowledge and knowledge production to more 'open', interactive and externally receptive approaches. The report also claimed that closer interaction of

higher education with its surrounding environment would lead to the incorporation of the views and values of previously disenfranchised groups. In practical terms, a policy of greater responsiveness would require changing curriculum content and focus and modes of delivery of academic programmes, quality assessment, and research in order to adapt these to the needs of the market and civil society (OECD, 2008).

White Paper 1997

The White Paper is the policy framework intended to foster equity, democracy, efficiency and responsiveness in South African higher education. As the post-1994 'framework for change' (p.2) it proclaims that the 'present system of higher education is limited in its ability to meet the moral, political, social and economic demands of the new South Africa' (p.4) and that the 'higher education system must be transformed to redress past inequalities, to serve a new social order, to meet pressing national needs and to respond to new realities and opportunities' (p.2). From the outset, then, the fate of South African higher education from a policy perspective is directly linked to its immediate (predominantly national) environment. South African universities must not transform in isolation, it was contended; they must transform in such a way so as to make a positive impact on national needs and a new social order. And, according to the White Paper, it can only do so by being responsive to its immediate environment. In particular, the requirement for responsive universities is set out in the White Paper as follows:

In summary, the transformation of the higher education system and its institutions requires: [...]

Responsiveness to societal interests and needs. Successful policy must restructure the higher education system and its institutions to meet the needs of an increasingly technologically-oriented economy. It must also deliver the requisite research, the highly trained people and the knowledge to equip a developing society

with the capacity to address national needs and to participate in a rapidly changing and competitive global context. (p.10)

The White Paper sets out its vision based on the four pillars of equity, democracy, efficiency and responsiveness, and further provides a set of guiding principles and values that should be observed and promoted within the system: equity and redress; democratisation; development; quality; effectiveness and efficiency; academic freedom; institutional autonomy; and public accountability. The White Paper 'operationalises' its vision and principles into a set of goals – 12 system-level and 6 institutional-level goals – which are 'the key targets and outcomes that should be pursued in implementing the transformation strategy' (para 1.26). Three measures in three key areas are stated to ensure responsiveness:

1. a curriculum that is programme-based across the system that 'will improve the responsiveness of the higher education system to present and future social and economic needs, including labour market trends and opportunities' (para 2.6);
2. a national research plan, greater co-ordination of research activities and the development of appropriate funding mechanisms to ensure that research articulates 'between the different elements of the research system, and between the research system and national needs for social, economic, cultural and intellectual reconstruction' (para 2.83); and
3. a new planning and funding process based on national and institutional three-year rolling plans, 'indicative plans which facilitate the setting of objectives and implementation targets that can be adjusted, updated and revised annually. ... A three year planning cycle, with data, resource estimates, targets and plans annually updated, enables the planning of growth and change in higher education to be more flexible and responsive to social and economic needs, including market signals.' (para 2.9).

The requirement for responsive South African universities is both clear and unambiguous in the White Paper. But while the ideology of responsive universities is unfaltering, the White Paper is less clear about setting out its expectations in measurable terms. And because it fails to do so, the very notion of responsiveness is deprived of clarity.

National Plan for Higher Education in South Africa 2001

The Ministry of Education's (2001) National Plan for Higher Education in South Africa (NPHE) sets out to provide a framework for the implementation of the transformation goals espoused in the 1997 White Paper. Citing an implementation vacuum in the period after the release of the 1997 White Paper – ostensibly due to constraints related to capacity and inadequate information combined with the unavoidably slow pace of the DoE's consultative approach – the 2001 National Plan sets out the strategic objectives for South African higher education and, based on these objectives, formulates five goals each with a set of measurable outcomes.

What is interesting to note is that the term 'responsiveness' which was prevalent in the 1997 White Paper, is nowhere to be found in the 2001 National Plan. However, while the term 'responsiveness' may be absent, its ideological underpinnings remain present. This should come as no surprise as the 2001 National Plan 'is based on the policy framework and the goals, values and principles that underpin that framework, outlined in the White Paper ... [and] [t]he vision of the White Paper continues to remain compelling' (NPHE, 2001: 6).

The concept of responsiveness lies embedded in the 2001 National Plan in the repeated links between the goals set for South African higher education and the country's development needs. For example, the following three roles for higher education are stated in the 1997 White Paper and reasserted in the 2001 NPHE:

- [Role 1] human resource development [...] to contribute to the social, economic, cultural and intellectual life of a rapidly changing society;
 - [Role 2] development of professionals and knowledge workers [...] contributing to the national development effort; and
 - [Role 3] a research and development system which integrates [...] with the needs of industry and social reconstruction.
- (NPHE, 2001:4)

The 2001 NPHE sets out its vision for South African higher education centred around four pillars: equity, teaching, democracy and research. In particular, teaching must 'meet [...] national development needs' (NPHE, 2001:6) and research must 'address the diverse problems and demands of the local, national, southern African and African contexts' (NPHE, 2001:6).

What this shows is that at policy level there is an unerring expectation – whether explicit as in the White Paper or implicit as in the NPHE – that the transformation of higher education be linked to the national development agenda. Institutions that transform according to the goals set out by the NPHE but that do not do so in a manner that impacts positively on the development of South African society, will not be regarded as successful in their transformation. Attaining the goals and having the desired impact are therefore expected at policy level.

The DoE's funding framework and the linked institutional audits conducted by the CHE may provide insights as to how the state may be attempting to embed responsiveness and the associated presumed developmental benefits in the South African Higher Education System.

6.1.2 Public Higher Education Funding framework

The White Paper, in a section dedicated to funding, states that the

Ministry will adopt goal-oriented incentives as an integral part of the public funding framework. That is, explicit incentives will be used to steer the development of the higher education system in accordance with national goals ... Goal-oriented public funding of higher education institutions is intended to result in ... greater responsiveness to social and economic needs. (paras 4.10 & 4.14)

While clearly the White Paper sets responsiveness as a desired outcome of the public funding mechanism, the actual mechanism for funding public higher education institutions cannot be said to promote or reward responsive universities.

Concerned about available capacity at existing universities, government and universities enter into agreements in terms of the rate at which student enrolment growth will occur. While it could be argued that such an approach is designed to maintain quality within the system, the fact remains that restricting access based on capacity and therefore, by implication, the number of degreed graduates entering the labour pool, is a questionable strategy in terms of promoting national development. In other words, if higher education (as the government believes) does make a contribution to development, then restricting (or, at least, controlling) access through the funding mechanism by implication limits the system's propensity to respond to the nation's development needs.

What is rewarded by the current funding mechanism is research output measured in terms of weighted publications and postgraduate (masters and doctoral) research graduates. Teaching is not incentivised or rewarded to the same extent. This creates the likelihood of more instances of research responsiveness activities; and undermines the promotion of responsive teaching and curriculum development.

While this study is limited to the policy documents of the DoE as well as the recommendations and reports of the CHE, it is useful

to keep in mind that these are not the sole sources of government funding for higher education. In fact, other government departments have attempted to foster responsiveness in research and innovation. Programmes such as the Technology and Human Resources for Industry Programme (THRIP) and the Innovation Fund that are designed to promote partnerships between universities and industry, are evidence of such attempts (Kruss 2005). In many instances, it appears that the funding made available by the Department of Science and Technology (DST) and the National Research Fund (NRF) is a greater driver of responsiveness than the policy ideals of the Department of Education. In other words, there is an unapologetic emphasis on only funding research which is relevant to the needs of South African society and likely to drive innovation and development.

6.1.3 CHE's Higher Education Quality Committee (HEQC)

The CHE is tasked with advising the education ministry, monitoring the implementation of policy goals and reporting to parliament on the state of South African higher education. In particular, the HEQC of the CHE is responsible for ensuring quality in South African higher education in accordance with the Higher Education Act of 1997. Included in the mandate of the HEQC is to conduct institutional audits. These audits are guided by the *Framework for Institutional Audits* (CHE 2004) and consist of a set of 19 criteria as set out in the *HEQC Institutional Audits Manual* (CHE 2007b). Universities complete a self-evaluation report based on these criteria whereafter an institutional audit is conducted by a panel of experts appointed by the CHE's HEQC. The first audit cycle commenced in 2004 and is due for completion in 2009. The outcome of the audit process is an audit report which will make recommendations in terms of areas for improvement against the criteria in the hope of promoting continuous institutional self-assessment. Where there are areas for serious concern, the HEQC may propose explicit action within a predetermined time-frame; and the HEQC will monitor the progress of such actions. The HEQC may refer specific matters for concern to the Department of Education

(or other relevant structures). Institutional audits are not, however, linked nor do they have any bearing on the funding of South African higher education institutions.

The requirement for responsive universities and the inclusion of responsiveness in the audit process is outlined as follows by Mala Singh (CHE 2004: v):

South African higher education faces multiple stakeholder demands for greater responsiveness to societal needs through enhanced student access and mobility; through research and innovation that address social and economic development; and through engagement with local, regional and international communities of interest.

Criterion 18 of the institutional audit framework relates to community engagement (CHE 2007b: 24):

CRITERION 18: Quality related arrangements for community engagement are formalised and integrated with those for teaching and learning, where appropriate, and are adequately resourced and monitored.

In an attempt to provide further conceptual and operational clarity, the institutional framework defines 'community engagement' as follows (CHE 2004: 15; CHE 2007b: 75):

Initiatives and processes through which the expertise of the higher education institution in the areas of teaching and research are applied to address issues relevant to its community. Community engagement 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 (service learning programmes).

At this level – where policy is given effect through an audit process – responsiveness finds expression in a very narrow definition of community engagement that (almost) reduces responsiveness to service learning. Responsiveness through research activities is by and large ignored – it finds no expression in Criterion 18 of the audit framework; only teaching and learning activities are mentioned. However, as the recent polemic between Hall (2010) and Muller (2010) indicates, a much broader interpretation of engagement has been internalised by higher education institutions but this interpretation is uneven, contextually bound and therefore without much-needed conceptual clarity around what constitutes ‘engagement’. In fact, the need for greater clarity is the one thing that Hall and Muller appear to agree on.

6.1.4 Conclusion

Perhaps it is important to take cognizance of the context in which policy was drafted. Doing so provides a useful frame of reference in terms of concepts espoused in the policy documents. The White Paper was the result of a consultative process:

This extended consultation is a concrete expression of the democratic will that is the motorforce of our emerging nation and reflects my Ministry’s commitment to stakeholder participation in the development and formulation of policy. The consultative process has resulted in the building of an all-embracing consensus around the broad policy framework outlined in this White Paper and has ensured that it commands the support of all the key stakeholders in higher education. (Foreword)

The result is that the White Paper reads like a document that is the outcome of exactly such a process. In other words, it is representative and even obliging of a number of voices, and, in a Khunian sense, of the thinking of the time, particularly in South Africa. It contains what one would expect to find in the form of nods to globalisation,

responsiveness, development, co-operative governance and, master of them all, transformation. And the fact that there is a four-point vision, eight guiding principles and no fewer than eighteen goals, points to the possibility of inclusivity at the potential sacrifice of clarity, focus and cohesion of argument.

Maybe not so surprising then that the NPHE almost feels compelled to state explicitly that:

[t]he fundamental principles and framework outlined in this National Plan are not open for further consultation [...] The consultative process, which has lasted some six years, must rank as one of the most wide-ranging and all encompassing that has taken place anywhere in the world on higher education. It began with the National Commission on Higher Education in 1995 and continued through the development of the White Paper in 1997 and the preparation of the Council on Higher Education report last year. It must be brought to a close. (Ministry of Education 2001: 11)

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It is as if there is recognition that in order to increase the pace of implementation, consultation needs to be put on the back burner and that the time has come to roll up the collective sleeves of all stakeholders in order to effect the NPHE's five goals (as opposed to the eighteen goals of the White Paper) and the sixteen outcomes identified. The presence of measurable outcomes – outcomes that are not present in the White Paper – in itself points to the NPHE's call to action.

But, worryingly, the rewarding of measurable outcomes remains absent and therefore stifles potential progress towards clarity.

Clark (1983b) regards the super structure as a channel through which the demands or pressures of all stakeholders (society) are increasingly channelled as systems mature. Naturally all such demands and

pressures are not consistent, neither ideologically nor in terms of how much influence they exert. These demands therefore require mediation within the super structure before they can be translated into policy and, more daunting perhaps, into action. From an examination of the above policy documents, it appears that the South African DoE is grappling with such conflicting demands and the resultant tension. Three demands or pressures appear to prevail:

1. social demands, that is, demands by society at large for higher education to make a greater contribution to national social development;
2. pressure in terms of global best practice, that is, prevailing thinking of the time (for example, 'globalisation' and 'the knowledge economy') as well as international higher education reform trends; and
3. institutional realities, that is, the uneven post-apartheid landscape with unequal levels of quality and capacity.

Mediating stakeholder demands is neither new nor problematic. But it does ultimately require choices to be made when policy (which can attempt to be all-inclusive) must be implemented. The question then, from this inquiry's perspective, is whether the more idealistic goal of responsiveness so prevalent in the White Paper is being marginalised as implementation progresses? From the evidence above, it does appear that the aspiration for universities to be (more) responsive remains, regardless of the more pressing demands or realities on the ground. From an institutional point of view, it seems likely that responsiveness will be accommodated by those for whom responsiveness activities attract funding, and will be shunned by those for whom it is difficult to be responsive and to link any form of responsiveness activities that they may devise to funding opportunities.

The issue of funding and responsiveness will no doubt emerge prominently when the discussion shifts focus to the responsiveness activities observed in the under structure. What can be deduced

from the policy documents examined in terms of the ideological imperatives promoting responsiveness, is that there is a clear and unambiguous vision of a transformed relationship between the university and society; a relationship in which the university engages with society in order to provide skills, knowledge and services that will drive economic growth and social transformation. In sum, the ideological imperative for responsiveness at the level of the super structure is economic development.

Muddying the water somewhat, however, are two issues. The first is the CHE's conception of responsiveness as predominantly equivalent to labour market responsiveness and engagement as equivalent to service learning. In both instances, teaching and learning predominate with no clear conception of how research and service fit in. The fact that engagement becomes conflated with service learning in the institutional audit framework creates unnecessary confusion at the organisational level, at the coal face where responsiveness is interpreted and actioned.

The second murky intruder is the debate around engagement and the knowledge project. From a policy point of view, there is undoubtedly a requirement for the knowledge produced by universities to be of an applied nature if it is to contribute to economic development. However, a wholesale shift is contested and opens up a debate on whether responsiveness will ultimately undermine the knowledge creation chain. It is beyond the scope of this thesis to attempt to engage fully with this debate (although more detail is provided in the literature review section of this thesis). What is important, however, from this inquiry's point of view, is that whatever kinds of knowledge are produced by universities – basic, applied or use-inspired – at policy level, there is a clear expectation that there should be a link between knowledge creation and economic development.

The net result is that there is evidence of three engagement ideologies still operating at policy level. And while economic development

emerges as the overarching ideology for universities engaging with society, the residues of civic and scientific engagement remain in the system.

6.2 Middle structure

In addition to the transcripts of interviews with the vice-chancellor and two deputy vice-chancellors, the following Nelson Mandela Metropolitan University (NMMU) documents were analysed: (1) NMMU Vision 2020 Directional Statements Strategic Priorities, Goals and Objectives (NMMU 2010); and (2) NMMU Research, Technology and Innovation Strategy (NMMU 2007).

NMMU's 2010 mission statement reads '[NMMU's mission is] to offer a diverse range of quality educational opportunities that will make a critical and constructive contribution to regional, national and global sustainability'. This suggests an implicit acceptance on the part of the university that a close link needs to exist between the university and society in order to ensure such a contribution.

The interviews with NMMU leadership reveal some interesting disparities. The vice-chancellor clearly acknowledges that engagement is meant to result in economic development, although he is quick to point out that the manner in which university engagement leads to economic development is neither direct nor easy to track. Moreover, while he acknowledges that NMMU is an engaged institution – based on the number of engagement projects – he nevertheless questions both the impact and sustainability of these projects. The vice-chancellor of teaching and learning has a very different understanding of engagement. He conceptualises it purely in terms of outreach and service learning.

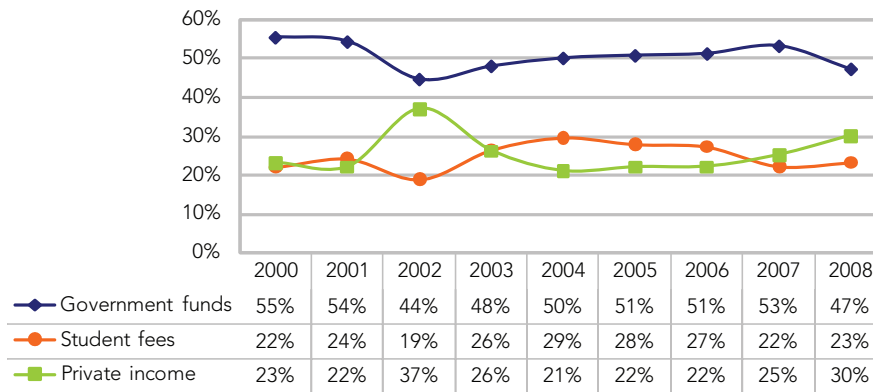
The NMMU Research Strategy (formulated late in 2007) places unambiguous emphasis on establishing a link between research

activities, community involvement and sustainable development at regional, national and continental levels. Research in which academics engage with their local communities is clearly seen as key to ensuring sustainable development.

Structures set up at NMMU to promote and sustain engagement activities include the Centre for Academic Engagement and Collaboration (CAEC) whose task it is to function as an interface between NMMU academics and external stakeholders. There is also the Innovation Support and Technology Transfer Office which supports academics in their efforts to find commercial applications for their research. And, interestingly, although there are undoubtedly financial benefits in registering patents and harnessing the university's intellectual property, the NMMU states that the primary function of the office is to transfer knowledge to the non-academic community.

In terms of sources of income, the graph below shows that NMMU has increased its income from private sources, in relative terms, by 7% from 23% in 2000 to 30% in 2008 (CHET 2010). This appears to indicate that the university is not generating much by way of additional income from non-government or non-fee sources in relation to other sources of income for the eight-year period, and could be taken as an indicator of a steady state in levels of responsiveness activities (assuming that the relative mix of private income sources have remained the same over the eight-year period). Compared to the South African national average of 28.5% for private income (CHET 2010), NMMU does not appear to generate a large amount of income (in relative terms) from private sources.

Figure 6.1: NMMU sources of income 2000–2008



Two engagement imperatives emerge. The ‘traditional’ service learning (civic engagement) imperative remains strong, but there is nevertheless an observable shift occurring towards institutionalising an ‘updated’ notion of engagement, one which sees much closer links between the core functions of the university (including research) and external communities, where such links will be mutually beneficial and contribute to regional development.

Table 6.1: Summary of super and middle structure indicators of responsiveness

Level	Indicator(s)	Responsiveness present as a criterion?	Empirical evidence
Super structure	Policy goals stipulating responsiveness as a requirement in higher education	YES	White Paper (1997) NPHE (2001) CHE HEQC criteria
	Evidence of state funding of higher education being contingent on responsiveness	NO	Evidence of funding but via DoE (e.g. THRIP and NRF)
IDEOLOGICAL IMPERATIVE 1: CIVIC ENGAGEMENT IDEOLOGICAL IMPERATIVE 2: SCIENTIFIC ENGAGEMENT IDEOLOGICAL IMPERATIVE 3: ECONOMIC DEVELOPMENT			
Middle structure	Shape/mix of revenue streams	NO	
	Philosophy and mission incorporates responsiveness	YES	To make a critical and constructive contribution to regional, national and global sustainability Research strategy (2007)
	Existence of formal structures or programmes to support and promote responsiveness	YES	CAEC Innovation Support and Technology Transfer Office
	Existence of formal mechanisms to reward responsive faculties/departments/academics	NO	
IDEOLOGICAL IMPERATIVE 1: CIVIC ENGAGEMENT IDEOLOGICAL IMPERATIVE 2: ECONOMIC DEVELOPMENT (FORMATIVE) LEVEL OF INSTITUTIONALISATION: 2			

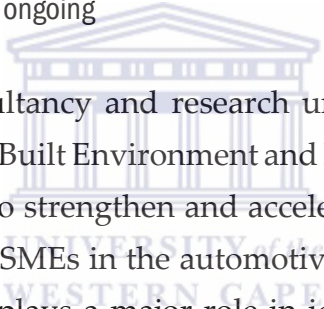
6.3 Under structure

The following six projects were evaluated at the Nelson Mandela Metropolitan University:

1. The Automotive Components Technology Station
2. Agro Processing Study for the ELIDZ
3. Govan Mbeki Sasol Maths Development Programme
4. Ilinge Lomama Co-operative Bakery Project
5. InnoVenton: NMMU Institute for Chemical Technology and Downstream Chemicals Technology Station
6. Pebble Bed Modular Reactor Project

6.3.1 Automotive Components Technology Station (ACTS)

- Founded in 2002; ongoing



ACTS is a consultancy and research unit located in the Faculty of Engineering, the Built Environment and Information Technology. The aim of ACTS is to strengthen and accelerate the interaction between the NMMU and SMEs in the automotive component manufacturing industry. ACTS plays a major role in identifying the specific needs of the targeted SMEs and provides the appropriate technology solutions. Students at masters and doctoral levels are involved in the activities of the centre, particularly in the centre's research and development activities. Occasionally students are involved in the consulting activities. The centre has a dedicated research and development division, and academic staff attached to ACTS publish regularly in peer-reviewed journals and conference proceedings. The experiences gained by academic staff in participating in consultancy work as well as from networking with global industry as part of their R&D activities, are fed into the teaching curriculum. ACTS can be described as highly networked. Links exist between ACTS and the automotive industry in the Eastern Cape (ACTS's clients) as well as with government in the form of the Department of Science and Technology (ACTS's funder and partner). Further links exist between

ACTS and other universities and knowledge hubs in the automotive sphere. Lastly, ACTS is well networked within the NMMU, with links to other relevant units, centres and departments within the university. Funding is primarily from two sources: (1) the Tshumisano Trust of the DST; and (2) income generated from consulting services to the SMEs in the Eastern Cape.

Classifying ACTS is complicated by the fact that it is a fairly autonomous structure within the university and cannot be taken to be a single-focus project. At first glance, it seems conceivable that ACTS could be said to be driven by civic, entrepreneurial, scientific and economic growth imperatives. The head of ACTS, however, clearly identifies two functions: (1) to ensure that ACTS remains at the forefront of technology for the sector in which it operates; and (2) to develop and support SME suppliers in the sector. Mirroring these primary functions, ACTS is structured into two divisions: (1) an R&D division and (2) a consultancy division. It is therefore suggested, given size and dual functions of the unit, to categorise the ACTS sub-divisions separately. ACTS R&D is clearly driven by a scientific imperative and falls within the research responsiveness category. ACTS Consulting on the other hand, is driven by a knowledge transfer and support imperative (civic engagement) and is categorised as service responsiveness. It could be argued that the engagement imperative of ACTS Consulting is economic development in the form of support for SMEs, thereby driving economic growth through increased export revenues and employment, and not civic engagement. This is supported by the unit's articulation of its function in relation to that of the NMMU's strategic vision, which reveals strong articulation in terms of industry linkages and regional economic development in order to create a globally competitive industry. However, it is questionable whether ACTS Consulting can be regarded as being more than supportive in that it does not set up new businesses nor does it ensure in any way that the SMEs with which it engages are well run, profitable or sustainable as business enterprises. As the ACTS unit head concedes, the unit has changed its

strategy to support only those businesses that already show that they have ‘a good chance of surviving in the future’. It is not all that clear that SMEs benefit from ACTS intervention in the long term; rather there is a possibility that a dependency relationship develops which nevertheless has a positive economic contribution. In the interview with ACTS, it is further conceded that, to some extent, the ‘loftier’ ambitions of the unit related to global competitiveness, for example, are included for political rather than practical reasons.

It is also contended that ACTS Consulting is not driven by an entrepreneurial engagement imperative. While the unit generates income from consultancy activities, it relies heavily on government funding (50%) and does not regard making profit as an imperative. In fact, all excess income is ploughed back into infrastructure for the unit and the unit is content simply to break even. It is therefore argued that the imperative is supportive through knowledge transfer to the local community of businesses rather than directly creating and driving economic development. Both ‘divisions’, however, strengthen the academic core by simultaneously transferring knowledge to students (in the form of teaching and student participation) as well as through regular publishing.

ACTS Consulting **Type of responsiveness:** Service.
Imperative: Civic.

ACTS R&D **Type of responsiveness:** Research.
Imperative: Scientific.

6.3.2 Agro Processing Study for the ELIDZ (APS) – Four months in 2009

The APS study was commissioned to advise the East London Industrial Development Zone (ELIDZ) in terms of agro-processing opportunities that may exist in the East London region. Students were not involved in the project nor did the project result in any academic research output in the form of publications. The project

leader claims that teaching is indirectly impacted in that interaction with industry improves 'real-world' knowledge which can then be transferred to students through teaching. No external links were forged. The project generated income for the department and for the university. The project was seen to be an example of applying existing knowledge/expertise for the betterment of the community – in line with the NMMU's strategic vision – and as an opportunity to generate additional income.

Type of responsiveness: Service responsiveness.

Imperative: Entrepreneurial

6.3.3 Govan Mbeki Sasol Maths Development Programme (GMS)

– Founded in 2001; ongoing

The Govan Mbeki Sasol Maths Development Programme is a mathematics development programme which aims to improve the maths proficiency of learners, promote the use of technology in the teaching and learning of maths, and conduct research around the successes and challenges of the interventions developed by the programme. GMS was initiated in response to the 'mathematical needs' of learners in the Eastern Cape Province. The programme is located in the Govan Mbeki Sasol Maths Development Unit within the Department of Mathematics and Applied Mathematics (part of the School of Computer Science, Mathematics, Physics and Statistics) in the Faculty of Science. Students at undergraduate level are involved in programme activities but these mainly take the form of outreach type activities. While there is some research output – currently two PhD students are registered and will do research related to the programme's activities – the research component is weak when compared to the predominantly outreach-type activities of the programme. The programme has produced research output only in the form of conference posters and links with other universities and/or knowledge centres do not exist. Funding is predominantly from private sources (notably Sasol and Volkswagen South Africa) with no

financial support from the university.

While most activities are of an outreach or service learning nature, there is evidence of attempts at cultivating a research component within the programme. The non-academic bearing of the programme is therefore taken to be “tempered” by its moderate research activities. The programme is therefore also deemed to fall between service and research types of responsiveness while the ideological imperative is strongly one of civic engagement.

Type of responsiveness: Service/research.

Imperative: Civic.

6.3.4 Ilinge Lomama Co-operative Bakery Project (Bake)

– Founded in 2002; ongoing

The Bake project provides business advice and support services to a township-based women’s co-operative that bakes bread for local primary schools. The project was initiated in response to the Business School’s mentoring and social outreach drive, which is in line with the university’s strategic objective of being an engaged institution. The project is located in the Small Business Unit of the NMMU Business School in the Faculty of Business and Economic Studies. Student involvement is in the form of fourth-year BCom students linking up with the Small Business Unit to complete a practical component of their training in the form of developing a business plan for a selected small business. The Bake project was set up a result of one student’s practical assignment. While the Small Business Unit has published some of the findings from its activities and knowledge gained by the unit is fed into the BCom SMME programme, the Bake project itself has had no academic (research or teaching) impact. Funding for capital equipment and Small Business Unit staff remuneration was received from a bank and additional funding from the Department of Social Development.

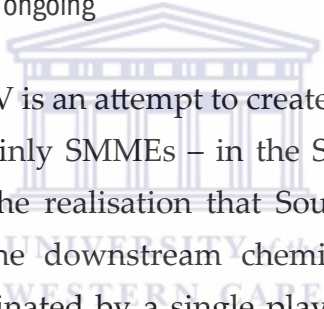
The Bake project is predominantly one which aims to support and mentor community members rather than generate new knowledge or generate income for the university. While there are links between the Small Business Unit and a BCom programme in faculty, the Unit predominantly appears to offer practical training as a service to the faculty and the Bake project itself cannot be said to exhibit strong academic links or impact.

Type of responsiveness: Service.

Imperative: Civic engagement.

6.3.5 InnoVenton: NMMU Institute for Chemical Technology and Downstream Chemicals Technology Station (IV)

- Founded in 2005; ongoing



The creation of IV is an attempt to create more downstream chemical companies – mainly SMMEs – in the South Africa. IV was created in response to the realisation that South Africa lacks a culture of innovation in the downstream chemicals industry and that the industry is dominated by a single player in the form of Sasol. The South African government in 2003 acknowledged that it was critical to create an underlying platform that would facilitate the development of small companies within the sector. IV was established in 2005 and is located in the Faculty of Science. There are currently 20 full-time staff members and each year approximately 30 postgraduate students. The majority of the staff are from industry rather than academia. Postgraduate students are exposed to a variety of activities within IV. First, individual projects (for degree purposes) are usually carried out in larger teams. This aims to inculcate an understanding of the interrelationship between students' individual projects and the larger objective. Second, students are encouraged to participate in specific industry projects (related to their expertise) and this serves to broaden their understanding regarding the application of knowledge they have gained elsewhere. BSc Honours in Formulation Science and the Professional Science masters programmes have been

developed as a result of the work of this unit. IV has also linked up with the Faculty of Business and Economic Studies and the Faculty of Engineering allowing students from these faculties to participate in IV projects as part of their formal training.

IV staff have published in academic journals, IV patents its research results and has several active patents. The transfer of knowledge from the institute to industry is also regarded as an important form of knowledge transfer. IV also has strong links with both local and international universities within its discipline.

InnoVenton is funded entirely by external funds, either through grants such as from the Department of Science and Technology through the Tshumisano Trust or through conducting contract research for external clients, selling expert services to industry, and dividend/royalty income from commercialisation projects.

IV has a strong research *and* training component supplemented by services but which are not regarded as core activities. IV can therefore be said to exhibit research as well as teaching and learning types of responsiveness. Interestingly, funds are being generated by creating new academic programmes in order to attract government subsidy funding rather than by only relying solely on contract research income. This indicates strong links with the academic core. The engagement imperative is one of economic development, derived from government's drive to create an enabling environment for the creation of a SMME-based downstream chemicals industry in South Africa.

Type of responsiveness: Research/Teaching and Learning.

Imperative: Economic development.

6.3.6 Pebble Bed Modular Reactor Project (PBMR) – Started in 2006; ongoing

The NMMU has entered into a contractual agreement with the Pebble

Bed Modular Reactor (PBMR) Company to undertake certain aspects of the research needed for the development of PBMRs. The project aims to conduct research on nuclear reactor fuel, quality control, development of improved and safer fuel for the future, and to train highly skilled scientists in the discipline. The project was initiated in response to a request from the Pebble Bed Modular Reactor Company.

The project has in place nuclear energy bursaries for undergraduate and postgraduate students, as well as local and overseas postdoctoral student grants, with the aim of developing a critical mass of the knowledge and skills necessary to support the PBMR programme and a sustainable nuclear industry in South Africa. The expertise developed through the PBMR project and related work in the Department has enabled a new focus in training – combining material science and physics training – an important new set of expertise required in relevant industrial companies. Also, the project has enabled training on how to use a transmission electron microscope, how to interpret the results and how to use computer simulation, all of which are scarce skills in South Africa. Project staff teach on programmes in the Department of Physics and in some other departments. Cutting edge results are being published in international and local conference proceedings and journals. There is on-going collaboration with researchers in Germany, Japan and the United States as well as with the South African Nuclear Energy Corporation.

The project is funded by the Pebble Bed Modular Reactor Company and additional funding for infrastructure and equipment has been secured from government (South Africa's Technology and Human Resources for Industry Programme and the Department of Science and Technology).

PBMR has strong research and training components. PBMR was, however, initiated by a company with a profit motive with ostensible public and economic benefits – the provision of electricity to South

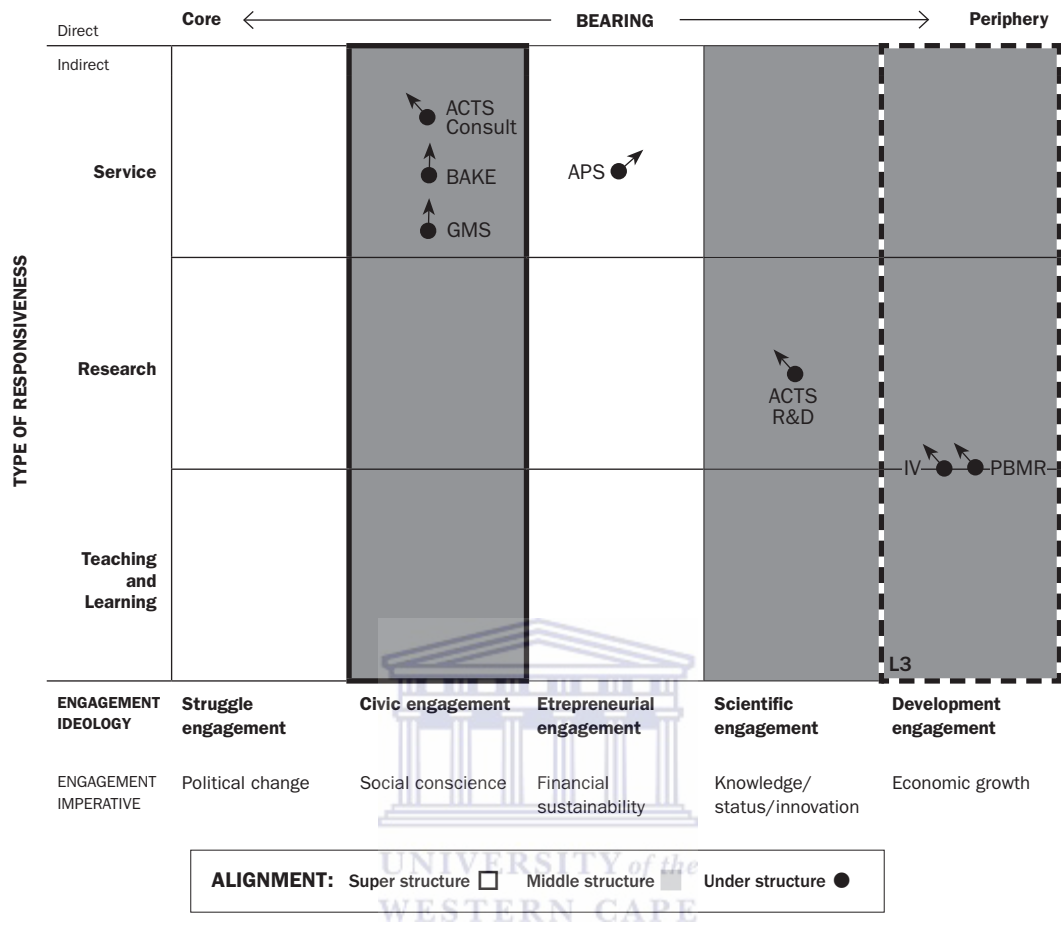
African homes and industry. The engagement imperative is therefore taken to be economic development engagement rather than scientific engagement; while the type of responsiveness is of the Research/Teaching and learning type.

Type of responsiveness: Research/Teaching and Learning.

Imperative: Economic development.



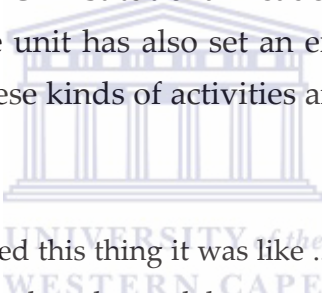
Figure 6.2: Responsiveness at Nelson Mandela Metropolitan University



6.4 Discussion

In terms of alignment, at the organisational level, there has been a historic focus on engagement as constituting civic engagement. However, there is currently in the middle structure a clear shift from civic engagement to economic development engagement. Interestingly, this shift appears to be driven by a combination of new leadership and the observable success of certain activities in the under structure.

Initially, there was some resistance to the establishment of the InnoVenton (IV) programme because it was not seen as fitting into the institutional structure. However, as IV began to demonstrate successes, NMMU institutional leadership has given it greater support, and the unit has also set an example for other faculties in the pursuit of these kinds of activities and interactions with external stakeholders:



When we started this thing it was like ... you don't belong here, get out. But that has changed, because we said at the beginning that unless we could find one thing to demonstrate what we actually mean and what that can do for the institution we will never survive. Hopefully we have achieved that. At the moment a tremendous amount of support right through in terms of leadership. If you look at the Vision 2020 the whole issue of sustainable development, that's a massive issue. I think we've actually influenced the University to start thinking of these things in a significant way. It's not just a fitting in, I think we have played a role in making the University – because now apart from the fact that we're starting to draw in the faculties like Business Economic Studies and Engineering; even within the Science Faculty in which we supposedly operate, we are now starting to draw in your botanists, your mathematicians for advanced mathematical modelling. So even within the Faculty the interactions are

starting to realise themselves within these activities. (Academic staff member, HERANA interview transcript)

The initial ideology, rooted in civic engagement, is therefore seemingly giving way to economic development engagement. And instead of this shift being steered directly by the state, the shift is being initiated from within the academic heartland by ‘success stories’ such as IV – ‘success’ in the sense that engagement with external stakeholders has strengthened the academic core and serves as an exemplar of the benefits of engaging with external constituencies.

The typology also reveals the current multiple engagement ideology operating within the super structure with evidence of civic, scientific and economic development ideologies operating simultaneously. This makes it more difficult for the middle structure to interpret a clear, singular engagement imperative. However, as stated above, there does appear to be a shift both at super and middle structure levels towards engagement for the purposes of economic development.

A senior institutional leader of NMMU (Institutional leader, HERANA interview transcript), however, questions the impact of NMMU’s engagement activities in contributing to economic development. For him, this is due to weak co-ordination between NMMU, government and industry as well as between universities in the region. This lack of co-ordination, he argues, results in engagement activities that are responsive in a purely reactionary and opportunistic way. Such engagement is short-term and not necessarily sustainable. For if engagement is to succeed in driving economic development and social change, greater co-ordination and planning are required.

This is not, however, supported by bearing of projects in the typology in that only one of the projects in the sample is seen to be pointing towards the extended periphery suggesting that most of the projects plotted are in fact strengthening the academic core and therefore, by implication, more likely to make a sustained contribution. However,

the fact that three of the seven responsiveness activities are projects rather than programmes and that four of seven of the projects fall within the service responsiveness category, supports concerns expressed by an NMMU institutional leader (Institutional leader, HERANA interview transcript) regarding short-term opportunism. Greater co-ordination would possibly, as the institutional leader claims, result in fewer service types of projects and more long-term programmes making a more sustained impact on teaching and research.

What is interesting to observe in the typology of NMMU's responsiveness activities is how few Teaching and Learning types of responsiveness activities have been observed. Only the IV and PBMR have had some impact on the teaching and learning function of the relevant NMMU academic departments. If NMMU is predominantly a teaching university, then one would expect to see more Teaching and Learning type of responsiveness activities. A possible answer may lie in the fact that Research types of responsiveness attract state funding in South Africa (through publication outputs) whereas Teaching and Learning types of responsiveness leads (if formalised) to new programmes which may attract more fee-paying students but the financial benefits are not nearly as lucrative. In particular, any income generated by more students does not accrue to the academics themselves whereas research funds are made accessible to academics. New programmes also require more time and more resources. Lastly, publications as the result of research conducted are highly valuable in bolstering academic CVs and carry exponentially more weight than teaching appraisals. In short, the incentives are much higher for Research responsiveness than they are for Teaching and Learning responsiveness in South African universities and this is supported by the NMMU's typology of responsiveness.

Conclusion

This study set out to establish how responsiveness is being institutionalised in higher education. In order to do so, the study developed a typology of university responsiveness. The typology was constructed along two dimensions. The first dimension was based on how responsiveness activities related to the core activities of universities of research and teaching, as well as the emerging 'third mission' of universities in the form of services. The second dimension drew on Muller's (2010) suggestion that engagement activities are founded on historico-contextual ideological imperatives which may shift over time. The five types of engagement based on the ideological imperatives were: struggle engagement; civic engagement; entrepreneurial engagement; scientific engagement; and economic development engagement.

Drawing on institutional theory it was suggested that responsiveness is more likely to be institutionalised if:

1. There is evidence of rules, structures, sanctions and accreditation relating to responsiveness at the middle structure organisational level;
2. There is evidence of the ideological imperatives for responsiveness in the super, middle and under structures being in alignment between all three levels; *and*
3. There is evidence of responsiveness (as practiced in the form of development projects) in the under structure bearing towards strengthening the academic core of the university.

In order to establish how responsiveness is being institutionalised, three clusters of indicators that could be represented using the typology, were developed. The cluster of indicators comprising

evidence of rules, structures, sanctions and accreditation seeks to establish the acceptance of responsiveness at the middle structure level. Based on the differentiation between structures (rules, structures, sanctions and accreditation) being present at middle structure level and practice as being indicative of responsiveness, the other two indicators seek to establish (i) whether there is a shared understanding across all three levels of authority (alignment) and (ii) whether the practice of responsiveness in the under structure is indicative of the likely institutionalisation of responsiveness.

The second indicator, then, seeks to establish the alignment of the ideological imperatives for engagement between the three system levels (super, middle and under structures) proposed by Clark (1983b). It is postulated that the greater the ideological alignment between the three system levels, the more likely it is that responsiveness will be institutionalised based on the tenets of institutional theory which suggest that organisations will internalise and accept change if such change is not in conflict with existing institutionalised belief structures (i.e. if beliefs are shared across all three levels). The third indicator seeks to establish the bearing of projects towards either the academic core or towards the extended periphery. This is based on the argument that projects which exhibit characteristics that strengthen the academic core by impacting on the core technologies of the university are indicative of bridging endeavours, that is, an acceptance of responsiveness as exemplified by academics in the under structure connecting their responsive activities with the core functions of the university.¹⁶

In either case, indicator 3 (bearing) focuses on practice in the under structure of universities (not an insignificant level of authority given the distribution of authority in universities) whereas indicator 1 focuses on the formalised structures at the middle-structure level. Both focus on the university as a dual-level organisation while

¹⁶ Implicit here is the converse which assumes that all academics are able to integrate their responsiveness activities with the core technologies of teaching and research, and that these activities which bear towards the periphery are consequently deliberate attempts at protecting the core, taken-for-granted functions of teaching and research.

indicator 2 (alignment) includes the super structure in ascertaining whether all three levels of authority share a common understanding of university responsiveness in relation to the ideological imperatives identified.

As part of its study on the links between higher education and development, the Centre for Higher Education Transformation's HERANA team studied university development projects at eight African universities. Development projects at two of these universities – the University of Mauritius (Mauritius) and Nelson Mandela Metropolitan University (South Africa) – were taken to be instances of responsiveness activity in the under structure. These projects were plotted on the typology according to their bearing and the ideological imperatives underpinning each project. The development projects were superimposed on the ideological imperatives for promoting responsiveness in the middle and super structures in order to provide an indication of the alignment between the three system levels. The level of institutionalisation at the middle-structure level was also indicated. Combined with the bearing of the development projects plotted on the typology and the alignment of ideological imperatives, the typology provided an indication of whether responsiveness is likely to be institutionalised in higher education. From the results, five general observations can be made:

1. The typology developed proved useful in terms of categorising responsiveness activities according to type in relation to university function and ideological imperative, and as a framework for deploying the proposed indicators of institutionalisation.
2. Alignment between system levels was near-perfect in the case of the University of Mauritius and tending towards alignment in the case of NMMU. In both cases, development is emerging as the predominant imperative driving engagement.
3. The bearing of projects in both cases is mixed.
4. Service type responsiveness is most common and Teaching and

Learning responsiveness least so.

5. In both cases, three out of four indicators show that responsiveness is accepted in the middle structure.

The above observations, their possible contribution to furthering the understanding of the institutionalisation of responsiveness in higher education and the possibilities for further research are discussed in what follows.

7.1 The typology of responsiveness

The typology developed appeared to be useful in categorising types of responsiveness and provided a framework for operationalising the primary research question centring on the institutionalisation of responsiveness. The typology has held up in terms of being able to provide differentiated ideological imperatives for engagement as initially proposed by Muller (2010) and adapted for this study.

At Nelson Mandela Metropolitan University in South Africa, three projects fell in the civic engagement category and this is in line with the predominant discourse at middle-structure level. Two projects were categorised as development engagement which supports the emergence of a discourse around responsiveness being necessary to drive development. Service and Research types of responsiveness were the most dominant types. This is consistent with the imperative of social responsibility (civic engagement) and an applied research ethic instilled after the merger of a technikon with a university. At the University of Mauritius, all but one project was categorised as being driven by a development imperative. This is in line with both national and organisational policy. However, Service types of responsiveness were more prominent than Research or Teaching and Learning types. At neither university were instances of Teaching and Learning types of responsiveness strongly represented.

A more nuanced categorisation of the development category may prove useful as the concept of development is interrogated and challenged to separate economic development from social development, and national development from regional development. The usefulness of the political change imperative for engagement could also be verified by replicating the study in more diverse national contexts as none of the projects studied fell into this category.

The distinction between direct and indirect responsiveness introduces a separation at a conceptual level. This distinction was excluded in the operationalisation of this study based on its primary research concerns. The data did not provide sufficient instances of direct responsiveness to make any concrete deductions about the practical usefulness of the distinction nor of the need to have included direct responsiveness in the study.

The categories of indirect responsiveness proved useful with the Service category in particular creating space for the categorisation of third mission activities, including contract research which typically may have been categorised as belonging to the domain of research responsiveness. There were, however, instances where responsive activities were difficult to pigeon-hole. However, this was mainly due to the fact that some of the projects included in the HERANA study were in fact large programmes consisting of many sub-projects. In these cases it may have been more useful to separate the programmes into their component projects prior to classification.

The Service category has proven to be useful in separating out those instances of responsiveness which appear to be knowledge-driven but are in fact instances of knowledge being productised for sale to the market. Several projects at both universities studied fell into this category.

With the exception of one project at Nelson Mandela Metropolitan University, all the projects that fell within the Service type of

responsiveness category did *not* appear to strengthen the academic core. In other words, the research conducted did not feed back into the core functions of teaching and research through curriculum development or the wider dissemination of the research. Service types of responsiveness and Service research in particular are therefore highly correlated with a bearing towards the extended periphery and are therefore unlikely to necessarily strengthen the academic core. Consequently, service types of responsiveness *appear* less likely to promote the institutionalisation of responsiveness even though such activities qualify as instances of universities narrowing the gap between themselves and society. Stakeholders who apply pressure for a closer relationship between the university and its external environment should take heed of this finding which indicates that a closer relationship does not *necessarily* indicate that responsiveness is being institutionalised.

However, one should treat the finding of a correlation between Service Responsiveness and a weakened academic core with caution. The criticism could be made that the typology contains a conceptual flaw in that if a project is categorised as belonging to the Service Responsiveness category, then it is always likely to bear towards the periphery because it cannot be both Service Responsiveness and bear towards the academic core if the academic core *excludes* service as a core academic activity. This is not the case, however, as evidenced by the case of Nelson Mandela Metropolitan University. At least one project (ACTS Consult) was classified as belonging to the Service Responsiveness category but nevertheless was found to strengthen the academic core. Two other projects at the same university (BAKE and GMS) were also classified as belonging to the Service Responsiveness category and were found to be 'neutral'; in other words, they were not bearing towards the periphery. This indicates that projects may be located in the Service Responsiveness category but may still contribute to the core activities of teaching and research.

The implication of this finding is that service as an academic activity can, if conceived and structured in a particular manner, contribute to and become part of the core academic endeavour.

Modifications to the typology could be considered to add further depth of analysis. These could include (i) adding a visual indicator for the disciplinary field to which a project belongs; and (ii) adding a magnitude dimension to indicate the duration of an activity in order to differentiate between one-off projects and more sustained programmatic activities.

Applying an indicator for disciplinary field would create a picture of which disciplines are being (or are able to be) responsive and which ones are not. Any observable variation between the different disciplines would be consistent with Muller's (2003) contention that different disciplines are variously disposed towards responsiveness based on how they produce knowledge. It would also be consistent with Clark's (1983b) observation of the independence of academic units within any conglomerated academic structure – each unit (or discipline) can adapt, thrive or fail without consequence to any other unit.

The point was made when discussing the findings of the University of Mauritius that the 'projectisation' of responsiveness (often driven by funders and funding) limits the sustained impact that a longer-term programme may have. As a senior institutional leader at Nelson Mandela Metropolitan University points out:

What I'm yearning for and hinting at is not so much more engagement but much more smarter [sic] forms of engagement that can have the possibilities of systematically helping to tackle structural issues underlying equality such as poverty and unemployment, and so on. They respond to project needs opportunistically in the environment. That's fine, I'm not suggesting they shouldn't do those remediations and interventions, and so on. But there's

a level below that that I'm thinking about, and on a scale and over a longer period than a project that is only for a year or two. (Institutional leader, HERANA interview transcript)

A magnitude dimension indicating the duration of a project could provide a useful picture in terms of the sustained impact on knowledge creation that a particular project may have, and could also provide some evidence of a possible correlation between longer projects (i.e. those that are more programmatic) and the extent to which such longer projects strengthen the academic core.

The debate on differentiation within higher education systems globally is currently a prevalent one. In particular, and specifically in terms of responsiveness, there are those who argue that one should expect different types of responsiveness for different kinds of universities. Universities with a predominantly teaching function should be expected to be more responsive in ways that align with this function, e.g. curriculum changes, new programmes, etc. The typology of the three types of indirect responsiveness can be usefully deployed within the context of differentiation as it can provide a picture of the areas in which a particular university is being responsive. A 'teaching university' should be more likely to exhibit a preponderance of Teaching and Learning types of responsiveness whereas a 'research university' is more likely to exhibit Research types of responsiveness. If the responsiveness activities of several or all universities in a national system were to be plotted, the typology could reveal clusters in which certain types of universities' activities fall according to their differentiated function.

The predominant understanding of engagement makes it easier for some universities to engage and less easy for others. Recent research at American universities and colleges bear this out. It has been found that colleges and public universities are more likely to engage with their communities than large research organisations. With the American notion of responsiveness skewed towards service learning

as well as teaching and research through community interaction, it is not surprising, therefore, that traditional American research universities are struggling to engage given how American universities and colleges appear to attach meaning to the construct (Gibson 2006). The convergence or divergence between the prevalent engagement ideology and a university's propensity to be responsive is reflected in the engagement ideology dimension of the typology.

Finally, in order to construct an applicable and universally accepted typology of responsiveness, and to confirm some of the preliminary observations made above, the typology should ideally be tested using a greater number of responsiveness activities and across a greater number of universities located in different contexts. Such additions and development of the typology will reveal patterns and configurations that could prove to be useful to policy-makers, institutional planners and researchers in coming to terms with how responsiveness is manifesting itself within universities at both the middle and under structure levels.


 The logo of the University of the Western Cape, featuring a stylized building facade with columns and the text "UNIVERSITY of the WESTERN CAPE" below it.

UNIVERSITY of the
WESTERN CAPE

7.2 Indicators of institutionalisation

While the typology of responsiveness appears to be effective in categorising responsiveness according to the dimensions of function and ideological imperative, and in revealing patterns and trends, the indicators of the institutionalisation of responsiveness yielded interesting but perhaps less conclusive results. Partly, this may be because of the difficulty of developing accurate and reliable indicators for institutionalisation as a process. It could also be that the specific indicators chosen were problematic. The indicators and the findings are discussed below in an attempt to make some tentative conclusions while acknowledging some of the limitations of the indicators deployed.

At the University of Mauritius a near-perfect alignment between state policy, organisational policy and academic activity was observed. At Nelson Mandela Metropolitan University, three ideologies of engagement coexist and alignment is partial, although there appears to be momentum towards alignment around the ideology of economic development. In fact, there appears to be a near-complete middle structure shift from civic engagement to economic development engagement. There appears to be a commensurate shift in terms of the interpretation of engagement in the under structure. It appears that engagement sceptics and 'civic' engagement proponents are conceding to and accepting the potential dual academic and development benefits exhibited by some the successful flagship projects at Nelson Mandela Metropolitan University. Interestingly, the middle structure itself seems to have been influenced by the success of a large and highly successful programme inherited post-merger from the technikon. In other words, the acceptance of a development imperative was not unidirectional and was largely based on positive outcomes of projects initiated in the under structure.¹⁷

Institutional change can occur when two conflicting ideologies battle it out. In a comprehensive university there are likely to be competing institutional logics – that of the technikon and of the university. In other words, there are competing notions of what it is that academics do; with the technikon's institutional logic more accepting of a responsive role for academics. There is insufficient evidence from the NMMU case to conclude that some of the institutional beliefs brought into the post-merger cauldron are beginning to sit more comfortably in the new organisational melting pot, but there are at least some initial indicators of greater acceptance of responsiveness. Should the legitimacy of those units which are being responsive increase, responsiveness could stand a greater chance of being institutionalised.

¹⁷ Of course, none of the social sciences nor the humanities were represented in the flagship activities identified by NMMU and one would need to gauge perceptions of academics located in those disciplines in order to confirm a wholesale shift to and acceptance of economic development engagement. Such diffusion across disciplines is unlikely based on Clark's (1983b) assertion that change is often driven within disciplines.

This is somewhat equivalent to a discussion about which notion of academic activity holds the greater legitimacy. In other words, is the notion of academics only doing teaching and research the most legitimate notion of academic activity, or is the notion of academics doing teaching, research *and* service becoming the dominant notion? If legitimacy and power are at the root of which notion dominates or prevails, future comparative research of higher education systems with different power structures (e.g. centralised versus decentralised) could provide useful insight into the constraints around the institutionalisation of responsiveness. For example, power in the United States higher education system is described as being located in the middle structure and highly decentralised, and indications are that in the American system the notion of what academics do *includes* service (or what is called 'extension' in the United States). One could compare this with systems that are bottom-heavy (that is, power located in the under structure) or top-heavy (that is, power located in the super structure) and highly centralised.

To return to the discussion on alignment. At both universities, one could argue that from the results, there is sufficient evidence of alignment (or a tendency towards alignment) between the three higher education levels. In terms of Clark's model of change, this could be interpreted as a successful mediation by the middle structure of the natural tension between the super and under structure. From an institutional theory perspective, one could argue for the emergence of a pact or taken-for-granted notion of responsiveness which aligns the actions and ambitions of actors at all three system levels.

However, I would argue that such a pact is at present purely explicit. The commitment to responsiveness finds overt expression in national and institutional policy documents and in the discourse of some academics, but it is not necessarily present in the implicit, non-overt scripts of actors in the under structure of the higher education system. This is borne out by the lack of consistent bearing of projects observed.

The observation of near-perfect alignment at the University of Mauritius should indicate a high likelihood for the institutionalisation of responsiveness to occur. And all the more so given that there is evidence of structures promoting, monitoring and rewarding responsiveness at middle-structure level. However, the fact that most academics at the University of Mauritius included in this study are engaging in one-off projects rather than programmes and that these projects have little to no impact on the core activities of teaching and research (thereby weakening the academic core of the university), indicates that alignment alone is an insufficient indicator for the institutionalisation of responsiveness. The under structure is in alignment with the middle and super structures but it is engaging in buffering activities that indicate a level of resistance at the level of practice. The results at NMMU also indicate that there is not yet a pervasive cognitive script as to *how* to engage in order to ensure a sustainable impact on the development of society, further reinforcing the conclusion that alignment is an insufficient indicator of the institutionalisation of responsiveness.

Clark (1983b: 25) offers the following insight: 'Formal [policy] goals may help to give meaning to the general character of the system, for insiders and outsiders alike ... But they hardly give you a clue about what to do.' Responsiveness is formulated as one of the key goals in both the South African and Mauritian higher education systems. However, as Clark points out, this approach from above can do little more than to set out general aims and objectives of the higher education system; it does not provide the kinds of implicit goals that give purpose to those working in university lecture halls and laboratories. And from an institutional theory approach, agents are unlikely to accept and internalise environmental pressures that are not consistent with their own, institutionalised values and beliefs. This is not to say that responsiveness is *necessarily* inconsistent with the belief structures embedded in the academic heartland, but the evidence does seem to point to a disjuncture between the goals and

expectations prescribed at policy level and operationalised at the organisational level of the under structure.

Given the above, it is suggested that alignment as an indicator of responsiveness has limitations. Based on the findings of this study, it is conceivable that while alignment may create more favourable conditions for the institutionalisation of responsiveness, it is not a precondition for its institutionalisation. This study from the outset maintained that in addition to the existence of formal structures which promote and monitor responsiveness, both alignment *and* a strengthening of the academic were required in order to conclude that responsiveness is likely to be institutionalised. Nevertheless, alignment appears to play a non-contributing part in making any such conclusions. It may be necessary to include indicators of power or legitimacy which seemingly trump the more tenuous conditions indicated by ideological alignment. Or, as Meyer contends, even more useful as an explanation of how institutionalisation occurs given the limits of explanations relying on power relations, is the observation that professionals, associations and social movements that serve *collective* interests function as the creators and carriers of new cultural models (Meyer et al. 2007). And while this study took cognizance of the professional domain (to the extent that the academic profession is either engaging in bridging or buffering strategies), it assumed that the influence of associations and social movements would increasingly be channelled through the state. Perhaps, given a decline in the legitimacy of the state in certain systems or the decentralised role of the state in other systems, it is not safe to assume an overly influential role for the state in higher education.¹⁸ In other words, future studies would need to pay closer attention to non-state actors in the process of institutionalising responsiveness in higher education.¹⁹

One could, however, reasonably ask why, if a disjuncture between policy and action exists, there is nevertheless still some form of activity

¹⁸ This point is made by Maassen and Gornitzka (1999) in their study of changes in the government steering of European higher education.

¹⁹ See, for example Maassen and Cloete (n.d.) on the role of donor agencies' funding policies in setting agendas for African universities.

which can be classified as indicative of responsiveness? Why is there not simply inaction driven by inherent resistance to organisational change as espoused by institutional theory? Resource dependency theory with a focus on the task environment, resource flows and power positions between organisations, argues that organisations monitor their resource environments and adjust their behaviour accordingly. Organisations are therefore seen as highly adaptive, in contrast to the institutional perspective which regards organisations as predisposed to resisting change. The fact that academics are being responsive but in such a way as to protect their core technologies (as supported by the findings of this study in that many of the activities plotted tend towards the extended periphery) seems to support a combined institutional and resource dependency approach. As does the observation that many of the responsiveness activities plotted fall within the service category and the research category – categories that tend to attract income for the university. In other words, there is evidence of increasing responsiveness not because of policy alignment but because academics are increasingly being forced to engage in the type of activities that generate additional income for the university or for themselves (be it directly in the form of research grants, or indirectly through favourable performance evaluations and promotions).

In other words, there is evidence of action, but of the kind that protects the academic core *and* which is motivated by a desire to exploit resource opportunities in the external environment. This mixed approach where resource dependency theory supplements institutional theory in order to explain organisational change, is supported by the studies of Oliver (1991), Gornitzka (1999), Maassen and Gornitzka (1999), and Huisman & Meek (1999).

The possible conclusions that could be drawn from the findings of this research, based on the two cases studied, are that either

1. responsiveness is being institutionalised or
2. responsiveness can be said to be partially institutionalised or
3. responsiveness is not being institutionalised.

For the first of the possible conclusions listed above, there is evidence of the institutionalisation of responsiveness in the super structure (national policy) and in society at large if it is assumed that the policy demands of the state represent and internalise the demands of external constituents. There is also evidence of responsiveness being institutionalised in the governance structures of the universities studied, and there is evidence of responsive activity in the under structure. It therefore seems difficult to conclude that responsiveness is not being institutionalised. However, the evidence also suggests that there is resistance to the institutionalisation of responsiveness at the level of the under structure. This appears to be so because only one of the two requirements for the institutionalisation of responsiveness appears to be in place; while there is alignment (or a tendency to alignment) of ideological imperatives underpinning responsiveness across all three system levels, the bearing of activities towards strengthening the academic core is mixed. In other words, the findings indicate that responsiveness is not being embedded in the beliefs and values of the under structure (i.e. academics). And this is undermining or preventing the 'wholesale' institutionalisation of responsiveness, making the claim that responsiveness is being institutionalised questionable.

It is perhaps too early or perhaps a greater number of cases are needed to conclude that responsiveness as a new script in higher education is likely to become either a steady state or that it is likely to be rejected. This leaves only the second possible conclusion, that is, that responsiveness is at best partially institutionalised. This possibility, for which there is precedent in empirical studies of organisational behaviour, introduces the existence of a hybrid acceptance of what it is that universities and academics do (cultural-cognitive), or should do (regulative) or ought to do (normative).

There is evidence of a close correlation between institutional complexity and the development of complex administrative structures at organisational level (Scott 2001). There is additional evidence of the hybridisation of institutional demands whereby organisations engage in 'organisational hedging that crosses and combines disparate evaluative principles' (Stark 1996 in Scott 2001: 161).

Given (1) the complex funding regimes of universities as well as the multitude of stakeholders that universities are typically required to contend with, and (2) the authority and resilience of the academic profession, the findings of these studies on 'organisational hedging' combined with the findings of this study, may provide useful and more conclusive insight into the lasting effects of the institutionalisation of responsiveness.

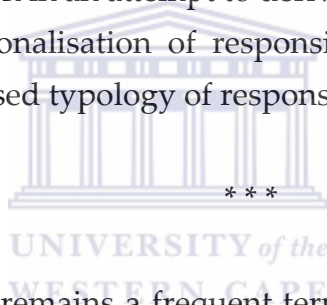
In closing, an alternative explanation for the lack of conclusiveness around the indicators of responsiveness could be located in the often overlooked distinctions between the two related processes of diffusion and institutionalisation. As Colyvas and Jonsson (2009: 2) point out:

One of the fundamental conceptual puzzles in contemporary social science concerns the distinction between diffusion and institutionalisation. Many things spread, often like wildfire, without ever becoming institutionalised. The ubiquity of a practice may suggest that it has become widely accepted, but activities that diffuse may never develop a foundation that enables them to persist. In contrast, there are procedures that are institutionalised, that is, upheld by either law or strong beliefs, but that are not widely used or pursued. Despite these contrasts, most studies of institutionalisation have equated the spread of something ... with an indicator that it has become institutionalised, without examining the character of adoption ... As a result, numerous insights in both strands of research are overlooked, prompting a conflation of the two: institutional effects

in diffusion are often misinterpreted as institutionalisation, and highly institutionalised structures accompanied by practices that fade away are treated as fads or fashions.

Both diffusion research and institutionalisation studies can benefit from clearer specification of how practices flow, transform, and connect into the social order.

While this study has taken cognizance of some of the warning signs by attempting to develop indicators that span multiple organisational levels based on the unique distribution of authority in higher education, and by attempting to develop indicators that take both structures and practice into account, the distinction between diffusion and institutionalisation may nevertheless require further investigation and consideration in an attempt to derive more conclusive indicators for the institutionalisation of responsiveness in higher education using the proposed typology of responsiveness.



Responsiveness remains a frequent term in the literature on higher education. Based on the data analysed, it also seems that responsiveness is gaining rather than losing traction in the two universities studied. And the concept remains entrenched in the discourse of policy-makers and other external stakeholders. The implication of this is, is that creating greater insight into responsiveness will go some way towards aiding higher education researchers and, more importantly, university management and policy-makers to better understand not only the concept of responsiveness, but also some of the less apparent dynamics that lie concealed behind the calls for responsiveness, not least the impact of responsiveness on development. Moreover, the limits on universities' ability to behave in a responsive manner in the institutional domain remains a critical area of study if universities are to develop differentiated and effective strategies for engaging with their communities, industry and other stakeholders in a sustainable

fashion that contributes to development. As Castells (2001: 204) points out:

The real issue is not so much to shift universities from the public arena to secluded laboratories or to capitalist board meetings, as to create institutions solid enough to stand the tensions that will necessarily trigger the simultaneous performance of somewhat contradictory functions. The ability to manage such contradictions ... will condition to a large extent the capacity of new countries and regions to become part of the dynamic systems of the new world economy.

It is hoped that this thesis on responsiveness has gone some way in providing a clearer and more constructive understanding of responsiveness and its institutionalisation in higher education.



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